PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6843148

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MICHAEL GARVEY	04/15/2020
FRED PERSI	04/15/2020
MATTHEW WALTHER	04/28/2020

RECEIVING PARTY DATA

Name:	GRALE TECHNOLOGIES
Street Address:	1019 OHIO WORKS DR.
City:	YOUNGSTOWN
State/Country:	ОНЮ
Postal Code:	44510

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17391318

CORRESPONDENCE DATA

Fax Number: (216)696-8731

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: 216-696-8730

Email: epas@thepatentattorneys.com AMIN, TUROCY & WATSON, LLP **Correspondent Name:**

Address Line 1: 200 PARK AVENUE

Address Line 2: SUITE 300

Address Line 4: BEACHWOOD, OHIO 44122

ATTORNEY DOCKET NUMBER:	GRALP102USA	
NAME OF SUBMITTER:	GREGORY TUROCY	
SIGNATURE:	/GREG TUROCY/	
DATE SIGNED:	08/02/2021	
This document serves as an Oath/Declaration (37 CFR 1.63).		

Total Attachments: 4 source=DEC102#page1.tif source=DEC102#page2.tif

source=DEC102#page3.tif source=DEC102#page4.tif

COMBINED OATH/DECLARATION AND ASSIGNMENT FOR U.S. PATENT APPLICATION USING AN APPLICATION DATA SHEET

As a below named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Title: IN-PROCESS DIGITAL TWINNING

the application of which is a	attached hereto unless the following is c	hecked
	as United States application Serial N	
	CT International Application No	filed on
and amended on	(if any).	
The above-identified applic	ation was made or authorized to be mad	le by me.
Please direct all communica	ntions to the following address:	
the address associated w	rith Customer Number 23623, and direct	t telephone calls to
Gregory Turocy	of Amin, Turocy & Watson, LLP at 216	5-696-8730.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. Section 1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT

For good and valuable consideration received of the hereinafter named assignee, receipt of which is hereby acknowledged, the undersigned

- (1) Michael Garvey
- (2) Fred Persi
- (3) Matthew Walther

hereby sells and assign to Grale Technologies, 1019 Ohio Works Drive, Youngstown, OH 44510, U.S.A, its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries, in and to the inventions titled above for which application for United States Letters Patent is executed by the undersigned on the date below and is being filed concurrently herewith, said application for United States Letters Patent, any and all other applications for Letters Patent on said inventions in countries foreign to the United States, including all divisional, renewal, substitute, continuation, Convention applications, reissue, reexamination, supplemental examination, inter partes review, post grant review, or other procedures thereof for the full term or terms for which the same may be granted based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said applications and said Letters Patent;

said assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said assignee or otherwise as said assignee may deem advisable, under the International Convention or otherwise: the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments being hereby authorized to issue or transfer all said Letters Patent to said assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right heretofore given, and that the undersigned will do all acts reasonably serving to assure that said inventions, patent applications and Letters Patent shall be held and enjoyed by said assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said assignee, to furnish said assignee with all facts relating to said inventions or the history thereof and any and all documents. photographs, models, samples or other physical exhibits which may be useful for establishing the facts of conception, disclosure and reduction to practice of said inventions, and to testify in any proceedings relating to said inventions, patent applications and Letters Patent.

The undersigned hereby appoint, request, and grant power to the following law firm to insert on this Assignment further identification which may be necessary or desirable in order to comply with the Rules of the U.S. Patent and Trademark Office for recordation of this document, for example, the U.S. Serial No. and filing date.

Amin, Turocy & Watson, LLP, 200 Park Avenue, Suite 300, Beachwood, Ohio 44122.

Legal name of first inventor: Michael Garvey		
Inventor's signature: Wishing Same	Date:	4/15/2020
Legal name of second inventor: Fred Persi	·	
Inventor's signature:	Date: _	4/15/2020
Legal name of third inventor: Matthew Walther		
Inventor's signature:	Date:	

COMBINED OATH/DECLARATION AND ASSIGNMENT FOR U.S. PATENT APPLICATION USING AN APPLICATION DATA SHEET

As a below named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Title: IN-PROCESS DIGITAL TWINNING

the application of which is	attached hereto unless the following is checked	l
described and claimed in Po	as United States application Serial No CT International Application No	
and amended on	(if any).	
The above-identified applic	ation was made or authorized to be made by m	ie.
Please direct all communica	ntions to the following address:	
the address associated w	rith Customer Number 23623, and direct teleph	none calls to
Gregory Turocy	of Amin, Turocy & Watson, LLP at 216-696-8	730.

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ASSIGNMENT

For good and valuable consideration received of the hereinafter named assignee, receipt of which is hereby acknowledged, the undersigned

- (1) Michael Garvey
- (2) Fred Persi
- (3) Matthew Walther

hereby sells and assign to Grale Technologies, 1019 Ohio Works Drive, Youngstown, OH 44510, U.S.A, its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries, in and to the inventions titled above for which application for United States Letters Patent is executed by the undersigned on the date below and is being filed concurrently herewith, said application for United States Letters Patent, any and all other applications for Letters Patent on said inventions in countries foreign to the United States, including all divisional, renewal, substitute, continuation, Convention applications, reissue, reexamination, supplemental examination, inter partes review, post grant review, or other procedures thereof for the full term or terms for which the same may be granted based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said applications and said Letters Patent;

said assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said assignee or otherwise as said assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments being hereby authorized to issue or transfer all said Letters Patent to said assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right heretofore given, and that the undersigned will do all acts reasonably serving to assure that said inventions, patent applications and Letters Patent shall be held and enjoyed by said assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said assignee, to furnish said assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be useful for establishing the facts of conception, disclosure and reduction to practice of said inventions, and to testify in any proceedings relating to said inventions, patent applications and Letters Patent.

The undersigned hereby appoint, request, and grant power to the following law firm to insert on this Assignment further identification which may be necessary or desirable in order to comply with the Rules of the U.S. Patent and Trademark Office for recordation of this document, for example, the U.S. Serial No. and filing date.

Amin, Turocy & Watson, LLP, 200 Park Avenue, Suite 300, Beachwood, Ohio 44122.

Legal name of first inventor: Michael Garvey	
Inventor's signature:	Date:
Legal name of second inventor: Fred Persi	
Inventor's signature:	Date:
Legal name of third inventor: Matthew Walther	
Inventor's signature:	Date: 4/28/2020