504897771 05/03/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TAKESHI OHMORI	03/27/2018
HYAKKA NAKADA	03/27/2018
MASAYOSHI ISHIKAWA	03/27/2018
MASARU KURIHARA	03/27/2018

RECEIVING PARTY DATA

Name:	e: HITACHI LTD.	
Street Address: 6-6, MARUNOUCHI 1-CHOME		
Internal Address: CHIYODA-KU		
City:	TOKYO	
State/Country:	JAPAN	
Postal Code:	100-8280	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15934362

CORRESPONDENCE DATA

Fax Number: (215)568-6499

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.

Email:lhennessey@vklaw.comCorrespondent Name:VOLPE AND KOENIG P.C.Address Line 1:30 SOUTH 17TH STREET

Address Line 2: SUITE 1800

Address Line 4: PHILADELPHIA, PENNSYLVANIA 19103

ATTORNEY DOCKET NUMBER:	HITACHI3-341700315US01
NAME OF SUBMITTER:	GERALD B. HALT, JR.
SIGNATURE:	/Gerald B. Halt, Jr./
DATE SIGNED:	05/03/2018

Total Attachments: 4

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(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

RETRIEVAL APPARATUS AND RETRIEVAL METHOD

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)	Takeshi Ohmori	Takeshi OHMORI	March 27, 2018	
2)		Hyakka NAKADA		
3)_		Masayoshi ISHIKAWA		
4)	t	Masaru KURIHARA		
5)				
6)				
7)_				
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1)_			Takeshi OHMORI	
2)	Hyafka	Nafrada	Hyakka NAKADA	3/27/2018.
3)		-	Masayoshi ISHIKAWA	
4)	****	Market and a state of the state	Masaru KURIHARA	
5) :				
6)		****		
7)	*******************************			
8)				
9)_				
10)				

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1)	Takeshi OHMORI	
2)	Hyakka NAKADA	
3)	Muzayozhi dzhikumasayoshi ISHIKAWA	March 27, 201
4)	Masaru KURIHARA	
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(発明者フルネームサイン)	(署名日)

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2)		Hyakka NAKADA	
3)		Masayoshi ISHIKAWA	
4)	Masaru Kurihara	Masaru KURIHARA	March 27, 2018
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PATENT REEL: 045705 FRAME: 0049

Date Signed

RECORDED: 05/03/2018