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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/615,885	12/04/2018	10143868	STI-00160US	1055

139939 7590 11/14/2018
Massina Patent & Trademark Law PLLC
702 Route 113
Suite B
Souderton, PA 18964

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):

Julio Lopes, Dunellen, NJ;
Specified Technologies Inc., Somerville, NJ;
Steven Faiello, Morristown, NJ;

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.

IR103 (Rev. 10/09)

Notice of References Cited	Application/Control No. 15/615,885		Applicant(s)/Patent Under Reexamination LOPES ET AL.	
	Examiner RODNEY MINTZ		Art Unit 3633	Page 1 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-6,176,052 B1	01-2001	Takahashi; Jiro	F16L5/04	137/75
*	B	US-6,426,463 B2	07-2002	Munzenberger; Herbert	F16L5/04	174/77R
*	C	US-2006/0060369 A1	03-2006	Hemingway; Jeffery	A62C3/16	174/58
*	D	US-2010/0326678 A1	12-2010	Monden; Thomas	A62C2/06	169/54
*	E	US-2012/0012347 A1	01-2012	Zernach; Gary L.	A62C2/065	169/48
*	F	US-8,833,478 B2	09-2014	Zernach; Gary L.	A62C2/065	169/48
*	G	US-2014/0318064 A1	10-2014	Reinhardt; Russell William	H02G3/0412	52/317
*	H	US-2014/0367127 A1	12-2014	Zernach; Gary L.	A62C2/065	169/48
*	I	US-2015/0047276 A1	02-2015	Gandolfo; Paul	F16L5/04	52/220.8
*	J	US-9,046,194 B2	06-2015	Gandolfo; Paul	F16L5/04	1/1
*	K	US-2015/0251028 A1	09-2015	Klein; Manfred	H02G3/0412	277/616
*	L	US-9,220,932 B2	12-2015	Zernach; Gary L.	A62C2/065	1/1
*	M	US-2016/0341341 A1	11-2016	Lin; Kuan-Lung	F16L5/04	1/1

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N	WO 2012009211 A2	01-2012	~~US~~ WO	DUFFIELD JOHN G	A62C2/065

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	International Search Report and Written Opinion for PCT/US2017/036262 dated 25 September 2017 (11 pages).
	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.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (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)

139939 7590 07/27/2018
Massina Patent & Trademark Law PLLC
702 Route 113
Suite B
Souderton, PENNSYLVANIA 18964
UNITED STATES OF AMERICA

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 facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/615,885	06/07/2017	Julio Lopes	STI-00160US	1055

TITLE OF INVENTION: CABLE FIRESTOPPING APPARATUS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$500	\$0.00	\$0.00	\$500	10/29/2018

EXAMINER	ART UNIT	CLASS-SUBCLASS
MINTZ, RODNEY K	3633	052-232000

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 03-02 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 <u>Massina Pat. & TM Law PLLC</u> 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 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.

(A) NAME OF ASSIGNEE

Specified Technologies Inc.

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Somerville, New Jersey

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

4a. The following fee(s) are submitted:

- ☒ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☒ Payment by credit card. Form PTO-2038 is attached.
- ☒ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number 600139 (enclose an extra copy of this form).

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 /Glenn M. Massina/ Date October 29, 2018

Typed or printed name Glenn M. Massina Registration No. 40081

Electronic Patent Application Fee Transmittal				
Application Number:		15615885		
Filing Date:		07-Jun-2017		
Title of Invention:		CABLE FIRESTOPPING APPARATUS		
First Named Inventor/Applicant Name:		Julio Lopes		
Filer:		Glenn M. Massina		
Attorney Docket Number:		STI-00160US		
Filed as Small 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:				
UTILITY APPL ISSUE FEE	2501	1	500	500

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				500

Electronic Acknowledgement Receipt	
EFS ID:	34138368
Application Number:	15615885
International Application Number:	
Confirmation Number:	1055
Title of Invention:	CABLE FIRESTOPPING APPARATUS
First Named Inventor/Applicant Name:	Julio Lopes
Customer Number:	139939
Filer:	Glenn M. Massina
Filer Authorized By:	
Attorney Docket Number:	STI-00160US
Receipt Date:	29-OCT-2018
Filing Date:	07-JUN-2017
Time Stamp:	09:33:28
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$ 500
RAM confirmation Number	102918INTEFSW09364900
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)	STI_00160US_Issue_Payment.pdf	150805	no	1
			eb97d0eab6e96bffa44ad6fc29c24204e639d6f4d		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	29754	no	2
			2ef2a2fe48b269f279df78fb97e45b7dfd3d08c9		
Warnings:					
Information:					
Total Files Size (in bytes):			180559		
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. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5209762

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	STEVEN FAIELLO	10/29/2018
RECEIVING PARTY DATA		
Name:	SPECIFIED TECHNOLOGIES INC.	
Street Address:	210 EVANS WAY	
City:	SOMERVILLE	
State/Country:	NEW JERSEY	
Postal Code:	08876	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	15615885
CORRESPONDENCE DATA		
Fax Number:		
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>		
Phone:	2157994182	
Email:	docketing@massinaptl.com, gmassina@massinaptl.com	
Correspondent Name:	GLENN MASSINA	
Address Line 1:	702 ROUTE 113, SUITE B	
Address Line 4:	SOUDERTON, PENNSYLVANIA 18964	
ATTORNEY DOCKET NUMBER:	STI-00160US	
NAME OF SUBMITTER:	GLENN M. MASSINA	
SIGNATURE:	/Glenn M. Massina/	
DATE SIGNED:	10/29/2018	
	This document serves as an Oath/Declaration (37 CFR 1.63).	
Total Attachments: 2		
source=STI-00160US Combined Assignment Declaration - Faiello#page1.tif		
source=STI-00160US Combined Assignment Declaration - Faiello#page2.tif		

COMBINED ASSIGNMENT AND DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)	
Title of Invention	CABLE FIRESTOPPING APPARATUS
ASSIGNMENT OF INVENTION	
In consideration of the payment by ASSIGNEE to ASSIGNOR of the sum of One Dollar (\$1.00) and for other good and valuable consideration, the receipt of which is hereby acknowledged,	
ASSIGNOR (and inventor):	
Steven Faiello	18 Max Drive, Morristown, NJ 07960
hereby sells, assigns and transfers to:	
ASSIGNEE:	
Specified Technologies Inc.	210 Evans Way, Somerville, New Jersey 08876
and the successors, assigns and legal representatives of ASSIGNEE, the entire right, title and interest for the United States and its territorial possessions, and in all foreign countries, including all rights to claim priority, in and to the above-titled invention invented by me and which is found in:	
United States application or PCT International application number 15/615,885	
filed on June 7, 2017	
and, in and to all Letters Patent, both foreign and domestic, to be obtained for said invention by the patent application listed above, and any continuation, division, renewal, continuation-in-part or substitute of the patent application listed above; and as to Letters Patent, any reissue or re-examination thereof; and to any legal equivalent thereof in a foreign country, including, the right to apply for patents and inventor certificates in respect thereof, the right to claim priority, and all patents, patents of addition, utility models, patents of importation, revalidation patents and inventor certificates which may be granted throughout the world in respect of the invention.	
ASSIGNOR hereby authorizes ASSIGNEE or its legal representative to insert in this instrument the filing date and serial number of said application or any other information that may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office or any foreign equivalent for the recordation of this document.	
ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.	
ASSIGNOR further covenants and agrees that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR, and that ASSIGNOR will, at ASSIGNEE'S expense, testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE, its assigns or its legal representatives, without further or additional consideration, any and all papers, instruments or affidavits required, render all necessary assistance, and do such additional acts as ASSIGNEE may deem necessary or desirable, to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.	
ASSIGNOR hereby authorize and request the Commissioner of Patents and Trademarks and each foreign patent office to issue any and all Letters Patent referred to above to ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE'S sole use and benefit, and for the use and benefit of ASSIGNEE'S legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.	
The parties agree that the foregoing covenants and obligations shall bind and inure to the benefit of the heirs, assigns and legal representatives of both parties.	

DECLARATION

As a below named inventor, I hereby declare that:

This declaration is directed to:

☐ The attached application, or

☒ United States application or PCT International application number 15/615,885
filed on June 7, 2017.

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 hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the National or PCT International filing date of the continuation-in-part application.

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 (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.

Steven Faiello

Inventor: _____

Date: 10/29/18

Signature: 

Note: An application data sheet(PTO/SB/14 or equivalent),including naming the entire inventive entity, must accompany this form. Use an additional form for each additional inventor.

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5209759

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	JULIO LOPES	10/28/2018
RECEIVING PARTY DATA		
Name:	SPECIFIED TECHNOLOGIES INC.	
Street Address:	210 EVANS WAY	
City:	SOMERVILLE	
State/Country:	NEW JERSEY	
Postal Code:	08876	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	15615885
CORRESPONDENCE DATA		
Fax Number:		
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>		
Phone:	2157994182	
Email:	docketing@massinaptl.com, gmassina@massinaptl.com	
Correspondent Name:	GLENN MASSINA	
Address Line 1:	702 ROUTE 113, SUITE B	
Address Line 4:	SOUDERTON, PENNSYLVANIA 18964	
ATTORNEY DOCKET NUMBER:	STI-00160US	
NAME OF SUBMITTER:	GLENN M. MASSINA	
SIGNATURE:	/Glenn M. Massina/	
DATE SIGNED:	10/29/2018	
	This document serves as an Oath/Declaration (37 CFR 1.63).	
Total Attachments: 2		
source=STI-00160US Combined Assignment Declaration - Lopes#page1.tif		
source=STI-00160US Combined Assignment Declaration - Lopes#page2.tif		

COMBINED ASSIGNMENT AND DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)	
Title of Invention	CABLE FIRESTOPPING APPARATUS
ASSIGNMENT OF INVENTION	
In consideration of the payment by ASSIGNEE to ASSIGNOR of the sum of One Dollar (\$1.00) and for other good and valuable consideration, the receipt of which is hereby acknowledged,	
ASSIGNOR (and inventor):	
Julio Lopes	605 Third Street, Dunellen, NJ 07960
hereby sells, assigns and transfers to:	
ASSIGNEE:	
Specified Technologies Inc.	210 Evans Way, Somerville, New Jersey 08876
and the successors, assigns and legal representatives of ASSIGNEE, the entire right, title and interest for the United States and its territorial possessions, and in all foreign countries, including all rights to claim priority, in and to the above-titled invention invented by me and which is found in:	
United States application or PCT International application number 15/615,885	
filed on June 7, 2017	
and, in and to all Letters Patent, both foreign and domestic, to be obtained for said invention by the patent application listed above, and any continuation, division, renewal, continuation-in-part or substitute of the patent application listed above; and as to Letters Patent, any reissue or re-examination thereof; and to any legal equivalent thereof in a foreign country, including, the right to apply for patents and inventor certificates in respect thereof, the right to claim priority, and all patents, patents of addition, utility models, patents of importation, revalidation patents and inventor certificates which may be granted throughout the world in respect of the invention.	
ASSIGNOR hereby authorizes ASSIGNEE or its legal representative to insert in this instrument the filing date and serial number of said application or any other information that may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office or any foreign equivalent for the recordation of this document.	
ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.	
ASSIGNOR further covenants and agrees that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR, and that ASSIGNOR will, at ASSIGNEE'S expense, testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE, its assigns or its legal representatives, without further or additional consideration, any and all papers, instruments or affidavits required, render all necessary assistance, and do such additional acts as ASSIGNEE may deem necessary or desirable, to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.	
ASSIGNOR hereby authorize and request the Commissioner of Patents and Trademarks and each foreign patent office to issue any and all Letters Patent referred to above to ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE'S sole use and benefit, and for the use and benefit of ASSIGNEE'S legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.	
The parties agree that the foregoing covenants and obligations shall bind and inure to the benefit of the heirs, assigns and legal representatives of both parties.	

DECLARATION

As a below named inventor, I hereby declare that:

This declaration is directed to:

☐ The attached application, or

☒ United States application or PCT International application number 15/615,885
filed on June 7, 2017.

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 hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the National or PCT International filing date of the continuation-in-part application.

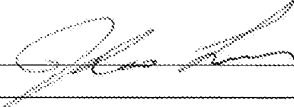
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than (5) years, or both.

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.

Inventor: Julio Lopes

Date: 10/28/18

Signature: 

Note: An application data sheet(PTO/S8/14 or equivalent),including naming the entire inventive entity, must accompany this form. Use an additional form for each additional inventor.



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

NOTICE OF ALLOWANCE AND FEE(S) DUE

139939 7590 07/27/2018
Massina Patent & Trademark Law PLLC
702 Route 113
Suite B
Souderton, PENNSYLVANIA 18964
UNITED STATES OF AMERICA

EXAMINER

MINTZ, RODNEY K

ART UNIT

PAPER NUMBER

3633

DATE MAILED: 07/27/2018

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/615,885	06/07/2017	Julio Lopes	STI-00160US	1055

TITLE OF INVENTION: CABLE FIRESTOPPING APPARATUS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$500	\$0.00	\$0.00	\$500	10/29/2018

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: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (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)

139939 7590 07/27/2018
Massina Patent & Trademark Law PLLC
702 Route 113
Suite B
Souderton, PENNSYLVANIA 18964
UNITED STATES OF AMERICA

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 facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/615,885	06/07/2017	Julio Lopes	STI-00160US	1055

TITLE OF INVENTION: CABLE FIRESTOPPING APPARATUS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$500	\$0.00	\$0.00	\$500	10/29/2018

EXAMINER	ART UNIT	CLASS-SUBCLASS
MINTZ, RODNEY K	3633	052-232000

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 03-02 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 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.

(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. The following fee(s) is submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

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. _____



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.
15/615,885	06/07/2017	Julio Lopes	STI-00160US	1055
139939	7590	07/27/2018	EXAMINER	
Massina Patent & Trademark Law PLLC 702 Route 113 Suite B Souderton, PENNSYLVANIA 18964 UNITED STATES OF AMERICA			MINTZ, RODNEY K	
			ART UNIT	PAPER NUMBER
			3633	
DATE MAILED: 07/27/2018				

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.

<i>Notice Requiring Inventor's Oath or Declaration</i>	Application No. 15/615,885	Applicant(s) Julio Lopes	
	Examiner MINTZ, RODNEY K	Art Unit 3633	

This notice is an attachment to the Notice of Allowability (PTOL-37), or the Notice of Allowability For A Design Application (PTOL-37D).

An inventor's oath or declaration in compliance with 37 CFR 1.63 or 1.64 executed by or with respect to each inventor has not yet been submitted.

An oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each inventor (for any inventor for which a compliant oath, declaration, or substitute statement has not yet been submitted) **MUST** be filed no later than the date on which the issue fee is paid. See 35 U.S.C. 115(f). Failure to timely comply will result in ABANDONMENT of this application.

A properly executed inventor's oath to declaration has not been received for the following inventor(s):

If applicant previously filed one or more oaths, declarations, or substitute statements, applicant may have received an informational notice regarding deficiencies therein.

The following deficiencies are noted:

INFORMAL ACTION PROBLEMS

- A properly executed inventor's oath or declaration has not been received for the following inventor(s): **Julio Lopes** and **Steven Faiello**.

Applicant may submit the inventor's oath or declaration at any time before the Notice of Allowance and Fee(s) Due, PTOL-85, is mailed.

Questions relating to this Notice should be directed to the Application Assistance Unit at 571-272-4200.

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 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, 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 regulation.

Notice of Allowability	Application No. 15/615,885	Applicant(s) Lopes et al.	
	Examiner RODNEY MINTZ	Art Unit 3633	AIA Status Yes

-- 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 26 June 2018.
☐ 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 1-20. 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 _____.
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	/RODNEY MINTZ/ Primary Examiner, Art Unit 3633
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EXAMINER'S AMENDMENT

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

2. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this Examiner's amendment was given in an interview with Glenn Massina (Reg. No. 40,081) on 19 July 2018.

The application has been amended as follows:

Please amend the following claims:

1. (currently amended) A firestopping apparatus comprising:

a housing having a wall surface extending between opposed front and rear panels with an inner chamber defined therein, the front panel defining a front opening therethrough and the rear panel defining a rear opening therethrough, the housing including first and second housing members which are completely detachable from one another and moveable relative to one another between an assembled condition wherein the first and second housing members are interconnected and the wall surface is substantially continuous about the internal chamber, and an open condition wherein at least a portion of the first and second housing members are spaced from one another such that at least a portion of the wall surface is non-contiguous to define an opening into the internal chamber; and

intumescent material positioned within the internal chamber.

4. (currently amended) The firestopping apparatus according to claim 3 wherein ~~the hinge is detachable such that~~ the first and second housing members are completely detachable from one another via the hinge.

3. The following is the Examiner's statement of reasons for allowance:

The prior art of record neither teaches nor suggests as a whole, either alone or in combination, a cable firestopping apparatus having the combination of structural elements set forth in the independent claims, the structural cooperative relationships of elements set forth in the independent claims, and the capability of performing the functions set forth in the independent claims. In this regard, it is the Examiner's view, based on a totality of the record, that it would not have been obvious to modify the relevant prior art to arrive at the claimed invention, as any modification of the prior art of record that would arrive at the claimed invention would require improper hindsight. In this instance, the preponderance of evidence lies on the side of Applicant.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RODNEY MINTZ whose telephone number is (571)270-7327. The examiner can normally be reached on M-Th 0730 - 1630 EDT.

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, Brian Glessner can be reached on 571-272-6754. 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.

/RODNEY MINTZ/
Primary Examiner, Art Unit 3633

<i>Notice of References Cited</i>	Application/Control No. 15/615,885		Applicant(s)/Patent Under Reexamination Lopes et al.	
	Examiner RODNEY MINTZ		Art Unit 3633	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-20160326745-A1	11-2016	Lechuga; Gabriel V.	F16L59/182	1/1
*	B	US-20170030491-A1	02-2017	Lechuga; Gabriel V.	F16L5/10	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.

U.S. Patent and Trademark Office
PTO-892 (Rev. 01-2001)

Notice of References Cited

Part of Paper No. 20180719

Search Notes 	Application/Control No. 15/615,885	Applicant(s)/Patent Under Reexamination Lopes et al.
	Examiner RODNEY MINTZ	Art Unit 3633

CPC - Searched*		
Symbol	Date	Examiner
A62C2/065	1/18/2018	RM
F16L5/04	1/18/2018	RM
A62C3/16	1/18/2018	RM
H02G3/0412	1/18/2018	RM

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
Inventor Name search	1/18/2018	RM
Updated Inventor Name and Classification searches	07/19/2018	RM

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
Text of claims	(see EAST search history for details)	07/19/2018	RM

	/RODNEY MINTZ/ Primary Examiner, Art Unit 3633
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Issue Classification 	Application/Control No. 15/615,885	Applicant(s)/Patent Under Reexamination Lopes et al.
	Examiner RODNEY MINTZ	Art Unit 3633

CPC						
Symbol					Type	Version
A62C	/	2	/	065	F	2013-01-01
A62C	/	3	/	16	I	2013-01-01
F16L	/	5	/	04	I	2013-01-01
H02G	/	3	/	0412	I	2013-01-01

CPC Combination Sets							
Symbol				Type	Set	Ranking	Version
	/		/				

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	20	
/RODNEY MINTZ/ Primary Examiner, Art Unit 3633 (Primary Examiner)	19 July 2018 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 3, 18

U.S. Patent and Trademark Office

Part of Paper No.: 20180719

Issue Classification 	Application/Control No. 15/615,885	Applicant(s)/Patent Under Reexamination Lopes et al.
	Examiner RODNEY MINTZ	Art Unit 3633

INTERNATIONAL CLASSIFICATION			
CLAIMED			
A62C	/	2	/ 06
A62C	/	3	/ 16
F16L	/	5	/ 04
H02G	/	3	/ 04

NON-CLAIMED			
	/		/

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS

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

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 20	
/RODNEY MINTZ/ Primary Examiner, Art Unit 3633 (Primary Examiner) _____ (Date) 19 July 2018		O.G. Print Claim(s) 1	O.G. Print Figure 3, 18

U.S. Patent and Trademark Office

Part of Paper No.: 20180719

Issue Classification 	Application/Control No. 15/615,885	Applicant(s)/Patent Under Reexamination Lopes et al.
	Examiner RODNEY MINTZ	Art Unit 3633

☐ 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
1	1	14	10	20	19										
3	2	15	11	2	20										
4	3	11	12												
5	4	12	13												
6	5	10	14												
7	6	16	15												
8	7	17	16												
9	8	18	17												
13	9	19	18												

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 20	
/RODNEY MINTZ/ Primary Examiner, Art Unit 3633 (Primary Examiner) _____ (Date) 19 July 2018		O.G. Print Claim(s) 1	O.G. Print Figure 3, 18

U.S. Patent and Trademark Office

Part of Paper No.: 20180719

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S27	1	(14/434841).APP.	USPAT; USOCR	OR	OFF	2018/07/19: 10:55
S28	17	("20040149390" "20060006611" "20060037264" "20080011383" "20110210222" "20130068487" "4061344" "4302917" "4538389" "4622436" "4646486" "4889298" "5947159" "6725615" "7712791" "8910949" "9121527").PN. OR ("9586066").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/19: 11:16
S29	7	lechuga-a\$.in.	US-PGPUB; USPAT	OR	ON	2018/07/19: 11:17
S30	0	("9651174").URPN.	USPAT	OR	OFF	2018/07/19: 11:19
S31	55	("0737437" "1587250" "20020108316" "20020108663" "20020112761" "20040154662" "20040211467" "20100154453" "20110203201" "20120255330" "20140259974" "20150047276" "20160326745" "3425456" "5055334" "5303730" "5328212" "5360031" "5419364" "5427417" "5454392" "5472241" "5503193" "5524669" "5526619" "5540255" "5564463" "5594202" "5628484" "5678598" "5901739" "5915412" "5918431" "6180882" "6543186" "6637166" "6739353" "6860070" "7100633" "7305801" "7389616" "7640699" "7730681" "7770335" "8881468" "9046194" "9091377" "9140003" "9169648" "9523200" "D653311" "RE34832").PN. OR ("9651174").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/07/19: 11:19
S32	2	us-20170354836-\$.did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/07/19: 13:04
S33	0	("2017/0354836").URPN.	USPAT	OR	OFF	2018/07/19: 13:04
S34	20	lopes-Juli\$.in.	US-PGPUB; USPAT	OR	ON	2018/07/19: 13:04
S35	3	faiello\$.in.	US-PGPUB; USPAT	OR	ON	2018/07/19: 13:05
S36	192	(A62C2/065 or F16L5/04 or A62C3/16 or H02G3/0412).cpc. and @pd>"20180118"	US-PGPUB; USPAT; DERWENT	OR	ON	2018/07/19: 13:05

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S37	13	(fire and panel and housing and intumescent).clm.	US-PGPUB; USPAT	OR	ON	2018/07/19: 13:14

7/ 19/ 2018 1:35:31 PM**C:\ Users\ RMINTZ\ Documents\ EAST\ Workspaces\ 15615885.wsp**



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BIB DATA SHEET

CONFIRMATION NO. 1055

SERIAL NUMBER 15/615,885	FILING or 371(c) DATE 06/07/2017 RULE	CLASS 052	GROUP ART UNIT 3633	ATTORNEY DOCKET NO. STI-00160US		
APPLICANTS Specified Technologies Inc., Somerville, NJ; INVENTORS Julio Lopes, Dunellen, NJ; Steven Faiello, Morristown, NJ; ** CONTINUING DATA ***** This appln claims benefit of 62/347,140 06/08/2016 and claims benefit of 62/445,619 01/12/2017 ** FOREIGN APPLICATIONS ***** ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** ** SMALL ENTITY ** 06/13/2017						
Foreign Priority claimed ☐ Yes ☒ No 35 USC 119(a-d) conditions met ☐ Yes ☒ No Verified and Acknowledged <u>/RODNEY K MINTZ/</u> Examiner's Signature		☐ Met after Allowance Initials	STATE OR COUNTRY NJ	SHEETS DRAWINGS 12	TOTAL CLAIMS 20	INDEPENDENT CLAIMS 1
ADDRESS Massina Patent & Trademark Law PLLC 702 Route 113 Suite B Souderton, PA 18964 UNITED STATES						
TITLE CABLE FIRESTOPPING APPARATUS						
FILING FEE RECEIVED 800	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:			☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit		

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Julio Lopes et al.

Application No.: 15/615,885

Confirmation No.: 1055

Filed: June 7, 2017

Art Unit: 3633

For: CABLE FIRESTOPPING APPARATUS

Examiner: R. K. Mintz

AMENDMENT

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Madam:

In response to the Office Action of January 26, 2018, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Amendments to the Drawings begin on page 7 of this paper and include both an attached replacement sheet and an annotated sheet showing changes.

Remarks/Arguments begin on page 8 of this paper.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A firestopping apparatus comprising:

a housing having a wall surface extending between opposed front and rear panels with an inner chamber defined therein, the front panel defining a front opening therethrough and the rear panel defining a rear opening therethrough, the housing including first and second housing members which are moveable relative to one another between an assembled condition wherein the first and second housing members are interconnected and the wall surface is substantially continuous about the internal chamber, and an open condition wherein at least a portion of the first and second housing members are spaced from one another such that at least a portion of the wall surface is non-contiguous to define an opening into the internal chamber; and

intumescent material positioned within the internal chamber.

2. (Original) The firestopping apparatus according to claim 1 wherein the first housing member is pivotally connected to the second housing member along a portion of the wall surface.

3. (Original) The firestopping apparatus according to claim 2 wherein a hinge is defined along the wall surface between the first and second housing members.

4. (Currently Amended) The firestopping apparatus according to claim 3 wherein the hinge is detachable such that the first and second housing members ~~may be~~ are completely ~~detached~~ detachable from one another.

5. (Original) The firestopping apparatus according to claim 1 wherein a latching assembly is positioned along the wall surface to lock the housing in the assembled condition.

6. (Original) The firestopping apparatus according to claim 5 wherein the latching assembly has a draw latch configuration.

7. (Original) The firestopping apparatus according to claim 5 wherein the latching assembly has a screw and nut configuration.

8. (Currently Amended) ~~The~~ A firestopping apparatus ~~according to claim 1~~ comprising:
a housing having a wall surface with an inner chamber defined therein, a front panel
extending from the wall surface and defining a front opening therethrough, the housing
including first and second housing members which are moveable relative to one another
between an assembled condition wherein the first and second housing members are
interconnected and the wall surface is substantially continuous about the internal chamber,
and an open condition wherein at least a portion of the first and second housing members are
spaced from one another such that at least a portion of the wall surface is non-contiguous to
define an opening into the internal chamber; and

intumescent material positioned within the internal chamber:

wherein a sealing member extends across at least a portion of the front opening.

9. (Original) The firestopping apparatus according to claim 8 wherein the sealing member includes at least one elastomeric sealing membrane.

10. (Original) The firestopping apparatus according to claim 9 wherein each elastomeric sealing membrane defines a central passage therethrough.

11. (Original) The firestopping apparatus according to claim 10 wherein each elastomeric sealing membrane includes a plurality of radial slits therethrough extending from the central passage.

12. (Original) The firestopping apparatus according to claim 8 wherein the sealing member includes at least two elastomeric sealing membranes positioned adjacent to one another.

13. (Original) The firestopping apparatus according to claim 12 wherein each of the elastomeric sealing membranes includes two portions which join along a joining line and the joining lines of adjacent sealing membranes are offset from one another.

14. (Original) The firestopping apparatus according to claim 8 wherein the front panel is positioned rearward of the sealing member.

15. (Currently Amended) ~~The~~ A firestopping apparatus ~~according to claim 1~~ comprising:
a housing having a wall surface with an inner chamber defined therein, a front panel
extending from the wall surface and defining a front opening therethrough, the housing
including first and second housing members which are moveable relative to one another
between an assembled condition wherein the first and second housing members are
interconnected and the wall surface is substantially continuous about the internal chamber,
and an open condition wherein at least a portion of the first and second housing members are
spaced from one another such that at least a portion of the wall surface is non-contiguous to
define an opening into the internal chamber; and
intumescent material positioned within the internal chamber;

wherein the intumescent material is in the form of one or more curtains supported within
the internal chamber, each curtain having a width substantially less than a width of the
housing wall.

16. (Original) The firestopping apparatus according to claim 15 wherein each of the one or
more curtains has a plurality of slits formed therethrough, each slit extending to a free edge of
the curtain.

17. (Original) The firestopping apparatus according to claim 15 wherein each of the one or
more curtains has a mounting slit therethrough and a mounting hook positioned within the
internal chamber extends through the mounting slit to mount the curtain within the internal
chamber.

18. (Original) The firestopping apparatus according to claim 15 wherein the one or more curtains define a central opening therethrough.

19. (Original) The firestopping apparatus according to claim 15 wherein the intumescent material is in the form of at least two curtains supported within the internal chamber in adjacent relationship to one another.

20. (Original) The firestopping apparatus according to claim 1 wherein one or more mounting tabs extend outwardly from the housing.

Amendments to the Drawings:

The attached sheet of drawings includes line drawings of Figs. 1 and 2. This sheet, which includes Figs. 1-2, replaces the original sheet including Fig. 1-2. In figure, the photo is replaced with a line drawing.

Remarks/Arguments:

Claims 4, 8 and 15 are herein amended. Claim 4 is amended to address a formalistic objection. Claims 8 and 15 are amended into independent form. Support for the additional amendment to Claim 15 is found, *inter alia*, in Figs. 16 and 17. No new matter is added.

Objections to the Drawings

Figures 1 and 2 were objected to as containing photos rather than line drawings. A substitute drawing sheet with line drawings of Figs. 1 and 2 is submitted herewith. No new matter is added in the drawings. Withdrawal of this rejection is respectfully requested.

Claim Rejections Under 35 USC § 112

Claim 4 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or applicant regards as the invention. The objected to language in claim 4 is herein deleted. Accordingly, this rejection is now moot. Withdrawal of this rejection is respectfully requested.

Claim Rejections Under 35 USC §103

Claims 1-7 and 15-20 stand rejected under 35 U.S.C. 103 as unpatentable over US Pat. Appln. Pub. No. 2015/0251028 (Klein) in view of US Pat. Appln. Pub. No. 2014/0318064 (Reinhardt). Claims 8-14 stand rejected under 35 U.S.C. 103 as unpatentable over Klein in view of Reinhardt and further in view of WO2012/009211 (Zernach). Applicant traverses these rejections.

“To establish a *prima facie* case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations.” M.P.E.P. §2143. Additionally, as set forth by the Supreme Court in *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007), it is necessary to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the prior art elements in the manner claimed.

Independent claim 1 recites “[a] firestopping apparatus comprising: a housing

having a wall surface extending between opposed front and rear panels with an inner chamber defined therein, the front panel defining a front opening therethrough and the rear panel defining a rear opening therethrough, the housing including first and second housing members which are moveable relative to one another between an assembled condition wherein the first and second housing members are interconnected and the wall surface is substantially continuous about the internal chamber, and an open condition wherein at least a portion of the first and second housing members are spaced from one another such that at least a portion of the wall surface is non-contiguous to define an opening into the internal chamber; and intumescent material positioned within the internal chamber.

As shown and described with reference to Fig. 11, the presently claimed invention includes a rear panel which includes an opening that may be positioned about a sleeve. As explained in paragraph [0037], “[t]he semi-circular openings 117, 127 are sized such that the rear opening 119 will have a diameter less than the diameter of the flange 15 such that when the housing 102 is in the assembled condition, the flange 15 is retained by the rear panels 116, 126. In applications wherein the sleeve 12 does not include a flange, and even in applications where a flange is present, the semi-circular openings 117, 127 may have a diameter slightly less than that of the sleeve 12 such that the rear panels 116, 126 bite into the sleeve 12 when the housing 102 is in the assembled condition such that sleeve 12 is retained by the rear panels 116, 126.”

The Office Action cites that the primary reference of Klein fails to disclose a rear panel with a through opening as recited in independent claim 1. The Office Action cites the recited feature would be easily conceived from Klein without any reasonable basis therefore. Furthermore, not only does Klein not suggest the claimed structure, Klein teaches away from the claimed structure. Klein explains in paragraph [0031] that

Lugs are preferably also included on the cladding part, and only on the circumferential line (outer edge) of the cladding part which is opposite the wall or the ceiling. In this way, the fire protection insert is secured against slipping out or being pulled out. When installed, the lugs ensure, on the one hand, that the intumescent action of the fire protection insert in the event of a fire is oriented in the direction of the structure opening, and on the other hand that the fire protection insert can be

effectively pressed against the wall or ceiling.

(emphasis added). Accordingly, Klein specifically teaches away from front and rear panels.

The Office Action cites to Reinhardt as a backup position, asserting that “as evidenced by Reinhardt, it was old and well-known in the art to utilize such front and rear aperture panels for such firestopping applications.” Applicant respectfully submits that Reinhardt does not teach front and rear panels on a housing as claimed. To the contrary, as illustrated in Fig. 2 thereof, Reinhardt teaches the panels 10 and 42 on opposite sides of the wall. Furthermore, such teaching does not overcome Klein’s specific teaching away of the claimed structure.

The cited references fail to teach the claimed rear panel. Zernach is cited for a limited teaching and does not overcome the shortcomings of Klein and Reinhardt.

It is respectfully submitted that independent claim 1 is condition for allowance. Claims 2-7 each depend from claim 1 and are allowable for at least their dependence on allowable claim 1. It is respectfully submitted that each of the dependent claims recites additional limitations which in combination with the base claim further distinguish over the cited prior art.

Independent claim 8 recites “[a] firestopping apparatus comprising: a housing having a wall surface with an inner chamber defined therein, a front panel extending from the wall surface and defining a front opening therethrough, the housing including first and second housing members which are moveable relative to one another between an assembled condition wherein the first and second housing members are interconnected and the wall surface is substantially continuous about the internal chamber, and an open condition wherein at least a portion of the first and second housing members are spaced from one another such that at least a portion of the wall surface is non-contiguous to define an opening into the internal chamber; and intumescent material positioned within the internal chamber; wherein a sealing member extends across at least a portion of the front opening.”

The Office Action acknowledges that Klein fails to disclose the recited sealing member. The Office Action cites to Zernach as teaching a pie foam disc across the opening thereof and then asserts that because both elements exist, the claimed invention would be obvious.

Applicant respectfully submits that the cited references are not properly combinable

as there is no reasonable basis to combine the references as proposed. As set forth in MPEP § 2141.02 IV, “[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.” citing W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). The Court further explained in W.L. Gore that “[t]o imbue one of ordinary skill in the art with knowledge of the invention in suit when no prior art reference[s]...of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.” 721 F.2d 1550, 1553 (Fed. Cir. 1983). Even though KSR made it clear that the teaching, motivation or suggestion (the "TSM test") to make the invention need not reside solely in the prior art, the Court did not disturb decades of jurisprudence holding that the claim cannot provide the rationale to combine elements from the prior art to recreate it. As stated in Gore, the Examiner is not entitled to use the claim as a “frame” and to employ “individual naked parts of separate prior art references...as a mosaic to recreate a facsimile of the claimed invention.” Id. at 1552. See also In re Warner, 379 F.2d 1011 (C.C.P.A. 1967) cert. den'd. 389 U.S. 1057 (1968). (“[W]e note that it is impermissible to use the claimed invention as an instruction manual or 'template' to piece together isolated disclosures and teachings of the prior art so that the claimed invention may be rendered obvious.”).

The Office Action overlooks the teaching of Klein that “the intumescent fire protection insert is designed as a molded body which yields to deformation, which entirely fills in the space encompassed by the housing.” (see [0009], emphasis added). Additionally, paragraphs [0014]-[0019] of Klein explains that the interface surfaces of the insert halves are structured, eg with bumps and recesses, to ensure an adequate, smoke gas- and fire-proofing.

With Klein teaching that the insert thereof entirely fills the housing and the structured interface surfaces ensure adequate smoke, gas and fire proofing, there would be no reasonable basis to add the bulky pie foamed disc of Zernach to the structure of Klein. The only possible basis for such a combination is improper hindsight reconstruction using the claimed invention as a template to piece together isolated disclosures.

It is respectfully submitted that the cited references are not properly combinable and

that the Office Action fails to establish a *prima facie* case of obviousness with respect to claim 8. It is respectfully submitted that independent claim 8 is condition for allowance. Claims 9-14 each depend from claim 8 and are allowable for at least their dependence on allowable claim 8. It is respectfully submitted that each of the dependent claims recites additional limitations which in combination with the base claim further distinguish over the cited prior art.

Independent claim 15 recites “[a] firestopping apparatus comprising: a housing having a wall surface with an inner chamber defined therein, a front panel extending from the wall surface and defining a front opening therethrough, the housing including first and second housing members which are moveable relative to one another between an assembled condition wherein the first and second housing members are interconnected and the wall surface is substantially continuous about the internal chamber, and an open condition wherein at least a portion of the first and second housing members are spaced from one another such that at least a portion of the wall surface is non-contiguous to define an opening into the internal chamber; and intumescent material positioned within the internal chamber; wherein the intumescent material is in the form of one or more curtains supported within the internal chamber, each curtain having a width substantially less than a width of the housing wall.”

As explained above, Klein teaches that “the intumescent fire protection insert is designed as a molded body which yields to deformation, which entirely fills in the space encompassed by the housing.” (see [0009], emphasis added). Such an insert which entirely fills the space is not a curtain having a thickness substantially less than a height and width thereof as recited in claim 15. To the contrary, as seen in Fig. 15 of Klein, the insert thereof has the same width as the housing wall.

The cited references fail to teach each limitation of the claimed invention. It is respectfully submitted that independent claim 15 is condition for allowance. Claims 16-20 each depend from claim 15 and are allowable for at least their dependence on allowable claim 15. It is respectfully submitted that each of the dependent claims recites additional limitations which in combination with the base claim further distinguish over the cited prior art.

It is respectfully submitted that each of the pending claims is in condition for allowance.
Early reconsideration and allowance of each of the pending claims are respectfully requested.

If the Examiner believes an interview, either personal or telephonic, will advance the prosecution of this matter, the Examiner is invited to contact the undersigned to arrange the same.

Respectfully Submitted,

Julio Lopes et al.

June 26, 2018
Date

/Glenn M. Massina/
By: Glenn M. Massina
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GMM/

The Director is hereby authorized to charge or credit Deposit Account No. 600139 for any additional fees, or any underpayment or credit for overpayment in connection herewith.

Electronic Patent Application Fee Transmittal				
Application Number:		15615885		
Filing Date:		07-Jun-2017		
Title of Invention:		CABLE FIRESTOPPING APPARATUS		
First Named Inventor/Applicant Name:		Julio Lopes		
Filer:		Glenn M. Massina		
Attorney Docket Number:		STI-00160US		
Filed as Small 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 - 2 months with \$0 paid	2252	1	300	300
Miscellaneous:				
Total in USD (\$)				300

Electronic Acknowledgement Receipt	
EFS ID:	33010939
Application Number:	15615885
International Application Number:	
Confirmation Number:	1055
Title of Invention:	CABLE FIRESTOPPING APPARATUS
First Named Inventor/Applicant Name:	Julio Lopes
Customer Number:	139939
Filer:	Glenn M. Massina
Filer Authorized By:	
Attorney Docket Number:	STI-00160US
Receipt Date:	26-JUN-2018
Filing Date:	07-JUN-2017
Time Stamp:	16:53:11
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$ 300
RAM confirmation Number	062718INTEFSW16534600
Deposit Account	600139
Authorized User	Glenn Massina
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.19 (Document supply fees)					
37 CFR 1.21 (Miscellaneous fees and charges)					
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Drawings-only black and white line drawings	STI_00160US_Substitute_Sheet.pdf	244137	no	1
			4f06a231c2d1bcccfd9c0eff7c98eb9a8c0a5973		
Warnings:					
Information:					
2	Amendment/Req. Reconsideration-After Non-Final Reject	STI_00160US_Response_OA.pdf	205624	no	13
			cad3f057cc8f026fd35a17cb8a91058b45967a85		
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30224	no	2
			5f06bff5ea86f332828c11b438411954216dfb86		
Warnings:					
Information:					
Total Files Size (in bytes):			479985		
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. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					

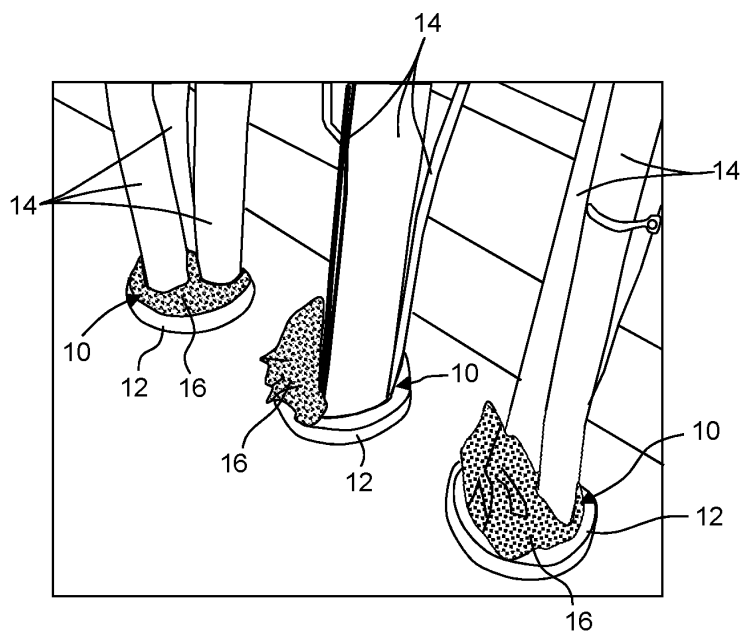


Fig. 1
(PRIOR ART)

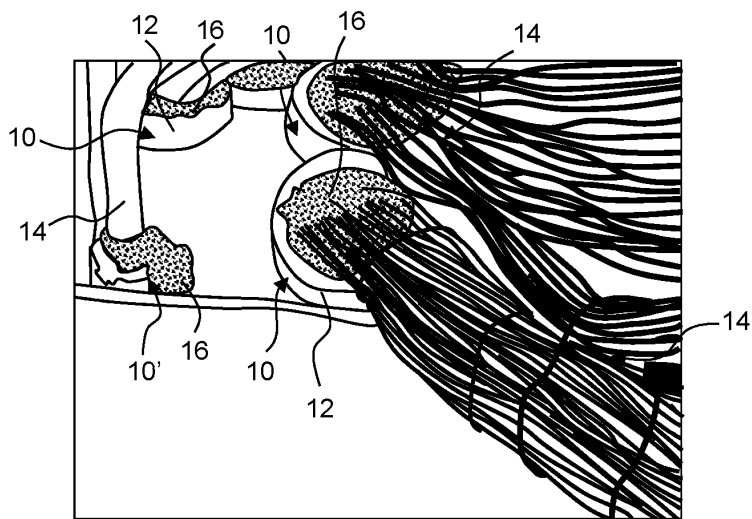


Fig. 2
(PRIOR ART)



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/615,885	06/07/2017	Julio Lopes	STI-00160US	1055
139939 7590 01/26/2018 Massina Patent & Trademark Law PLLC 702 Route 113 Suite B Souderton, PA 18964			EXAMINER MINTZ, RODNEY K	
			ART UNIT 3633	PAPER NUMBER
			NOTIFICATION DATE 01/26/2018	DELIVERY MODE 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):

docketing@massinaptl.com
eofficeaction@apcoll.com

Office Action Summary	Application No. 15/615,885	Applicant(s) LOPES ET AL.	
	Examiner RODNEY MINTZ	Art Unit 3633	AIA (First Inventor to File) Status Yes

-- 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 7 June 2017.
☐ 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) 1-20 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) 1-20 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, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Status of Claims

2. Claims 1-20 are pending and subject to examination in this Office action.

Drawings

3. The drawings are objected to because **Figures 1 and 2 are black and white photographs. Based upon a review of the record, Applicant has not established that photographs are the only practicable medium for illustrating the claimed invention. See 37 CFR 1.84(b)(1).** Accordingly, corrected drawing sheets (i.e., line drawings) in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not

accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. 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.

5. **Claim 4 is rejected under 35 U.S.C. 112(b) as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor regards as the invention.**

Regarding claim 4, the phrase “may be” is recited. Does this phrase indicate a required or optional condition?

Claim Rejections - 35 USC § 103

6. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

7. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102 of this title, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. **Claims 1-7 and 15-20 are rejected under 35 U.S.C. 103 as unpatentable over Klein (US Patent Application Publication No. 2015/0251028) (hereinafter referred to as “D1”), in view of Reinhardt (US Patent Application Publication No. 2014/0318064).**

Regarding independent claim 1, D1 discloses a fire protection collar comprising a cladding part (1) having a wall surface between opposed front and rear portion with an inner portion, the cladding part (1) with two half shell elements, wherein the two half shell elements of the cladding part (1) are interconnected and the wall surface is continuous about the inner portion, and the two half shell elements of the cladding part (1) are spaced from one another and the wall surface is non-contiguous to define an opening into the inner portion; and an intumescent fire protection insert (10) positioned within the inner portion (see paragraphs [0001], [0009], [0049] and figures 3, 5).

Claim 1 differs from D1 in that a fire stopping apparatus comprises a front panel defining a front opening therethrough and a rear panel defining a rear opening therethrough. However, this feature would be easily conceived from the disclosure of D1 considering that the cladding part (1) of the fire protection collar surrounds a conduit bundle (20) which is laid

through an opening (see paragraph [0051] and figure 3). Moreover, as evidenced by Reinhardt, it was old and well-known in the art to utilize such front and rear apertured panels for such firestopping applications (see e.g., Fig. 1). It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to utilize such panels to bolster both the structural and firestopping integrity of the apparatus. Such combination of known prior art elements that merely yields predictable results would have been obvious to one skilled in the art. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 415-16.

Regarding claim 2, the additional feature of claim 2 is identical to the feature of D1 in that the cladding part (1) with the two half shell elements pivots each other (see paragraph [0049] and figure 5).

Regarding claim 3, the additional feature of claim 3, characterized in that a hinge is defined along the wall surface between the first and second housing members, would be easily conceived from the disclosure of D1 considering that the cladding part (1) with the two half shell elements pivots each other via a shared pivot axis (4) (see paragraph [0049] and figure 5).

Regarding claim 4, the additional feature of claim 4, characterized in that the hinge is detachable such that the first and second housing members may be completely detached from one another, would be easily conceived from the disclosure of D1 considering that the cladding part (1) with the two half shell elements pivots each other via the shared pivot axis (4) (see paragraph [0049] and figure 5).

Regarding claim 5, the additional feature of claim 5 is identical to the feature of D1 in that a closure (5) is positioned along the wall surface that serves tensioning the cladding part (1) (see paragraph [0049] and figure 3).

Regarding claim 6, the additional feature of claim 6, characterized in that the latching assembly has a draw latch configuration, is merely a matter of design option from the disclosure of D1 considering that the closure (5) serves tensioning the cladding part (1) by a clamp screw (6) (see paragraph [0049] and figure 3).

Regarding claim 7, the additional feature of claim 7, characterized in that the latching assembly has a screw and nut configuration, would be easily conceived from the disclosure of D1 considering that the closure (5) serves tensioning the cladding part (1) by a clamp screw (6) (see paragraph [0049] and figure 3).

Regarding claim 15, the additional feature of claim 15, characterized in that the intumescent material is in the form of one or more curtains supported within the internal chamber, is merely a matter of design option from the disclosure of D1 considering the intumescent fire protection insert (10) within the inner portion (see paragraph [0009] and figure 3).

Regarding claim 16, the additional feature of claim 16, characterized in that each of the one or more curtains has a plurality of slits formed therethrough, each slit extending to a free edge of the curtain, would be easily conceived from the disclosure of D1 considering that the

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intumescent fire protection insert (10) has a plurality of knobs (30) engaging the conduit bundle (20) (see paragraphs [0009], [0054] and figures 3, 5).

Regarding claim 17, the additional feature of claim 17, characterized in that each of the one or more curtains has a mounting slit therethrough and a mounting hook positioned within the internal chamber extends through the mounting slit to mount the curtain within the internal chamber, would be easily conceived from the disclosure of D1 considering that lugs (7) of the cladding part (1) hold the intumescent fire protection insert (10) of the cladding part (1) (see paragraph [0050] and figure 3).

Regarding claim 18, the additional feature of claim 18, characterized in that the one or more curtains define a central opening therethrough, would be easily conceived from the disclosure of D1 considering that the intumescent fire protection insert (10) of the fire protection collar surrounds a conduit bundle (20) which is laid through an opening (see paragraphs [0009], [0051] and figure 3).

Regarding claim 19, the additional feature of claim 19, characterized in that the intumescent material is in the form of at least two curtains supported within the internal chamber in adjacent relationship to one another, would be easily conceived from the disclosure of D1 considering that the intumescent fire protection insert (10) forms two portions (see figure 5).

Regarding claim 20, the additional feature of claim 20 is identical to the feature of D1 in that fastening parts (2) extend on end faces of the cladding part (1) (see paragraph [0050] and figure 3).

10. Claims 8-14 are rejected under 35 U.S.C. 103 as unpatentable over D1 and Reinhardt as applied above, and further in view of WO 2012/009211 (“D2”).

Regarding claim 8, the additional feature of claim 8, characterized in that a sealing member extends across at least a portion of the front opening, would be easily conceived from the disclosure of D2 considering that a pie foam disk (100) extends across a portion of an opening (see paragraph [0046] and figure 2). D1 and D2 are concerned with mutually related technical fields. It would have also been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to utilize the recited structure to bolster the structural integrity of the apparatus. Such combination of known prior art elements that merely yields predictable results would have been obvious to one skilled in the art. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 415-16.

Regarding claim 9, the additional feature of claim 9, characterized in that the sealing member includes at least one elastomeric sealing membrane, would be easily conceived from the disclosure of D2 considering the pie foam disk (100) (see paragraph [0046] and figure 2).

Regarding claim 10, the additional feature of claim 10, characterized in that each elastomeric sealing membrane defines a central passage therethrough, would be easily conceived from the disclosure of D2 considering that the pie foam disk (100) wraps around cable bundles (see paragraph [0045] and figure 2).

Regarding claim 11, the additional feature of claim 11, characterized in that each elastomeric sealing membrane includes a plurality of radial slits therethrough extending from the

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central passage, would be easily conceived from the disclosure of D2 considering that the pie foam disk (100) includes radial slits (104) (see paragraph [0044] and figures 2, 16).

Regarding claim 12, the additional feature of claim 12, characterized in that the sealing member includes at least two elastomeric sealing membranes positioned adjacent to one another, would be easily conceived from the disclosure of D2 considering the pie foam disk (100) (see paragraph [0046] and figure 2).

Regarding claim 13, the additional feature of claim 13, characterized in that each of the elastomeric sealing membranes includes two portions which join along a joining line and the joining lines of adjacent sealing membranes are offset from one another, would be easily conceived from the disclosures of D1 considering that the two half shell elements of the cladding part (1) are interconnected and the two half shell elements of the cladding part (1) are spaced from one another (see figures 3, 5), and D2 considering the pie foam disk (100) (see paragraph [0046] and figure 2).

Regarding claim 14, the additional feature of claim 14, characterized in that the front panel is positioned reward of the sealing member, would be easily conceived from the disclosures of D1 considering that the cladding part (1) has the front portion (see paragraph [0049] and figure 5), and D2 considering the pie foam disk (100) (see paragraph [0046] and figure 2).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure: **Refer to the attached Form PTO-892.**

12. **Authorization for Email Communication** – In the event Applicant wishes to communicate with the Examiner via electronic mail, written authorization should be provided in Applicant's next response. *See* MPEP § 502.03. The following is a sample authorization form which may be used by Applicant:

Recognizing that Internet communications are not secure, we hereby authorize the USPTO to communicate with any authorized representative concerning any subject matter of this application by electronic mail. We understand that a copy of these communications will be made of record in the application file.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RODNEY MINTZ whose telephone number is (571)270-7327. The examiner can normally be reached on M through Th., 0700 to 1600 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, BRIAN GLESSNER can be reached on (571)272-6754. 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.

/RODNEY MINTZ/
Primary Examiner, Art Unit 3633

Notice of References Cited	Application/Control No. 15/615,885		Applicant(s)/Patent Under Reexamination LOPES ET AL.	
	Examiner RODNEY MINTZ		Art Unit 3633	Page 1 of 2

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*	B	US-6,426,463 B2	07-2002	Munzenberger; Herbert	F16L5/04	174/77R
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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N	WO 2012009211 A2	01-2012	US	DUFFIELD JOHN G	A62C2/065
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	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	International Search Report and Written Opinion for PCT/US2017/036262 dated 25 September 2017 (11 pages).
	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.

Notice of References Cited	Application/Control No. 15/615,885		Applicant(s)/Patent Under Reexamination LOPES ET AL.	
	Examiner RODNEY MINTZ		Art Unit 3633	Page 2 of 2

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
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*	B	US-9,586,066 B2	03-2017	Klein; Manfred	H02G3/0412	1/1
*	C	US-9,759,352 B2	09-2017	Lin; Kuan-Lung	F16L5/04	1/1
*	D	US-2017/0335996 A1	11-2017	Lin; Kuan-Lung	F16L5/04	1/1
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	J	US-				
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	L	US-				
	M	US-				

FOREIGN PATENT DOCUMENTS

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	S					
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NON-PATENT DOCUMENTS

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

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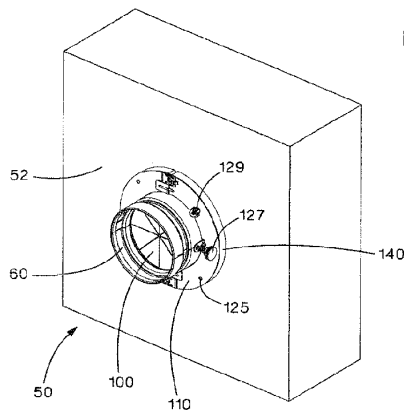
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— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

(54) Title: FIRE STOP SYSTEM



(57) Abstract: A fire stop system with a pass through device is installed in a structural opening. The fire stop system includes a split pipe, a foam wall gasket and an annulus plate. The split pipe includes a first end and a second end. The first end and the second end have an intumescent material installed thereon to seal the split pipe when the split pipe is exposed to elevated temperatures. The foam wall gasket is installed around the split pipe adjacent the structural opening. The foam wall gasket forms a contour to the structural opening blocking air flow between the split pipe and the opening. The annulus plate covers the foam wall gasket and is installed around the split pipe at the structural opening.

FIRE STOP SYSTEM**Field of the Invention**

[0001] The present invention relates to a fire stopping pass through device, and more particularly to an improved fire stop system with a pass through device that includes an annulus plate and a split pipe.

Background of the Invention

[0002] Fire stop systems designed to seal openings to prevent the spread of fires are well known. A fire stop system generally helps prevent the spread of smoke or flames throughout a facility, thereby limiting damage to the facility and providing building occupants more time to safely evacuate the facility.

[0003] U.S. Patent No. 4,086,736, for example, discloses a fire and liquid seal used in a structural wall. The fire seal includes a support pipe that extends through a wall. The support pipe is filled with a body of insulation materials consisting of ceramic fibers or silicone foam. A shield or boot consisting of an aluminized conical fiberglass member is secured to each end of the support pipe. As a result, there is a shield or boot located on each side of the wall. When a high temperature flame and combustion is present on one side of the wall, the shield or boot on the exposed side is typically destroyed. However, the shield or boot on the opposite side of the wall is protected from the high temperature. The unexposed shield or boot provides a gas and liquid seal to prevent the spread of the flame and combustion through the wall opening.

[0004] The fire stop systems of the prior art, although capable of preventing the spread of fire, have several disadvantages therewith. As a result, it is desirable to provide an improved fire stop system that consistently meets the code requirements for an F-rated, a T-rated and an L-rated system.

Summary of the Invention

[0005] The present invention is directed to a fire stop system with a pass through device installed in a structural opening. The fire stop system includes a split pipe, a foam wall gasket and an annulus

plate. The split pipe includes an intumescent material installed on the split pipe at each end. The intumescent material seals the split pipe when the split pipe is exposed to elevated temperatures. The foam wall gasket is installed around the split pipe adjacent the structural opening. The foam wall gasket forms a contour to the structural opening blocking air flow between the split pipe and the opening. The annulus plate is installed around the split pipe at the structural opening. The annulus plate also covers the foam wall gasket.

Brief Description of the Drawings

- [0006] FIG. 1 is a perspective view of the fire stop system of the present invention;
- [0007] FIG. 2 is a sectional view of the fire stop system of FIG. 1 with a portion of the wall, an annulus plate and a foam wall gasket removed;
- [0008] FIG. 3 is a perspective view of the fire stop system of FIG. 1 with a hot sock installed around the split pipe in place of the pie foam disk;
- [0009] FIG. 4 is a perspective view of the fire stop system of FIG. 1 with the annulus plate and foam wall gasket removed;
- [0010] FIG. 5 is a perspective view of the fire stop system of FIG. 4 with a hot sock installed around the split pipe in place of the pie foam disk;
- [0011] FIG. 6 is a perspective view of the split pipe of FIG. 2 in a partially open position;
- [0012] FIG. 7 is a perspective view of the alignment tabs of the split pipe of FIG. 6;
- [0013] FIG. 8 is a perspective view of one half of the split pipe of FIG. 6;
- [0014] FIG. 9 is a perspective view of the split pipe of FIG. 6 in a closed position;
- [0015] FIG. 10 is a perspective view of the annulus plate of FIG. 1;
- [0016] FIG. 11 is a perspective view of one half of the annulus plate of FIG. 10;
- [0017] FIG. 12 is a perspective view of a first latch with a catch pocket of the annulus plate of FIG. 11;

[0018] FIG. 13 is a perspective view of a second latch with a stabilizer tab, a retaining tab and a locking tab of the annulus plate of FIG. 11;

[0019] FIG. 14 is a perspective view of the latches of the annulus plate of FIG. 10 locked together;

[0020] FIG. 15 is an alternative annulus plate for use with the fire stop system of the present invention;

[0021] FIG. 16 is a perspective view of the pie foam disk of the fire stop system of FIG. 1;

[0022] FIG. 17 is a front view of the foam wall gasket of the fire stop system of FIG. 1;

[0023] FIG. 18 is a bottom perspective view of the foam wall gasket of FIG. 17;

[0024] FIG. 19 is a perspective view of the hot sock assembly of FIG. 3;

[0025] FIG. 20 is a perspective view of the spring ring of the hot sock assembly of FIG. 19;

[0026] FIG. 21 is a perspective view of the fire stop system of FIG. 1 with cables installed through the system; and

[0027] FIG. 22 is a perspective view of the fire stop system of FIG. 3 with cables installed through the system.

Detailed Description

[0028] The present invention is directed to a fire stop system 50 with a pass through device horizontally installed in a wall or vertically installed in a floor. FIG. 1 illustrates the fire stop system 50 with the pass through device installed in a wall 52. The fire stop system 50 is designed to provide an F-rated and a T-rated system. The F-rating is the time in hours before a fire rated system allows the passage of flame through an opening in the system assembly. The T-rating is the time in hours that the non-fire side of a fire rated system does not exceed 325°F above ambient temperature.

[0029] FIG. 2 illustrates a sectional view of the fire stop system 50 with the pass through device. As discussed below, the illustrated pass through device includes a split pipe 60 with a first end 62 and a second end 64. An intumescent material 90 and pie foam disks 100 are installed at both the first and second ends 62, 64 of the split pipe 60. As illustrated in FIG. 2, the pie foam disks 100 are installed

on top of the intumescent material 90. The intumescent material 90 expands and seals off the split pipe 60 when it is exposed to elevated temperatures. The pie foam disks 100 aid in the compression of the intumescent material 90 and are beneficial to passing the hose stream test under UL-1479.

[0030] An annulus plate 110 and a foam wall gasket 140 are installed around the split pipe 60 at the opening 56 of the hole 54 on each side of the wall 52 or floor (not illustrated).

[0031] FIG. 3 illustrates an alternative design for the fire stop system 50. The alternative design includes a hot sock 170 installed around the split pipe 60. The hot sock 170 replaces the pie foam disks 100 in the fire stop system 50 when the user requires an L-rated system. The L-rating is the amount of air leakage through a pass through device.

[0032] FIGS. 4 and 5 illustrate alternative designs of the fire stop system 50 without the annulus plate 110 and the foam wall gasket 140. Instead, an intumescent caulk (not illustrated) would be used to fill the annular space between the split pipe 60 and the bored or drilled hole 54 in the wall 52 or the floor.

[0033] As illustrated and discussed with respect to FIGS. 1-5, the fire stop system 50 of the present invention may include various components depending on the rating desired. FIGS. 6-20 illustrate the various components of the fire stop system 50.

[0034] FIGS. 6-9 illustrate the split pipe 60 of the pass through device. The split pipe 60 includes two identical halves 60a, 60b formed from a universal sheet metal. The elements of the identical halves 60a, 60b are referenced by the same numeral. An intumescent material 90 is pre-installed near the first end 62 and the second end 64 of the split pipe 60.

[0035] Each half of the split pipe 60a, 60b includes a bead latch 66 and a receiver pocket 68 positioned at the center of the split pipe 60. As illustrated in FIG. 6 and FIG. 8, the bead latch 66 is positioned along one side 70 and the receiver pocket 68 is positioned along the opposite side 72 of each split pipe half 60a, 60b. The bead latch 66 of one half snap fits into the receiver pocket 68 of

the other half of the split pipe 60. The snap fit bead latch 66 and receiver pocket 68 allow the split pipe 60 to be opened, if needed.

[0036] The snap fit latch 66 and receiver pocket 68 allow the split pipe 60 to be secured and installed during new construction. The snap fit latch 66 and receiver pocket 68 also allows the split pipe 60 to be used in retrofit construction applications.

[0037] Each end 62, 64 of the split pipe 60 includes an alignment tab 74 and formed pockets 76. The alignment tabs 74 act as a hinge while closing and opening the split pipe 60. Once the split pipe 60 has been closed, the alignment tabs 74 sit inside a formed pocket 76 to restrict the lateral movement of the split pipe 60. The formed pockets 76 provide a smooth edge for cable pulls and protect the pre-installed intumescent material 90. The edge 80 of the split pipe 60 includes a rolled hem 82 for providing a smooth edge for cable pulls.

[0038] The formed pockets 76 are also designed to receive a spring ring 160 that secures the hot sock 170 to the split pipe 60. As discussed below with respect to FIGS. 19-20, the spring ring 160 secured to the hot sock 170 snaps into a formed pocket 76 of the split pipe 60 to prevent the hot sock 170 from being pulled off the split pipe 60.

[0039] FIGS. 10-14 illustrate the retrofit annulus plate 110 to be used in applications where cables are already routed through the wall 52. The retrofit annulus plate 110 includes two identical halves 110a, 110b formed from a universal sheet metal. The elements of the identical halves 110a, 110b are referenced by the same numeral.

[0040] Each half of the annulus plate 110a, 110b is a semicircular half with a catch pocket 112 at one end and a locking mechanism 116 at the opposite end. The catch pocket 112 includes an opening 114 for engaging the locking mechanism 116 (see FIG. 12).

[0041] The locking mechanism 116 includes a retaining tab 118, a locking tab 120 and a stabilizing tab 122 (see FIG. 13). The retaining tab 118 and the locking tab 120 flex out of position until the

catch pocket 112 snaps into a locking engagement with the locking tab 120. As a result, the catch pocket 112 is retained by the retaining tab 118 (see FIG. 14).

[0042] The retrofit annulus plate 110 also includes punched screw holes 124 for receiving a screw 125, or other fastener, to secure the annulus plate 110 to the wall 52, thumb screw tabs 126 and ground screw tabs 128 (see FIGS. 1-3). The thumb screw tabs 126 receive a thumb screw 127, or other fastener, to secure the annulus plate 110 to the split pipe 60 thereby preventing lateral movement of the split pipe 60 from within the hole 54 in the wall 52. The ground screw tabs 128 enable the annulus plate 110 to receive a ground screw 129, or other fastener, to ground the fire stopping system 50.

[0043] FIG. 15 illustrates a non-retrofit annulus plate 130. The annulus plate 130 is a single circular piece that is used for non-retrofit applications, e.g. when cables have been passed through the wall 52. The annulus plate 130 also includes punched holes 132 for receiving a fastener to secure the plate 130 to the wall 52, thumb screw tabs 134 and at least one ground screw tab 136. The thumb screw tabs 134 receive a screw, or other fastener, to secure the annulus plate 130 to the split pipe 60 thereby preventing lateral movement of the split pipe 60 from within the hole 54 in the wall 52. The ground screw tab 136 enables the annulus plate 130 to receive a screw, or other fastener, to ground the fire stop system 50.

[0044] FIG. 16 illustrates the pie foam disk 100. The pie foam disk 100 is a foam plug that may be positioned at the first end 62 and the second end 64 of the split pipe 60 (see FIG. 2). Each pie foam disk 100 includes triangle shaped sections 102 formed by slits 104 or nicks in the foam. The slits 104 or nicks form hinges 106 near the edge of the pie foam disk 100. One triangle shape section 102 includes a through slit 108 that allows the pie foam disk 100 to open up along the other formed hinges 106.

[0045] When the pie foam disk 100 is opened up, the pie foam disk 100 is capable of wrapping around various cable bundles. The foam compresses and contours around the cable bundles and

jackets to provide a seal. The pie foam disk 100 may be used from a zero cable loading condition all the way up to and including a 100% cable loading condition.

[0046] The pie foam disk 100 also aids in the compression of the intumescent material 90 in the split pipe 60 during elevated temperature conditions (see FIG. 2). This compression is beneficial in passing the hose stream test described in UL-1479.

[0047] FIGS. 17-18 illustrate the foam wall gasket 140. The foam wall gasket 140 is placed behind the annulus plate 110 or 130 adjacent to the wall 52 or floor. The foam wall gasket 140 will form a contour to the wall surface blocking air flow between the split pipe 60 and the hole 54.

[0048] The foam wall gasket 140 includes a nicked slit 142 to enable an installer to tear or rip the foam wall gasket 140 for installation in a retrofit application. As illustrated in FIG. 17, a “V” cut 144 identifies the nicked slit area. To install in a retrofit application, the foam wall gasket 140 is torn at the nicked slit 142 and installed around the split pipe 60. After the foam wall gasket is installed, the ends 146 are overlapped and compressed between the wall 52 and the annulus plate 110 or 130. The inner diameter of the foam wall gasket 140 conforms to the outer diameter of the split pipe 60 (see FIGS. 1 and 2). As a result, the overlapping ends 146 of the foam wall gasket 140 will create an interference with the outer diameter of the split pipe 60.

[0049] Alternatively, for non-retrofit applications, a solid foam wall gasket (not illustrated) may be used.

[0050] FIGS. 19-20 illustrate the hot sock 170 and spring ring 160 used in the fire stop system 50 illustrated in FIGS. 3 and 5. The hot sock 170 and spring ring 160 assembly may be used for retrofit or non-retrofit applications.

[0051] The hot sock 170 is formed from a nylon rip stop material that blocks the flow of air through the hot sock 170 once it is installed and sealed. The hot sock 170 includes a base 172 and a top 174. A spring ring 160 is sewn into the base 172 of the hot sock 170. The spring ring 160 includes an opening 162 for retrofit applications. To install the hot sock 170 and attached spring ring 160, spring

ring 160 flexes to open up the hot sock 170 and snaps into one of the formed pockets 76 along the outside of the ends 62, 64 of the split pipe 60.

[0052] The hot sock 170 also includes a hook and loop material 176 sewn into place along the horizontal length of the hot sock 170 enabling the hot sock 170 to be used for retrofit applications. Once the hot sock 170 is installed and sealed, the hook and loop material 176 seals the hot sock 170 around the cable bundle blocking the air flow.

[0053] A strip of foam 178 and a strap of hook and loop material 180 are sewn into the hot sock 170 near the top 174 of the hot sock 170. The strap of hook and loop material 180 is used to cinch the hot sock 170 tightly around the cable bundle once installed. The strip of foam 178 located under the strap 180 conforms to the cable bundles blocking the air flow through the hot sock 170.

[0054] FIGS. 21 and 22 illustrate the fire stop system 50 with the pass through device installed around a bundle of cables 190. The fire stop system 50 illustrated in FIG. 21 is an F-rated and a T-rated system. The foam wall gasket 140 provides a seal behind the annulus plate 110 conforming to the concrete or gypsum wall 52 thereby sealing the annular space 54 between the split pipe 60 and the wall opening 56. The pie foam disk 100 contours to create a seal around the cable bundle 190. The pie foam disk 100 also aids in the compression of the intumescent material 90 in an elevated temperature condition.

[0055] The fire stop system 50 illustrated in FIG. 22 is an F-rated, a T-rated and an L-rated system. The hot sock 170 is easily installed around the split pipe 60 by snapping the spring ring 160 into the formed pockets 76 in the split pipe 60. The hook and loop material 176 along the length of the hot sock 170 is fastened. A strip of foam 178 located inside the hot sock 170 will contour to the cables 190 thereby restricting airflow.

[0056] Furthermore, while the particular preferred embodiments of the present invention have been shown and described, it will be obvious to those skilled in the art that changes and modifications may be made without departing from the teaching of the invention. The matter set forth in the foregoing

description and accompanying drawings is offered by way of illustration only and not as limitation. The actual scope of the invention is intended to be defined in the following claims when viewed in their proper perspective based on the prior art.

Claims:

1. A fire stop system with a pass through device installed in a structural opening, the fire stop system comprising:

a split pipe having a first end and a second end, wherein the first end and the second end having an intumescent material installed thereon for sealing the split pipe when exposed to elevated temperatures;

a foam wall gasket installed around the split pipe adjacent the structural opening, wherein the foam wall gasket forms a contour to the structural opening blocking air flow between the split pipe and the opening; and

an annulus plate covering the foam wall gasket, wherein the annulus plate is positioned around the split pipe at the structural opening.

2. The fire stop system of claim 1, wherein the split pipe comprises two identical halves, each half having a latch along one side and a pocket positioned along an opposite side, the latch of one half of the split pipe snap fits into the pocket of the other half of the split pipe.

3. The fire stop system of claim 1, wherein the first end and the second end of the split pipe include an edge with a rolled hem for providing a smooth edge for cables pulled there through.

4. The fire stop system of claim 1, wherein the first end and the second end of the split pipe having an alignment tab and a pocket, wherein the alignment tab is positioned in the pocket when the split pipe is closed to restrict lateral movement of the split pipe.

5. The fire stop system of claim 4, wherein the pockets have a smooth edge and the intumescent material is installed adjacent to the pockets, whereby the smooth edge of the pockets protects the intumescent material installed in the split pipe.

6. The fire stop system of claim 1, wherein the annulus plate comprises two identical semicircular halves, each half having a catch pocket at one end and a locking mechanism at an opposite end, wherein the catch pocket includes an opening for engaging the locking mechanism.

7. The fire stop system of claim 6, wherein the locking mechanism having a plurality of tabs for engaging the catch pocket.

8. The fire stop system of claim 6, wherein the locking mechanism comprises a retaining tab, a locking tab and a stabilizing tab, the retaining tab and the locking tab oppose each other and deflect into locking engagement with the catch pocket.

9. The fire stop system of claim 6, wherein each half of the annulus plate having a plurality of outwardly extending tabs for receiving a fastener to secure the annulus plate to the split pipe.

10. The fire stop system of claim 1, wherein the annulus plate is a single circular member, the annulus plate having a plurality of outwardly extending tabs for receiving a fastener to secure the annulus plate to the split pipe.

11. The fire stop system of claim 1, further comprising pie foam disks installed on the intumescent material at the first end and the second end of the split pipe, the pie foam disks having a plurality of slits forming a plurality of triangular shaped sections.

12. The fire stop system of claim 11, wherein the pie foam disk having an edge, the plurality of slits form hinges near the edge of the pie foam disk, wherein one triangular shaped section includes a through slit for allowing the pie foam disk to open along the formed hinges.

13. The fire stop system of claim 1, further comprising a hot sock installed around the split pipe, the hot sock having a base and a top; and

a spring ring secured to the base of the hot sock, the spring ring secures the hot sock to the split pipe.

14. The fire stop system of claim 13, wherein the hot sock having a foam strip, the foam strip positioned near the top of the hot sock, the foam strip conforms to cable bundles blocking air flow through the hot sock.

15. The fire stop system of claim 13, wherein the first end and the second end of the split pipe having an alignment tab and a pocket, the pocket receives the spring ring to secure the hot sock to the split pipe.

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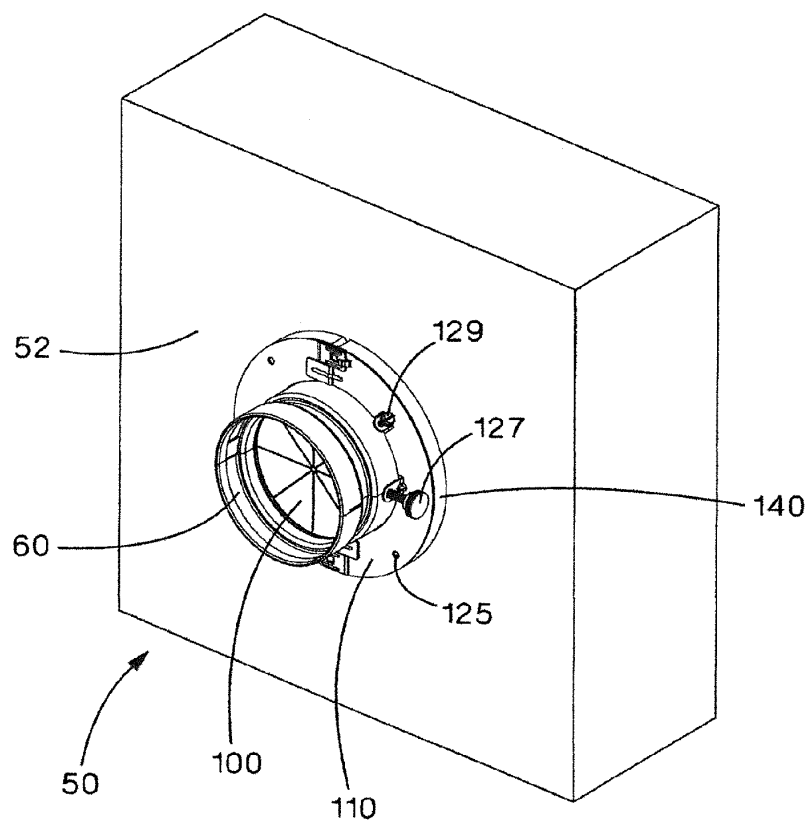


FIG.1

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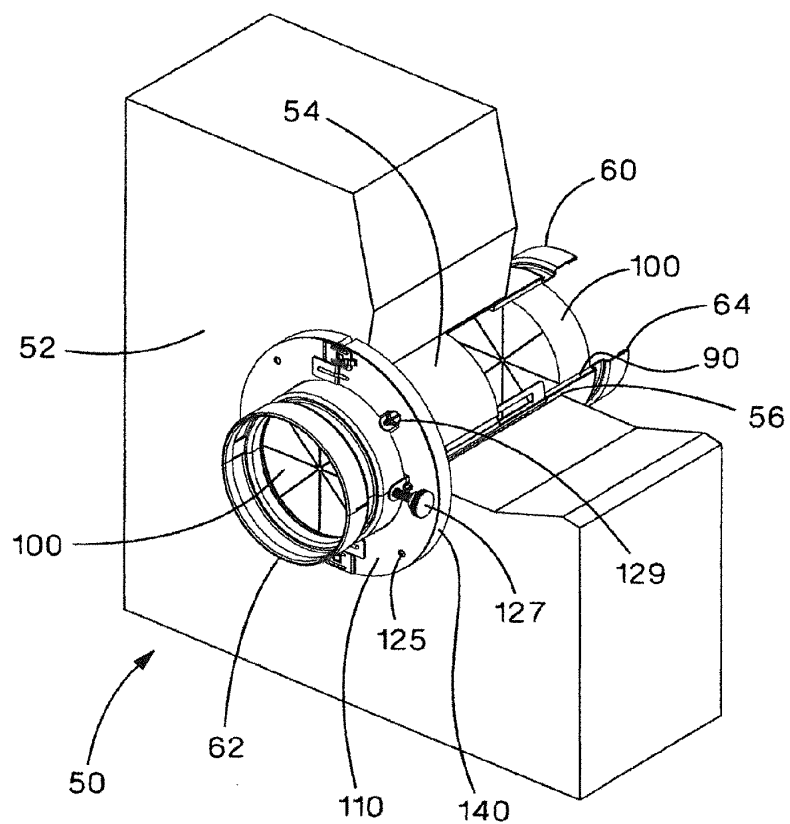


FIG.2

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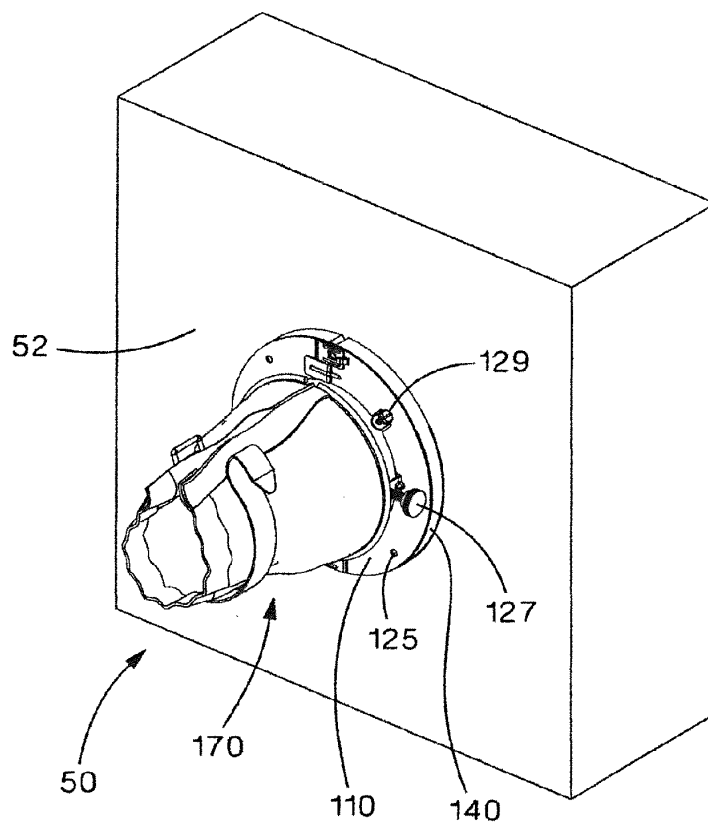


FIG.3

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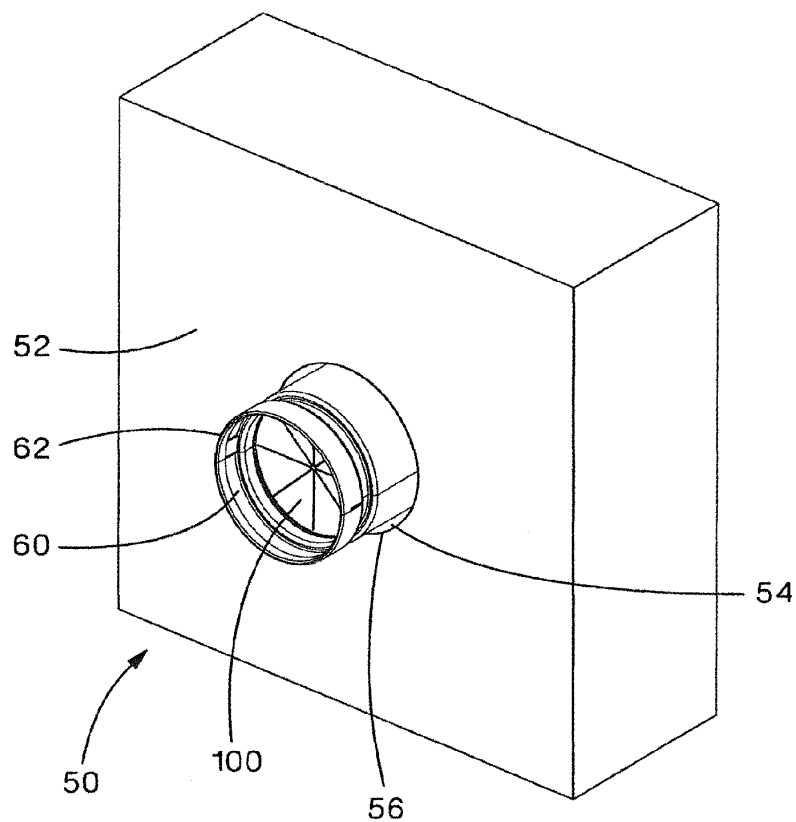


FIG. 4

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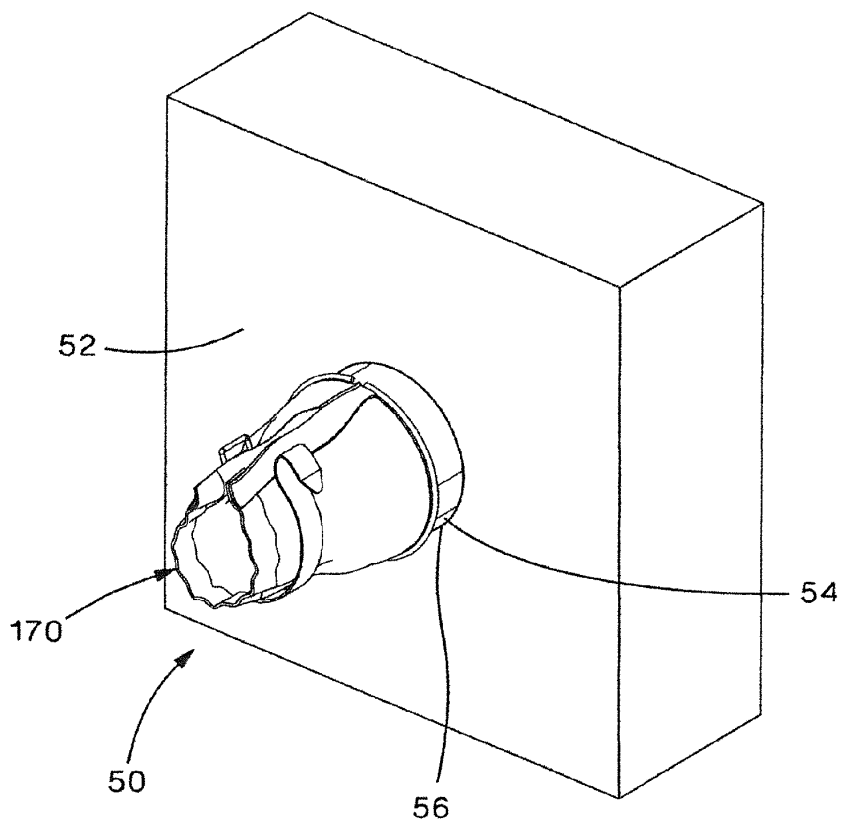


FIG.5

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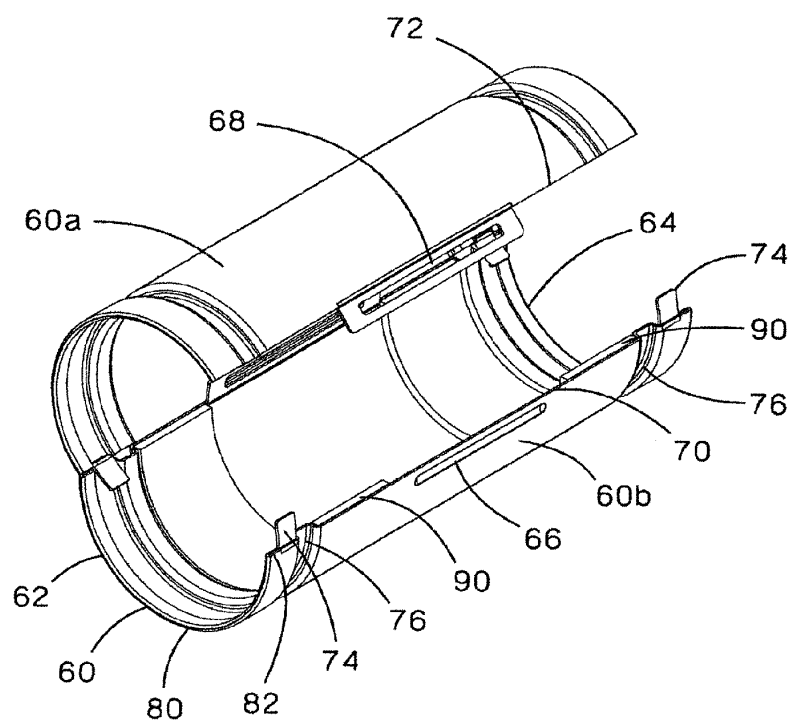


FIG.6

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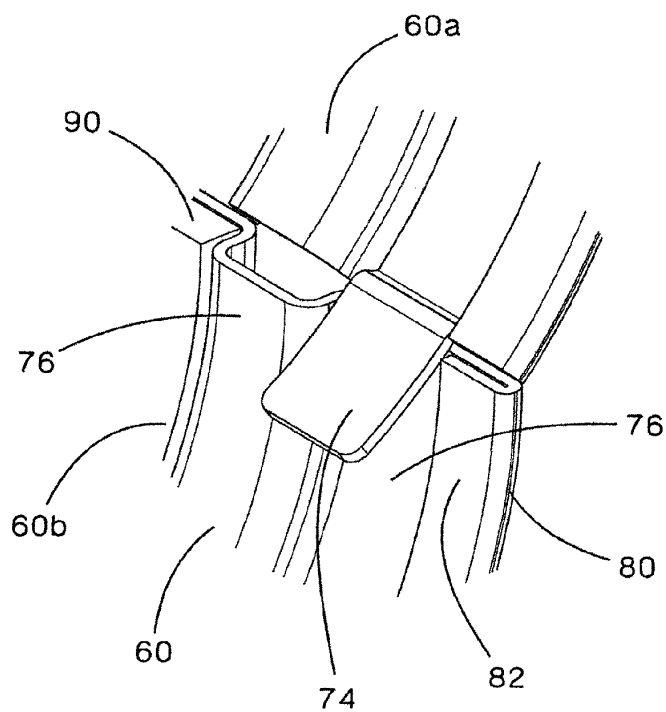


FIG. 7

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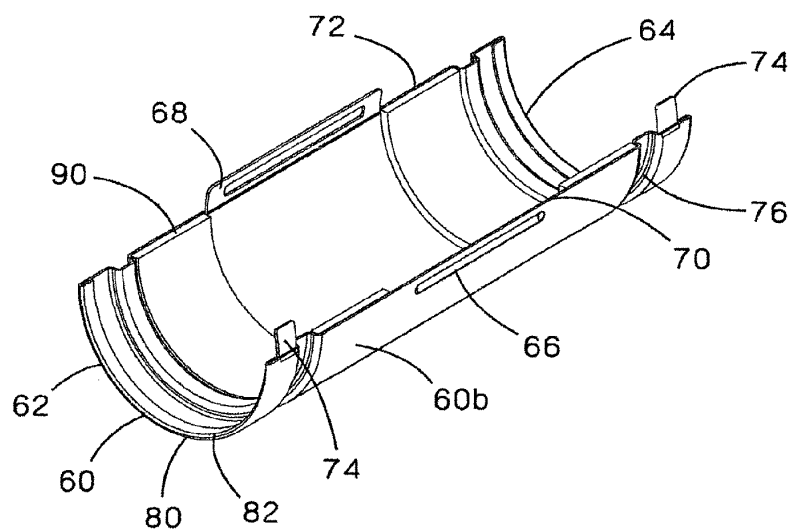


FIG. 8

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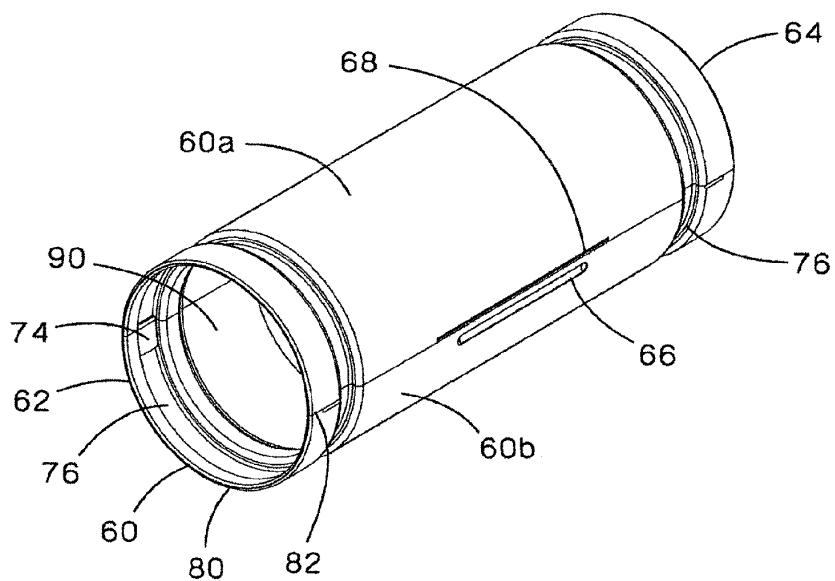


FIG.9

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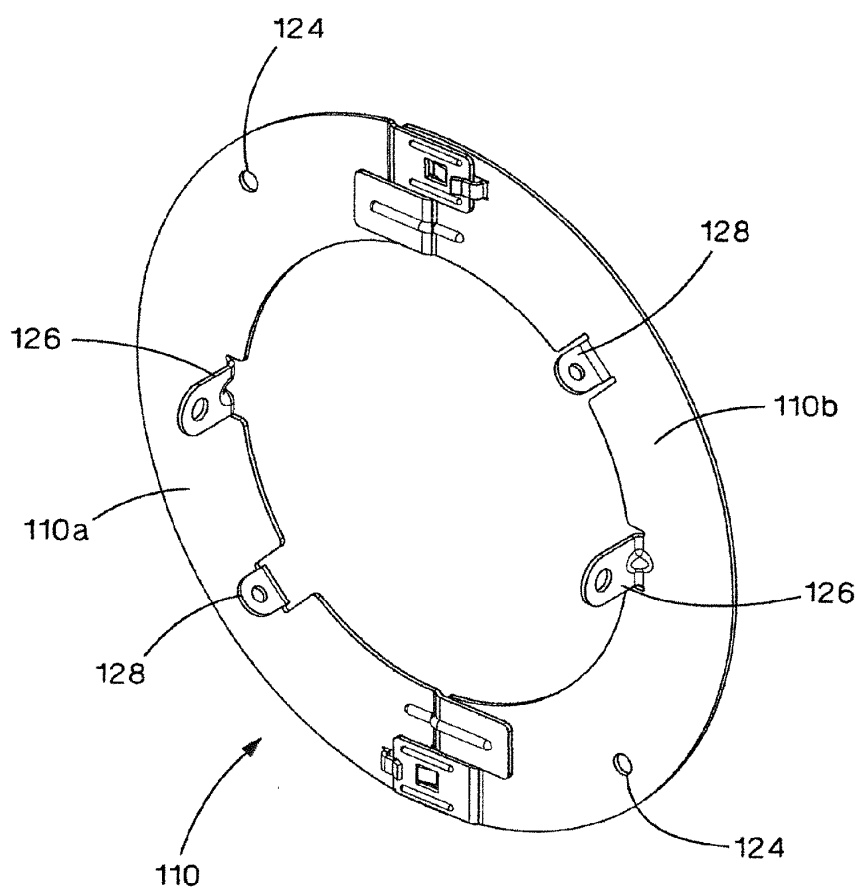


FIG.10

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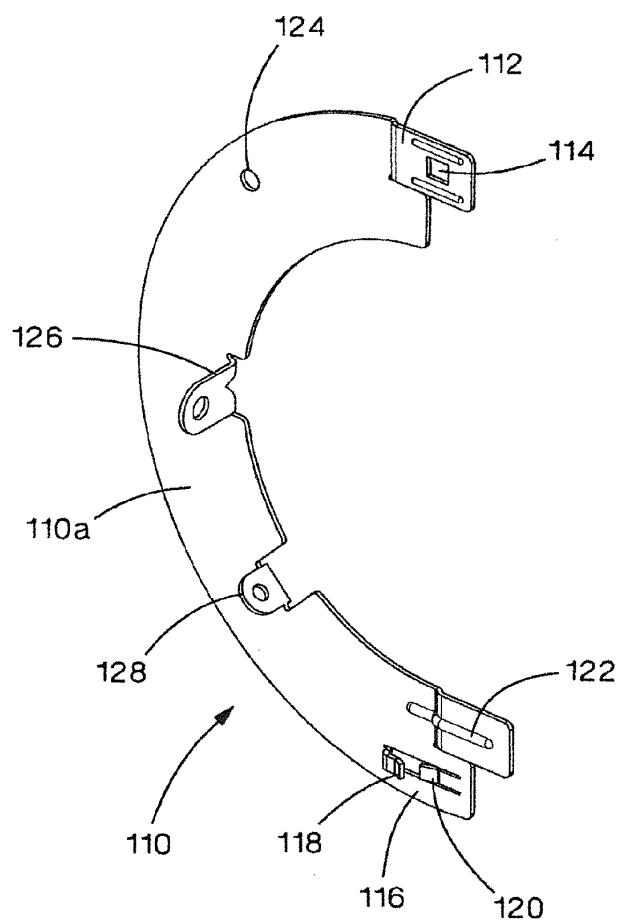


FIG. 11

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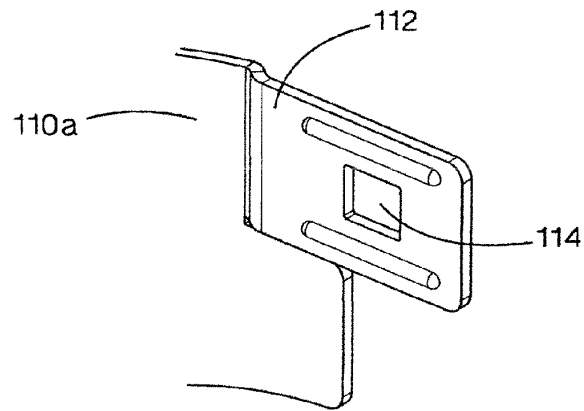


FIG.12

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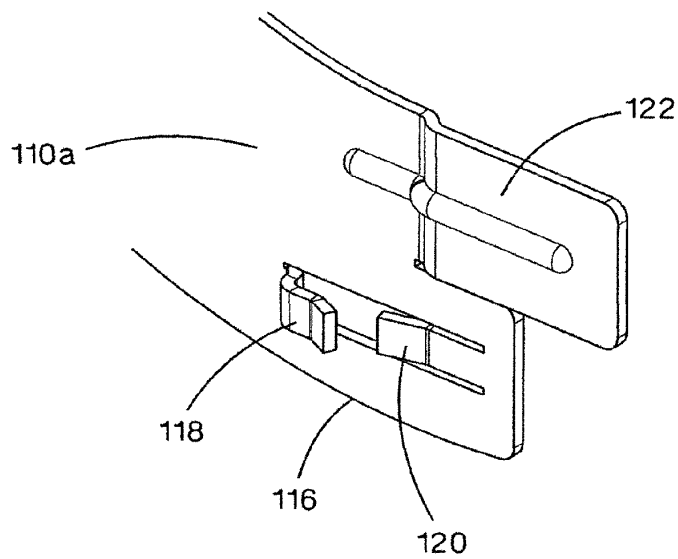


FIG.13

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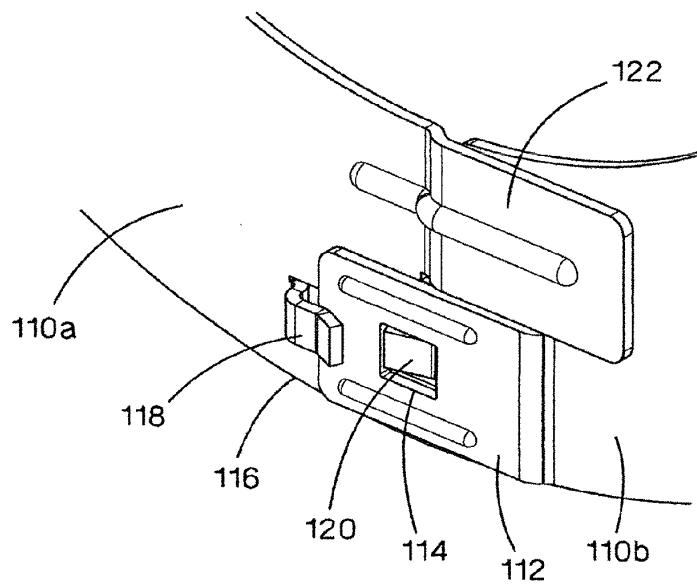


FIG.14

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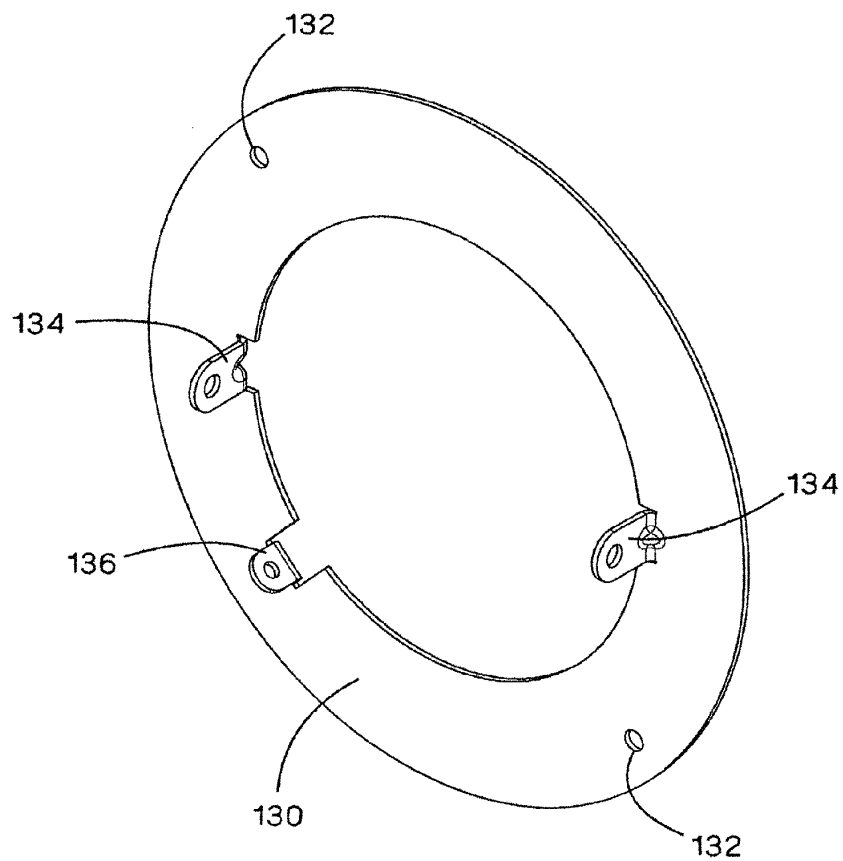


FIG.15

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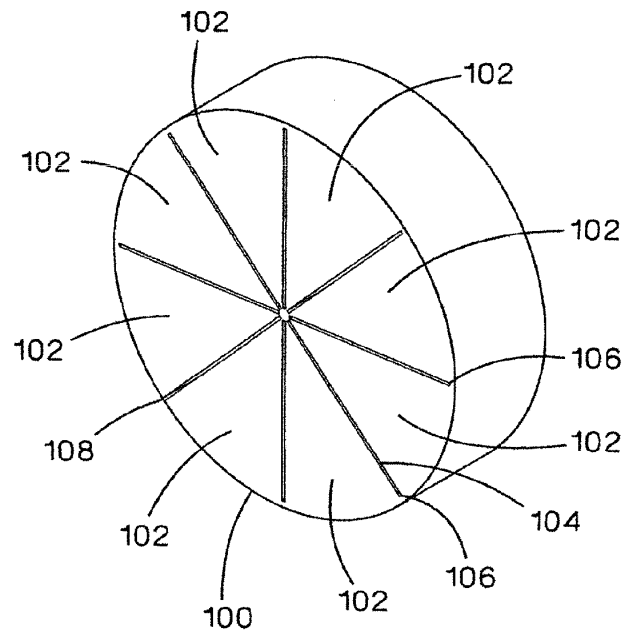


FIG.16

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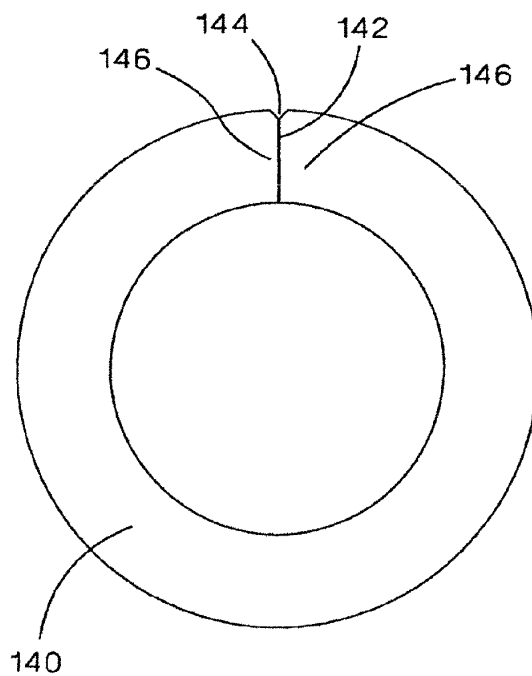


FIG.17

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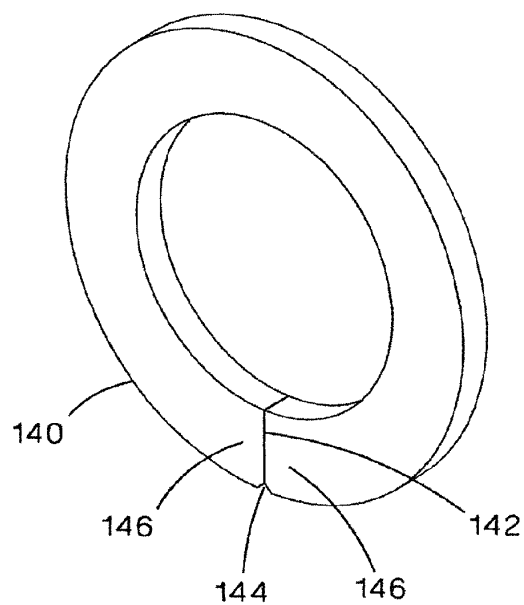


FIG.18

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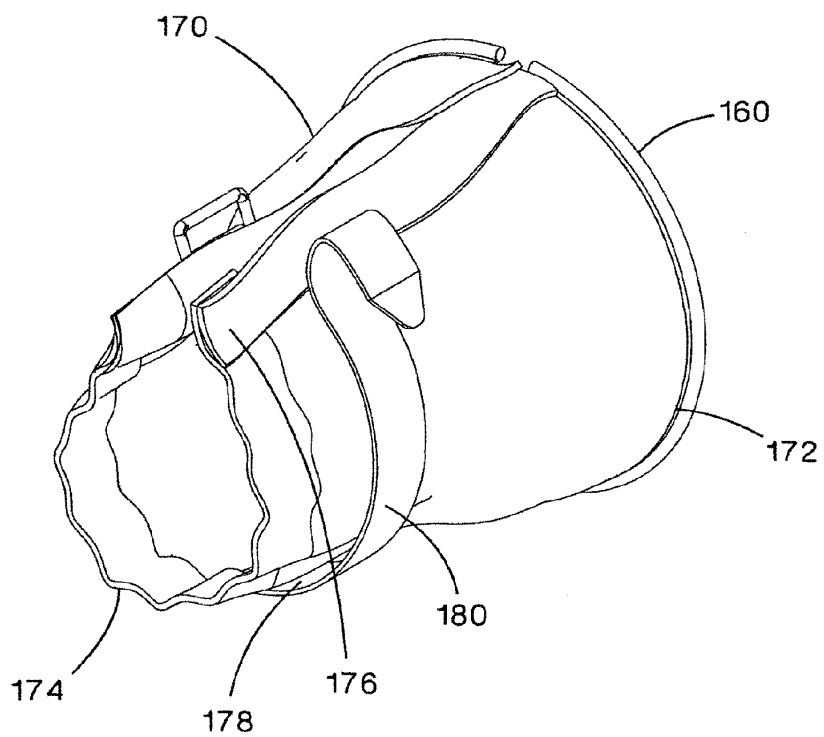


FIG. 19

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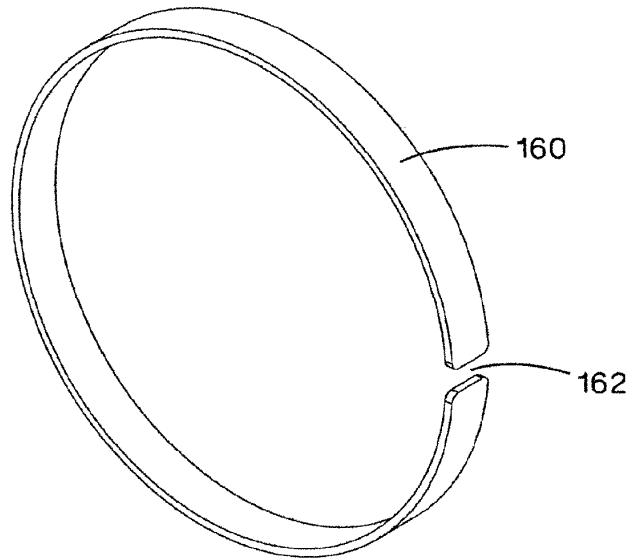


FIG.20

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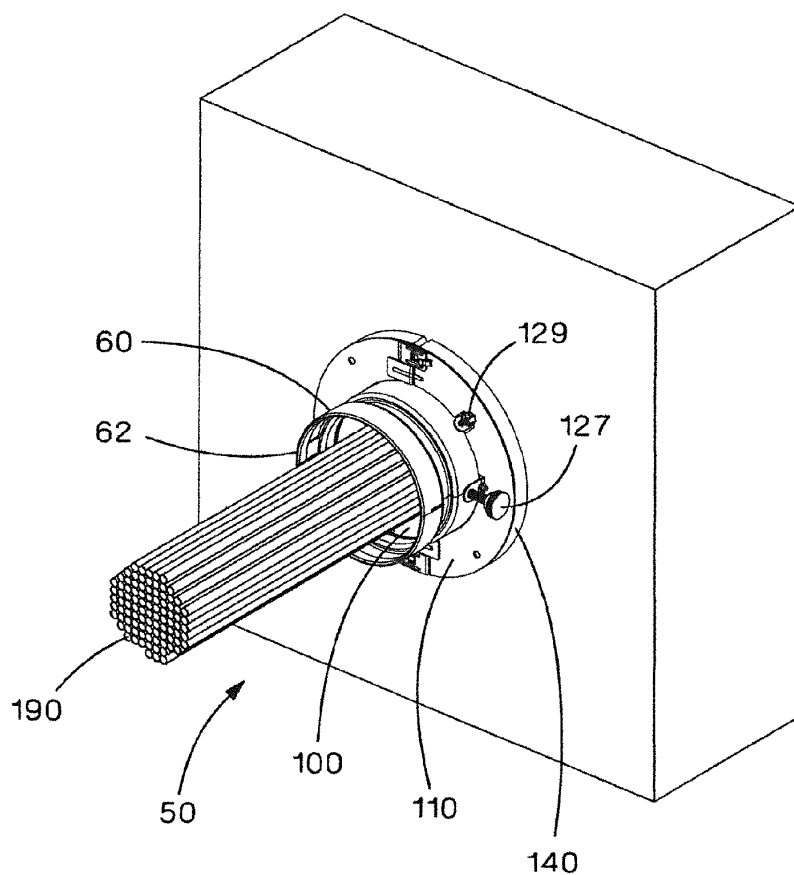


FIG. 21

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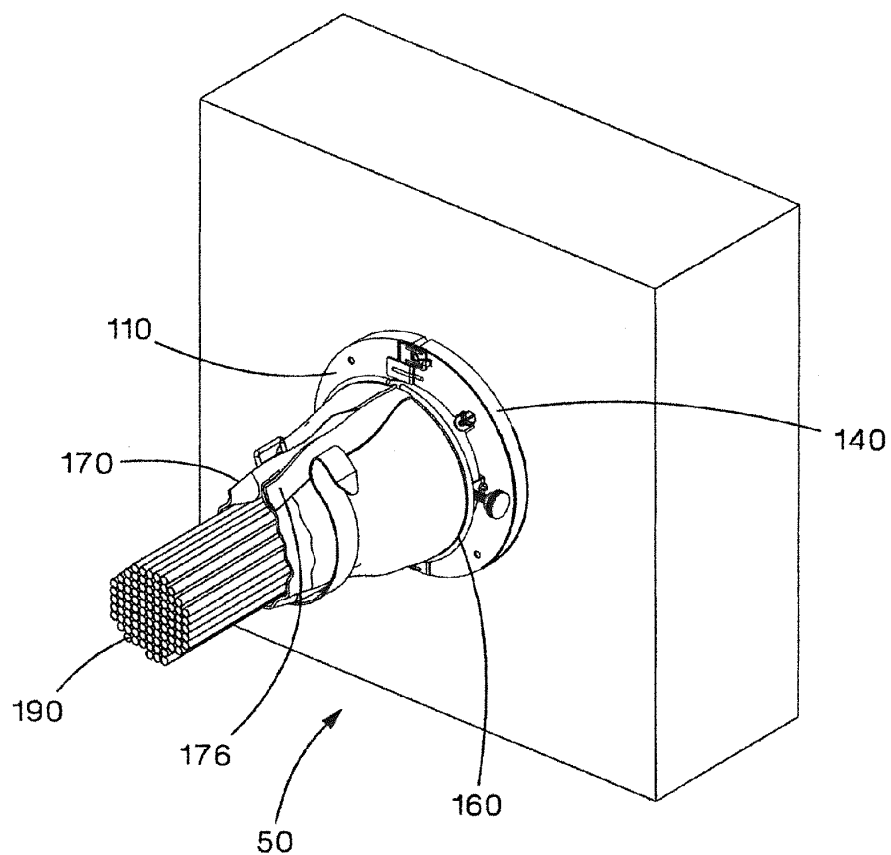


FIG.22

Search Notes 	Application/Control No. 15615885	Applicant(s)/Patent Under Reexamination LOPES ET AL.
	Examiner RODNEY MINTZ	Art Unit 3633

CPC- SEARCHED		
Symbol	Date	Examiner
A62C2/065	1/18/2018	RM
F16L5/04	1/18/2018	RM
A62C3/16	1/18/2018	RM
H02G3/0412	1/18/2018	RM

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
Inventor Name search	1/18/2018	RM

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/RODNEY MINTZ/ Primary Examiner.Art Unit 3633
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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
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S4	0	("2017/0067264").URPN.	USPAT	OR	OFF	2018/01/18: 10:56
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S6	3	faiello\$.in.	US-PGPUB; USPAT	OR	ON	2018/01/18: 10:58
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/615,885	06/07/2017	Julio Lopes	STI-00160US

CONFIRMATION NO. 1055

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139939
Massina Patent & Trademark Law PLLC
702 Route 113
Suite B
Souderton, PA 18964

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Date Mailed: 06/15/2017

INFORMATIONAL NOTICE TO APPLICANT

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment. See 37 CFR 1.53(f).

The item(s) indicated below are also required and should be submitted with any reply to this notice to avoid further processing delays.

- A properly executed inventor's oath or declaration has not been received for the following inventor(s):
Julio Lopes
Steven Faiello

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.

/tnguyen/



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO.	TOT CLAIMS	IND CLAIMS
15/615,885	06/07/2017	3633	800	STI-00160US	20	1

CONFIRMATION NO. 1055

FILING RECEIPT



CC000000092087971

139939

Massina Patent & Trademark Law PLLC

702 Route 113

Suite B

Souderton, PA 18964

Date Mailed: 06/15/2017

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)

Julio Lopes, Dunellen, NJ;
Steven Faiello, Morristown, NJ;

Applicant(s)

Specified Technologies Inc., Somerville, NJ;

Power of Attorney: None

Domestic Priority data as claimed by applicant

This appln claims benefit of 62/347,140 06/08/2016
and claims benefit of 62/445,619 01/12/2017

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

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: 06/13/2017

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/615,885**

Projected Publication Date: 12/14/2017

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

CABLE FIRESTOPPING APPARATUS

Preliminary Class

052

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 Assets Control, 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.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 15/615,885	
APPLICATION AS FILED - PART I							
(Column 1)		(Column 2)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA		RATE(\$)	FEE(\$)	RATE(\$)	FEE(\$)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	70	N/A	
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A		N/A	300	N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	360	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	20	minus 20 =	*	x 40	= 0.00	OR	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	1	minus 3 =	*	x 210	= 0.00	OR	
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	OR	
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					0.00	OR	
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	730	TOTAL	
APPLICATION AS AMENDED - PART II							
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY	
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)	OR OTHER THAN SMALL ENTITY	
	Total (37 CFR 1.16(i))	*	Minus **	=	x	=	OR
	Independent (37 CFR 1.16(h))	*	Minus ***	=	x	=	OR
	Application Size Fee (37 CFR 1.16(s))					OR	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					OR	
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY	
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)	OR OTHER THAN SMALL ENTITY	
	Total (37 CFR 1.16(i))	*	Minus **	=	x	=	OR
	Independent (37 CFR 1.16(h))	*	Minus ***	=	x	=	OR
	Application Size Fee (37 CFR 1.16(s))					OR	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					OR	
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY	
TOTAL ADD'L FEE		TOTAL ADD'L FEE		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.							

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	STI-00160US
		Application Number	
Title of Invention	CABLE FIRESTOPPING APPARATUS		
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				
Legal Name				
Prefix	Given Name	Middle Name	Family Name	Suffix
	Julio		Lopes	
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service				
City	Dunellen	State/Province	NJ	Country of Residence ⁱ US
Mailing Address of Inventor:				
Address 1	605 Third Street			
Address 2				
City	Dunellen	State/Province	NJ	
Postal Code	07960	Country ⁱ	US	
Inventor 2				
Legal Name				
Prefix	Given Name	Middle Name	Family Name	Suffix
	Steven		Faiello	
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service				
City	Morristown	State/Province	NJ	Country of Residence ⁱ US
Mailing Address of Inventor:				
Address 1	18 Max Drive			
Address 2	Apartment 8B			
City	Morristown	State/Province	NJ	
Postal Code	07960	Country ⁱ	US	
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button. Add				

Correspondence Information:

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	STI-00160US
		Application Number	
Title of Invention	CABLE FIRESTOPPING APPARATUS		

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.**

Customer Number	139939		
Email Address	docketing@massinaptl.com	Add Email	Remove Email

Application Information:

Title of the Invention	CABLE FIRESTOPPING APPARATUS		
Attorney Docket Number	STI-00160US	Small Entity Status Claimed	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	12	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	139939		

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.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	STI-00160US	
		Application Number		
Title of Invention	CABLE FIRESTOPPING APPARATUS			
Prefix	Given Name	Middle Name	Family Name	Suffix
Remove				
Registration Number				
Prefix	Given Name	Middle Name	Family Name	Suffix
Remove				
Registration Number				
Additional Representative Information blocks may be generated within this form by selecting the Add button.				

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 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.

When referring to the current application, please leave the application number blank.

Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Claims benefit of provisional	62347140	2016-06-08
Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Claims benefit of provisional	62445619	2017-01-12
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.			

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) 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).

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.			

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	STI-00160US
		Application Number	
Title of Invention	CABLE FIRESTOPPING APPARATUS		

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	STI-00160US
		Application Number	
Title of Invention	CABLE FIRESTOPPING APPARATUS		

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.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	STI-00160US
		Application Number	
Title of Invention	CABLE FIRESTOPPING APPARATUS		

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			
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. ☒			
Organization Name	Specified Technologies Inc.		
Mailing Address Information For Applicant:			
Address 1	210 Evans Way		
Address 2			
City	Somerville	State/Province	NJ
Country ¹	US	Postal Code	08876
Phone Number		Fax Number	
Email Address			
Additional Applicant Data may be generated within this form by selecting the Add button.			

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	STI-00160US
		Application Number	
Title of Invention	CABLE FIRESTOPPING APPARATUS		

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.

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.				
If the Assignee or Non-Applicant Assignee is an Organization check here. ☐				
Prefix	Given Name	Middle Name	Family Name	Suffix
Mailing Address Information For Assignee including Non-Applicant Assignee:				
Address 1				
Address 2				
City		State/Province		
Country ⁱ		Postal Code		
Phone Number		Fax Number		
Email Address				
Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.				

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	STI-00160US
		Application Number	
Title of Invention	CABLE FIRESTOPPING APPARATUS		

Signature:

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	/Glenn M. Massina/			Date (YYYY-MM-DD)	
First Name	Glenn	Last Name	Massina	Registration Number	40081
Additional Signature may be generated within this form by selecting the Add button.					

CABLE FIRESTOPPING APPARATUS

[0001] This application claims the benefit of US Provisional Appln. No. 62/347,140, filed June 8, 2016, and the benefit of US Provisional Appln. No. 62/445,619, filed January 12, 2017, the contents of each of which is incorporated herein.

FIELD OF THE INVENTION

[0002] The invention generally relates to apparatus for providing a firestop within a construction opening and, more particularly, to a firestopping apparatus configured to be positioned about a sleeve or cable opening and having intumescent pads that form a confinement area about penetrating members passing through the construction opening.

BACKGROUND OF THE INVENTION

[0003] It is commonplace in the construction and renovation of commercial and residential buildings for the need to pass cables, conduits and the like through construction barriers such as walls, floors and ceilings. However, the presence of an opening through such barriers raises a potential hazard in that a fire can use those opening to pass through the construction barrier, which of itself is an effective fire barrier, and the fire can then spread to adjoining areas of the building. As such, fire barriers are normally located within the openings that are designed to prevent the passage of fire through those openings.

[0004] Referring to Figs. 1 and 2, several exemplary building openings 10, 10' are shown with cables/conduits 14 passing therethrough. Some of the openings 10 include a sleeve 12 while some openings 10' simply have the conduit 14 pass without a sleeve. Sleeves 12 are short lengths of metal conduit, pipe, or EMT that project through a barrier. The NEC (NFPA 70) defines a sleeve to be a short length of raceway used to support and protect cables. Sleeves 12 are often field fabricated and may vary in length and quality. Occasionally, a plastic bushing is snapped onto the end of conduit.

[0005] The sleeves 12 and openings 10' are often properly firestopped during new construction by placing firestop materials 16 about the cables/conduit 14 to close off an open passageway through the opening 10' or sleeve 12. However, as cable moves, adds, and changes are made to structured cabling, the firestop materials 16 are displaced. When sleeves 12 are overfilled with cable 14, firestopping and life safety are compromised. This work is usually post occupancy and hence not subject to inspection. Often remaining firestop material 16 is inadequate to protect the opening 10, 10'.

[0006] Accordingly, there is a need for a firestopping apparatus that may be utilized to provide adequate firestopping about such openings 10, 10'.

SUMMARY OF THE INVENTION

[0007] In at least one embodiment, the present invention provides a firestopping apparatus including a housing having a wall surface extending between opposed front and rear panels with an inner chamber defined therein. The front panel defines a front opening therethrough and the rear panel defines a rear opening therethrough. The housing includes first and second housing members which are moveable relative to one another between an assembled condition wherein

the first and second housing members are interconnected and the wall surface is substantially continuous about the internal chamber, and an open condition wherein at least a portion of the first and second housing members are spaced from one another such that at least a portion of the wall surface is non-contiguous to define an opening into the internal chamber. An intumescent material is positioned within the internal chamber.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] The accompanying drawings, which are incorporated herein and constitute part of this specification, illustrate the presently preferred embodiments of the invention, and, together with the general description given above and the detailed description given below, serve to explain the features of the invention. In the drawings:

[0009] Figs. 1 and 2 illustrate prior art building openings with cables and conduit extending through the openings and firestopping material, which may be inadequate, positioned in the openings.

[0010] Fig. 3 is a front perspective view of an exemplary firestopping apparatus in accordance with an embodiment of the invention.

[0011] Fig. 4 is a front elevation view of the firestopping apparatus of Fig. 3.

[0012] Fig. 5 is a rear elevation view of the firestopping apparatus of Fig. 3.

[0013] Fig. 6 is a right side elevation view of the firestopping apparatus of Fig. 3.

[0014] Fig. 7 is a left side elevation view of the firestopping apparatus of Fig. 3.

[0015] Fig. 8 is a cross-sectional view along the line 8-8 in Fig. 5.

[0016] Fig. 9 is a cross-sectional view along the line 9-9 in Fig. 5.

[0017] Fig. 10 is a front perspective view illustrating an exemplary firestopping apparatus as it is positioned about the end of a sleeve.

[0018] Fig. 11 is a rear perspective view illustrating the exemplary firestopping apparatus as it is positioned about the end of a sleeve.

[0019] Fig. 12 is a front perspective view illustrating the exemplary firestopping apparatus positioned about the end of a sleeve.

[0020] Fig. 13 is a rear perspective view illustrating the exemplary firestopping apparatus positioned about the end of a sleeve.

[0021] Fig. 14 is a front perspective view of an exemplary firestopping apparatus in accordance with another embodiment of the invention.

[0022] Fig. 15 is a rear elevation view of the firestopping apparatus of Fig. 14.

[0023] Fig. 16 is a cross-sectional view along the line 16-16 in Fig. 15.

[0024] Fig. 17 is a cross-sectional view along the line 17-17 in Fig. 15.

[0025] Fig. 18 is a rear, partially exploded perspective view illustrating the exemplary firestopping apparatus of Fig. 14.

[0026] Fig. 19 is an elevation view of a first exemplary sealing elastomeric membrane and Fig. 20 is an elevation view of a second exemplary sealing elastomeric membrane.

[0027] Fig. 21 is a perspective view of an exemplary curtain of intumescent material.

DETAILED DESCRIPTION OF THE INVENTION

[0028] In the drawings, like numerals indicate like elements throughout. Certain terminology is used herein for convenience only and is not to be taken as a limitation on the present invention. The following describes preferred embodiments of the present invention. However, it

should be understood, based on this disclosure, that the invention is not limited by the preferred embodiments described herein.

[0029] Referring to Figs. 3-9, a firestopping apparatus 100 in accordance with an exemplary embodiment of the invention will be described. The firestopping apparatus 100 generally comprises first and second housing members 110, 120 that are interconnected to one another to define a housing 102 having an internal chamber 150. While the illustrated housing 102 has a square configuration, with each housing member having a rectangular configuration, the invention is not limited to such. The housing may have any desired configuration with the housing members having corresponding configurations.

[0030] With reference to Figs. 8 and 9, intumescent firestopping materials 152, 154 are positioned in the internal chamber 150 and are designed to expand rapidly responsive to fire and heat for the purpose of sealing about any cables/conduits extending through the apparatus 100. The intumescent materials 152, 154 preferably include a foam component chosen of one of various polymers such as polyurethane or silicone or any other polymer which has the capability of forming a soft resilient foam. The intumescent component of the foam may include expandable graphite, sodium silicate or any other commonly used expansion ingredient which is compatible for use with the basic foam carrier construction. While two pads of intumescent materials 152, 154 are shown on opposite inside surfaces of the housing 102. The intumescent materials may include more or fewer pads and they may otherwise be positioned to provide a desired expansion of material.

[0031] In the illustrated embodiment, the first housing member 110 includes an end surface 111 and side panels 112, 113 extending between a front panel 114 and a rear panel 116. Similarly, the second housing member 120 includes an end surface 121 and side panels 122, 123

extending between a front panel 124 and a rear panel 126. Each of the front panels 114, 124 includes a semi-circular opening 115, 125 such that when the housing members 110, 120 are in an assembled condition as illustrated in Figs. 3-9, a front opening 118 is defined in the housing 102. Similarly, each of the rear panels 116, 126 includes a semi-circular opening 117, 127 such that when the housing members 110, 120 are in an assembled condition, a rear opening 119 is defined in the housing 102. The front and rear openings 118, 119 are preferably coaxial and allow cables, conduits and the like to pass through the housing 102.

[0032] In the illustrated embodiment, a pair of sealing elastomeric membranes 160, 170 extend across the front opening 118. The outer sealing membrane 160 extends to a central opening 164 and includes a series of radial slits 162 such that the membrane 160 may flex about cables or the like extending through the front opening 118. The inner sealing membrane 170 extends to a central opening 174 and also includes a series of radial slits 172. In the illustrated embodiment, the slits 162 are circumferentially offset from the slits 172 such that the membranes 160, 170 conform better to cables or the like extending through the front opening 118. The membranes 160, 170 can adjust to the cable load to provide remedial smoke and air sealing for the housing 102. While a pair of sealing membranes 160, 170 are illustrated, the invention is not limited to such and more or fewer membranes may be provided. Additionally, other types of seals, for example, a brush type seal, may be used in place of or in addition to the sealing membranes.

[0033] To facilitate positioning the housing 102 about existing cables, conduits and the like, the first and second housing members 110, 120 are moveable relative to one another to an open configuration with an open space on at least one side of the housing 102 such that the housing 102 can be positioned about a sleeve 12, cables or conduits, as illustrated in Figs. 10 and 11. In

the illustrated embodiment, the first and second housing members 110, 120 are hingedly interconnected to one another along the side panels 112, 122, with a releasable latching assembly along the side panels 113, 123 to facilitate the open configuration. The invention is not limited to such a hinge and latch configuration, but may have any configuration which allows at least one side of the housing 102 to be opened such that a sleeve, cables or conduit can be received into the chamber 150 of the housing 102. For example, a latching assembly could be provided along both sides of the housing 102 such that both sides are disconnected to facilitate positioning of the housing 102 about the sleeve, cables or conduit.

[0034] Referring to Figs. 3, 6 and 9, in the present embodiment, the side panels 112 and 122 are interconnected to one another via a hinge assembly 130. The illustrated hinge assembly 130 is defined by fingers 132 of the side panel 112 extending between fingers 134 of the side panel 122. The fingers 132 have semicircular ends 133 (see Fig. 9) and the fingers 134 define through bores (not shown). A pin 136 extends through the through bores and the channels defined by the semicircular ends 133 to pivotally connect the first and second housing members 110, 112. The semicircular ends 133 allow the hinge assembly 130 to be disassembled in the event it is necessary to completely disconnect the first housing member 110 from the second housing member 120. It is understood that the fingers 132 could also define through bores if such disassembly is not desired.

[0035] With reference to Figs. 5 and 7, in the illustrated embodiment, the latching assembly 140 extends between side panels 113 and 123 to secure the housing 102 in the assembled configuration. In the illustrated embodiment, the latching assembly 140 has a draw latch configuration, however, the invention is not limited to such and other latch or lock assemblies may be utilized. The latching assembly 140 includes a hook 142 extending from side panel 113.

A support member 144 is connected to side panel 123 and pivotally supports a lever 146. A ring 148 extends from the lever 146 and is configured to engage the hook 142. Pivoting of the lever 146 toward the hook 142 allows the ring 148 to be disengaged therefrom. Pivoting of the lever 146 to the locked position shown in Fig. 5 locks the ring 148 in engagement with the hook 142.

[0036] Referring to Figs. 10-13, an exemplary application of the firestopping apparatus 100 to a sleeve 12 will be described. With reference to Figs. 10 and 11, the latching assembly 140 is opened such that the ring 148 is disengaged from the hook 142 and the first housing member 110 is pivoted relative to the second housing member 120 to define a passage 151 into the internal chamber 150. The housing 102 is positioned about the sleeve 12 with the sleeve 12 seated within the semi-circular opening 127 of the rear panel 126. In the illustrated embodiment, the sleeve 12 includes a radial flange 15 which is positioned inside of the rear panels 116, 126 within the housing internal chamber 150.

[0037] Once the sleeve 12 is positioned within one of the semi-circular openings, the first housing member 110 is pivoted toward the second housing member 120 until they are in the assembled position illustrated in Figs. 12 and 13. The latching assembly 140 is then locked, drawing the housing members 110, 120 together and tightening the rear panels 116, 126 about the sleeve 12. The semi-circular openings 117, 127 are sized such that the rear opening 119 will have a diameter less than the diameter of the flange 15 such that when the housing 102 is in the assembled condition, the flange 15 is retained by the rear panels 116, 126. In applications wherein the sleeve 12 does not include a flange, and even in applications where a flange is present, the semi-circular openings 117, 127 may have a diameter slightly less than that of the sleeve 12 such that the rear panels 116, 126 bite into the sleeve 12 when the housing 102 is in the assembled condition such that sleeve 12 is retained by the rear panels 116, 126.

[0038] Any cables or conduits extending through the sleeve 12 will extend through the front opening 118 and will be surrounded by the sealing membranes 160, 170. The membranes 160, 170 provide remedial smoke and air sealing about the existing cables and conduits and also allow for future cable moves, adds, and changes. The apparatus 100 of the present invention preserves the ability to run additional cables without having to touch the apparatus 100 (e.g. re-open or re-close). Additionally, the apparatus 100 is generally maintenance free.

[0039] In the event of the fire or the like, the intumescent materials 152, 154 will rapidly expand and seal completely about the cables and conduits within the chamber 150. The firestopping apparatus 100 provides a compliant and reliable firestop and only needs to be provided on one side of barrier since it will stop fire and smoke penetration regardless of which side of the barrier the fire or smoke is located.

[0040] For applications wherein the building opening 10' does not include a sleeve, the apparatus 100 may include one or more mounting flanges 180 extending from the housing 102. Each of the flanges 180 includes a plate 182 with at least one screw hole 183. In the illustrated embodiment, each flange 180 also has a mounting portion 184 which extends from the plate 182 and is configured to extend into the housing 102 and lock the flange 180 to the housing 102. The flanges 180 may otherwise be removably or permanently secured to the housing, for example, via screws or welding. The number and position of the flanges 180 may be selected based on the intended application.

[0041] Referring to Figs. 14-18, a firestopping apparatus 100' in accordance with another exemplary embodiment of the invention will be described. The firestopping apparatus 100' is similar to the previous embodiment and generally comprises the first and second housing members 110,' 120' that are interconnected to one another to define the housing 102' having an

internal chamber 150. Like elements are numbered alike in each embodiment and only the distinct features will be described herein.

[0042] With reference to Figs. 16-18, it is noted that in the fire stopping apparatus 100' of the present embodiment, the first and second housing members 110', 120' are modified from the previous embodiment in that the front panels 114', 124' are positioned interiorly of the pair of sealing elastomeric membranes 160, 170. In other aspects, the front panels 114', 124' are substantially the same as in the previous embodiment.

[0043] Additionally, with reference to Figs. 18-20, the sealing elastomeric membranes 160, 170 have different configurations such that the joining line between membranes 160 is offset from the joining line between the membranes 170. As illustrated in Fig. 19, the inner edge 161 of the membrane 160 extends in a linear fashion along a plane P, however, as illustrated in Fig. 20, the membrane 170 has an angled edge, with a first portion 171 angled and extending on a first side of the plane P and a second angled portion 173 extending on a second opposite side of the plane P. As seen in Fig. 18, when the membranes 160 and 170 are positioned in the housing 102', the angled edge portions 171, 173 are offset from the edge portion 161 the opposite membrane 160, 170 overlaps the joining line of the other membrane 160, 170, furthering the sealing effect of the membranes 160, 170.

[0044] Additionally, in the fire stopping apparatus 100' of the present embodiment, the latching assembly 140' includes a securing screw 143 extending through a flange 141 extending from the side panel 123 of the second housing member 120'. A head 145 is provided for turning the securing screw 143. Opposite the securing screw 143, a flange 147 with a fixed securing nut 149 extends from the side panel 113 of the first housing member 110'. To secure the housing

members 110', 120' together, the securing screw 143 is threadably engaged with the securing nut 149.

[0045] Also, with the fire stopping apparatus 100' of the present embodiment, the intumescent firestopping materials 152', 154' positioned in the internal chamber 150 are in the form of curtains 151, 153 which extend across each housing member 110', 120'. In the illustrated embodiment, each of the intumescent firestopping materials 152', 154' includes two such curtains extending along one another. More or fewer curtains may be utilized. Each curtain 151, 153 includes a series of slits 155 which facilitate passage of cables and the like therethrough. Additionally, each curtain 151, 153 defines a semi-circular opening 156 such that when the housing members 110', 120' are in an assembled condition, an opening 166 is defined through the intumescent firestopping materials 152', 154'.

[0046] With reference to Figs. 16, 17 and 21, an exemplary method of mounting the curtains 151, 153 within the chamber 150 will be described. In the illustrated embodiment, each curtain 151, 153 includes a slit 158 therethrough which is configured to receive a hook portion 157 of a mounting hook 159. A mounting hook 159 extends along each end surface 111, 121 and includes a rounded hook portion 157 which extends through the slit(s) in one or more curtains to support the curtain relative to the respective housing member 110', 120'. Other mounting methods may alternatively or additionally be utilized.

[0047] These and other advantages of the present invention will be apparent to those skilled in the art from the foregoing specification. Accordingly, it will be recognized by those skilled in the art that changes or modifications may be made to the above-described embodiments without departing from the broad inventive concepts of the invention. It should therefore be understood that this invention is not limited to the particular embodiments described herein, but is intended

to include all changes and modifications that are within the scope and spirit of the invention as defined in the claims.

What is claimed is:

1. A firestopping apparatus comprising:

a housing having a wall surface extending between opposed front and rear panels with an inner chamber defined therein, the front panel defining a front opening therethrough and the rear panel defining a rear opening therethrough, the housing including first and second housing members which are moveable relative to one another between an assembled condition wherein the first and second housing members are interconnected and the wall surface is substantially continuous about the internal chamber, and an open condition wherein at least a portion of the first and second housing members are spaced from one another such that at least a portion of the wall surface is non-contiguous to define an opening into the internal chamber; and

intumescent material positioned within the internal chamber.
2. The firestopping apparatus according to claim 1 wherein the first housing member is pivotally connected to the second housing member along a portion of the wall surface.
3. The firestopping apparatus according to claim 2 wherein a hinge is defined along the wall surface between the first and second housing members.
4. The firestopping apparatus according to claim 3 wherein the hinge is detachable such that the first and second housing members may be completely detached from one another.

5. The firestopping apparatus according to claim 1 wherein a latching assembly is positioned along the wall surface to lock the housing in the assembled condition.
6. The firestopping apparatus according to claim 5 wherein the latching assembly has a draw latch configuration.
7. The firestopping apparatus according to claim 5 wherein the latching assembly has a screw and nut configuration.
8. The firestopping apparatus according to claim 1 wherein a sealing member extends across at least a portion of the front opening.
9. The firestopping apparatus according to claim 8 wherein the sealing member includes at least one elastomeric sealing membrane.
10. The firestopping apparatus according to claim 9 wherein each elastomeric sealing membrane defines a central passage therethrough.
11. The firestopping apparatus according to claim 10 wherein each elastomeric sealing membrane includes a plurality of radial slits therethrough extending from the central passage.
12. The firestopping apparatus according to claim 8 wherein the sealing member includes at least two elastomeric sealing membranes positioned adjacent to one another.

13. The firestopping apparatus according to claim 12 wherein each of the elastomeric sealing membranes includes two portions which join along a joining line and the joining lines of adjacent sealing membranes are offset from one another.

14. The firestopping apparatus according to claim 8 wherein the front panel is positioned rearward of the sealing member.

15. The firestopping apparatus according to claim 1 wherein the intumescent material is in the form of one or more curtains supported within the internal chamber.

16. The firestopping apparatus according to claim 15 wherein each of the one or more curtains has a plurality of slits formed therethrough, each slit extending to a free edge of the curtain.

17. The firestopping apparatus according to claim 15 wherein each of the one or more curtains has a mounting slit therethrough and a mounting hook positioned within the internal chamber extends through the mounting slit to mount the curtain within the internal chamber.

18. The firestopping apparatus according to claim 15 wherein the one or more curtains define a central opening therethrough.

19. The firestopping apparatus according to claim 15 wherein the intumescent material is in the form of at least two curtains supported within the internal chamber in adjacent relationship to one another.

20. The firestopping apparatus according to claim 1 wherein one or more mounting tabs extend outwardly from the housing.

ABSTRACT

A firestopping apparatus including a housing having a wall surface extending between opposed front and rear panels with an inner chamber defined therein. The front panel defines a front opening therethrough and the rear panel defines a rear opening therethrough. The housing includes first and second housing members which are moveable relative to one another between an assembled condition wherein the first and second housing members are interconnected and the wall surface is substantially continuous about the internal chamber, and an open condition wherein at least a portion of the first and second housing members are spaced from one another such that at least a portion of the wall surface is non-contiguous to define an opening into the internal chamber. An intumescent material is positioned within the internal chamber.

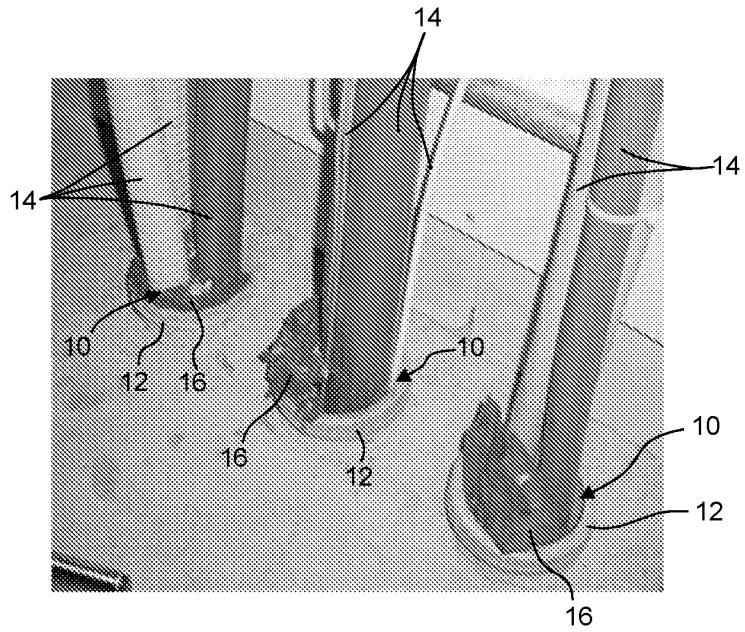


Fig. 1
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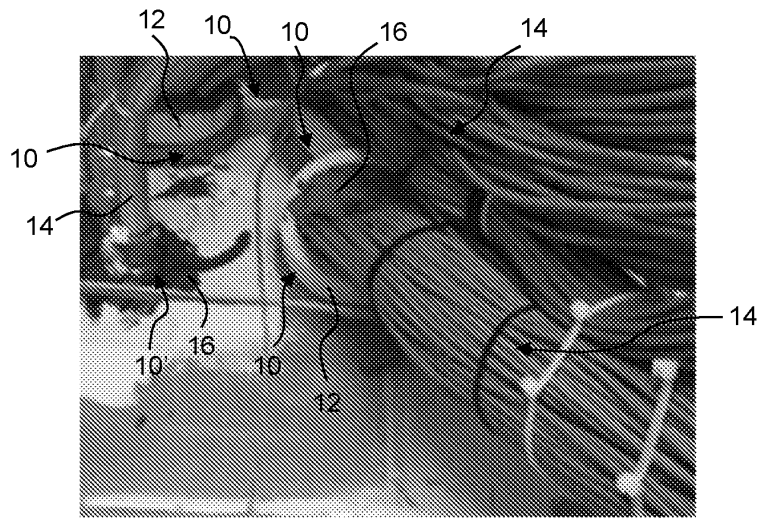


Fig. 2
(PRIOR ART)

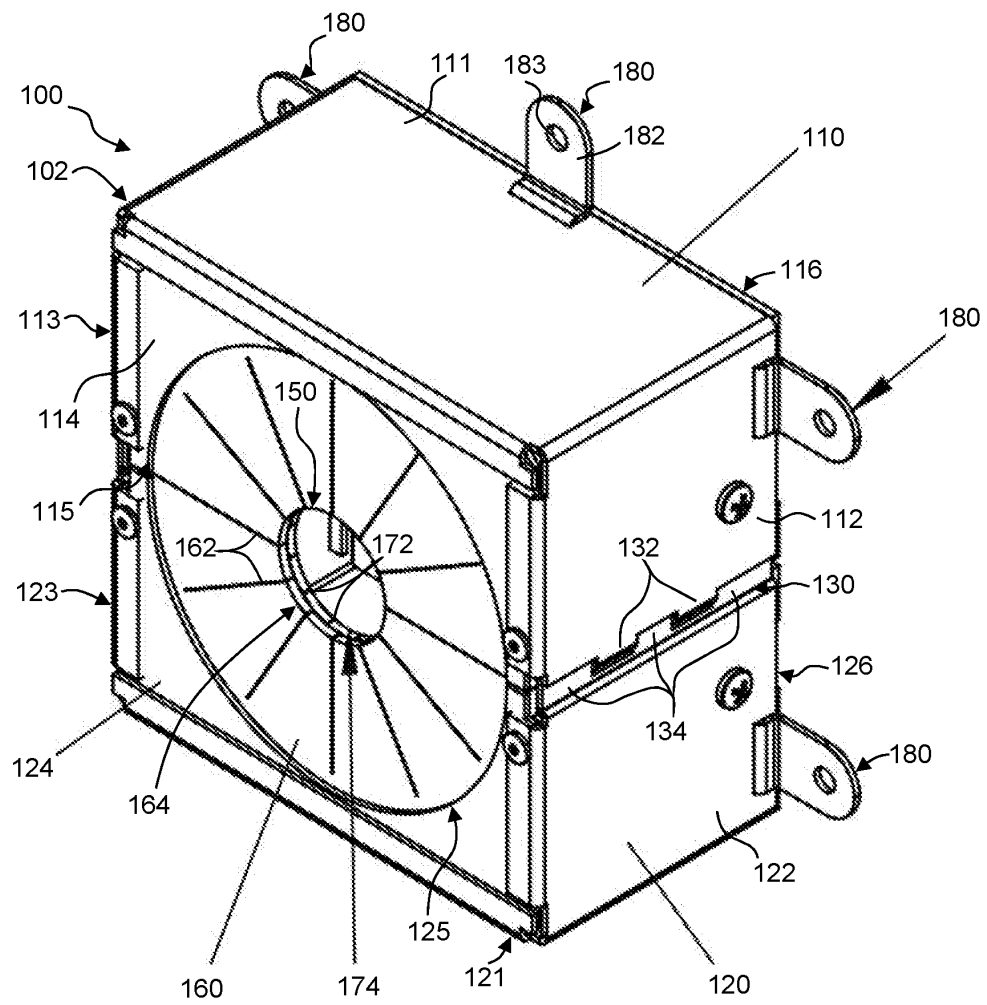


Fig. 3

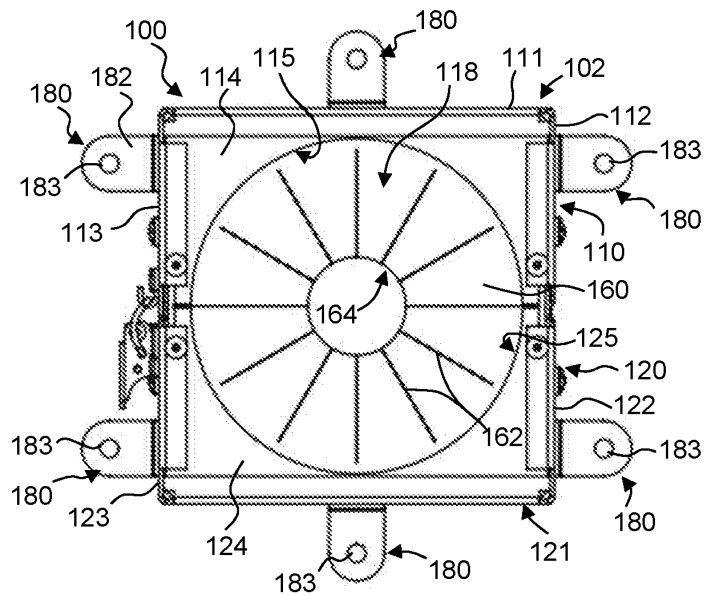


Fig. 4

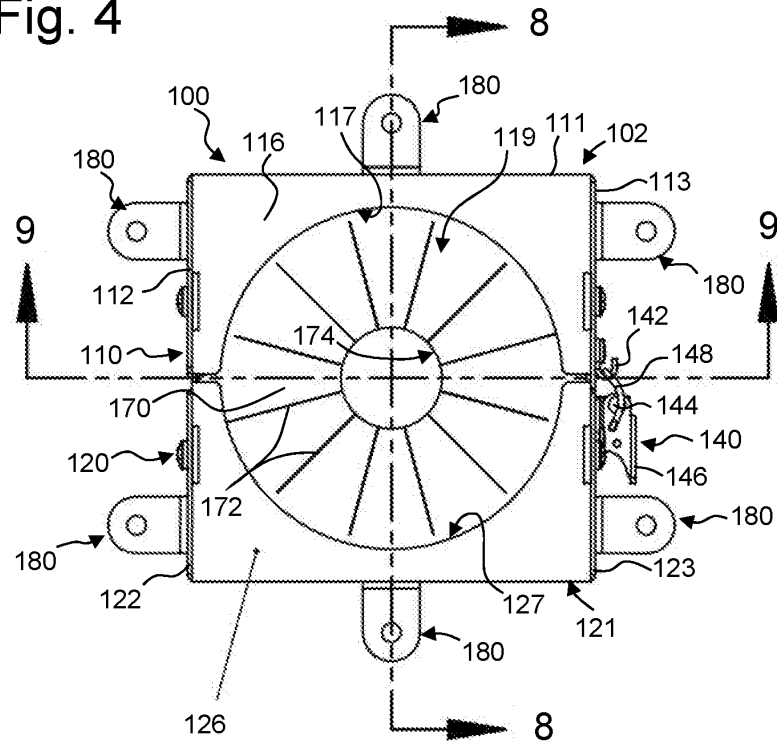


Fig. 5

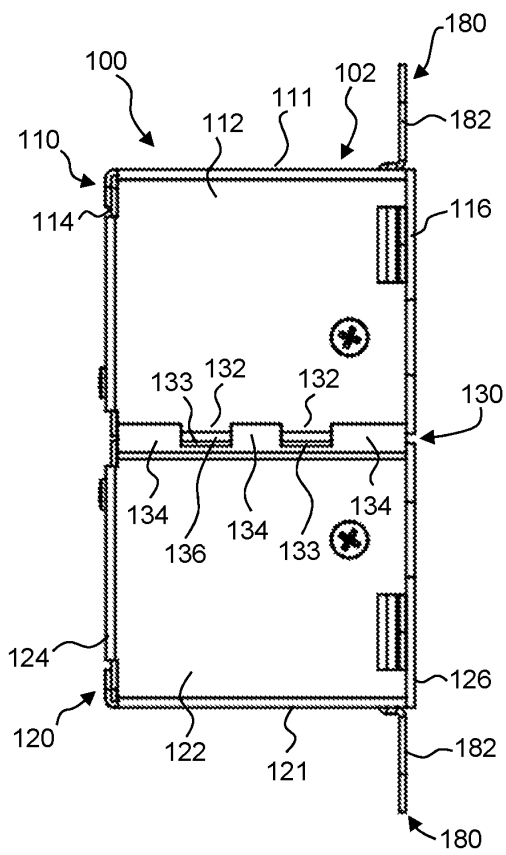


Fig. 6

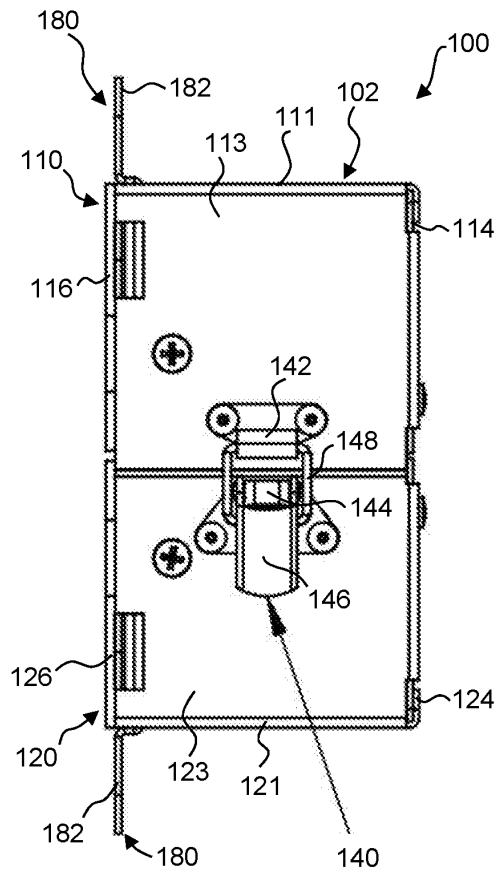


Fig. 7

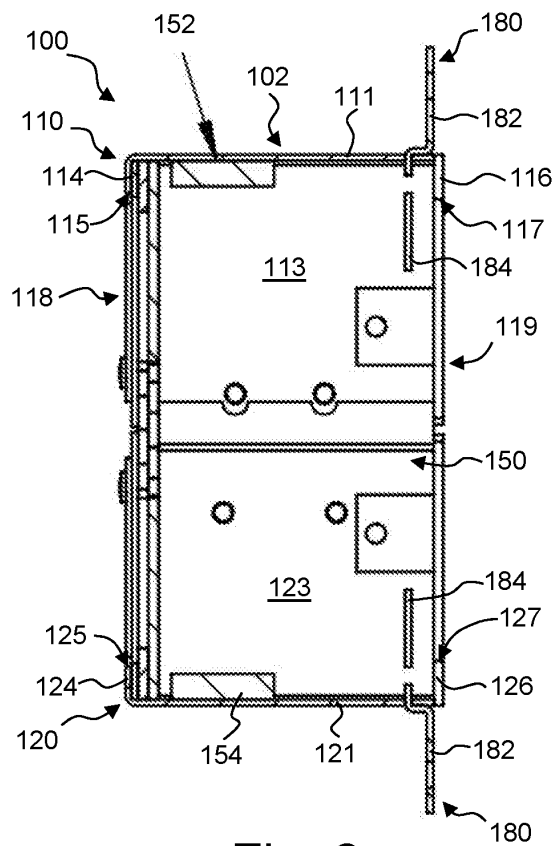


Fig. 8

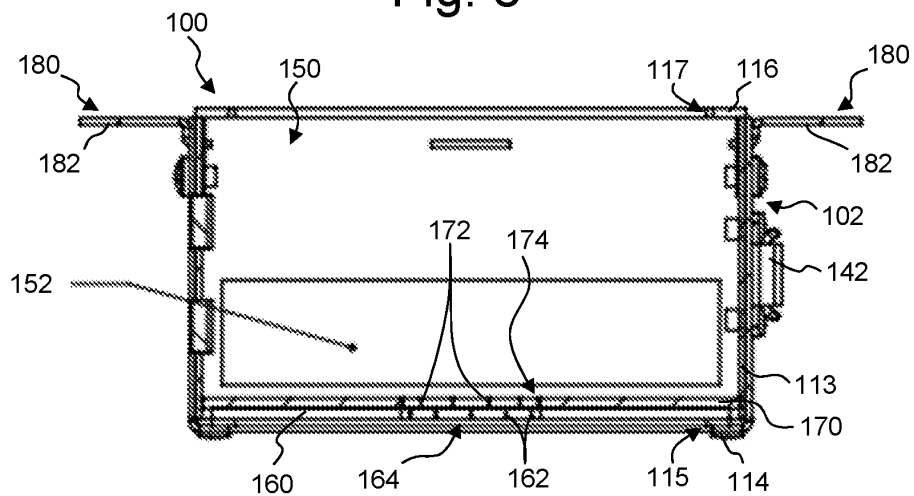


Fig. 9

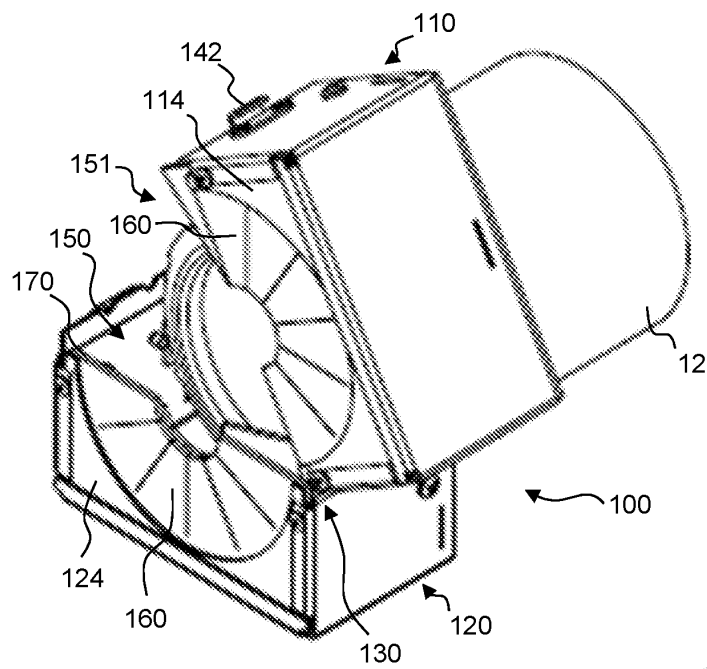


Fig. 10

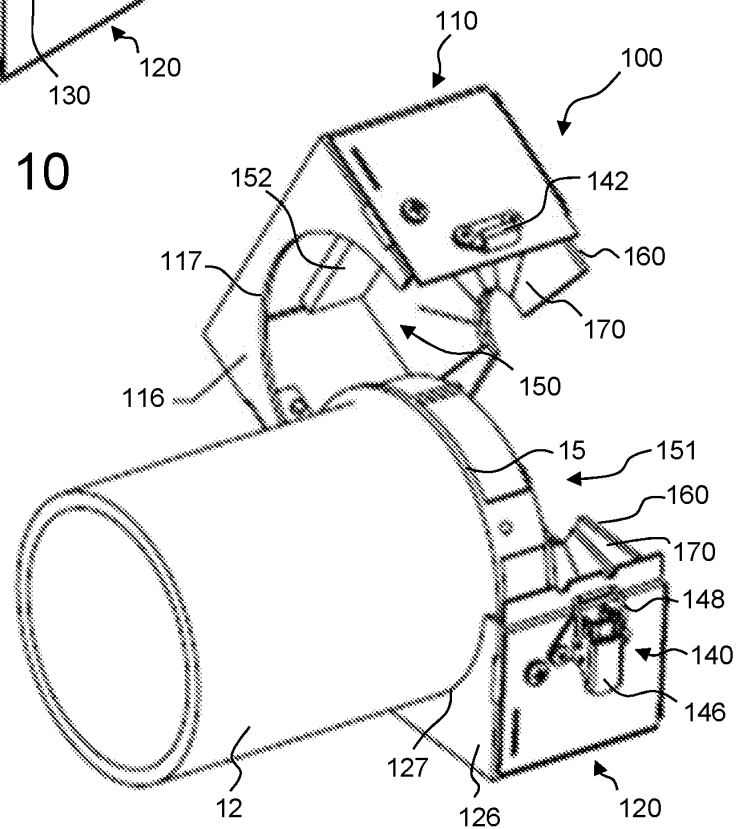


Fig. 11

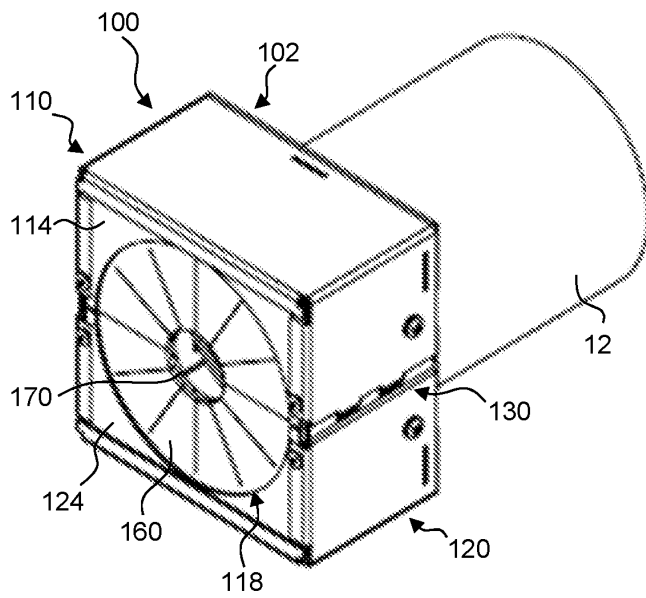


Fig. 12

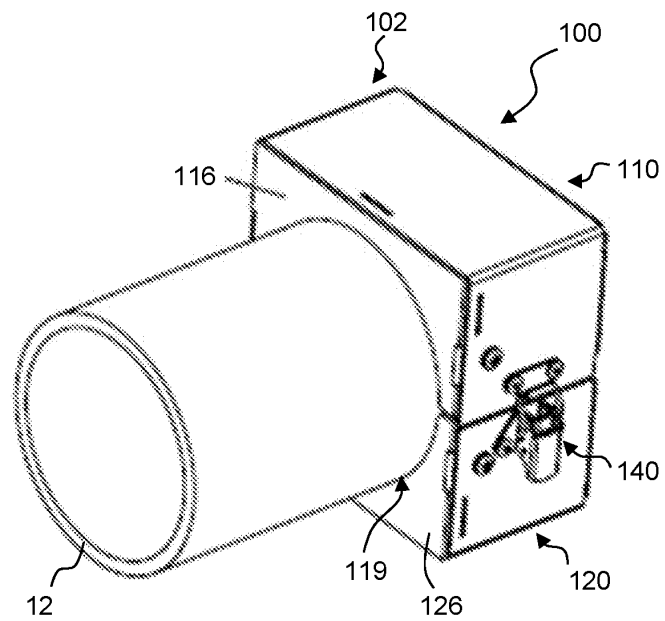


Fig. 13

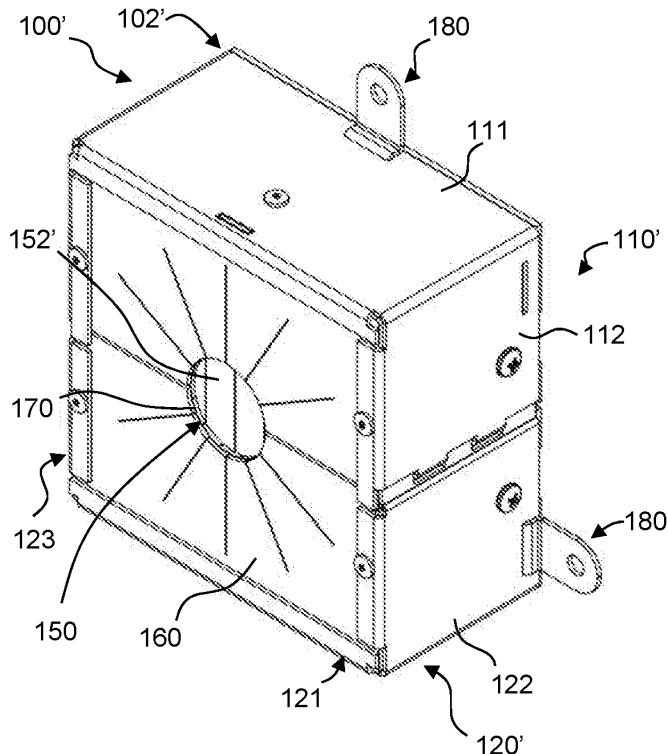


Fig. 14

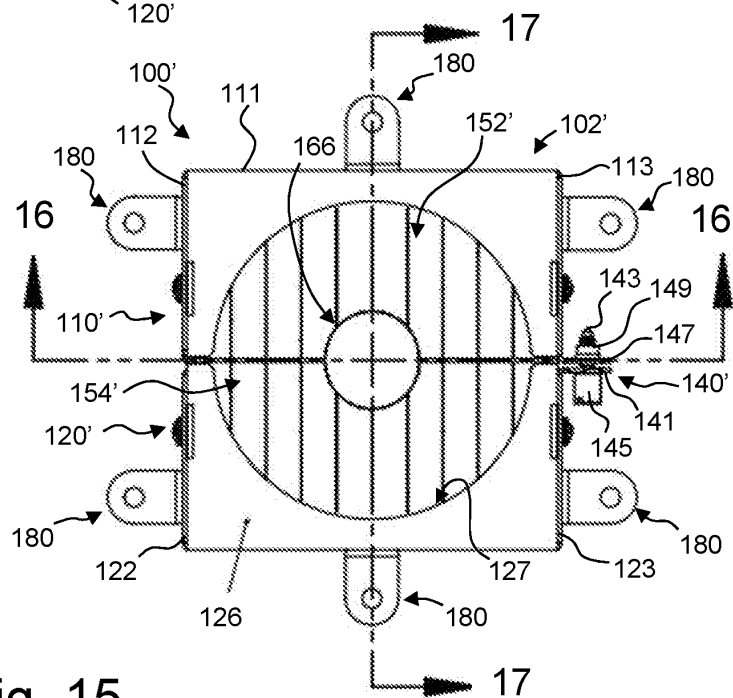


Fig. 15

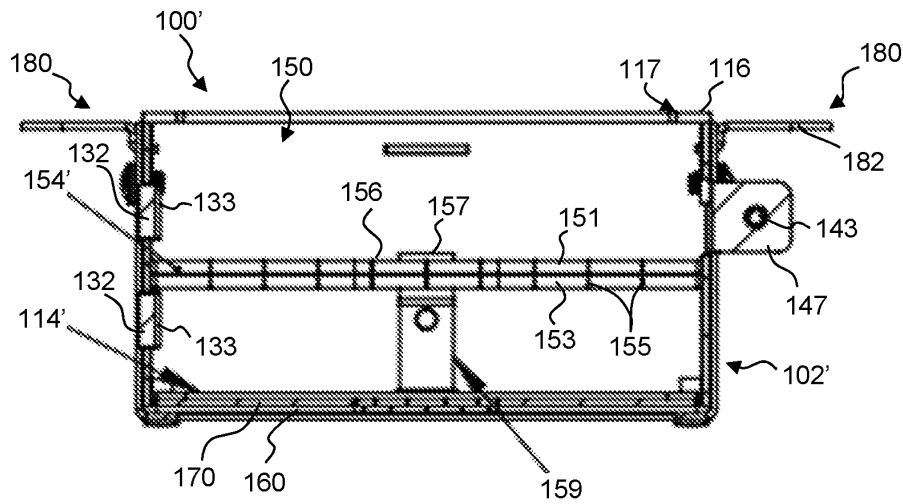


Fig. 16

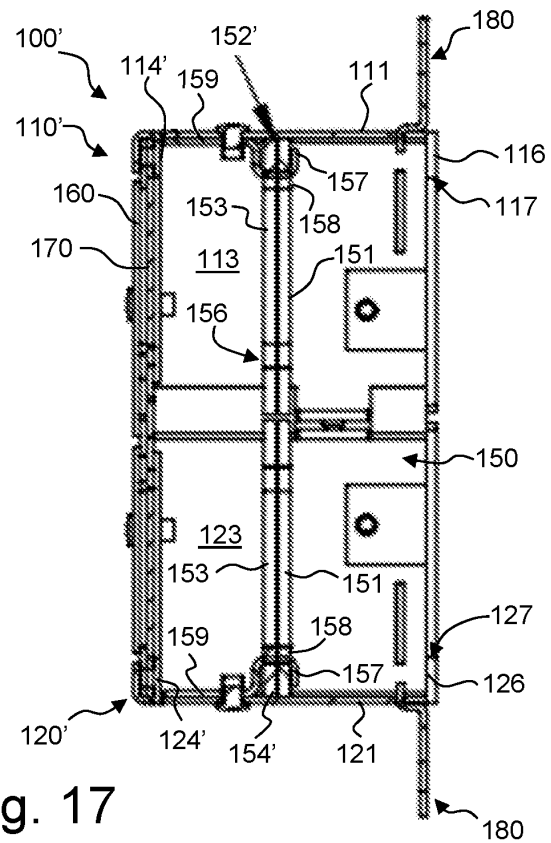


Fig. 17

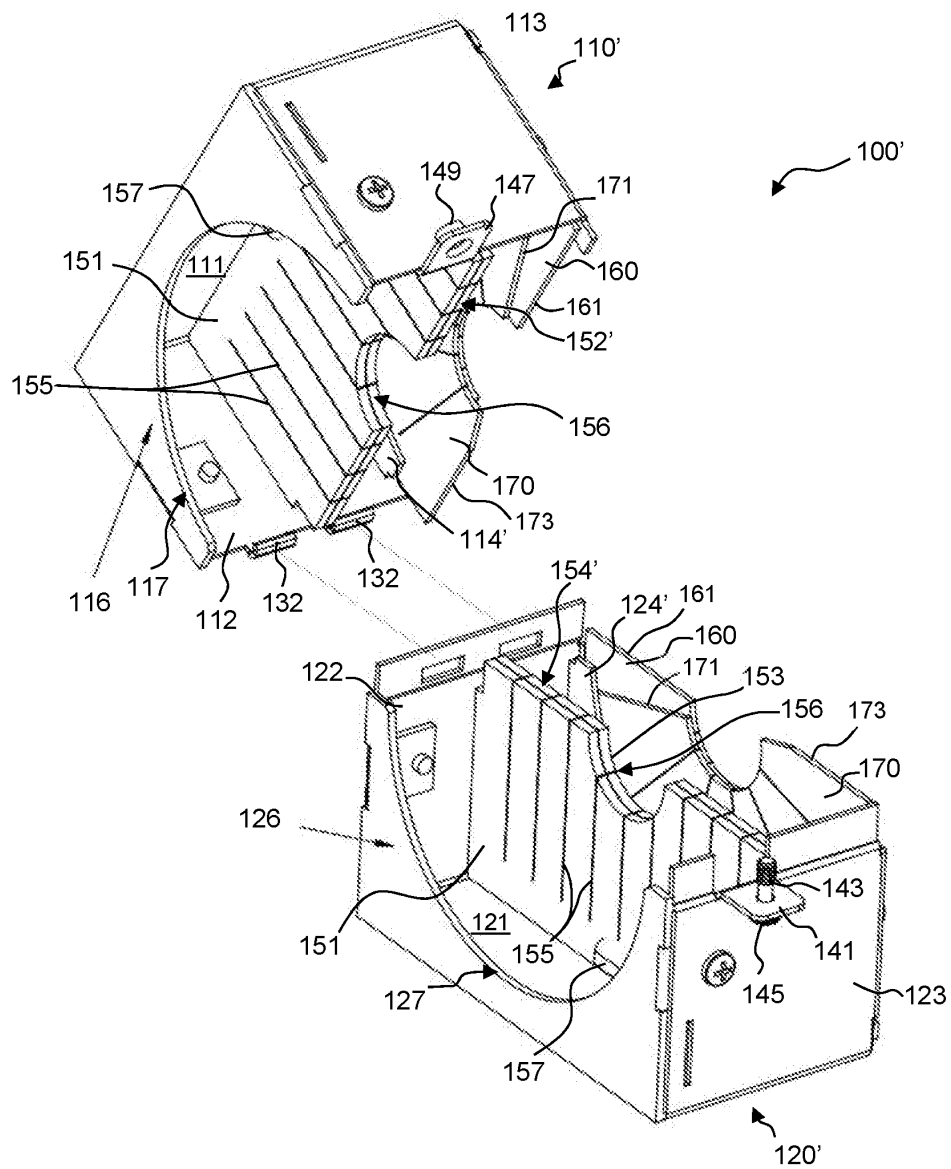


Fig. 18

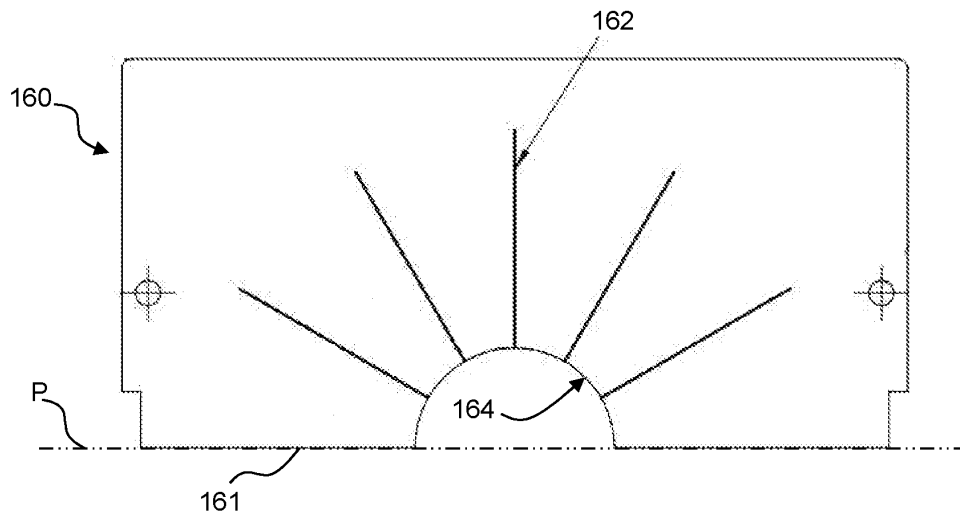


Fig. 19

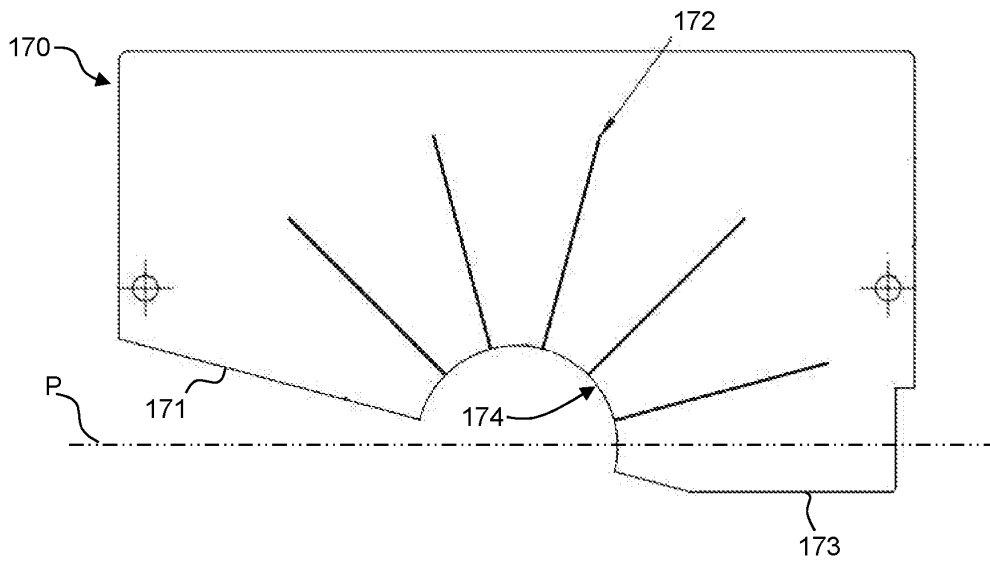


Fig. 20

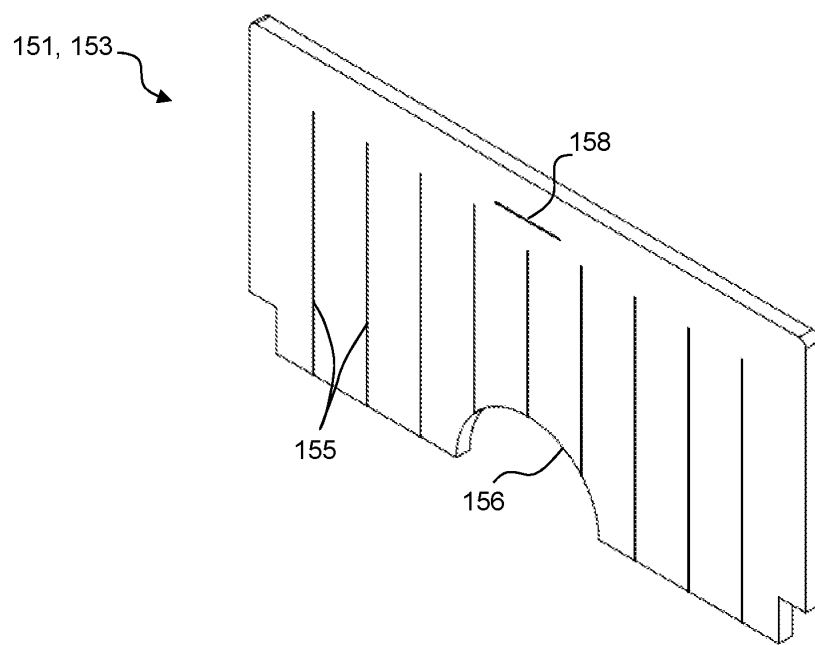


Fig. 21

Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		CABLE FIRESTOPPING APPARATUS		
First Named Inventor/Applicant Name:		Julio Lopes		
Filer:		Glenn M. Massina		
Attorney Docket Number:		STI-00160US		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
UTILITY FILING FEE (ELECTRONIC FILING)	4011	1	70	70
UTILITY SEARCH FEE	2111	1	300	300
UTILITY EXAMINATION FEE	2311	1	360	360
Pages:				
Claims:				
Miscellaneous-Filing:				
LATE FILING FEE FOR OATH OR DECLARATION	2051	1	70	70
Petition:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				800

Electronic Acknowledgement Receipt	
EFS ID:	29417723
Application Number:	15615885
International Application Number:	
Confirmation Number:	1055
Title of Invention:	CABLE FIRESTOPPING APPARATUS
First Named Inventor/Applicant Name:	Julio Lopes
Customer Number:	139939
Filer:	Glenn M. Massina
Filer Authorized By:	
Attorney Docket Number:	STI-00160US
Receipt Date:	07-JUN-2017
Filing Date:	
Time Stamp:	09:55:44
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$ 800
RAM confirmation Number	060717INTEFSW09564100
Deposit Account	600139
Authorized User	Glenn Massina
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.21 (Miscellaneous fees and charges)					
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	WebADS.pdf	129972	no	8
			4374ce5b197b5499cbdd821e9eaa6c474f742e66		
Warnings:					
Information:					
2		STI_00160US_Appln.pdf	120973	yes	17
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	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	12	
	Claims		13	16	
	Abstract		17	17	
Warnings:					
Information:					
3	Drawings-only black and white line drawings	STI_00160US_Figs.pdf	2828962	no	12
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Warnings:					
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4	Fee Worksheet (SB06)	fee-info.pdf	36444	no	2
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Information:					
Total Files Size (in bytes):			3116351		

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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.

SCORE Placeholder Sheet for IFW Content

Application Number: 15615885

Document Date: 06/07/2017

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.

- Drawings – Other than Black and White Line Drawings

Since this was an electronic submission, there is no physical artifact folder, no artifact folder is recorded in PALM, and no paper documents or physical media exist. The TIFF images in the IFW record were created from the original documents that are stored in SCORE.

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- Examiners may access SCORE content via the eDAN interface.
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