505553633 07/01/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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EPAS ID: PAT5600434

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JONATHAN A. SANTIAGO	06/19/2019
XIAOXI WANG	06/18/2019
GARY ERNEST GEORGESON	06/21/2019

RECEIVING PARTY DATA

Name:	THE BOEING COMPANY
Street Address:	100 NORTH RIVERSIDE PLAZA
City:	CHICAGO
State/Country:	ILLINOIS
Postal Code:	60606-1596

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16459492	

CORRESPONDENCE DATA

Fax Number: (503)972-9115

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: (503) 224-6655

Email:veronica@khpatent.comCorrespondent Name:KOLISCH HARTWELL, P.C.Address Line 1:520 SW YAMHILL STREET

Address Line 2: SUITE 300

Address Line 4: PORTLAND, OREGON 97204

ATTORNEY DOCKET NUMBER:	18-4239-US-NP (BOE3D1)	
NAME OF SUBMITTER:	PIERRE C. VAN RYSSELBERGHE	
SIGNATURE:	/Pierre C. Van Rysselberghe/	
DATE SIGNED:	07/01/2019	

Total Attachments: 3

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PATENT 505553633 REEL: 049647 FRAME: 0816

Boeing Docket No.: 18-4239-US-NP

ASSIGNMENT
WHEREAS, Jonathan A. Santiago, residing at Seathe, Washington, Xiaoxi Wang, residing at Mukilteo, Washington, and Gary Ernest Georgeson, residing at Tacoma, Washington, (hereinafter "Assignor") has invented certain new and useful inventions and improvements (hereinafter "Invention") described in the United States patent application entitled EXPANDABLE TOOLING SYSTEMS AND METHODS for which Assignor is making or has made application for LETTERS PATENT OF THE UNITED STATES, which application has been duly executed by Assignor concurrently herewith; or filed on July 1, 2019 as Application No. 16/459,492
WHEREAS, The Boeing Company, a corporation organized and existing under the laws of the State of Delaware, USA, having a place of business at 100 North Riverside Plaza, Chicago, Illinois 60606-1596, USA (hereinafter called "the Assignee"), is desirous of acquiring the entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;
NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor has assigned, sold and transferred, and does assign, sell and transfer to the Assignee, its successors and assigns, its entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any LETTERS PATENT of the United States and foreign countries, including utility models, inventor's certificates and like government grants that may be granted for any and all portions thereof, and in and to the patent application identified above and applications for patent filed for the Invention in all foreign countries and all provisional, divisional, reissue, continuation, continuation—in-part applications and extensions of any of the applications for patent or LETTERS PATENT identified herein, including all applications claiming the priority of said applications for patent or LETTERS PATENT identified herein, and the right to apply for LETTERS PATENT in foreign countries with Ill benefit of such priorities as may now or hereafter be granted to Assignor by local laws or by treaty, including any international convention, for the protection of industrial property, together with the right to extend the protection of the United States LETTERS PATENT to the various territorial possessions now owned or which may be hereafter acquired by the United States of America. Assignee will hold all rights for its own use and benefit and for the use and benefit of its successors or assigns to the full end of the term for which the LETTERS PATENT may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor requests and authorizes the Commissioner of the U.S. Patent and Trademark Office, and foreign counterpart officials of foreign patent offices, to issue respective LETTERS PATENT in the United States and foreign countries when granted, in accordance
Assignor further covenants and agrees with the Assignee that Assignor has a full and unencumbered title to the Assignor's interest in the Invention, which title Assignor warrants to the Assignee. Assignor further agrees that Assignor will, without demanding any further consideration therefor, at the request and expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign LETTERS PATENT or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and LETTERS PATENT particularly in cases of interference conflict, opposition and litigation.
Assignor authorizes and directs 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 first paragraph of this Assignment.
IN TESTIMONY WHEREOF, I have signed this Assignment on the date specified below. 10
Mathan A. Santiago Date Xiaoxi Wang Date
Gary Ernest Georgeson Date

PATENT REEL: 049647 FRAME: 0817

Boeing Docket No.: 18-4239-US-NP

ASSIGNMENT

WHEREAC Landbox & Continue roo	eidina at		Xisoxi Wana residina
WHEREAS, Jonathan A. Santiago, resort Mukilteo, Washington, and Gary Enhas invented certain new and useful in States patent application entitled EXP, making or has made application for LI duly executed by Assignor concurrent No. 16/459,492	ventions and improve ANDABLE TOOLIN STTERS PATENT O ly herewith; or filed	ments (hereinafter "Inventic G SYSTEMS AND METH F THE UNITED STATES,	m") described in the United ODS for which Assignor is which application has been
WHEREAS, The Boeing Company, a USA, having a place of business at 1 called "the Assignee"), is desirous of a United States of America and its territo foreign LETTERS PATENT that may be	00 North Riverside sequiring the entire riprial possessions and	Plaza, Chicago, Illinois 606 ght, title and interest in and	606-1596, USA (hereinafter to the Invention within the
NOW, THEREFORE, for good and vertice right, title and interest in and entire right, title and interest in and possessions and all foreign countries, countries, including utility models, invand all portions thereof, and in and to a linvention in all foreign countries a applications and extensions of any of all applications claiming the priority of right to apply for LETTERS PATEN hereafter be granted to Assignor by loc of industrial property, together with the various territorial possessions now Assignee will hold all rights for its ownfull end of the term for which the LET been held and enjoyed by Assignor if the Commissioner of the U.S. Patent offices, to issue respective LETTER accordance with this assignment.	does assign, self and to the Invention we and in and to any rentor's certificates a he patent application and all provisional, he applications for poisonal and applications for in foreign countries at laws or by treaty, it is right to extend the owned or which may tuse and benefit and IERS PATENT may his assignment and stand Trademark Office.	I transfer to the Assignee, it ithin the United States of LETTERS PATENT of the nd like government grants to identified above and applicated fivisional, reissue, continuatent or LETTERS PATENT patent or LETTERS PATENT patent or LETTERS PATENT patent of Such cluding any international counterding any international counterpart part and foreign counterpartice, and foreign counterpartices.	America and its territorial America and its territorial United States and foreign hat may be granted for any stions for patent filed for the lation, continuation—in-part identified herein, including all filed for the priorities as may now or envention, for the protection ates LETTERS PATENT to be United States of America, accessors or assigns to the rely as the same would have gnor requests and authorizes to officials of foreign patent
Assignor further covenants and agreed Assignor's interest in the Invention, was all lawful and just acts, including the necessary for obtaining, sustaining, a PATENT or the like for the Invention, LETTERS PATENT particularly in case	which title Assignor further consideration e execution and ack extending, reissuing and for maintaining	warrants to the Assigned. A therefor, at the request and nowledgment of instrumen or reexamining United Ste and perfecting the Assignee	Assignor further agrees that expense of the Assignee, do is, that may be or become use and foreign LETTERS 's right to the Invention and
Assignor authorizes and directs any of the ASSIGNEE to insert the application this Assignment.	the attorneys respon on number and filing	sible for prosecuting the sub date of the subject applicat	ject application on behalf of ion in the first paragraph of
IN TESTIMONY WHEREOF, I have s	signed this Assignme	nt on the date specified below	».
Jonathan A. Santiago	Date Asso	Ki Wing	56//8/2*/9
Gary Ernest Georgeson	Date	•	

PATENT REEL: 049647 FRAME: 0818

Boeing Docket No.: 18-4239-US-NP

ASSIGNMENT			
WHEREAS, Jonathan A. Santiago, residing at			
WHEREAS, The Boeing Company, a corporation organized and existing under the laws of the State of Delaware, USA, having a place of business at 100 North Riverside Plaza, Chicago, Illinois 60606-1596, USA (hereinafter called "the Assignee"), is desirous of acquiring the entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;			
NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor has assigned, sold and transferred, and does assign, sell and transfer to the Assignee, its successors and assigns, its entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any LETTERS PATENT of the United States and foreign countries, including utility models, inventor's certificates and like government grants that may be granted for any and all portions thereof, and in and to the patent application identified above and applications for patent filed for the Invention in all foreign countries and all provisional, divisional, reissue, continuation, continuation—in-part applications and extensions of any of the applications for patent or LETTERS PATENT identified herein, including all applications claiming the priority of said applications for patent or LETTERS PATENT identified herein, and the right to apply for LETTERS PATENT in foreign countries with full benefit of such priorities as may now or hereafter be granted to Assignor by local laws or by treaty, including any international convention, for the protection of industrial property, together with the right to extend the protection of the United States LETTERS PATENT to the various territorial possessions now owned or which may be hereafter acquired by the United States of America. Assignee will hold all rights for its own use and benefit and for the use and benefit of its successors or assigns to the full end of the term for which the LETTERS PATENT may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor requests and authorizes the Commissioner of the U.S. Patent and Trademark Office, and foreign counterpart officials of foreign patent offices, to issue respective LETTERS PATENT in the United States and foreign countries when granted, in accordanc			
Assignor further covenants and agrees with the Assignee that Assignor has a full and unencumbered title to the Assignor's interest in the Invention, which title Assignor warrants to the Assignee. Assignor further agrees that Assignor will, without demanding any further consideration therefor, at the request and expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign LETTERS PATENT or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and LETTERS PATENT particularly in cases of interference conflict, opposition and litigation.			
Assignor authorizes and directs 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 first paragraph of this Assignment.			
IN TESTIMONY WHEREOF, I have signed this Assignment on the date specified below.			
Jonathan A. Santiago Date Xiaoxi Wang Date			

PATENT REEL: 049647 FRAME: 0819