

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT4887981

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
DAVE SINGLE	03/22/2018
RECEIVING PARTY DATA	
Name:	JAC OPERATIONS, INC.
Street Address:	TWO NORTH RIVERSIDE PLAZA
Internal Address:	SUITE 1300
City:	CHICAGO
State/Country:	UNITED STATES
Postal Code:	60606
PROPERTY NUMBERS Total: 3	
Property Type	Number
Application Number:	15289466
Application Number:	61977753
PCT Number:	US2015025475
CORRESPONDENCE DATA	
Fax Number:	(724)934-5461
<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:	724-934-5450
Email:	patents@BLKLawGroup.com
Correspondent Name:	BLYNN L. SHIDELER THE BLK LAW GROUP
Address Line 1:	3500 BROKKTREE ROAD
Address Line 2:	SUITE 200
Address Line 4:	WEXFORD, PENNSYLVANIA 15090
ATTORNEY DOCKET NUMBER:	JAC-FCA-1301
NAME OF SUBMITTER:	CATHEIRNE BELLECI
SIGNATURE:	/Catherine Belleci/
DATE SIGNED:	03/28/2018
This document serves as an Oath/Declaration (37 CFR 1.63).	
Total Attachments: 1	

ASSIGNMENT

I. WHEREAS, I, Dave Single, Residing in Portage, County of Cambria, Commonwealth of Pennsylvania, have invented certain new and useful improvements in GONDOLA CAR CLEAN-OUT DOOR, described and claimed in United States Provisional Patent Application filed April 10, 2014 and bearing the United States Patent and Trademark number 61/977,753, and International PCT Patent Application filed April 10, 2015 and bearing the United States Patent and Trademark number PCT/US15/25475, and United States Regular Patent Application filed October 11, 2016 and bearing the United States Patent and Trademark number 14/15/289,466, (herein "said applications");

II. AND, WHEREAS JAC Operations, Inc., a corporation of Delaware, having a place of business at Two North Riverside Plaza, Suite 1300 Chicago, Illinois 60606 is desirous of acquiring the entire right, title, and interest in and to said trademarks and patents and patent applications.

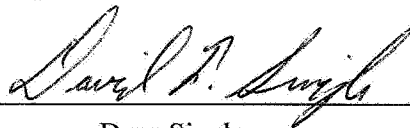
III. NOW, THEREFORE, for good and valuable consideration paid to me by said assignee, the receipt of which is hereby acknowledged, I do hereby assign, sell, transfer, and set over unto said assignee the entire right, title and interest in and to said applications and the inventions and improvements therein disclosed for the United States and all foreign countries and all regular applications claiming the benefit of said applications, divisions, reissues, continuations, continuations-in-part, renewals, and/or extensions thereof, said assignee to have and to hold the interests herein assigned to the full ends of the terms of said regular applications claiming the benefit of said applications and said divisions, reissues, continuations, continuations-in-part, renewals, and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by me had this assignment not been made.

IV. I covenant that I am the lawful owners of the said applications, inventions and improvements, that the same are unencumbered except as the undersigned might be otherwise obligated to the assignee, that no license has been granted to make, use, or sell the said inventions or improvements or any of them, and that I have the full right to make this assignment.

V. And for the consideration aforesaid, I agree jointly and individually that I will communicate to said assignee or the representatives thereof any facts known to me respecting said inventions and improvements, and will, upon request, but without expense to me, testify in any legal proceedings, sign all lawful papers, execute all regular, divisional, reissue, continuation, continuation-in-part, renewal, and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said assignee or by counsel for said assignee, to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned.

VI. I, the undersigned hereby assign my entire right, title and interest as set forth in sections I-V above.

This assignment shall be binding upon my heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the heirs, executors, administrators, successors, and/or assigns, as the case may be, of said assignee.



Dave Single

03-22-18

/Date



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

Table with 6 columns: APPLICATION NUMBER, FILING or 371(c) DATE, GRP ART UNIT, FIL FEE REC'D, ATTY,DOCKET,NO, TOT CLAIMS, IND CLAIMS. Row 1: 61/977,753, 04/10/2014, 260, FCA-1301

CONFIRMATION NO. 1089

FILING RECEIPT



36787
BLYNN L. SHIDELER
THE BLK LAW GROUP
3500 BROKKTREE ROAD
SUITE 200
WEXFORD, PA 15090

Date Mailed: 04/24/2014

Receipt is acknowledged of this provisional patent application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. 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)

Dave Single, Portage, PA;

Applicant(s)

FreightCar America, Inc., Johnstown, PA

Power of Attorney:

Blynn Shideler--35034

Permission to Access - A proper Authorization to Permit Access to Application by Participating Offices (PTO/SB/39 or its equivalent) has been received by the USPTO.

If Required, Foreign Filing License Granted: 04/24/2014

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is US 61/977,753

Projected Publication Date: None, application is not eligible for pre-grant publication

Non-Publication Request: No

Early Publication Request: No

Title

GONDOLA CAR CLEAN-OUT DOOR

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

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	FCA-1301
		Application Number	
Title of Invention	GONDOLA CAR CLEAN-OUT DOOR		
<p>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.</p>			

Secrecy Order 37 CFR 5.2

<input type="checkbox"/> Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)
--

Inventor Information:

Inventor 1					Remove	
Legal Name						
Prefix	Given Name	Middle Name	Family Name	Suffix		
	Dave		Single			
Residence Information (Select One) <input checked="" type="radio"/> US Residency <input type="radio"/> Non US Residency <input type="radio"/> Active US Military Service						
City	Portage	State/Province	PA	Country of Residence	US	
Mailing Address of Inventor:						
Address 1	127 Hemlock Drive					
Address 2						
City	Portage	State/Province	PA			
Postal Code	15946	Country	US			
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.						Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).			
<input type="checkbox"/> An Address is being provided for the correspondence information of this application.			
Customer Number	36787		
Email Address	blynn@BLKLawGroup.com	Add Email	Remove Email
Email Address	cbelleci@BLKLawGroup.com	Add Email	Remove Email

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	FCA-1301
	Application Number	
Title of Invention	GONDOLA CAR CLEAN-OUT DOOR	

Application Information:

Title of the Invention	GONDOLA CAR CLEAN-OUT DOOR		
Attorney Docket Number	FCA-1301	Small Entity Status Claimed	<input type="checkbox"/>
Application Type	Provisional		
Subject Matter	Utility		
Suggested Class (if any)		Sub Class (if any)	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)	4	Suggested Figure for Publication (if any)	

Publication Information:

<input type="checkbox"/>	Request Early Publication (Fee required at time of Request 37 CFR 1.219)
<input type="checkbox"/>	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:

<p>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.</p>			
Please Select One:	<input checked="" type="radio"/> Customer Number	<input type="radio"/> US Patent Practitioner	<input type="radio"/> Limited Recognition (37 CFR 11.9)
Customer Number	36787		

Domestic Benefit/National Stage Information:

<p>This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(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.</p>			
Prior Application Status			<input type="button" value="Remove"/>
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
<p>Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.</p>			<input type="button" value="Add"/>

Foreign Priority Information:

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	FCA-1301
	Application Number	
Title of Invention	GONDOLA CAR CLEAN-OUT DOOR	

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. 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(a).

			Remove
Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Priority Claimed
			<input checked="" type="radio"/> Yes <input type="radio"/> No
Additional Foreign Priority Data may be generated within this form by selecting the Add button.			Add

Authorization to Permit Access:

<input checked="" type="checkbox"/> Authorization to Permit Access to the Instant Application by the Participating Offices
<p>If 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 World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the instant patent application is filed access to the instant patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the instant patent application is filed to have access to the instant patent application.</p> <p>In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the instant patent application with respect to: 1) the instant patent application-as-filed; 2) any foreign application to which the instant patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the instant patent application; and 3) any U.S. application-as-filed from which benefit is sought in the instant patent application.</p> <p>In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing this Authorization.</p>

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.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	FCA-1301
	Application Number	
Title of Invention	GONDOLA CAR CLEAN-OUT DOOR	

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.

Remove

<input checked="" type="radio"/> Assignee	<input type="radio"/> Legal Representative under 35 U.S.C. 117
<input type="radio"/> Person to whom the inventor is obligated to assign.	<input type="radio"/> 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 Assignee is an Organization check here.

Organization Name

Mailing Address Information:

Address 1	17 Johnstown Street		
Address 2			
City	Johnstown	State/Province	PA
Country i		Postal Code	15901
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button.

Add

Signature:

Remove

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

Signature	/Blynn L. Shideler/		Date (YYYY-MM-DD)	2014-04-10	
First Name	Blynn L.	Last Name	Shideler	Registration Number	35034

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	FCA-1301
	Application Number	
Title of Invention	GONDOLA CAR CLEAN-OUT DOOR	

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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

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

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

GONDOLA CAR CLEAN-OUT DOOR

RELATED APPLICATIONS

[0001] This application claims priority to United States patent application Ser. No. {REDACTED} filed {REDACTED}, entitled "Gondola Car Clean-Out Door" which application is incorporated herein by reference in its entirety.

BACKGROUND INFORMATION

[0002] 1. Field of the invention

[0003] The present invention relates to a railcar cleanout door, particularly a gondola railcar cleanout door.

[0004] 2. Background Information

[0005] In the railroad arts, rolling stock comprises all vehicles that move on a railway. A gondola railcar, or simply gondola, is an open-top type of rolling stock that is used for carrying loose bulk materials. As one described background on the seemingly oddly named railcar, prior to the proliferation of rail transport in America a significant amount of coal was shipped via flat boats that were termed "gondolas," generally in satirical reference to the famous Venetian rowing boats. With the advancement of rail transport, the railroad cars first employed in the haulage of coal were thus named after these shallow-draft "gondola" boats and called "gondola cars". In the second half of the 20th century, coal haulage shifted from open hopper cars to high-sided gondolas. Using a gondola, the railroads are able to haul a larger amount of coal per car. For examples of gondola cars see U.S. Patents 4,212,252; 4,361,097; 4,911,082; 5,253,593; 5,335,603; 5,488,912; 5,813,353; 6,148,735; 6,978,720; 8,132,515; 8,240,256, which patents are incorporated herein by reference.

[0006] It is common for aggregate gondola cars to have multiple clean-out doors, also called access doors, built into the side structure for removing small amounts of residual material from the car and/or to wash out the railcar interior. The clean out/wash out can be particularly important if the car is changing from hauling one type of lading to another. Car maintenance is another reason for requiring a thorough removal of residual lading. Typically the cleanout doors are simply hatches or doors that close against the floor of the gondola railcar, examples of which can be

seen in U.S. Patents 2,681,470; 2,722,899; 7,434,519; 7,461,600; 7,559,284; 7,757,611; 7,878,125, which patents are also incorporated herein by reference. Some of these prior art constructions fail to provide sufficient access to the railcar interior, while others provide structure that is difficult to open or is insufficiently robust to withstand the working environment or lifespan of components expected for gondola railcars.

[0007] It is an object of the present invention to address these deficiencies of the existing prior art.

SUMMARY OF THE INVENTION

[0008] This invention is directed to a cost effective, efficient, gondola railcar cleanout door that overcomes at least some of the drawbacks of the existing designs.

[0009] One aspect of the present invention provides a gondola railcar cleanout door is configured to be coupled to a side plate of a gondola car adjacent a floor of the gondola car wherein the side plate has an opening therein and the floor has an opening therein. The gondola railcar cleanout door includes a frame mountable to the side plate structure of the gondola railcar, adjacent the opening in the side plate structure; and a door assembly coupled to the frame and moveable between an open position in which the opening in the floor and the opening in the side plate may be used to clean out the interior of the gondola rail car, and a closed position substantially closing the opening in the side plate and the opening in the floor, wherein the door assembly includes a door side wall member configured to substantially close the opening in the side plate in the closed position and a door floor member configured to substantially close the opening in the floor in the closed position.

[0010] One aspect of the present invention provides a gondola railcar comprising a railcar body including a side plate and a floor, wherein the side plate has at least one opening therein and the floor has at least one opening therein and one side plate opening and one floor opening combine to form at least one clean out opening for the railcar; and at least one cleanout door configured to be coupled to the side plate of a gondola railcar body adjacent the floor of the gondola car at each clean out opening, wherein the gondola railcar cleanout door includes: i) a frame mountable to the side plate structure of the gondola railcar, adjacent the opening in the side plate

structure; and ii) a door assembly coupled to the frame and moveable between an open position in which the opening in the floor and the opening in the side plate may be used to clean out the interior of the gondola rail car, and a closed position substantially closing the opening in the side plate and the opening in the floor, wherein the door assembly includes a door side wall member configured to substantially close the opening in the side plate in the closed position and a door floor member configured to substantially close the opening in the floor in the closed position.

[0011] One aspect of the present invention provides a method of retrofitting a gondola railcar with at least one clean out opening comprising the steps of: A) providing one opening in the sidewall and an associated opening in the floor for each clean out opening, wherein the side plate opening and floor opening combine to form the clean out opening for the railcar; and B) coupling one cleanout door to the side plate of a gondola railcar body adjacent the floor of the gondola car at each clean out opening, wherein the gondola railcar cleanout door includes: i) a frame mountable to the side plate structure of the gondola railcar, adjacent the opening in the side plate structure; and ii) a door assembly coupled to the frame and moveable between an open position in which the opening in the floor and the opening in the side plate may be used to clean out the interior of the gondola rail car, and a closed position substantially closing the opening in the side plate and the opening in the floor, wherein the door assembly includes a door side wall member configured to substantially close the opening in the side plate in the closed position and a door floor member configured to substantially close the opening in the floor in the closed position.

[0012] These and other aspects of the present invention will be clarified in the description of the preferred embodiment of the present invention described below in connection with the attached figures in which like reference numerals represent like elements throughout.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] Figure 1 is a perspective schematic view of a Gondola Railcar Cleanout Door according to one embodiment of the present invention;

[0014] Figure 2 is a end view of the Gondola Railcar Cleanout Door according to Figure 1;

[0015] Figure 3 is a side elevation view of the Gondola Railcar Cleanout Door according to Figure 1; and

[0016] Figure 4 is schematic end view of the Gondola Railcar Cleanout Door according to Figure 1 on a gondola car shown partially in section.

BRIEF DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0017] This invention is directed to a cost effective, efficient, Gondola Railcar Cleanout Door 10 that overcomes at least some of the drawbacks of the existing door designs.

[0018] One embodiment of the present invention is shown in figures 1-4 and provides a gondola railcar comprising a railcar body including a side plate 30 (also called a side wall), shown schematically in figure 4, and a floor 32. As shown the side plate 30 has at least one opening therein and the floor 32 has at least one opening therein and the side plate opening and the floor opening combine to form a clean out opening 34 for the railcar. The details of the construction of the gondola railcar and railcar body are well known in the art as represented in the above cited patents which are incorporated herein by reference. Additional reference is made to gondola car construction provided by the assignee of the present invention.

[0019] The present invention provides one cleanout door 10 configured to be coupled to the side plate 30 of a gondola railcar body adjacent the floor 32 of the gondola car at each clean out opening 34.

[0020] The gondola railcar cleanout door 10 includes a frame 12 mountable to the side plate 30 structure of the gondola railcar, adjacent the opening in the side plate 30 that is forming part of the clean out opening 34. The frame 12 may be coupled to the side plate 30 with fasteners or welding or other conventional methods.

[0021] The clean out door 10 includes a door assembly coupled to the frame 12, as discussed below. The door assembly is moveable between an open position in which the clean out opening 34, formed by the opening in the floor 32 and the opening in the side plate 30, may be used to clean out the interior of the gondola rail car, and a closed position substantially closing the clean out opening 34 by closing both the opening in the side plate and the opening in the floor.

[0022] The frame 12 includes a pair of rail members 14 extending generally vertically and configured to guide the door assembly for movement between the open and closed position. A slot 16 extends in each rail member 14 for guiding the door assembly for movement between the open and closed position. Each rail member further includes a notch 18 configured to support the door assembly in the open position.

[0023] The door assembly includes a door side wall member 20 configured to substantially close the opening in the side plate 30 with the door assembly in the closed position. The door assembly includes a pair of spaced bars 22 coupled to the door side wall member 20 and the bars 22 are received in each rail member slot 16 guiding the door assembly for movement between the open and closed position. Additionally the upper bar 22 may be positioned in the notch 18 with the door assembly in the open position to support the door assembly in the open position. The door assembly includes a pair of handle members 26 coupled to the door assembly to allow easy manual movement of the door assembly. The guide bars 22 and handle members 26 may be welded to the door side wall member 20.

[0024] The door assembly includes a door floor member 28 configured to substantially close the opening in the floor 30 with the door assembly in the closed position in the closed position. The door floor member 28 may be welded to the door side wall member 20. The gondola railcar cleanout door 10 preferably provides that the door floor member 28 is substantially aligned with the floor 32 when the door assembly is in the closed position as shown in figure 4. The gondola railcar cleanout door 10 according to embodiment shown provides that the door floor member 28 extends inwardly of the door side wall member 20 toward the interior of the railcar. Further as shown, the door side wall member 20 is substantially parallel with the side plate 30.

[0025] The size of the opening 34 can be altered easily via altering the size of the opening in the floor 32 and providing an appropriately sized door floor member 28. Additionally the door floor member 28 may be provided with a drain hole for allowing liquid to seep out of the lading. If desired, sealing members (e.g. rubber gasket) can be provided around the edge of the door floor member 28 and the inward face of the door side wall member 20 to provide a tight seal in the closed position. If desired a latching mechanism (and locking) may be provided to keep the door assembly in the

closed position and to avoid tampering. However even without such additions, the formation of the door assembly will serve to maintain the door assembly properly closed when lading is present as the weight of the lading on the door floor 28 will act to hold it closed.

[0026] The formation of the cleanout opening 34 in the side wall structure (plate 30) and the floor 32 allows for a greater access of tools into the interior than is provided with similar sized wall only openings. The formation of the cleanout opening 34 as shown also provides increased visibility for inspecting the cleanout operation than with prior clean out opening construction, all without substantially increasing the size. The height of the cleanout opening will typically be less than 6" along the side plate 30.

[0027] The present invention is also easily retrofitted to existing gondola railcars, both those that have existing clean out doors and those that do not. The method of retrofitting a gondola railcar with at least one clean out opening 34 comprises the steps of: providing one opening in the sidewall and an associated opening in the floor for each clean out opening 34, wherein the side plate opening and floor opening combine to form the clean out opening 34 for the railcar. For railcars having a cleanout opening in the side this step is merely forming the floor opening. The second step is coupling one cleanout door 10 to the side plate 30 of a gondola railcar body adjacent the floor 32 of the gondola car at each clean out opening.

[0028] It is apparent that many variations to the present invention may be made without departing from the spirit and scope of the invention. The present invention is defined by the appended claims and equivalents thereto.

What is claimed is:

1. A gondola railcar cleanout door configured to be coupled to a side plate of a gondola car adjacent a floor of the gondola car wherein the side plate has an opening therein and the floor has an opening therein, wherein the gondola railcar cleanout door comprises:

- A) A frame mountable to the side plate structure of the gondola railcar, adjacent the opening in the side plate structure;
- B) A door assembly coupled to the frame and moveable between an open position in which the opening in the floor and the opening in the side plate may be used to clean out the interior of the gondola rail car, and a closed position substantially closing the opening in the side plate and the opening in the floor, wherein the door assembly includes a door side wall member configured to substantially close the opening in the side plate in the closed position and a door floor member configured to substantially close the opening in the floor in the closed position.

2. The gondola railcar cleanout door according to claim 1 wherein the frame includes a pair of rail members configured to guide the door assembly for movement between the open and closed position.

3. The gondola railcar cleanout door according to claim 2 further including a slot extending in each rail member and wherein the door assembly includes at least one bar coupled to the door side wall member and received in each rail member slot.

4. The gondola railcar cleanout door according to claim 3 wherein each rail member includes a notch configured to receive at least one bar and support the door assembly in the open position.

5. The gondola railcar cleanout door according to claim 3 wherein two spaced bars are coupled to the door side wall member.

6. The gondola railcar cleanout door according to claim 3 further including at least one handle member coupled to the door assembly.

7. The gondola railcar cleanout door according to claim 3 wherein the door floor member is substantially aligned with the floor when the door is in the closed position.

8. The gondola railcar cleanout door according to claim 3 wherein the door side wall member is substantially parallel with the side plate.

9. The gondola railcar cleanout door according to claim 3 wherein the door floor member extends inwardly of the door side wall member toward the interior of the railcar.

10. A gondola railcar comprising

- A) A railcar body including a side plate and a floor, wherein the side plate has at least one opening therein and the floor has at least one opening therein and one side plate opening and one floor opening combine to form at least one clean out opening for the railcar; and
- B) At least one cleanout door configured to be coupled to the side plate of a gondola railcar body adjacent the floor of the gondola car at each clean out opening, wherein the gondola railcar cleanout door includes:
 - i. A frame mountable to the side plate structure of the gondola railcar, adjacent the opening in the side plate structure; and
 - ii. a door assembly coupled to the frame and moveable between an open position in which the opening in the floor and the opening in the side plate may be used to clean out the interior of the gondola rail car, and a closed position substantially closing the opening in the side plate and the opening in the floor, wherein the door assembly includes a door side wall member configured to substantially close the opening in the

side plate in the closed position and a door floor member configured to substantially close the opening in the floor in the closed position.

11. The gondola railcar according to claim 10 wherein the frame of each clean out door includes a pair of rail members configured to guide the door assembly for movement between the open and closed position.

12. The gondola railcar according to claim 11 wherein each clean out door further includes a slot extending in each rail member and wherein the door assembly includes at least one bar coupled to the door side wall member and received in each rail member slot.

13. The gondola railcar according to claim 12 wherein each rail member of each clean out door includes a notch configured to receive at least one bar and support the door assembly in the open position.

14. The gondola railcar according to claim 12 wherein each clean out door includes two spaced bars coupled to the door side wall member.

15. The gondola railcar according to claim 12 wherein each clean out door further includes at least one handle member coupled to the door assembly.

16. The gondola railcar according to claim 12 wherein each clean out door is configured wherein the door floor member is substantially aligned with the floor when the door assembly is in the closed position.

17. The gondola railcar according to claim 12 wherein the door side wall member of each clean out door is substantially parallel with the side plate.

18. The gondola railcar according to claim 12 wherein the door floor member of each clean out door extends inwardly of the door side wall member toward the interior of the railcar.

19. A method of retrofitting a gondola railcar with at least one clean out opening comprising the steps of:

providing one opening in the sidewall and an associated opening in the floor for each clean out opening, wherein the side plate opening and floor opening combine to form the clean out opening for the railcar; and

coupling one cleanout door to the side plate of a gondola railcar body adjacent the floor of the gondola car at each clean out opening, wherein the gondola railcar cleanout door includes:

- i. A frame mountable to the side plate structure of the gondola railcar, adjacent the opening in the side plate structure; and
- ii. a door assembly coupled to the frame and moveable between an open position in which the opening in the floor and the opening in the side plate may be used to clean out the interior of the gondola rail car, and a closed position substantially closing the opening in the side plate and the opening in the floor, wherein the door assembly includes a door side wall member configured to substantially close the opening in the side plate in the closed position and a door floor member configured to substantially close the opening in the floor in the closed position.

20. The method according to claim 19 wherein the door floor member of each clean out door extends inwardly of the door side wall member toward the interior of the railcar.

GONDOLA CAR CLEAN-OUT DOOR

ABSTRACT

A gondola railcar cleanout door is configured to be coupled to a side plate of a gondola car adjacent a floor of the gondola car wherein the side plate has an opening therein and the floor has an opening therein. The gondola railcar cleanout door includes a frame mountable to the side plate structure of the gondola railcar, adjacent the opening in the side plate structure; and a door assembly coupled to the frame and moveable between an open position in which the opening in the floor and the opening in the side plate may be used to clean out the interior of the gondola rail car, and a closed position substantially closing the opening in the side plate and the opening in the floor, wherein the door assembly includes a door side wall member configured to substantially close the opening in the side plate in the closed position and a door floor member configured to substantially close the opening in the floor in the closed position.

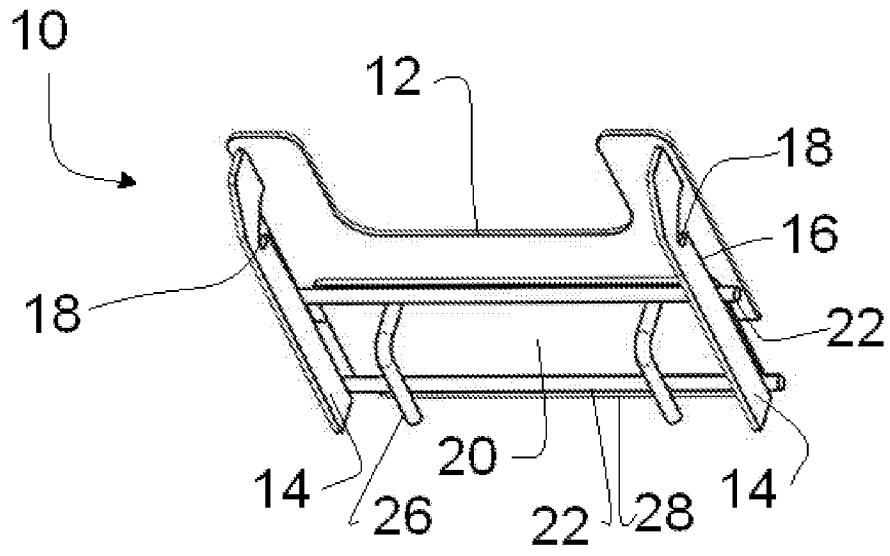
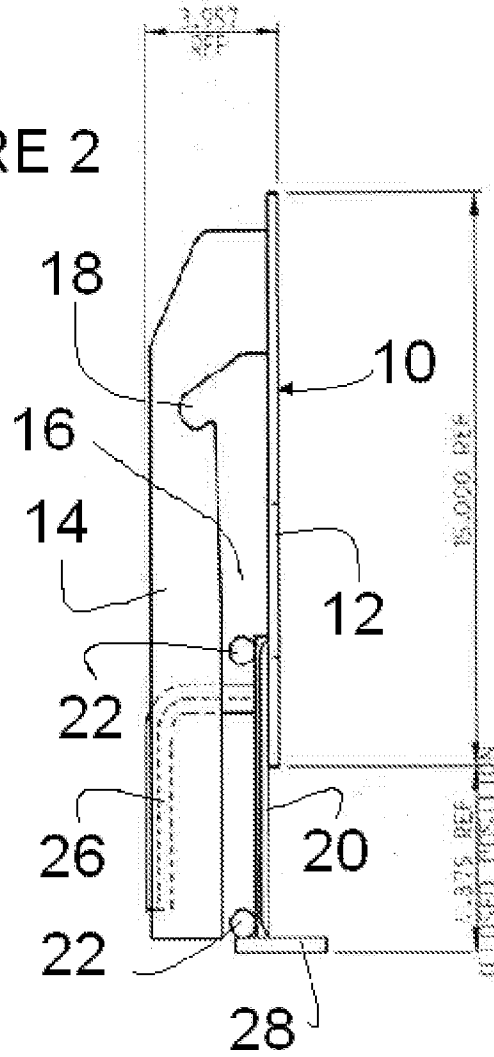
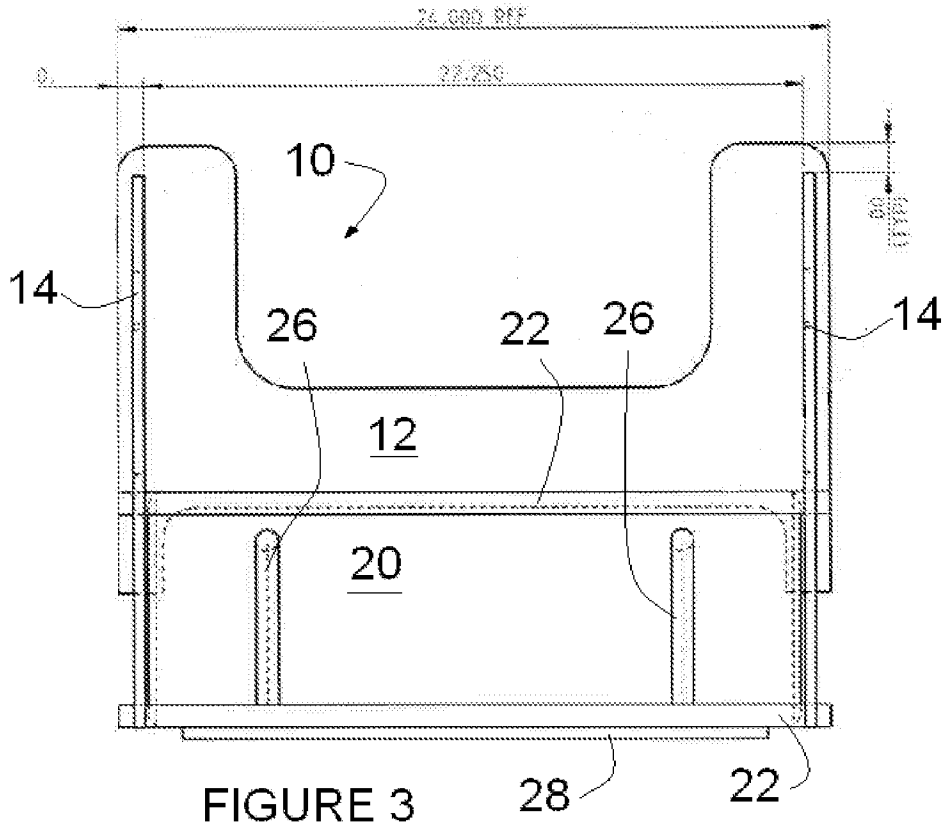
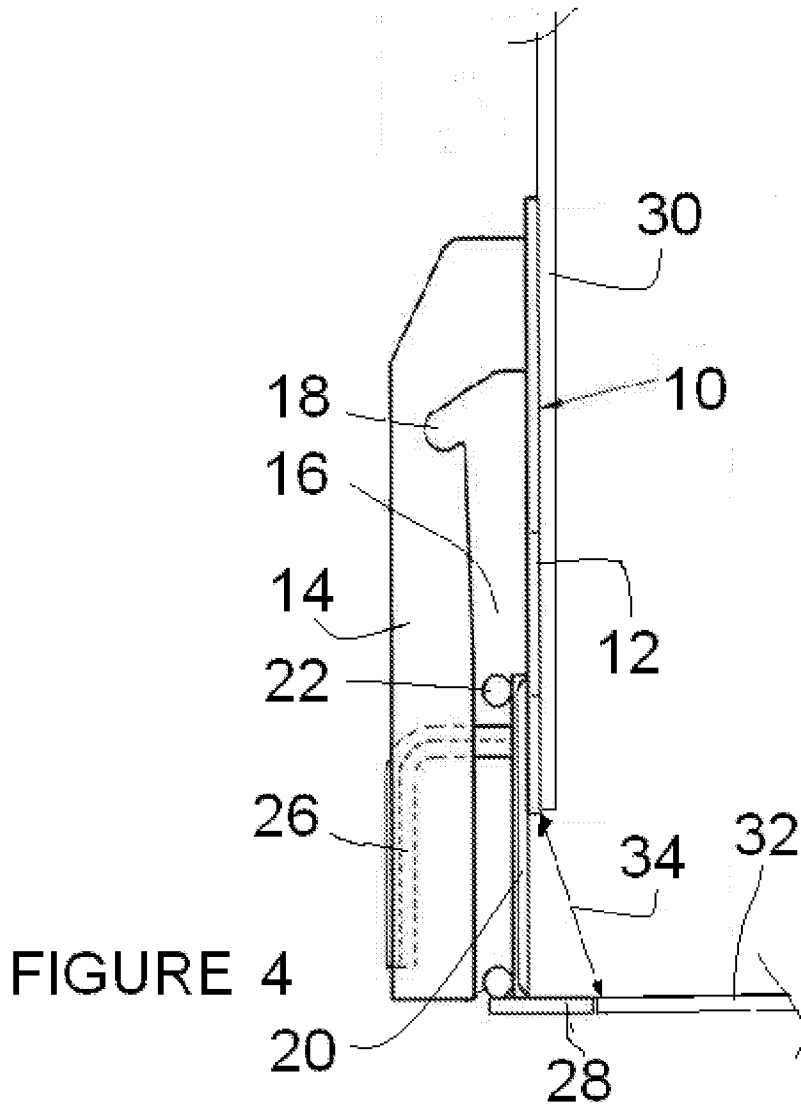


FIGURE 1

FIGURE 2







Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	GONDOLA CAR CLEAN-OUT DOOR
First Named Inventor/Applicant Name:	Dave Single
Filer:	Blynn L. Shideler/Catherine Belleci
Attorney Docket Number:	FCA-1301

Filed as Large Entity

Provisional Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Provisional Application Filing	1005	1	260	260

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(\$)
Miscellaneous:				
Total in USD (\$)				260

Electronic Acknowledgement Receipt

EFS ID:	18725986
Application Number:	61977753
International Application Number:	
Confirmation Number:	1089
Title of Invention:	GONDOLA CAR CLEAN-OUT DOOR
First Named Inventor/Applicant Name:	Dave Single
Customer Number:	36787
Filer:	Blynn L. Shideler/Catherine Belleci
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RAM confirmation Number	10914
Deposit Account	502800
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File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	aia0014.pdf	869814 80352574cd418b3b5f3f5b7508b7a0cdb6134898	no	6
Warnings:					
Information:					
2	Specification	GONDOLACARCLEANOUTDOOR RI_Provisional.pdf	253897 e8df010e3e0f0b39bd9c8eb0eef83fed4a6dd03a	no	15
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	29226 89276c4cda1a7bac95f9e68e3a63a615b0ba7931	no	2
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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

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