PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4110947

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DANIAL RICE	08/18/2016
CHARLES L. WOLF	08/22/2016
ALAN LAURENCE CORTIE	08/22/2016
PAUL GERARD BENDER	08/22/2016

RECEIVING PARTY DATA

Name:	WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION
Street Address:	1001 AIR BRAKE AVENUE
City:	WILMERDING
State/Country:	PENNSYLVANIA
Postal Code:	15148

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15240429

CORRESPONDENCE DATA

Fax Number: (412)471-4094

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.

Phone: 412-471-8815

Email: assignments@webblaw.com
Correspondent Name: THE WEBB LAW FIRM

Address Line 1: ONE GATEWAY CENTER, 420 FT DUQUESNE BLVD

Address Line 2: STE 1200

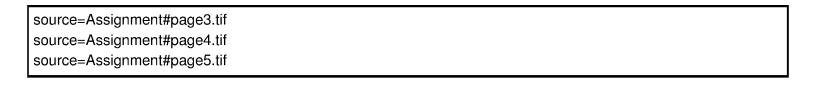
Address Line 4: PITTSBURGH, PENNSYLVANIA 15222

ATTORNEY DOCKET NUMBER:	4293-1602525
NAME OF SUBMITTER:	NATHAN J. PREPELKA
SIGNATURE:	/Nathan J. Prepelka/
DATE SIGNED:	10/24/2016

Total Attachments: 5

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PATENT 504064281 REEL: 040105 FRAME: 0569



PATENT REEL: 040105 FRAME: 0570

RECORDATION FORM COVER SHEET	
PATENTS ONLY	
To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.	
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)
Danial Rice Charles L. Wolf	Name: Westinghouse Air Brake Technologies Corporation
Alan Laurence Cortie	Internal Address:
Paul Gerard Bender	
Additional name(s) of conveying party(ies) attached? Yes V No	·
3. Nature of conveyance/Execution Date(s):	Street Address: 1001 Air Brake Avenue
Execution Date(s) 08/18/2016; 08/22/2016 Assignment Merger	
Security Agreement Change of Name	City: Wilmerding
Joint Research Agreement	State: PA
Government Interest Assignment	
Executive Order 9424, Confirmatory License	Country: US Zip: 15148
Other	Additional name(s) & address(es) attached? ☐ Yes ✔ No
4. Application or patent number(s):	document serves as an Oath/Declaration (37 CFR 1.63).
A. Patent Application No.(s)	B. Patent No.(s)
15/240,429	
Additional numbers at	ached? ☐ Yes ✔ No
5. Name and address to whom correspondence	6. Total number of applications and patents
concerning document should be mailed:	involved: 1
Name:	7. Total fee (37 CFR 1.21(h) & 3.41) \$0
Internal Address: The Webb Law Firm	
	Authorized to be charged to deposit account
Street Address: One Gateway Center	Enclosed
420 Ft. Duquesne Blvd., Ste 1200	None required (government interest not affecting title)
City: Pittsburgh	8. Payment Information
State: PA Zip: 15222	
Phone Number: 412-471-8815	Deposit Account Number
Docket Number: 4293 - 1602525	Authorized User Name
Email Address: assignments@webblaw.com	
9. Signature:	October 24, 2016
Signature	Date
Nathan J. Prepelka Name of Person Signing	Total number of pages including cover sheet, attachments, and documents: 5
	t) should be faxed to (571) 273-0140, or mailed to:
	f the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

PATENT REEL: 040105 FRAME: 0571

Attorney Docket No. <u>4293-1602525</u>

ASSIGNMENT

WHEREAS, as a below named inventor, I have invented certain new and useful
improvements in
REDUNDANT METHOD OF CONFIRMING AN ECP PENALTY
(Invention Title)
for which a United States Provisional Patent application was filed on(mm/dd/yyyy) and bears Application Number (hereinafter "said application"). AND/OR
for which I have this day executed an application for a United States Patent (hereinafter "said application"). AND/OR
X for which an application for a United States Patent was filed on <u>08/18/2016</u> (mm/dd/yyyy) and bears Application Number <u>15/240,429</u> (hereinafter "said application"). AND/OR
for which an international patent application was filed under the Patent Cooperation Treaty on(mm/dd/yyyy), bearing Application No (hereinafter "said application").
AND, WHEREAS, WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION, a corporation of Delaware, having a place of business at 1001 Air Brake Avenue, Wilmerding, PA 15148, hereinafter called the "assignee", is desirous of acquiring the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed.
NOW, THEREFORE, for good and valuable consideration paid to me by said assignee, the receipt of which is hereby acknowledged, I as the inventor or as one of the inventors, hereinafter the assignor(s), do hereby assign, sell and transfer unto said assignee the full and exclusive right, title and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, continuations-in-part, renewals and/or extensions thereof. Such assignment extends to the full ends of the terms of these applications and patents as fully and entirely as the same would have been held and enjoyed by me had this Assignment not been made.
I covenant that I am the lawful owner(s) of said application, inventions and improvements, that the same are unencumbered, that no license has been granted to make, use or vend the said inventions or improvements or any of them, and that I have the full right to make this Assignment.

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3GV7511.DOCX

DOMESTIC Application No. <u>15/240,429</u>

Attorney Docket No. <u>4293-1602525</u>

And for the consideration aforesaid, I agree individually and, if applicable, jointly 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 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. 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.

1. FULL NAME OF ASSIGNOR:	RESIDENCE:
Danial Rice	Frederick, MD
EXECUTED this 18 day of August	_,2016
STATE of maryland	SIGNATURE
COUNTY of monteamery	
a notary public, personally appeared	year 2016, before me maria wishringale, NOTARY PUBLIC NAME Danial Rice NAME OF DOCUMENT SIGNER be the person whose name is subscribed to this instrument,
I certify under Penalty of Perjury under the law that the foregoing paragraph is true and correc	ws of the State of MARY/An 2
and consequently to true and confec	Witness my hand and official seal.
	Notary Public
	in the state of th
	MARIA NIGHTINGALE NOTARY PUBLIC STATE OF MARYLAND My Commission Expires March 11, 2017

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Checked Box indicates 2 additional page(s) for inventor signatures.

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DOMESTIC Application No. <u>15/240,429</u>

Attorney Docket No. <u>4293-1602525</u>

2. FULL NAME OF ASSIGNOR: Charles L. Wolf	RESIDENCE: Olney, MD
EXECUTED this 22 day of August	.2016 Club & holy
STATE of makyland	SIGNATURE
COUNTY of mongo mosy	
On this and day of august, in the	year 206, before me MARIA NIP STINPOLO
a notary public, personally appeared	YEAR NOTARY PUBLIC NAME Charles L. Wolf
proved on the basis of satisfactory evidence to and acknowledged he/she executed the same.	NAME OF DOCUMENT SIGNER be the person whose name is subscribed to this instrument,
I certify under Penalty of Perjury under the la	ws of the State of MALY/ANE
that the foregoing paragraph is true and correct	
	Witness my hand and official seal.
	NOTARY PUBLIC
	MARIA NIGHTINGALE S NOTARY PUBLIC STATE OF MARYLANDE My Commission Expires March 11, 2017
The property of the second second	The Late of Control of the Control of Contro
3. FULL NAME OF ASSIGNOR: Alan Laurence Cortie	RESIDENCE: Baltimore, MD
EXECUTED this day of August	_, 2016
STATE of MARAGERA	SIGNATURE
STATE of marylend	
COUNTY of montes meny	
On this DAY day of MONTH, in the	year 36/1, before me MALA WIPHTIPE IC
a notary public, personally appeared	Alan Laurence Cortie ,
proved on the basis of satisfactory evidence to and acknowledged he/she executed the same.	NAME OF DOCUMENT SIGNER be the person whose name is subscribed to this instrument,
I certify under Penalty of Perjury under the la that the foregoing paragraph is true and correc	ws of the State of
	Witness my hand and official seal.
	manno
	NOTARY PUBLIC
	MARIA NIGHTINGALE A NOTARY PUBLIC STATE OF MARYLANDL My Commission Expires Merch 11, 2017

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DOMESTIC Application No. <u>15/240,429</u>

Attorney Docket No. <u>4293-1602525</u>

4. FULL NAME OF ASSIGNOR: Paul Gerard Bender	RESIDENCE: Clarksburg, MD
EXECUTED this and day of Augu ST	, 2016 Parksoning, WID
STATE of maryland	SIGNATURE
COUNTY of mont somery	•
On this day of houst, in the y	rear 30/6, before me maria nightingale YEAR NOTARY PUBLIC NAME
a notary public, personally appeared	Paul Gerard Bender
proved on the basis of satisfactory evidence to b and acknowledged he/she executed the same.	NAME OF DOCUMENT SIGNER e the person whose name is subscribed to this instrument,
I certify under Penalty of Perjury under the law that the foregoing paragraph is true and correct	rs of the State of masyland
Franchis and State of the Control	Witness my hand and official seal.
	ma m w
	NOTARY PUBLIC
	MARIA NIGHTINGALE NOTARY PUBLIC STATE OF MARYLAND My Commission Expires March 11, 2017

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RECORDED: 10/24/2016

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