

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6716246

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	JOY GLOBAL UNDERGROUND MINING LLC	08/05/2020
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	JOY GLOBAL CONVEYORS INC	
<b>Street Address:</b>	438 INDUSTRIAL DRIVE	
<b>City:</b>	WINFIELD	
<b>State/Country:</b>	ALABAMA	
<b>Postal Code:</b>	35594	
<b>PROPERTY NUMBERS Total: 1</b>		
	<b>Property Type</b>	<b>Number</b>
	Application Number:	17323633
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>	(414)277-0656	
<i>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.</i>		
<b>Phone:</b>	4142716560	
<b>Email:</b>	mkeipdocket@michaelbest.com	
<b>Correspondent Name:</b>	MICHAEL BEST & FRIEDRICH LLP (MKE)	
<b>Address Line 1:</b>	790 N WATER ST	
<b>Address Line 2:</b>	SUITE 2500	
<b>Address Line 4:</b>	MILWAUKEE, WISCONSIN 53202	
<b>ATTORNEY DOCKET NUMBER:</b>	218010-9016-US03	
<b>NAME OF SUBMITTER:</b>	TANYA PARENT	
<b>SIGNATURE:</b>	/tanya parent/	
<b>DATE SIGNED:</b>	05/18/2021	
<b>Total Attachments: 6</b>		
source=Signed Assignment - JGUM to Joy Global Conveyors Inc#page1.tif		
source=Signed Assignment - JGUM to Joy Global Conveyors Inc#page2.tif		
source=Signed Assignment - JGUM to Joy Global Conveyors Inc#page3.tif		
source=Signed Assignment - JGUM to Joy Global Conveyors Inc#page4.tif		
source=Signed Assignment - JGUM to Joy Global Conveyors Inc#page5.tif		



## ASSIGNMENT

This Assignment is made by and between Joy Global Underground Mining LLC, having its principal place of business at 40 Pennwood Place, Suite 100, Warrendale, Pennsylvania 15086, (hereinafter referred to as "Assignor") and Joy Global Conveyors Inc, 438 Industrial Drive, Winfield, Alabama, 35594, (hereinafter referred to as "Assignee").

WHEREAS, Assignor has rights in and owns the patent applications and patents identified in Addendum A attached hereto and the inventions described therein (the "Patents and Patent Applications"), and Assignor desires to assign all rights in the Patents and Patent Applications to Assignee; and

WHEREAS, Assignee desires to acquire all of Assignor's right, title, and interest in and to the Patents and Patent Applications.

NOW THEREFORE, for good and valuable consideration, including but not limited to the payment of one U.S. dollar (\$1 US) from assignee to assignor, the receipt and sufficiency of which is hereby acknowledged by Assignor, Assignor hereby assigns and transfers to Assignee all right, title, and interest in and to the Patents and Patent Applications, and all its right, title, and interest to any and all patents and patent applications (including divisional, continuation, continuation-in-part, §111(b) provisional, §111(a), national phase, and reissue applications thereof) throughout the world claiming benefits and/or priority rights to any of the Patents and Patent Applications, including, without limitation, any Letters Patent which may issue thereon; and to any and all rights relating to the Patents and Patent Applications including, but not limited to, the right to sue for past infringement and to recover any and all damages and awards for such infringement.

IN WITNESS WHEREOF, Assignor has caused this instrument to be executed by its duly authorized officer.

Joy Global Underground Mining LLC

By 

Name: Alejandro Martin Pittorino

Title: Vice President, Finance

Date: 8/5/2020

Joy Global Conveyors Inc

By 

Name: Karina Livshin

Title: Secretary

Date: Aug. 5, 2020

# ADDENDUM A

COUNTRY	APPLICATION NO.	FILING DATE	STATUS	PATENT NO.
<u>Australia</u>	2014207413	2014-01-17	Granted	2014207413
	2017248457	2014-01-17	Granted	2017248457
	2014200335	2014-01-20	Granted	2014200335
	2017202443	2014-01-20	Allowed	
	2016201957	2016-03-30	Application	
	2016203614	2016-05-31	Application	
	2017268685	2017-12-04	Application	
	2016334216	2016-10-07	Application	
	2017296217	2017-07-11	Application	
	2017223977	2017-02-24	Application	
	2018214070	2018-08-09	Application	
	2018201186	2018-02-19	Application	
	2019206004	2019-07-16	Application	
	2019226160	2019-09-04	Application	
<u>Brazil</u>	112015017152-4	2014-01-17	Application	
	102017026927-2	2017-12-13	Published	
	112019000619-2	2017-07-11	Application	
	102018016768-5	2018-08-16	Published	
	102018003507-0	2018-02-22	Published	
<u>Canada</u>	2898448	2014-01-17	Application	
	2988044	2017-12-07	Application	
	3030213	2017-07-11	Application	
	3013873	2018-08-10	Application	
	3049782	2019-07-16	Application	
	3054179	2019-09-05	Application	
<u>Chile</u>	2015-02012	2014-01-17	Granted	
	2017-03194	2017-12-13	Published	57.528
	2019-00085	2017-07-11	Published	
	201802348	2018-08-16	Published	
<u>China</u>	201480014797.9	2014-01-17	Granted	ZL201480014797.9
	201710941134.7	2014-01-17	Published	
	201620257363.8	2016-03-30	Granted	ZL201620257363.8
	201610190954.2	2016-03-30	Granted	ZL201610190954.2
	201910978644.0	2016-03-30	Published	
	201620527361.6	2016-06-02	Granted	ZL201620527361.6
	201610388697.3	2016-06-02	Published	
	201721742867.X	2017-12-14	Granted	ZL201721742867.X
	201711337660.9	2017-12-14	Published	
	201680066994.4	2016-10-07	Published	
	201780054441.1	2017-07-11	Published	
	201821313923.2	2018-08-15	Granted	ZL201821313923.2
	201810928550.8	2018-08-15	Published	

COUNTRY	APPLICATION NO.	FILING DATE	STATUS	PATENT NO.
<u>Eurasian Patent Office</u>	201891643	2018-08-15	Published	
<u>Europe</u>	14774283.7	2014-01-17	Granted	2969886
	17828319.8	2017-07-11	Published	
	18157997.0	2018-02-22	Granted	3375748
<u>France</u>	14774283.7	2014-01-17	Granted	2969886
	1761998	2017-12-12	Published	
	1853878	2017-12-12	Published	
	1857470	2018-08-13	Application	
<u>Germany</u>	14774283.7	2014-01-17	Granted	2969886
<u>India</u>	201614018944	2016-06-02	Application	
	201814030489	2018-08-14	Application	
<u>Indonesia</u>	PID201900930	2017-07-11	Published	
	P00201806070	2018-08-10	Application	
<u>Japan</u>	2017-238408	2017-12-13	Published	
	2019-501447	2017-07-11	Published	
	2018-151138	2018-08-10	Published	
<u>Malaysia</u>	PI2018702851	2018-08-14	Application	
<u>Mexico</u>	MX/A/2015/009299	2014-01-17	Granted	362798
	MX/A/2019/001720	2014-01-17	Application	
	MX/A/2017/016408	2017-12-14	Published	
	MX/A/2019/000520	2017-07-11	Published	
	MX/A/2018/009975	2018-08-16	Published	
	MX/A/2018/002287	2018-02-22	Published	
<u>Mongolia</u>	6295	2018-08-15	Application	
<u>PCT</u>				
	PCT/US2019/049172	2019-08-30	Published	
<u>Peru</u>	2544-2017	2017-12-07	Published	
	52-2019	2017-07-11	Published	
	1537-2018	2018-08-15	Published	
	298-2018	2018-02-23	Published	
<u>South Africa</u>	2016/03724	2016-06-01	Allowed	
	2017/08408	2017-12-12	Allowed	
	2018/05400	2018-08-14	Allowed	
<u>Thailand</u>	1701007486	2017-12-15	Published	
	1801004805	2018-08-15	Published	
<u>United Kingdom</u>	14774283.7	2014-01-17	Granted	2969886
	1605284.7	2016-03-30	Published	
	1720430.6	2017-12-07	Published	
	1806162.2	2016-10-07	Published	
	1813108.6	2018-08-10	Published	
	1910152.6	2019-07-16	Published	
	1912793.5	2019-09-05	Application	

COUNTRY	APPLICATION NO.	FILING DATE	STATUS	PATENT NO.
United States	12/764,681	2010-04-21	Granted	8393456
	14/158,474	2014-01-17	Granted	9056727
	14/732,022	2015-06-05	Granted	9359144
	14/157,672	2014-01-17	Granted	9475647
	15/332,486	2016-10-24	Granted	9676559
	14/267,332	2014-05-01	Granted	9221617
	14/947,471	2015-11-20	Granted	9463934
	15/085,160	2016-03-30	Granted	9624771
	15/472,838	2017-03-29	Granted	9850073
	15/847,472	2017-12-19	Granted	10138069
	15/170,753	2016-06-01	Granted	9771799
	15/714,300	2017-09-25	Granted	10145242
	15/380,901	2016-12-15	Granted	9884729
	15/288,742	2016-10-07	Granted	9868592
	15/848,062	2017-12-20	Granted	10011432
	15/997,454	2018-06-04	Granted	10118767
	15/207,769	2016-07-12	Granted	9856088
	15/442,254	2017-02-24	Granted	10023395
	16/036,668	2018-07-16	Granted	10252864
	15/678,521	2017-08-16	Granted	10155624
	15/902,607	2018-02-22	Published	
	16/512,765	2019-07-16	Published	
	16/561,758	2019-09-05	Published	
	16/557,616	2019-08-30	Published	

Commonwealth of Pennsylvania )

)

County of Butler )

I do hereby certify that Karina Livshin, personally known to me to be the same person who signed the foregoing instrument, appeared before me this day and acknowledged that said instrument was signed and delivered as the free and voluntary act of Karina Livshin, for the uses and purposes therein set forth.

Given under my hand and seal, this 5<sup>th</sup> day of August 2020

Donna M. Gumbel  
Notary Public

Expiration Date April 19, 2023

Commonwealth of Pennsylvania - Notary Seal  
Donna M. Gumbel, Notary Public  
Butler County  
My commission expires April 19, 2023  
Commission number 1064170  
Member, Pennsylvania Association of Notaries

Commonwealth of Pennsylvania )

)

County of Butler )

I do hereby certify that Alejandro Martin Pittorino, personally known to me to be the same person who signed the foregoing instrument, appeared before me this day and acknowledged that said instrument was signed and delivered as the free and voluntary act of Alejandro Martin Pittorino, for the uses and purposes therein set forth.

Given under my hand and seal, this 5<sup>th</sup> day of August 2020

Donna M. Gumbel  
Notary Public

Expiration Date April 19, 2023

Commonwealth of Pennsylvania - Notary Seal  
Donna M. Gumbel, Notary Public  
Butler County  
My commission expires April 19, 2023  
Commission number 1064170  
Member, Pennsylvania Association of Notaries