

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
JOSHUA V. BROTHERTON	07/12/2016
JUSTIN S. DOERNER	07/12/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	JOY MM DELAWARE, INC.
<b>Street Address:</b>	2751 CENTERVILLE ROAD
<b>Internal Address:</b>	SUITE 100
<b>City:</b>	WILMINGTON
<b>State/Country:</b>	DELAWARE
<b>Postal Code:</b>	19808
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16234781
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<b>Fax Number:</b>	(414)277-0656
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<b>ATTORNEY DOCKET NUMBER:</b>	051077-9632-US02
<b>NAME OF SUBMITTER:</b>	GREGORY T. HELDING
<b>SIGNATURE:</b>	/gth/
<b>DATE SIGNED:</b>	12/28/2018
<b>Total Attachments: 2</b>	
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source=24896296_051077-9632-US02_Executed_Assignment_-_as_filed#page2.tif	

## ASSIGNMENT

Pursuant to our obligation to Joy MM Delaware, Inc. (hereinafter referred to as "Assignee"), a Delaware corporation having its principal place of business at:

2751 Centerville Road, Suite 342  
Wilmington, Delaware 19808

and for other valuable and sufficient consideration, receipt whereof is hereby acknowledged,  
we:

Joshua V. Brotherton  
12110 old Frankfort Road  
Marion, IL 62959

Justin S. Doerner  
12302 N. Sparrow Lane  
Mt. Vernon, IL 62864

confirm our obligation to and hereby sell, assign and convey, unto Assignee, its successors and assigns, our entire right, title and interest -

(1) in and to inventions described in a patent application titled "SYSTEMS AND METHODS FOR MONITORING EXTRACTION HEIGHT AND VOLUME OF MATERIAL EXTRACTED FOR A MINING MACHINE" for which we filed United States Patent Application No. 15/210,064, (Atty. File No. 051077-9632-US01) (hereinafter the "U.S. utility patent application") which application claims the benefit of United States Provisional Patent Application No. 62/199,550, filed July 31, 2015 (hereinafter the "U.S. provisional patent application") (Atty. File No. 051077-9632-US00);

(2) in and to the U.S. utility patent application, and the U.S. provisional patent application, in and to all other patent applications (including divisional, continuation, continuation-in-part, 35 U.S.C. §111(b) provisional, 35 U.S.C. §111(a), and reissue applications) based upon said inventions, and in and to the patent or patents to be granted thereon, to the full end of the term or terms for which said patent or patents may be granted;

(3) in and to all patent applications on said invention now or hereafter filed in countries foreign to the United States of America, and in and to any and all patents granted on said applications to the full end of the terms for which said patents may be granted; and

(4) under the International Convention in respect to the U.S. utility patent application and the U.S. provisional patent application, and agree that any patent applications of any foreign countries which may be filed shall be filed in the name of our Assignee with a claim to priority based on the U.S. utility patent application and the U.S. provisional patent application.

We hereby authorize the assignee or attorney of record to insert in the appropriate place in this document the application number of our application after execution of this Assignment. We hereby agree that we will, upon demand of Assignee, its successors or assigns, and without further consideration to us, execute any and all papers that may be necessary, or deemed by Assignee, its successors or assigns, to be necessary, to a complete fulfillment of the intent and purposes of this Assignment, it being understood that any expense incident to the execution of such papers shall be paid by Assignee, its successors and assigns, and not by us.

The Commissioner of Patents and Trademarks of the United States is hereby authorized and requested to issue said patent or patents to Assignee.

7-12-2016  
Date

Joshua V. Brotherton  
Joshua V. Brotherton

7-12-2016  
Date

Justin Doerner  
Justin S. Doerner