### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5978000

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
JACQUES MARCEL ARTHUR BUNEL	02/20/2020
ETIENNE GÉRARD JOSEPH CANELLE	02/20/2020
EMERIC CHRISTIAN AMAURY D'HERBIGNY	02/20/2020
PIERRICK BERNARD JEAN	02/20/2020

### **RECEIVING PARTY DATA**

Name:	SAFRAN AIRCRAFT ENGINES	
Street Address:	t Address: 2 BOULEVARD DU GÉNÉRAL MARTIAL VALIN	
City:	PARIS	
State/Country:	FRANCE	
Postal Code:	75015	

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number	
Application Number:	16449573	

### **CORRESPONDENCE DATA**

**Fax Number:** (216)579-6073

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:** 2165791700

**Email:** kwiles@pearne.com

Correspondent Name: PEARNE & GORDON LLP Address Line 1: 1801 EAST 9TH STREET

Address Line 2: SUITE 1200

Address Line 4: CLEVELAND, OHIO 44114

ATTORNEY DOCKET NUMBER:	BRV5-61110	
NAME OF SUBMITTER:	AARON A. FISHMAN	
SIGNATURE:	/Aaron A. Fishman/	
DATE SIGNED:	02/24/2020	
This document serves as an Oath/Declaration (37 CFR 1.63).		

**Total Attachments: 4** 

PATENT REEL: 051903 FRAME: 0288

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Ref. 8-020373

# 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	
CANELLE, Etienne Gérard Joseph		Point René Ravaud – Réau 77550 MOISSY-CRAMAYEL FRANCE
(Hereinafter referred to as the Assignor) h		
Title of Invention (in English)		
DEVICE FOR COOLING	A TURBOMACHINE	CASING
Title of investing fin Famals	<u></u>	
Title of invention (in French)		
for which an application for Letters Patent	has been filed in the following cour	ntry:
Country	Filing Date	Serial Number
United States of America	06/24/2019	16/449573
AND, WHEREAS,  Corporation Name  SAFRAN AIRCRAFT ENGINES	Complete Address 2 Boulevard Du General	Martial Valin 75015 Paris France
	2 Douceand of Denet of	World Value (3013 Fills Fills)
[Hereinafter referred to as the Assignee[s] world, and in and to the aforementioned a	) is/are desirous of securing the en pplications for Letters Patent on this	tire right, title, and interest in and to this invention in all countries throughout the s 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 pro	esents, I, the Assignor, have sold, assigned, transferred, and set over, and do hereby ors and assigns, my entire right, title, and interest in and to this invention and these
applications, and all divisions, and continu	iations thereof, and all Letters Pati	ent that may be granted thereon, and all reissues thereof, and all rights to claim
Monty on these of such applications, and a may be granted on this invention in any c	ill applications for Letters Patent the ountry, and all extensions, renewal	at may hereafter be filed for this invention in any country and all Letters Patent that is, and reissues thereof; and I hereby authorize and request the Commissioners of
atents (or other appropriate official whose of the Assignee[s], its/their successors and	e duty is to issue patents) of the Uni	ited States, Canada, and any other country, to issue Letters Patent for this invention
AND; I HEREBY covenant that I h greement in conflict with this Assignment;	ave the full right to convey the inte	erest assigned by this Assignment, and I have not executed and will not execute any
especting this invention, testify in any leg	al proceedings, sign all lawful pape	ate with the Assignee[s], its/their successors and assigns, any facts known to me rs when called upon to do so, execute and deliver any and all papers that may be its/their successors or assigns, execute all divisional, continuation, reissue, and re-

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.

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

IN TESTIMONY WHEREOF, I HAVE SIGNED:

assigns.

Date	Place	inventor Name & Signature	Witness Name & Signature
February 20, 2020	corbul	CANELLE, Etienne Gérard Joseph	LEFERICE, Werender

Ref. 8-020373

## 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

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: mvento rane	
	i c/o Sairan CFPI, rond-Point Roné Rauguri Réau 77550 MOISSY.CDAMAYU, EDAMCE
	COUNTRIES LEFT, TODO-POINT RODO KAURIO RODIS CONSULINAVA DE RODOVAL LUARIO D

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

Title of Invention (in English)			
DEVICE FOR COOLI	NG A TURBOMACHINE	CASING	
Title of Invention (in French)			

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

Country	/	Filing Date	Serial Number
United !	States of America	06/24/2019	16/449573

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 General Martial Valin 75015 Paris France
<u>}</u>	i .

(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 reissues thereof, and all 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 MEREBY 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 paths 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:

Date	Place	Inventor Name & Signature	Witness Name & Signature
February 20, 2020	Villaroche	D'HERBIGNY, Emeric Christian Amaury	EN Garale, Agrante Julian
			After tribular

Ref. B-020373

## 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
BUNEL, Jacques Marcel Arthur	c/o Safran CEPI, rond-Point René Ravaud – Réau 77550 MOISSY-CRAMAYEL FRANCE

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

	Title of Invention (in English)
	DEVICE FOR COOLING A TURBOMACHINE CASING
-	Title of Invention (in French)
Second	

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

	Country	Filing Date	Serial Number
-	United States of America	06/24/2019	16/449573

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,

Complete Address
2 Boulevard Du General Martial Valin 75015 Paris France
3

(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 caths 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:

Date	Place	Inventor Name & Signature	Witness Name & Signature
February 20, 2020	Moissy Cramayel	BUNEL, Jacques Mareer Softiur	CA PACAGO

Ref. 8-020973

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

		e																	

	Complete Address	
IEAN, Pierrick Bernard	c/o Safran CEPI, rond	Point René Ravaud – Réau 77550 MOISSY-CRAMAYEL FRANCE
lereinafter referred to as the Assignor)	have made an invention entitled;	
Title of Invention (in English)		
DEVICE FOR COOLING A TURBOMACHE	NE CASING	
Tible of Invention (in French)		
or which an application for Letters Pater	nt has been filed in the following co	mtry:
Country	Filing Date	Serial Number
United States of America	June 24, 2019	16/449573
ND, WHEREAS,		
	·······	
IND, WHEREAS,  Corporation Name  SAFRAN AIRCRAFT ENGINES	Complete Address 2 Boulevard Du Gener	al Martial Valin 75015 Paris France
Corporation Name	······	al Martiel Valin 75015 Paris France
Corporation Name	······	al Martial Valin 75015 Paris France
Corporation Name	······	al Martial Valini 75015 Paris France
Corporation Name  SAFRAN AIRCRAFT ENGINES  Hereinafter referred to as the Assigned	2 Boulevard Du Gener 2 Boulevard Du Gener	ntire right, title, and interest in and to this invention in all countries through
Corporation Name  SAFRAN AIRCRAFT ENGINES  Hereinafter referred to as the Assigned	2 Boulevard Du Gener 2 Boulevard Du Gener	
Corporation Name  SAFRAN AIRCRAFT ENGINES  Hereinafter referred to as the Assignce world, and in and to the aforementioned NOW THEREFORE, be it known	2 Boulevard Du Gener  [s]) is/are desirous of securing the applications for Letters Potent on town that for and in consideration is	ontire right, title, and interest in and to this invention in all countries through ils invention and the Letters Patent to be issued upon these applications; If One EURO (£1.00) and other good and valuable consideration, the rece
Carporation Name  SAFRAN AIRCRAFT ENGINES  Hereinafter referred to as the Assigned vorid, and in and to the aforementioned NOW THEREFORE, be it know officiency of which from the Assignee(s)	2 Boulevard Du Gener  [s]) is/are desirous of securing the applications for Letters Potent on town that for and in consideration is hereby acknowledged, by these	mure right, title, and interest in and to this invention in all countries through its invention and the Letters Patent to be issued upon these applications;

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 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 examination applications, make all rightful paths and generally do everything possible to aid the Assignee[s], its/their successors and assigns, to obtain an 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.

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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:

Octe	Figer	inventi	or Name & Signature		Witness Name & Si	gnature	
February 20, 2020		JEAN.	Pierrick Bernard		N. HERBLIN		}
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1 4/	4.000	<b>\</b>	Carrie College	<i>Y</i> .	etina.	The Bullyman	
( <u>)</u>			·····	·	i	·····	

PATENT REEL: 051903 FRAME: 0293

RECORDED: 02/24/2020