

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6875909

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
TAKASHI HATTORI	07/21/2021
YASUYUKI MIYAZAKI	07/26/2021
YOSHITAKA ONO	07/21/2021
RECEIVING PARTY DATA	
Name:	MITSUBISHI ELECTRIC CORPORATION
Street Address:	7-3, MARUNOUCHI 2-CHOME
City:	CHIYODA-KU, TOKYO
State/Country:	JAPAN
Postal Code:	100-8310
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17432771
CORRESPONDENCE DATA	
Fax Number:	(703)836-7419
<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:	7038366620
Email:	beverly.caraway@bipc.com
Correspondent Name:	BUCHANAN INGERSOLL & ROONEY P.C.
Address Line 1:	1737 KING STREET, SUITE 500
Address Line 4:	ALEXANDRIA, VIRGINIA 22314-2727
ATTORNEY DOCKET NUMBER:	0077270-000162
NAME OF SUBMITTER:	BEVERLY A. CARAWAY
SIGNATURE:	/Beverly A. Caraway/
DATE SIGNED:	08/20/2021
Total Attachments: 6 source=ASG#page1.tif source=ASG#page2.tif source=ASG#page3.tif source=ASG#page4.tif	

source=ASG#page5.tif
source=ASG#page6.tif

COMBINED DECLARATION AND ASSIGNMENT

AIR-CONDITIONING CONTROL SYSTEM FOR RAILROAD VEHICLE
Title of Invention

As the below named inventor, I hereby declare that this Combined Declaration and Assignment is directed to:

- (1) ☒ U.S. application number or PCT application number PCT/JP2019/018274
filed on May 7, 2019; or
- (2) ☐ the attached application.

DECLARATION

As the below named inventor, I further declare that:

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor of a claimed invention in the application.

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

I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

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

ASSIGNMENT

THIS ASSIGNMENT, by the undersigned inventor (hereinafter referred to as "the Assignor"), respectively, witnesseth:

WHEREAS, the Assignor has invented certain new and useful improvements set forth in the application for Letters Patent of the United States identified above;

WHEREAS, Mitsubishi Electric Corporation, a corporation duly organized under and pursuant to the laws of Japan and having a principal place of business at 7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8310 Japan (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made;

AND for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignor is the sole and lawful owner of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns that the Assignor will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignor hereby requests the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and benefit of the Assignee, its successors, legal representatives, and assigns.

July 21, 2021
Date

Takashi HATTORI
Name

/Takashi Hattori/
Signature

COMBINED DECLARATION AND ASSIGNMENT

AIR-CONDITIONING CONTROL SYSTEM FOR RAILROAD VEHICLE
Title of Invention

As the below named inventor, I hereby declare that this Combined Declaration and Assignment is directed to:

- (1) ☒ U.S. application number or PCT application number PCT/JP2019/018274
filed on May 7, 2019; or
- (2) ☐ the attached application.

DECLARATION

As the below named inventor, I further declare that:

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor of a claimed invention in the application.

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

I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

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

ASSIGNMENT

THIS ASSIGNMENT, by the undersigned inventor (hereinafter referred to as "the Assignor"), respectively, witnesseth:

WHEREAS, the Assignor has invented certain new and useful improvements set forth in the application for Letters Patent of the United States identified above;

WHEREAS, Mitsubishi Electric Corporation, a corporation duly organized under and pursuant to the laws of Japan and having a principal place of business at 7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8310 Japan (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made;

AND for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignor is the sole and lawful owner of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns that the Assignor will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignor hereby requests the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and benefit of the Assignee, its successors, legal representatives, and assigns.

July 26, 2021
Date

Yasuyuki MIYAZAKI
Name

/Yasuyuki Miyazaki/
Signature

COMBINED DECLARATION AND ASSIGNMENT

AIR-CONDITIONING CONTROL SYSTEM FOR RAILROAD VEHICLE
Title of Invention

As the below named inventor, I hereby declare that this Combined Declaration and Assignment is directed to:

- (1) ☒ U.S. application number or PCT application number PCT/JP2019/018274
filed on May 7, 2019; or
- (2) ☐ the attached application.

DECLARATION

As the below named inventor, I further declare that:

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor of a claimed invention in the application.

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

I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

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

ASSIGNMENT

THIS ASSIGNMENT, by the undersigned inventor (hereinafter referred to as "the Assignor"), respectively, witnesseth:

WHEREAS, the Assignor has invented certain new and useful improvements set forth in the application for Letters Patent of the United States identified above;

WHEREAS, Mitsubishi Electric Corporation, a corporation duly organized under and pursuant to the laws of Japan and having a principal place of business at 7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8310 Japan (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made;

AND for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignor is the sole and lawful owner of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns that the Assignor will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignor hereby requests the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and benefit of the Assignee, its successors, legal representatives, and assigns.

July 21, 2021
Date

Yoshitaka ONO
Name

/Yoshitaka Ono/
Signature