PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4504306

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MATTHEW CARNEY	05/09/2016
BENJAMIN JENETT	05/09/2016
NEIL GERSHENFELD	05/09/2016

RECEIVING PARTY DATA

Name:	MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Street Address:	77 MASSACHUSETTS AVENUE
City:	CAMBRIDGE
State/Country:	MASSACHUSETTS
Postal Code:	02139

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15649837

CORRESPONDENCE DATA

Fax Number: (312)551-9501

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

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 312-551-9500

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Correspondent Name: JOSEPH DRISH

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Address Line 2: 27TH FLOOR

Address Line 4: CHICAGO, ILLINOIS 60601

ATTORNEY DOCKET NUMBER:	MIT-03-CON
NAME OF SUBMITTER:	JOSEPH C. DRISH
SIGNATURE:	/Joseph C. Drish/
DATE SIGNED:	07/14/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 11

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DECLARATION AND ASSIGNMENT OF PATENT APPLICATION

As a below named inventor, I hereby submit this combined Declaration and Assignment of Patent Application.

DECLARATION OF MATTHEW ELI CARNEY

I, Matthew Eli Carney, being a resident of the United States of America, having an address at 256 Aspinwall Ave. Apt. 2, Brookline, Massachusetts 02445, hereby declare as follows. This declaration is directed to United States Application No. 15/035,009, filed on May 6, 2016, entitled Digital Material Assembly By Passive Mesns And Modular Isotropic Lattice Extruder System (MILES) (the "Application"). The above-identified Application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that a "person may not execute an oath or declaration unless the person has reviewed and understands the contents of the application, including the claims, and is aware of the duty to disclose to the Office all information known to be material to patentability as defined in § 1.56," and state that I have complied with these requirements.

I hereby acknowledge that any willful false statement made in this Declaration is punishable by fine or imprisonment of not more than five (5) years, or both.

I hereby authorize and request the attorneys of record in the Application to insert in this Declaration and Assignment of Patent Application the filing date and serial number of the Application when officially known, and if needed the date of execution of this Declaration and Assignment.

ASSIGNMENT

WHEREAS, I:

Matthew Eli Carney, being a citizen and resident of the United States of America, having an address at 256 Aspinwall Ave. Apt. 2, Brookline, Massachusetts 02445 have made new and useful processes, machines, articles of manufacture, compositions of matter, ornamental designs and/or improvements in the Application, said Application being filed with this Assignment.

WHEREAS, Massachusetts Institute of Technology, having a place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139 and who, together with its successors and assigns ("Assignee"), is desirous of acquiring the title, rights, benefits, and privileges hereinafter recited.

NOW, THEREFORE, for valuable consideration furnished by Assignee to me, receipt and sufficiency of which I hereby acknowledge, I hereby, without reservations:

- 1. Assign, transfer, and convey to Assignee the entire right, title, and interest in and to the Application, the inventions and discoveries described in the Application, any and all other applications for Patents on said inventions and discoveries in other countries, including all divisional, renewal, substitute, continuation, continuation-in-part and Convention applications based in whole or in part upon said inventions or discoveries and any and all Patents, reissues, and extensions of Patents granted for said inventions and discoveries, and every priority right that is or may be predicated upon or arise from said inventions and discoveries, from the Application.
- 2. Authorize Assignee to file patent applications in any or all countries for any or all said inventions and discoveries from the Application in my name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or otherwise.
- 3. Authorize and request the Commissioner for Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all rights in the Application and Patents issuing therefrom to Assignee, as assignce of the entire right, title, and interest therein or otherwise as Assignee may direct.
- 4. Warrant that I have not knowingly conveyed to others any right in said inventions and discoveries or any license to use the same or to make, use, or sell anything embodying or utilizing any of said inventions or discoveries; and that I have good right to assign the same to Assignee without encumbrance.
- 5. Bind my beirs, legal representatives, and assigns, as well as myself, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to me or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications, and the said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by me, my heirs, legal representatives, and assigns if this assignment had not been made; and particularly to execute and deliver the Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to me relating to said inventions and discoveries or the history thereof; to furnish Assignee with any and all documents, photographs, models, samples, and other physical exhibits in my control or in the control of my heirs, legal representatives, or assigns which may be useful or establishing the facts of our conception, disclosures, and reduction to practice of said inventions and discoveries; and to testify to the same in any interference, other litigation, or proceeding related hereto.
- 6. The assignment expressly includes the conveyance to Assignee of the right to bring suit for and to collect damages for any infringement of a patent issuing from the Application, and for a reasonable royalty for any use of 35 USC § 154(d) provisional

rights, and for any other cause of action arising from Assignee's ownership of a patent issuing from the Application including any violation by others of any federal or state tort or antitrust or unfair competition laws, and in and to any and all reissues, reexaminations and extensions of a Patent from the Application, these rights to be held and enjoyed by Assignee, for its own use and benefit and the use or benefit of its successors and assigns, to the end of the full term of the Patent from the Application, as fully and entirely as the same would have been held and enjoyed by me, had this sale and assignment not been made.

LEGAL NAME OF IN	ivenion
Inventor: Matthew Eli	Carney
Date: <u>May 9, 2016</u>	••••••
Signature:	

DECLARATION AND ASSIGNMENT OF PATENT APPLICATION

As a below named inventor, I hereby submit this combined Declaration and Assignment of Patent Application.

DECLARATION OF BENJAMIN JENETT

I, Benjamin Jenett, being a resident of the United States of America, having an address at 42 Lincoln St. #2, Cambridge, Massachusetts 02141, hereby declare as follows. This declaration is directed to United States Application No. 15/035,009, filed on May 6, 2016, entitled Digital Material Assembly By Passive Means And Modular Isotropic Lattice Extruder System (MILES) (the "Application"). The above-identified Application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that a "person may not execute an oath or declaration unless the person has reviewed and understands the contents of the application, including the claims, and is aware of the duty to disclose to the Office all information known to be material to patentability as defined in § 1.56," and state that I have complied with these requirements.

I hereby acknowledge that any willful false statement made in this Declaration is punishable by fine or imprisonment of not more than five (5) years, or both.

I hereby authorize and request the attorneys of record in the Application to insert in this Declaration and Assignment of Patent Application the filing date and serial number of the Application when officially known, and if needed the date of execution of this Declaration and Assignment.

ASSIGNMENT

WHEREAS, I:

Benjamin Jenett, being a citizen and resident of the United States of America, having an address at 42 Lincoln St. #2, Cambridge, Massachusetts 02141 have made new and useful processes, machines, articles of manufacture, compositions of matter, ornamental designs and/or improvements in the Application, said Application being filed with this Assignment.

WHEREAS, Massachusetts Institute of Technology, having a place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139 and who, together with its successors and assigns ("Assignee"), is desirous of acquiring the title, rights, benefits, and privileges hereinafter recited.

NOW, THEREFORE, for valuable consideration furnished by Assignee to me, receipt and sufficiency of which I hereby acknowledge, I hereby, without reservations:

- I. Assign, transfer, and convey to Assignee the entire right, title, and interest in and to the Application, the inventions and discoveries described in the Application, any and all other applications for Patents on said inventions and discoveries in other countries, including all divisional, renewal, substitute, continuation, continuation-in-part and Convention applications based in whole or in part upon said inventions or discoveries and any and all Patents, reissues, and extensions of Patents granted for said inventions and discoveries, and every priority right that is or may be predicated upon or arise from said inventions and discoveries, from the Application.
- 2. Authorize Assignee to file patent applications in any or all countries for any or all said inventions and discoveries from the Application in my name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or otherwise.
- 3. Authorize and request the Commissioner for Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all rights in the Application and Patents issuing therefrom to Assignee, as assignee of the entire right, title, and interest therein or otherwise as Assignee may direct.
- 4. Warrant that I have not knowingly conveyed to others any right in said inventions and discoveries or any license to use the same or to make, use, or sell anything embodying or utilizing any of said inventions or discoveries; and that I have good right to assign the same to Assignee without encumbrance.
- S. Bind my heirs, legal representatives, and assigns, as well as myself, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to me or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications, and the said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by me, my heirs, legal representatives, and assigns if this assignment had not been made; and particularly to execute and deliver the Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to me relating to said inventions and discoveries or the history thereof; to furnish Assignee with any and all documents, photographs, models, samples, and other physical exhibits in my control or in the control of my heirs, legal representatives, or assigns which may be useful or establishing the facts of our conception, disclosures, and reduction to practice of said inventions and discoveries; and to testify to the same in any interference, other litigation, or proceeding related hereto.
- 6. The assignment expressly includes the conveyance to Assignee of the right to bring suit for and to collect damages for any infringement of a patent issuing from the Application, and for a reasonable royalty for any use of 35 USC § 154(d) provisional rights, and for any other cause of action arising from Assignee's ownership of a patent issuing from the Application including any violation by others of any federal or state tort

or antitrust or unfair competition laws, and in and to any and all reissues, reexaminations and extensions of a Patent from the Application, these rights to be held and enjoyed by **Assignce**, for its own use and benefit and the use or benefit of its successors and assigns, to the end of the full term of the Patent from the Application, as fully and entirely as the same would have been held and enjoyed by me, had this sale and assignment not been made.

LEGAL	NAME OF	INVENTOR	

Inventor: Benjamin Jenett

Date: May 9, 2016

Signature: _____

DECLARATION AND ASSIGNMENT OF PATENT APPLICATION

As a below named inventor, I hereby submit this combined Declaration and Assignment of Patent Application.

DECLARATION OF NEIL GERSHENFELD

I, Neil Gershenfeld, being a resident of the United States of America, having an address at 50 Orchard St., Cambridge, Massachusetts (2140, hereby declare as follows. This declaration is directed to United States Application No. 15/035/009, filed on May 6, 2016, entitled Digital Material Assembly By Passive Means And Modular Isotropic Lattice Extruder System (MILES) (the "Application"). The above-identified Application was made or authorized to be made by mc. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that a "person may not execute an oath or declaration unless the person has reviewed and understands the contents of the application, including the claims, and is aware of the duty to disclose to the Office all information known to be material to patentability as defined in § 1.56," and state that I have complied with these requirements.

I hereby acknowledge that any willful false statement made in this Declaration is punishable by fine or imprisonment of not more than five (5) years, or both.

I hereby authorize and request the attorneys of record in the Application to insert in this Declaration and Assignment of Patent Application the filing date and serial number of the Application when officially known, and if needed the date of execution of this Declaration and Assignment.

ASSIGNMENT

WHEREAS, I:

Neil Gersbenfeld, being a citizen and resident of the United States of America, having an address at 50 Orchard St., Cambridge, Massachusens 02140 have made new and useful processes, machines, articles of manufacture, compositions of matter, ornamental designs and/or improvements in the Application, said Application being filed with this Assignment.

WHEREAS, Massachusetts Institute of Technology, having a place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139 and who, together with its successors and assigns ("Assignee"), is desirous of acquiring the title, rights, benefits, and privileges hereinafter recited.

NOW, THEREFORE, for valuable consideration furnished by Assignee to me, receipt and sufficiency of which I hereby acknowledge, I hereby, without reservations:

- 1. Assign, transfer, and convey to Assignee the entire right, title, and interest in and to the Application, the inventions and discoveries described in the Application, any and all other applications for Patents on said inventions and discoveries in other countries, including all divisional, renewal, substitute, continuation, continuation-in-part and Convention applications based in whole or in part upon said inventions or discoveries and any and all Patents, reissues, and extensions of Patents granted for said inventions and discoveries, and every priority right that is or may be predicated upon or arise from said inventions and discoveries, from the Application.
- 2. Authorize Assignee to file patent applications in any or all countries for any or all said inventions and discoveries from the Application in my name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or otherwise.
- 3. Authorize and request the Commissioner for Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all rights in the Application and Patents issuing therefrom to Assignee, as assignee of the entire right, title, and interest therein or otherwise as Assignee may direct.
- 4. Warrant that I have not knowingly conveyed to others any right in said inventions and discoveries or any license to use the same or to make, use, or sell anything embodying or utilizing any of said inventions or discoveries; and that I have good right to assign the same to Assignee without encumbrance.
- 5. Bind my heirs, legal representatives, and assigns, as well as myself, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to me or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications, and the said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by me, my heirs, legal representatives, and assigns if this assignment had not been made; and particularly to execute and deliver the Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to me relating to said inventions and discoveries or the history thereof; to furnish Assignee with any and all documents, photographs, models, samples, and other physical exhibits in my control or in the control of my heirs, legal representatives, or assigns which may be useful or establishing the facts of our conception, disclosures, and reduction to practice of said inventions and discoveries; and to testify to the same in any interference, other litigation, or proceeding related hereto.
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or antitrust or unfair competition laws, and in and to any and all reissues, reexaminations and extensions of a Patent from the Application, these rights to be held and enjoyed by Assignee, for its own use and benefit and the use or benefit of its successors and assigns, to the end of the full term of the Patent from the Application, as fully and entirely as the same would have been held and enjoyed by me, had this sale and assignment not been made.

LEGAL NAME OF INVENTOR
Inventor: Neil Gershenfeld
Date: <u>May 9, 2016</u>
Signature:

PATENT REEL: 043202 FRAME: 0786

RECORDED: 07/14/2017