### 505143315 10/16/2018

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
MAKOTO FUKUSHIMA	03/30/2015
HOZUMI YASUDA	03/30/2015
KEISUKE NAMIKI	03/30/2015
OSAMU NABEYA	03/30/2015
SHINGO TOGASHI	03/30/2015
SATORU YAMAKI	03/30/2015
SHINTARO ISONO	03/30/2015

### RECEIVING PARTY DATA

Name:	EBARA CORPORATION
Street Address:	11-1, HANEDA ASAHI-CHO, OHTA-KU
City:	TOKYO
State/Country:	JAPAN

### **PROPERTY NUMBERS Total: 1**

Property Type	Number	
Application Number:	15402703	

## **CORRESPONDENCE DATA**

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using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Email: Assignments@bakerlaw.com **BAKER & HOSTETLER LLP Correspondent Name:** 

Address Line 1: 2929 ARCH STREET

Address Line 2: CIRA CENTRE, 12TH FLOOR

Address Line 4: PHILADELPHIA, PENNSYLVANIA 19104-2891

ATTORNEY DOCKET NUMBER: 101716.000146 **DEBORAH WHIPPLE** NAME OF SUBMITTER: **SIGNATURE:** /Deborah Whipple/ **DATE SIGNED:** 10/16/2018

**PATENT** REEL: 047176 FRAME: 0551 505143315

# Total Attachments: 14 source=ASSIGNMENT#page1.tif source=ASSIGNMENT#page3.tif source=ASSIGNMENT#page3.tif source=ASSIGNMENT#page4.tif source=ASSIGNMENT#page5.tif source=ASSIGNMENT#page6.tif source=ASSIGNMENT#page7.tif source=ASSIGNMENT#page8.tif source=ASSIGNMENT#page9.tif source=ASSIGNMENT#page9.tif source=ASSIGNMENT#page10.tif source=ASSIGNMENT#page11.tif source=ASSIGNMENT#page12.tif source=ASSIGNMENT#page13.tif source=ASSIGNMENT#page13.tif

PATENT REEL: 047176 FRAME: 0552

## **ASSIGNMENT**

WHEREAS, I, Makoto FUKUSHIMA, a citizen of Japan, residing at c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, Japan, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number 101716.000103 ("the invention"), which is entitled "ELASTIC MEMBRANE, SUBSTRATE HOLDING APPARATUS, AND POLISHING APPARATUS" ("the subject application"), and which claims priority to Japanese patent application number 2014-066999 filed March 27, 2014 ("the priority application"). I authorize and direct any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

AND WHEREAS, EBARA CORPORATION, ASSIGNEE, having a place of business at 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, Japan, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

AND I HEREBY covenant and agree that I have full right to convey my entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature.

, ,			_
Executed this 30th	day ofMarch	, year of2015	
Makato Infu Signature (Makoto FUK	TISHIMA)		
•	********	********	******
STATEMENT OF WI			
(City)	(Country	y)	
This day of	, 201		
I,		whose full	
residence address is			
was personally present day of person described in suc	and did see, 201, and such h document.	execute the above assignor is personally kn	assignment on the
Signature of Witness			
**********	**********	**************************************	*****
The foregoing assignmed March 25, 2015.	ent covers patent application	number 14/668,844	, filed on
	/Michael J. Swop		
	Name of Attorney:		

Date of Insertion:

## **ASSIGNMENT**

WHEREAS, I, Hozumi YASUDA, a citizen of Japan, residing at c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, Japan, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number 101716.000103 ("the invention"), which is entitled "ELASTIC MEMBRANE, SUBSTRATE HOLDING APPARATUS, AND POLISHING APPARATUS" ("the subject application"), and which claims priority to Japanese patent application number 2014-066999 filed March 27, 2014 ("the priority application"). I authorize and direct any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

AND WHEREAS, EBARA CORPORATION, ASSIGNEE, having a place of business at 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, Japan, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

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the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature. Executed this 30th day of March, year of 2015. STATEMENT OF WITNESS SIGNED at \_\_\_\_\_ (Country) (City) This \_\_\_\_\_, 201\_\_\_. I, \_\_\_\_\_ whose full residence address is was personally present and did see \_\_\_\_\_\_ execute the above assignment on the \_\_\_\_\_ day of \_\_\_\_\_\_, 201\_\_, and such assignor is personally known to me to be the person described in such document. Signature of Witness \* The foregoing assignment covers patent application number 14/668,844, filed on March 25, 2015 .

/Michael J. Swope/

Name of Attorney:

Michael J. Swope

Registration No.:

38,041

Date of Insertion: April 7, 2015

### **ASSIGNMENT**

WHEREAS, I, Keisuke NAMIKI, a citizen of Japan, residing at c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, Japan, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number 101716.000103 ("the invention"), which is entitled "ELASTIC MEMBRANE, SUBSTRATE HOLDING APPARATUS, AND POLISHING APPARATUS" ("the subject application"), and which claims priority to Japanese patent application number 2014-066999 filed March 27, 2014 ("the priority application"). I authorize and direct any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

AND WHEREAS, EBARA CORPORATION, ASSIGNEE, having a place of business at 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, Japan, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

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the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature.

Executed this	30 <del>+</del> h	dov. of	March	veer of 2	015	
Executed this	3041	_day or	Parci	, year or _2	<del>013</del> .	
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(City)			(Countr	y)		
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was personally day of person described	present and	did see, 20 ument.	1, and such	execute a assignor is pe	the above a	essignment on the
Signature of Wi	tness			•		
*****	*******	******	********	*******	******	*******
The foregoing a March 25, 20		vers pate	ent application	n number14/	<sup>/</sup> 668,844	_, filed on
		/Mic	chael J. Sw	ope/	•	
		Name o	f Attorney:	Michael J. S	Swope	

Date of Insertion:

### **ASSIGNMENT**

WHEREAS, I, Osamu NABEYA, a citizen of Japan, residing at c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, Japan, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number 101716.000103 ("the invention"), which is entitled "ELASTIC MEMBRANE, SUBSTRATE HOLDING APPARATUS, AND POLISHING APPARATUS" ("the subject application"), and which claims priority to Japanese patent application number 2014-066999 filed March 27, 2014 ("the priority application"). I authorize and direct any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

AND WHEREAS, EBARA CORPORATION, ASSIGNEE, having a place of business at 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, Japan, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

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the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY my signature.	WHEREOF, I have	e signed my na	ame below	on the date	e indicated above
Executed this 30th	day of <u>Mar</u>	<u>ch</u> , ye	ar of <u>20</u>	<u>15</u> .	
Osamu Wabeya Signature (Osamu NABE	4			·	
Signature (Osamu NÁBE *********	EYA) :*********	*****	*****	*****	******
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(City)	(	Country)			
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I,			whose fu	ıll	
residence address is					
was personally present day of person described in such					
Signature of Witness	19 La California de California	·			
· *********	******	*****	*****	*****	*****
The foregoing assignment March 25, 2015	nt covers patent app	lication numbe	er <u>14/66</u>	8,844	_, filed on
		J. Swope/			<u>.                                    </u>
	Name of Attor Registration N Date of Inserti	o.: 38,	chael J. Swo ,041 ril 7, 2015	ope	

## **ASSIGNMENT**

WHEREAS, I, Shingo TOGASHI, a citizen of Japan, residing at c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, Japan, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number 101716.000103 ("the invention"), which is entitled "ELASTIC MEMBRANE, SUBSTRATE HOLDING APPARATUS, AND POLISHING APPARATUS" ("the subject application"), and which claims priority to Japanese patent application number 2014-066999 filed March 27, 2014 ("the priority application"). I authorize and direct any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

AND WHEREAS, EBARA CORPORATION, ASSIGNEE, having a place of business at 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, Japan, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

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IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature. Executed this 30th day of March , year of 2015 . \* STATEMENT OF WITNESS SIGNED at (Country) (City) This day of \_\_\_\_\_\_\_, 201\_\_\_. residence address is\_\_\_\_\_ was personally present and did see \_\_\_\_\_\_ execute the above assignment on the \_\_\_\_\_ day of \_\_\_\_\_\_, 201\_\_, and such assignor is personally known to me to be the person described in such document. Signature of Witness \* The foregoing assignment covers patent application number 14/668,844, filed on March 25, 2015 . /Michael J. Swope/ Michael J. Swope

Name of Attorney:

Registration No.:

38,041

Date of Insertion:

## **ASSIGNMENT**

WHEREAS, I, Satoru YAMAKI, a citizen of Japan, residing at c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, Japan, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number 101716.000103 ("the invention"), which is entitled "ELASTIC MEMBRANE, SUBSTRATE HOLDING APPARATUS, AND POLISHING APPARATUS" ("the subject application"), and which claims priority to Japanese patent application number 2014-066999 filed March 27, 2014 ("the priority application"). I authorize and direct any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

AND WHEREAS, EBARA CORPORATION, ASSIGNEE, having a place of business at 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, Japan, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

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IN TESTIM my signature.	ONY WHEREOF, I have sign	ned my name below on the c	late indicated above
	hday ofMarch	, year of2015	
Sortoru	Yomaki	. **	
Signature (Satoru Y		********	******
STATEMENT OF SIGNED at	WITNESS		·
(City)	(Cour	ntry)	
This day of _	, 201		
I,		whose full	
	sent and did see, 201, and su		e assignment on the
person described in	such document.	_	to the to be the
Signature of Witne	SS		
*****	**********	********	********
The foregoing assig March 25, 2015	gnment covers patent applicat	ion number <u>14/668,844</u>	, filed on
	/Michael J. S	wope/	•
	Name of Attorney: Registration No.: Date of Insertion:	Michael J. Swope 38,041 April 7, 2015	

Page 2 of 2

### **ASSIGNMENT**

WHEREAS, I, Shintaro ISONO, a citizen of Japan, residing at c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, Japan, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number 101716.000103 ("the invention"), which is entitled "ELASTIC MEMBRANE, SUBSTRATE HOLDING APPARATUS, AND POLISHING APPARATUS" ("the subject application"), and which claims priority to Japanese patent application number 2014-066999 filed March 27, 2014 ("the priority application"). I authorize and direct any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

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IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature. Executed this 30th day of March, year of 2015. Shintaro Isono \* STATEMENT OF WITNESS SIGNED at \_\_\_\_\_ (Country) (City) This \_\_\_\_\_, 201\_\_\_. I, whose full residence address is was personally present and did see \_\_\_\_\_\_ execute the above assignment on the \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_, and such assignor is personally known to me to be the person described in such document. Signature of Witness \* The foregoing assignment covers patent application number 14/668,844 , filed on March 25, 2015 . /Michael J. Swope/\_\_ Michael J. Swope Name of Attorney: 38,041 Registration No.:

Page 2 of 2

Date of Insertion: