

PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT5472813

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|-----------------------------------|-----------------------|-----------------------|
| SUBMISSION TYPE: | NEW ASSIGNMENT | |
| NATURE OF CONVEYANCE: | SECURITY INTEREST | |
| CONVEYING PARTY DATA | | |
| Name | | Execution Date |
| JAC OPERATIONS, INC. | | 04/12/2019 |
| RECEIVING PARTY DATA | | |
| Name: | BMO HARRIS BANK, N.A. | |
| Street Address: | 111 WEST MONROE | |
| City: | CHICAGO | |
| State/Country: | ILLINOIS | |
| Postal Code: | 60603 | |
| PROPERTY NUMBERS Total: 32 | | |
| Property Type | Number | |
| Patent Number: | 6679187 | |
| Patent Number: | 6837169 | |
| Patent Number: | 6405658 | |
| Patent Number: | 6601522 | |
| Patent Number: | 6769366 | |
| Patent Number: | 7094013 | |
| Patent Number: | 6330863 | |
| Patent Number: | 7478599 | |
| Patent Number: | 7824140 | |
| Patent Number: | 7832340 | |
| Patent Number: | 7954437 | |
| Patent Number: | 8342105 | |
| Patent Number: | 8757067 | |
| Patent Number: | 9669845 | |
| Patent Number: | 8640631 | |
| Patent Number: | 8950341 | |
| Patent Number: | 9387864 | |
| Patent Number: | 9096238 | |
| Patent Number: | 9862393 | |
| Patent Number: | 10017191 | |

PATENT

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14313969 |
| Application Number: | 15187686 |
| Application Number: | 16031410 |
| Application Number: | 15420075 |
| Application Number: | 15438858 |
| Application Number: | 15615748 |
| Application Number: | 15715578 |
| Application Number: | 62770284 |
| Application Number: | 62655330 |
| Application Number: | 62641614 |
| Application Number: | 62650472 |
| Application Number: | 62658527 |

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 11569-30290

NAME OF SUBMITTER: DUSAN CLARK

SIGNATURE: /Dusan Clark/

DATE SIGNED: 04/12/2019

Total Attachments: 5

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GRANT OF A SECURITY INTEREST -- PATENTS

This Patent Security Agreement (this “**Patent Security Agreement**”) is made as of April 12, 2019, by JAC OPERATIONS, INC. (the “**Grantor**”), in favor of BMO HARRIS BANK, N.A., in its capacity Lender (together with its successors and permitted assigns in such capacity, the “**Grantee**”).

WHEREAS, the Grantor holds all right, title and interest in the letter patents, design patents and utility patents listed on the attached Schedule A, which patents are issued or applied for in the United States Patent and Trademark Office (the “**Patents**”);

WHEREAS, the Grantor has entered into a Credit and Security Agreement, dated April 12, 2019 (as amended, restated, supplemented, modified or otherwise changed from time to time, the “**Credit and Security Agreement**”), by and among the Grantor and the Grantee; and

WHEREAS, pursuant to the Credit and Security Agreement, the Grantor has granted to the Grantee for the benefit of the Secured Parties (as defined in the Credit and Security Agreement), a continuing security interest in all right, title and interest of the Grantor in, to and under the Patents and the applications and registrations thereof, and all proceeds thereof, including, without limitation, any and all causes of action which may exist by reason of infringement thereof and any and all damages arising from past, present and future violations thereof (the “**Collateral**”), to secure the payment, performance and observance of the Obligations (as defined in the Credit and Security Agreement).

NOW, THEREFORE, as collateral security for the payment, performance and observance of all of the Obligations, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantor does hereby grant to the Grantee and grant to the Grantee for the benefit of the Secured Parties, a continuing security interest in the Collateral to secure the prompt payment, performance and observance of the Obligations.

All capitalized terms used but not otherwise defined herein have the meanings given to them in the Credit and Security Agreement.

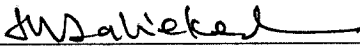
The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interest granted to the Grantee pursuant to the Credit and Security Agreement and each Grantor hereby acknowledges and agrees that the rights and remedies of the Grantee with respect to the security interest in the Patent granted hereby are more fully set forth in the Credit and Security Agreement. In the event of any conflict between this Patent Security Agreement and the Credit and Security Agreement, the Credit and Security Agreement shall control.

This Patent Security Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Delivery of an executed counterpart by facsimile or electronic mail shall be equally effective as delivery of an original executed counterpart.

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IN WITNESS WHEREOF, the Grantor has caused this Patent Security Agreement to be duly executed by its officer thereunto duly authorized as of the date first set forth above.

JAC OPERATIONS, INC.

By: 

Name: Joseph J. Maliekel

Title: Vice President and Controller

SCHEDULE A TO GRANT OF A SECURITY INTEREST

Registered Patents

| Patent Number | Description | Issue Date |
|---------------|--|------------|
| 6,679,187 | Slab/Coil - 200107 | 01/20/2004 |
| 6,837,169 | End Door Structure for an Aluminum Vehicle Carrier – 0302 | 01/04/2005 |
| 6,405,658 | Manual Discharge Door Operating System for a Hopper Car with Lever (Uniflood) - 200003 | 06/18/2002 |
| 6,601,522 | Top Chord Structure – 200101 | 08/05/2003 |
| 6,769,366 | One Piece Center Sill - 970003 | 08/03/2004 |
| 7,094,013 | Aluminum Vehicle Carrier Railcar - 200301 | 08/22/2006 |
| 6,330,863 | Railroad Car Tub - 200001 | 12/18/2001 |
| 7,478,599 | Railroad Car Having Cold Formed Center Sill (CIP) - 990015 | 01/20/2009 |
| 7,824,140 | Aluminum Vehicle Carrier Railcar – 200301C | 11/02/2010 |
| 7,832,340 | Hopper Railcar with Automatic Individual Door - 0601 | 11/16/2010 |
| 7,954,437 | RailroadWellCar w Open Truss Sides-0701 | 06/07/2011 |
| 8,342,105 | Open Top Hopper Railcar with Lading Shedding Top Chord and Corner Cap and Integrated Door Operating Controls with Manual Override - 0803 | 01/01/2013 |
| 8,757,067 | RailroadWellCar w Open Truss Sides-0701CIP | 06/24/2014 |
| 9,669,845 | Open Top Hopper Railcar with Lading Shedding Top Chord and Corner Cap and Integrated Door Operating Controls with Manual Override -0803C | 06/06/2017 |
| 8,640,631 | Side Contoured Open top Hopper Railcar with Biased Door Seal and Enlarged contoured Ind Door-0903 | 03/06/2014 |
| 8,950,341 | Multi-Unit Intermodal Railroad Well Car With Safety Platform and Handbrake-1101 | 02/10/2015 |

| Patent Number | Description | Issue Date |
|---------------|--|------------|
| 9,387,864 | Transverse Through CoilCar With Modular Though Forming Assemblies and Method of Forming Same.- 1201 | 07/12/2016 |
| 9,096,238 | Side Contoured Open top Hopper Railcar with Biased Door Seal a;nd Enlarged contoured Ind Door-0903C | 08/04/2015 |
| 9,862,393 | Side Contoured Open top Hopper Railcar with Biased Door Seal a;nd Enlarged contoured Ind Door-0903C2 | 01/09/2018 |
| 10,017,191 | Gondola Car Clean-Out Door - 1301 | 07/10/2018 |

Patent Applications

| Application Number | Description | Application Date |
|----------------------------|--|-------------------------|
| 14/313,969 | RailroadWellCar w Open Truss Sides-0701CIP2 | 06/24/2014 |
| 15/187,686 | Multi-Unit Intermodal Railroad Well Car With Safety Platform and Handbrake-1101C2 | 02/20/2016 |
| 16/031,410 | Gondola Car Clean-Out Door - 1301-CIP | 07/10/2018 |
| 15/420,075 (62/287,944) | Coil Railcar with Floating Floor Sheet -1502 | 01/30/2017 |
| 15/438,858 (62/297,990) | Railroad Coupler Knuckle with External Weight Reducing Features -1504 | 02/22/2017 |
| 15/615,748 | Open Top Hopper Railcar with Lading Shedding Top Chord and Corner Cap and Integrated Door Operating Controls with Manual Override -0803C-CIP | 06/06/2017 |
| 15/715,578 (62/399,589) | Reinforced Aluminum Side Stake - 1603 (Railroad Car Internal Side Stake Reinforcement) | 09/26/2017 (09/26/2016) |
| 62/770,284 | Railcar Having Cold Formed Center Sill with Stiffness Enhancing Structure and Method of Forming Same - 1401 | 11/21/2018 |
| 62/655,330 | Coil Car with Vertical Trough Extensions - 1404 | 04/10/2018 |
| 62/641,614 | Open Top Gondola Railcar - 1801 | 03/12/2018 |

| Application Number | Description | Application Date |
|-----------------------|--|------------------|
| 62/650,472 | Method & Cast Components for Cold Formed - 1802 Center Sill Rail Car Modification Programs & Railcars Formed Thereby | 03/30/2018 |
| 62/658,527 | Solenoid Activation Remote for a Railroad Car Door | 04/16/2018 |