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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4166577

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SHIGERU MATSUO	08/22/2016
NORIYASU HASEJIMA	08/22/2016
KENICHIROU KURATA	09/05/2016

RECEIVING PARTY DATA

Name:	HITACHI, LTD.
Street Address:	6-6, MARUNOUCHI 1-CHOME
City:	CHIYODA-KU, TOKYO
State/Country:	JAPAN

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15315415

CORRESPONDENCE DATA

Fax Number: (202)628-8844

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: 2026242500

Email: elawson@crowell.com

Correspondent Name: CROWELL & MORING LLP

Address Line 1: 1001 PENNSYLVANIA AVENUE, N.W.

Address Line 4: WASHINGTON, D.C. 20004

ATTORNEY DOCKET NUMBER:	056204.69648US
NAME OF SUBMITTER:	MICHAEL H. JACOBS
SIGNATURE:	/Michael H. Jacobs/
DATE SIGNED:	12/02/2016

Total Attachments: 3

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PATENT 504119907 REEL: 040492 FRAME: 0124

ASSIGNMENT

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by Hitachi, Ltd., a corporation organized under the laws of Japan,

located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan

receipt of which is hereby acknowledged I do hereby sell and assign to said. Hitachi, Ltd.,

its successors and assigns, all my right, titte and interest, in and for the United States of America, in and to

OUTSIDE RECOGNITION DEVICE

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said Hitachi, Ltd.,

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-inpart, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd.,

Signed on the date(s) indicated aside our signatures:

INVENTOR(S) (発明者フルネームサイン)		Date Signed (署名日)		
1) Shige	y Matsuo Shigeru Matsuo	8/22/2016		
2)	Noriyasu Hasejima			
3)	Kenichirou Kurata			
4)		****		
5)	·			
6)				
7)				
8)				
9)	·			
40)				

PATENT REEL: 040492 FRAME: 0125

ASSIGNMENT

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by Hitachi, Ltd., a corporation organized under the laws of Japan, located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi, Ltd., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

OUTSIDE RECOGNITION DEVICE

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said Hitachi, Ltd.,

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd.,

Signed on the date(s) indicated aside our signatures:

NVENTOR(S) (発明者フルネームサイン)		Date Signed (署名日)		
1)	Shigeru Matsuo	_		
2)	Noriyasu Hasejima Noriyasu Hasejima	_	8/22	/2016
3)	Kenichirou Kurata	_		
4)		_		· ua-apri
5)		_		
6)		-		
7)		_		
8)		_		
9)		-		

PATENT REEL: 040492 FRAME: 0126

ASSIGNMENT (譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by Hitachi, Ltd., a corporation organized under the laws of Japan,

located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan

receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi, Ltd.,

its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

OUTSIDE RECOGNITION DEVICE

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said Hitachi, Ltd.,

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd.,

Signed on the date(s) indicated aside our signatures:

	INVENTOR(S) (発明者フルネームサイン)	Date Signed (署名日)		
1)_	Shigeru Matsuo	7/5/2016.		
2)_	Noriyasu Hasejima			
	Kenishinou Kurata Kenichirou Kurata	9/5/2016		
6)_				
7)_				
8)_				
9)_				
10)_				

PATENT REEL: 040492 FRAME: 0127

RECORDED: 12/02/2016