507048026 12/28/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7094864

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
THOMAS BARTLETT	03/25/2019

RECEIVING PARTY DATA

Name:	UNION PACIFIC RAILROAD COMPANY	
Street Address:	1400 DOUGLAS STREET	
City:	ОМАНА	
State/Country:	NEBRASKA	
Postal Code:	68179	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16363844

CORRESPONDENCE DATA

Fax Number: (816)960-0041

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: 8169600090

Email: patents.stanley@kutakrock.com

Correspondent Name: BRYAN P. STANLEY Address Line 1: KUTAK ROCK LLP

Address Line 2: 2300 MAIN STREET, SUITE 800 KANSAS CITY, MISSOURI 64108

ATTORNEY DOCKET NUMBER:	179601-296
NAME OF SUBMITTER:	BRYAN P. STANLEY
SIGNATURE:	/Bryan P. Stanley/
DATE SIGNED:	12/28/2021

Total Attachments: 3

source=Assignment_Bartlett#page1.tif source=Assignment_Bartlett#page2.tif source=Assignment_Bartlett#page3.tif

PATENT 507048026 REEL: 058488 FRAME: 0575

INVENTION ASSIGNMENT

WHEREAS, Assignor is willing to assign, and may be obligated to assign, Assignor's entire right, title, and interest in and to the Inventions to UNION PACIFIC RAILROAD COMPANY, a corporation duly organized under the laws of the State of DELAWARE and having its principal place of business at 1400 DOUGLAS STREET, OMAHA, NEBRASKA 68179 (hereinafter referred to as "Assignee"); and

WHEREAS, Assignee desires to acquire the entire right, title, and interest in and to the Inventions and to secure, if and to the extent Assignee deems appropriate and desirable, in Assignee's sole discretion, patent and/or other protection therefor, including but not limited to trade secret protection.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, Assignor makes assignments, agreements, representations, warranties, and grants as follows:

Assignment of Inventions. Assignor hereby irrevocably conveys, transfers, and assigns to Assignce, Assignor's entire right, title, and interest, throughout the world:

In and to the Inventions;

In, to, and under the US Application;

In, to, and under any and all applications for letters patent upon the Invention which may hereafter be filed in the United States of America, regardless of whether such application(s) claim priority to the US Application (each a "US Application");

In, to, and under any and all international applications associated with the Invention which may hereafter be filed, regardless of whether such application(s) claim priority to the US Application (each a "PCT Application");

In, to, and under any and all applications for letters patent upon the Invention which may hereafter be filed in any country foreign to the United States of America, regardless of whether such application(s) claim priority to the US Application and/or any PCT Application (each a "Foreign Application" and collectively with the US Application(s) and any PCT Application(s), the "Applications");

In, to, and under any filings and re-filings, including any direct or indirect divisions, continuations, and/or continuations-in-part of any and all of the Applications (each such application itself being an Application);

4847-4558-8943,1

PATENT REEL: 058488 FRAME: 0576 In, to, and under any and all letters patent of the United States of America and/or of any and all countries foreign to the United States of America, which may issue from any Application (each a "Patent" and collectively the "Patents"); and

In, to, and under any and all reissues of a Patent (each such patent itself being a Patent).

Without limiting the above, and for the avoidance of doubt, Assignor further assigns to Assignee:

any and all rights under the International Convention for the Protection of Industrial Property; and

any and all rights to recover damages or other equitable relief for any and all past, present, and/or future infringement of any and all of the Inventions, Applications, and/or Patents and/or any and all past, present, and/or future infringement or other violation of any right assigned herein, without need for accounting to Assignor.

All of the foregoing (each an "Invention Right" and collectively the "Invention Rights") are to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its affiliates, successors, legal representatives, and assigns, to the full end of the term for which each Patent and/or Application may be granted and/or extended and for the full extent of any other intellectual property right, including but not limited to trade secret rights, as applicable, as fully and entirely as the same would have been held and enjoyed by Assignor, had this assignment not been made to Assignee.

Representations and Warranties. Assignor hereby represents and warrants that:

to the best of Assignor's knowledge, Assignor is an inventor or co-inventor of at least one of the Inventions;

Assignor has not granted to any third party any rights that would conflict, in any material way, with the rights granted herein to Assignee;

to the best of Assignor's knowledge, the Invention is not being infringed by any third party; and

Assignor has the full right, power, and authority to make this assignment.

Further Assurance. Assignor agrees to sign all papers and documents, take all lawful oaths, and do all acts (now and in the future) necessary or required to be done for the procurement, maintenance, enforcement, and defense of the Invention Rights, as reasonably necessary, including whenever counsel of Assignee, or counsel of Assignee's successors, legal representatives, or assigns, shall advise:

that any proceeding in connection with the Invention Rights in any country of the world, including but not limited to litigation, arbitration, mediation, and/or interference proceedings, is lawful and desirable; or

-2-

that any division, continuation, or continuation-in-part of any Application or any reissue, reexamination, or extension of any Patent, to be obtained thereon, is lawful and desirable.

For this limited purpose, Assignor hereby appoints Assignee as its attorney in fact to execute and deliver to Assignee, on behalf of Assignor, any and all such documents or instruments. This appointment shall be deemed to be a power coupled with an interest and shall be irrevocable.

Grant of Additional Rights. Assignor grants the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office and/or to comply with rules of a similar office and/or authority, as applicable, for recordation of this document:

KUTAK ROCK LLP

All practitioners at Customer Number 97242.

IN WITNESS WHEREOF, this Assignment is executed below and made effective as of MARCH 25, 2019.

THOMAS BARTLETT

- 3 -

RECORDED: 12/28/2021