

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4808948

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
GREGORY TERRENCE GARAY	01/18/2018
MEREDITH DUBELMAN	01/22/2018
XI YANG	01/11/2018
TINGFAN PANG	01/23/2018
MICHAEL SCOTT COLE	01/17/2018
BRIAN DAVID PRZESLAWSKI	01/26/2018
DOUGLAS GERARD KONITZER	01/09/2018
NICOLE BARBA	01/23/2018
KIRK GALLIER	01/09/2018
BRIAN KEITH	01/23/2018
RECEIVING PARTY DATA	
Name:	GENERAL ELECTRIC COMPANY
Street Address:	1 RIVER ROAD
City:	SCHENECTADY
State/Country:	NEW YORK
Postal Code:	12345
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	15887601
CORRESPONDENCE DATA	
Fax Number:	(202)857-6395
<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>	
Phone:	2028576000
Email:	scott.dodge@arentfox.com
Correspondent Name:	ARENT FOX LLP
Address Line 1:	1717 K STREET NW
Address Line 4:	WASHINGTON, D.C. 20006
ATTORNEY DOCKET NUMBER:	320596/037216.00157

NAME OF SUBMITTER:	SCOTT DODGE
SIGNATURE:	/Scott Dodge/
DATE SIGNED:	02/05/2018
Total Attachments: 13 source=320591-1_US_Combined_Dec_Assign_as_filed_5FEB2018#page1.tif source=320591-1_US_Combined_Dec_Assign_as_filed_5FEB2018#page2.tif source=320591-1_US_Combined_Dec_Assign_as_filed_5FEB2018#page3.tif source=320591-1_US_Combined_Dec_Assign_as_filed_5FEB2018#page4.tif source=320591-1_US_Combined_Dec_Assign_as_filed_5FEB2018#page5.tif source=320591-1_US_Combined_Dec_Assign_as_filed_5FEB2018#page6.tif source=320591-1_US_Combined_Dec_Assign_as_filed_5FEB2018#page7.tif source=320591-1_US_Combined_Dec_Assign_as_filed_5FEB2018#page8.tif source=320591-1_US_Combined_Dec_Assign_as_filed_5FEB2018#page9.tif source=320591-1_US_Combined_Dec_Assign_as_filed_5FEB2018#page10.tif source=320591-1_US_Combined_Dec_Assign_as_filed_5FEB2018#page11.tif source=320591-1_US_Combined_Dec_Assign_as_filed_5FEB2018#page12.tif source=320591-1_US_Combined_Dec_Assign_as_filed_5FEB2018#page13.tif	

COMBINED DECLARATION AND GLOBAL ASSIGNMENT

FOR UTILITY OR DESIGN PATENT APPLICATION

As the below named inventors, we hereby declare that:

This declaration and assignment are directed to:

**INTEGRATED CASTING CORE-SHELL STRUCTURE FOR MAKING CAST
COMPONENT WITH NOVEL COOLING HOLE ARCHITECTURE**

the specification of which is attached hereto

OR

☒ United States application or PCT international application number

15/887,601 filed on February 2, 2018, as
amended on [date] (if applicable).

(We hereby authorize and request the Company or its delegated attorneys or agents to
insert above the application number and filing date of the application when known.)

The above-identified application was made or authorized to be made by us.

We believe that we are original joint inventors of a claimed invention in the application.

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

We have reviewed and understand the contents of the above-identified application, including the
claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose information which is material to the patentability of this
application as defined in 37 CFR § 1.56, including, for continuation-in-part applications, material
information which became available between the filing date of the prior application and the filing
date of the continuation-in-part application.

In accordance with our obligation(s) under an Employee Innovation and Proprietary Information
Agreement or (as applicable) arising out of other agreements (such as, but not limited to, the
Services Agreement between General Electric Company, a New York corporation, and our
employers), and/or for other good and valuable consideration of which we acknowledge receipt,
I/we,

Inventor First Name	Inventor Middle Name	Inventor Last Name		Residence Town	Residence State	Residence Country
Gregory	Terrence	GARAY	of	West Chester	OH	US
Meredith		DUBELMAN	of	Liberty Township	OH	US

Xi		YANG	of	Mason	OH	US
Tingfan		PANG	of	West Chester	OH	US
Michael	Scott	COLE	of	Dayton	OH	US
Brian	David	PRZESLAWSKI	of	Liberty Township	OH	US
Douglas	Gerard	KONITZER	of	West Chester	OH	US
Nicole		BARBA	of	Cincinnati	OH	US
Kirk		GALLIER	of	Cincinnati	OH	US
Brian		KEITH	of	Cincinnati	OH	US

hereby sell and assign to:

Name of Company: <i>General Electric Company</i>
Entity Type (optional): <i>New York corporation</i>
Address: <i>1 River Road, Schenectady, New York 12345 USA</i>

herein referred to as "Company", its successors and assigns our entire respective rights, titles and interests in and to the invention and improvements made or conceived by us described in the application(s) listed above and in the following table:

Country of Filing	Type of Filing	Application Number	Filing Date	Title

(We hereby authorize and request the Company or its delegated attorneys or agents to insert above the application number and filing date of the application(s) when known.)

and any and all applications for patent and patents therefrom in any and all countries, including all divisions, continuations, continuations-in-part, reexaminations, renewals, and reissues thereof, and all rights of priority resulting from the filing of the application(s), and authorize and request any official whose duty it is to issue patents, to issue any patent on the inventions and improvements resulting therefrom to the Company, or its successors or assigns, and agree that on request and without further consideration, we will communicate to the Company or its representatives or nominees any facts known to us respecting the inventions and improvements and testify in any legal proceeding, make all rightful oaths, sign all lawful papers and execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights in all countries including, but not limited to, any provisional, non-provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, for any derivation proceedings relating thereto, and, as to any patents that issue from such applications, for any supplemental examination, derivation proceeding, opposition, post grant review, reissue, re-examination, inter partes review, or extension thereof, and generally do everything possible to aid the Company, its successors, assigns, and nominees to obtain and enforce proper patent protection for the invention and its improvements in all countries.

Remuneration claims of the inventor(s)/assignor(s) potentially arising from German Law on Employee Inventions, or any other respective country law, remain unaffected by this assignment.

INVENTOR 1

Signature: Gregory T. Garay Date: 1/18/2018
Gregory Terrence GARAY

Witnessed by: [Signature] Date: 1/18/2018
Signature

Ryan Christopher Jones
Printed Name of Witness

Witnessed by: [Signature] Date: 1/18/2018
Signature

DANIEL ENDECOTT OSGOOD
Gregory Terrence GARAY

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

Date: _____

Inventor Name

STATE OF

ss.

COUNTY OF

This _____ day of _____, _____ before me personally came the above-named Gregory Terrence GARAY, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

(Notary Public)

INVENTOR 2

Signature: Meredith Dubelman Date: 1/22/18
Meredith DUBELMAN

Witnessed by: [Signature] Date: 1/22/18
Signature

Christopher Barnhill
Printed Name of Witness

Witnessed by: Stephanie DePalma Date: 1/22/18
Signature

Stephanie DePalma
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

Meredith DUBELMAN Date: _____

STATE OF

ss.

COUNTY OF

This _____ day of _____, _____ before me personally came the above-named Meredith DUBELMAN, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

(Notary Public)

INVENTOR 3

Signature:
XI YANG

Xi Yang

Date:

1/11/2018

Witnessed by:

W. C. Murphy
Signature

Date:

1/19/2018

Printed Name of Witness

WILLIAM MURPHY

Witnessed by:

Brian Graham
Signature

Date:

1/19/2018

Printed Name of Witness

Brian Graham

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

Date:

XI YANG

STATE OF

SS.

COUNTY OF

This _____ day of _____, _____ before me personally came the above-named XI YANG, to me personally known as the Individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

(Notary Public)

GE Docket No. 320598

INVENTOR 4

Signature:

Tingfan PANG

Date:

1/23/2018

Witnessed by:

Signature

Date:

1/23/2018

Printed Name of Witness

Dean Christopher Jones

Witnessed by:

Signature

Date:

1/23/2018

Printed Name of Witness

Erin N. Barber

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

Date:

Tingfan PANG

STATE OF

ss.

COUNTY OF

This _____ day of _____ before me personally came the above-named
Tingfan PANG, to me personally known as the individual who executed the foregoing
assignment, who acknowledged to me that he/she executed the same of his/her own free will for
the purposes therein set forth.

Seal

(Notary Public)

INVENTOR 5

Signature: [Signature]
Michael Scott COLE

Date: 7/17/18

Witnessed by: Taryn Hewitt
Signature

Date: 01/17/18

Taryn Hewitt
Printed Name of Witness

Witnessed by: [Signature]
Signature

Date: 1/17/18

Dylan Becker
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

Michael Scott COLE

Date: _____

STATE OF

ss.

COUNTY OF

This _____ day of _____, _____ before me personally came the above-named Michael Scott COLE, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

(Notary Public)

INVENTOR 6

Signature: Brian David PRZESLAWSKI Date: 1/26/18
Brian David PRZESLAWSKI

Witnessed by: Tao Li Date: 1/26/2018
Signature

Tao Li
Printed Name of Witness

Witnessed by: Joshua Miller Date: 1/26/18
Signature

Joshua Miller
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

Brian David PRZESLAWSKI Date: _____

STATE OF

ss.

COUNTY OF

This _____ day of _____, _____ before me personally came the above-named Brian David PRZESLAWSKI, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

(Notary Public)

INVENTOR 7

Signature: Douglas Gerard KONITZER Date: 1/9/18
Douglas Gerard KONITZER

Witnessed by: Mark Gorman Date: 1/9/18
Signature

MARK GORMAN
Printed Name of Witness

Witnessed by: D'Arcy S. Stone Date: 9 January 2018
Signature

D'Arcy S. Stone
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

Douglas Gerard KONITZER Date: _____

STATE OF

ss.

COUNTY OF

This _____ day of _____, _____ before me personally came the above-named Douglas Gerard KONITZER, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

(Notary Public)

INVENTOR 8

Signature: [Signature] Date: 1/23/2018

Nicole BARBA

Witnessed by: [Signature] Date: 1/23/2018
Signature

Brian Scheldach
Printed Name of Witness

Witnessed by: [Signature] Date: 1-23-2018
Signature

Caroon Ehteshami
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

Date: _____

Nicole BARBA

STATE OF

ss.

COUNTY OF

This _____ day of _____, _____ before me personally came the above-named **Nicole BARBA**, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

(Notary Public)

INVENTOR 9

Signature: _____

Date: _____

JAN 9 2018

Kirk GALLIER

Witnessed by: _____

Signature

Date: _____

01/09/2018

Printed Name of Witness

YU-LIANG LIN

Witnessed by: _____

Signature

Date: _____

1/9/18

Printed Name of Witness

David A. Frey

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

Date: _____

Kirk GALLIER

STATE OF

ss.

COUNTY OF

This _____ day of _____, _____ before me personally came the above-named **Kirk GALLIER**, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

(Notary Public)

INVENTOR 10

Signature: Brian D. Keith Date: 1/23/2018

Brian KEITH

Witnessed by: [Signature] Date: 1/23/2018
Signature

Jamil Grant
Printed Name of Witness

Witnessed by: [Signature] Date: 1/23/2018
Signature

HARJIT S HURA
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

Brian KEITH Date: _____

STATE OF

ss.

COUNTY OF

This _____ day of _____, _____ before me personally came the above-named Brian KEITH, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

(Notary Public)