504178798 01/13/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4225477

SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT		
CONVEYING PARTY DA				
		Name		Execution Date
FRANCOIS MARQUES				12/12/2016
WILFRID DOCQUOIS				12/12/2016
ERIC EBERSCHVEILLE	R			12/12/2016
RECEIVING PARTY DA	ТА			
Name:	1	NRCRAFT ENGINES		
Street Address:	2 BOULEV	ARD DU GENERAL MARTIAL VA	_IN	
City:	PARIS			
State/Country:	FRANCE			
Postal Code:	75015			
PROPERTY NUMBERS Property Type	Total: 1	Number	7	
		Number	7	
Application Number:	153	324390	-	
	 А.Т.А.			
CORRESPONDENCE D Fax Number:		6) 570 7062		
Correspondence will be	e sent to the	6)579-7063 e e-mail address first; if that is u		
using a fax number, if µ Phone:		<i>that is unsuccessful, it will be se</i> 5-579-1700	ent via US Ma	<i>il.</i>
Email:		anchard@pearne.com		
Correspondent Name:		ARNE & GORDON, LLP		
Address Line 1:		EAST 9TH STREET, SUITE 1200		
Address Line 4:		EVELAND, OHIO 44114-3108	-	
ATTORNEY DOCKET NU	IMBER:	BRV5-56983		
NAME OF SUBMITTER:		AARON A. FISHMAN		
SIGNATURE:		/Aaron A. Fishman/		
DATE SIGNED:		01/13/2017		
Total Attachments: 3				
source=BRV5-56983-DeclarationAssignment#page1.tif				
source=BRV5-56983-Dec	larationAssi	gnment#page2.tif		
source=BRV5-56983-Dec	larationAssi	gnment#page3.tif		

Worldwide Assignment & US Declaration (37 CFR 1.63) for utility or design application using an application data sheet (37 CFR 1.76)

As a below named inventor, I hereby declare that, I

Inventor Name	Complete Address
MARQUES, François	17ter nie Berthelou \$5570 EOUFFEMONT FRANCE
(Hereinafter referred to as the Assignor) have made an	invention entitled:

Title of Invention (in French)
Title of Invention (in English)
IMPROVED METHOD FOR MANUFACTURING A SHELL MOLD FOR PRODUCTION BY
LOST-WAX CASTING OF BLADED ELEMENTS OF AN AIRCRAFT TURBINE ENGINE

for which an application for Letters Patent has been filed in the following country:

Country	Filing Date	Serial Number
FRANCE	jul-07-2014	1456522

The above-identified application(s) was/were 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.

AND, WHEREAS,

Corporation Name	Complete Address
SAFRAN AIRCRAFT ENGINES	2 Boulevard du Géneral Martial Valin 75015 PARIS FRANCE

(Hereinafter referred to as the Assignee[s]) is/are desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the aforementioned applications for Letters Patent on this invention and the Letters Patent to be issued upon these applications;

NOW THEREFORE, be it known that for and in consideration of One EURO (€1.00) and other good and valuable consideration, the receipt and sufficiency of which from the Assignee[s] is hereby acknowledged, by these presents, I, the Assigner, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer and set over unto the Assignee[s], its/their lawful successors and assigns, my entire right, title, and interest in and to this invention and these applications, and all divisions, and continuations thereof, and all Letters Patent that may be granted thereon, and all reissues thereof, and all rights to claim priority on these of such applications, and all applications for Letters Patent that may hereafter be filed for this invention in any country and all Letters Patent that may be granted on this invention in any country, and all extensions, renewals, and reissues thereof; and I hereby authorize and request the Commissioners of Patents (or other appropriate official whose duty is to issue patents) of the United States, Canada, and any other country, to issue Letters Patent for this invention to the Assignee[s], its/their successors and assigns, in accordance with the terms of this Assignment;

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

AND, I HEREBY further covenant and agree that I will communicate with the Assignee[s], its/their successors and assigns, any facts known to me respecting this invention, testify in any legal proceedings, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee[s], its/their successors or assigns, execute all divisional, continuation, reissue, and re-examination applications, make all rightful oaths and generally do everything possible to aid the Assignee[s], its/their successors and assigns, to obtain and enforce proper patent protection for this invention in any country, it being understood that, irrespective of whether I am in the employ of the Assignee[s] or its/their affiliates, any expense incident to the performance of the obligations of the present paragraph shall be borne by the Assignee[s], its/their successors, and assigns.

This Assignment agreement is effective as of the earliest filing date mentioned above.

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

IN TESTIMONY WHEREOF, I HAVE SIGNED:

Dote	Place	Inventor Name & Signature	- Ala	Witness Name & Signature	
December 12, 2016	Gennerillierz	MARQUES, Francis	<u>AU</u>	MAXIL-WIRZO	auju

de la

PATENT REEL: 040967 FRAME: 0363

Worldwide Assignment & US Declaration (37 CFR 1.63) for utility or design application using an application data sheet (37 CFR 1.76)

As a below named inventor, I hereby declare that, I

Inventor Name	Complete Address
DOCQUOIS, Willrid	2, rue de la Meunerie 95720 (E MESNIL ALIBRY FRANCE

(Hereinafter referred to as the Assignor) have made an invention entitled:

Title of Invention (in French)			
		t en e	
Title of Invention (in English)			
IMPROVED METHOD FOR	MANUFACTURING A SH	HELL MOLD FOR	PRODUCTION BY
LOST-WAX CASTING OF	BLADED ELEMENTS OF	F AN AIRCRAFT	TURBINE ENGINE

for which an application for Letters Patent has been filed in the following country:

	Country	Filing Date	Serial Number
	FRANCE	JUL-07-2014	1456522
1			

The above-identified application(s) was/were 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.

AND, WHEREAS,

Corporation Name	Complete Address
SAFRAN AIRCRAFT ENGINES	2 Boulevard du Général Martial Valin 75015 PARIS FRANCE

(Hereinafter referred to as the Assignee[s]) is/are desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the aforementioned applications for Letters Patent on this invention and the Letters Patent to be issued upon these applications;

NOW THEREFORE, be it known that for and in consideration of One EURO (€1.00) and other good and valuable consideration, the receipt and sufficiency of which from the Assignee[s] is hereby acknowledged, by these presents, I, the Assignor, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer and set over unto the Assignee[s], its/their lawful successors and assigns, my entire right, title, and interest in and to this invention and these applications, and all divisions, and continuations thereof, and all Letters Patent that may be granted thereon, and all reissues thereof, and all rights to claim priority on these of such applications, and all applications for Letters Patent that may hereafter be filed for this invention in any country and all Letters Patent that may be granted on this invention in any country, and all extensions, renewals, and reissues thereof; and I hereby authorize and request the Commissioners of Patents (or other appropriate official whose duty is to issue patents) of the United States, Canada, and any other country, to issue Letters Patent for this invention to the Assignee[s], its/their successors and assigns, in accordance with the terms of this Assignment;

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

AND, I HEREBY further covenant and agree that I will communicate with the Assignee[s], its/their successors and assigns, any facts known to me respecting this invention, testify in any legal proceedings, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee[s], its/their successors or assigns, execute all divisional, continuation, reissue, and re-examination applications, make all rightful oaths and generally do everything possible to aid the Assignee[s], its/their successors and assigns, to obtain and enforce proper patent protection for this invention in any country, it being understood that, irrespective of whether I am in the employ of the Assignee[s] or its/their successors, and assigns.

This Assignment agreement is effective as of the earliest filing date mentioned above.

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

IN TESTIMONY WHEREOF, I HAVE SIGNED:

Date	Place	Inventor Name & Signature	Witness Name & Signature	L.
December 12, 2016	هيه به و من الله	DOCQUOIS, WIERFO	MIROVES, François	A1
		U-1		itititit

PATENT REEL: 040967 FRAME: 0364

Worldwide Assignment & US Declaration (37 CFR 1.63) for utility or design application using an application data sheet (37 CFR 1.76)

As a below named inventor, I hereby declare that, I

Inventor Name	Complete Address			
EBERSCHVEILLER, Bric	5. Avenue Charles BINDER 95290 L'ISLE ADAM FRANCE			

(Hereinafter referred to as the Assignor) have made an invention entitled:

Title of Invention	(in French)			
Title of Invention	(in English)			
IMPROVED	METHOD FOR	MANUFACTURING A	SHELL MOLD FOR	PRODUCTION BY
LOST-WAX	CASTING OF	BLADED ELEMENTS	OF AN AIRCRAFT	TURBINE ENGINE

for which an application for Letters Patent has been filed in the following country:

Country	Filing Date	Serial Number
FRANCE	301-07-2014	1456522

The above-identified application(s) was/were 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.

AND, WHEREAS,

Corporation Name	Complete Address
SAFRAN AIRCRAFT ENGINES	2 Boulevard du Général Martial Valin 75015 PARIS FRANCE
L	

(Hereinafter referred to as the Assignee(s)) is/are desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the aforementioned applications for Letters Patent on this invention and the Letters Patent to be issued upon these applications;

NOW THEREFORE, be it known that for and in consideration of One EURO (€1.00) and other good and valuable consideration, the receipt and sufficiency of which from the Assignee[s] is hereby acknowledged, by these presents, I, the Assigner, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer and set over unto the Assignee[s], its/their lawful successors and assigns, my entire right, title, and interest in and to this invention and these applications, and all divisions, and continuations thereof, and all Letters Patent that may be granted thereon, and all reissues thereof, and all rights to claim priority on these of such applications, and all applications for Letters Patent that may hereafter be filed for this invention in any country and all Letters Patent that may be granted on this invention in any country, and all extensions, renewals, and reissues thereof; and I hereby authorize and request the Commissioners of Patents (or other appropriate official whose duty is to issue patents) of the United States, Canada, and any other country, to issue Letters Patent for this invention to the Assignee[s], its/their successors and assigns, in accordance with the terms of this Assignment;

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

AND, I HEREBY further covenant and agree that I will communicate with the Assignee[s], its/their successors and assigns, any facts known to me respecting this invention, testify in any legal proceedings, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee[s], its/their successors or assigns, execute all divisional, continuation, reissue, and re-examination applications, make all rightful oaths and generally do everything possible to aid the Assignee[s], its/their successors and assigns, to obtain and enforce proper patent protection for this invention in any country, it being understood that, irrespective of whether I am in the employ of the Assignee[s] or its/their successors, and assigns.

This Assignment agreement is effective as of the earliest filing date mentioned above.

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

IN TESTIMONY WHEREOF, I HAVE SIGNED:

	Date	Place	Inventor Name & Signature	Witness Name & Signature	
	December 12, 2016	Gennevilliers	FISERSCHUERER, F.DC,	DEFOSSE, Jean-claude	
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PATENT REEL: 040967 FRAME: 0365

RECORDED: 01/13/2017