505109794 09/25/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT				
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT				
CONVEYING PARTY DA	ΔΤΔ						
		Name	Execution Date				
HANNES PIRINGER			09/24/2018				
PATRICK BUCHER			09/24/2018				
RECEIVING PARTY DATA							
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City:	ESSEN						
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PROPERTY NUMBERS	Total: 1		-				
Property Type		Number					
Application Number:1608		16081334					
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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.							
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NAME OF SUBMITTER:			WILLIAM J CASSIN				
SIGNATURE:			/William J. Cassin Reg. No. 65192/				

505109794

DATE SIGNED:	09/25/2018
Total Attachments: 2 source=Assignment#page1.tif source=Assignment#page2.tif	

ASSIGNMENT

WHEREAS, we, the undersigned inventors, having our residences as set forth below, hereinafter referred to as "ASSIGNORS," have invented a certain new invention for:

FURNACE AND METHOD FOR OPERATING A FURNACE

as described and set forth in U.S. National Stage Patent Application No. 16/081,334 filed on August 30, 2018, and related PCT International Patent Application No. PCT/EP2017/054987 filed on March 3, 2017, preparatory to obtaining Letters Patent of the United States therefor; and

WHEREAS, MAERZ OFENBAU AG, a company organized under the laws of Switzerland, with its principal place of business at Richard-Wagner-Str. 28, 8027 Zürich, Switzerland and THYSSENKRUPP AG, a company organized under the laws of Germany, with its principal place of business at ThyssenKrupp Allee 1, 45143 Essen, Germany, hereinafter collectively referred to as "ASSIGNEES", are together desirous of jointly acquiring ASSIGNORS' entire right, title and interest in and to said invention, improvements, application and any Letters Patents which may be granted therefor or thereupon in any country, together with any and all non-provisional applications, divisions, continuations, continuations-in-part, reissues and extensions thereof in all countries throughout the world;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration by ASSIGNEES to ASSIGNORS, the receipt and sufficiency of which is hereby acknowledged, ASSIGNORS hereby sell, assign, transfer and set over unto ASSIGNEES, their respective successors and assigns, the entire right, title and interest in and to said invention, improvements, and in and to said application and any Letters Patents which may be granted therefor or thereupon, together with any and all non-provisional applications, divisions, continuations, continuations-in-part, reissues and extensions thereof, and ASSIGNORS authorize and request the Commissioner of Patents and Trademarks to issue any Letters Patent which may be granted for or upon said invention or applications, or patents resulting therefrom, insofar as my interest is concerned, unto ASSIGNEES in accordance with this Assignment. To the extent applicable, ASSIGNORS also hereby assign to ASSIGNEES, their respective successors and assigns, all right, title and interest to sue third parties for any past, present or future infringement, and to collect all damages relating thereto, of all Letters Patents assigned herein.

ASSIGNORS also assign to ASSIGNEES, all right, title and interest in and to the invention disclosed in said application throughout the world, including the right to file applications and obtain patents, utility models, industrial models and designs throughout the world, including all rights to publish cautionary notices reserving ownership of said invention and all rights to register said invention in appropriate registries; and ASSIGNORS further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such right, title and interest in ASSIGNEES.

ASSIGNORS will communicate to ASSIGNEES, their respective successors and assigns or their representatives, any facts known to us respecting said invention and improvements; and,

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JOINT ASSIGNMENT

at the expense of ASSIGNEES, ASSIGNORS will fully cooperate in any legal proceedings, including any proceeding within the United States Patent and Trademark Office or other Patent Office anywhere in the world, relating thereto, sign all lawful papers, execute all nonprovisional, divisional, continuing, continuations-in-part, reissue and substitute applications, make all rightful oaths and declarations, and, in addition, execute any and all documents required to vest title in ASSIGNEES and to aid ASSIGNEES to obtain and enforce proper protection for said invention in all countries.

ASSIGNORS covenant that ASSIGNORS have the full right to convey the interest assigned by this Assignment, and that ASSIGNORS have not executed and will not execute any agreement in conflict with this Assignment.

This Assignment shall be binding on the parties' successors, assigns and legal representatives.

NAME OF SOLE OR FIRST INVENTOR:	A petition has been filed for this unsigned inventor		
Given Name (first and middlefif anyl)	Family Name or Sumame		
Hannes	PIRINGER		
laventor's Signature		Date (mm/dd/yyyy)	
S. Vrung		09/24/2018	
Residence: City State	Country		
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City State	Postal (Zip) Code	Country	
Beinwil am See	5712	СН	

NAME OF ADDITIONAL JC any:	DINT INVENTOR, If	A petition has been filed for this unsigned inventor				
Given Name (first and middlefif anyl)		Family Name or Samame				
Patrick		BUCHER				
Inventor's Signature	1 A.	Date (mm/dd/yyyy)				
· / *	Bach		03/24/2018			
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