505845081 01/02/2020 PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT			
ATURE OF CONVEYA	NCE:	ASSIGNMENT			
CONVEYING PARTY D	ΟΑΤΑ				
		Name			Execution Date
ESTELLE LORANT					11/27/2019
PHILIPPE MARIMOUT	OU				12/16/2019
NICOLAS JANICAUD					11/26/2019
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Property Type	r	Number			
PROPERTY NUMBERS	r	Number			
		Number 16674882			
Property Type Application Number:					
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Property Type Application Number: CORRESPONDENCE I Fax Number: Correspondence will I using a fax number, if Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER: SIGNATURE:	DATA be sent to provided	(404)888-7484 the e-mail address first; if the if that is unsuccessful, it vision 404-872-7000 IPDocketing@wbd-us.com, ne WOMBLE BOND DICKINSON ATTN: IP DOCKETING P.O. BOX 7037 ATLANTA, GEORGIA 30357- 15675.P1350 ERIC S HYMAN /eric s hyman/	vill be sent edy.caldero N (US) LLP 0037	t via US M	ail. s.com

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DECLARATION AND ASSIGNMENT FOR	Attorney Docket Number	15675P1350		
UTILITY OR DESIGN PATENT APPLICATION	First Named Inventor	Estelle LORANT		
(37 CFR 1.63)	COMPLETE IF KNOWN			
	Application Number	16/674,882		
Declaration OR Declaration Submitted Submitted after Initial	Filing Date	November 5, 2019		
with Initial Filing (surcharge	Art Unit			
Filing (37 CFR 1.16(f)) required)	Examiner Name			
OPTIMIZATION OF BORING BY A TUNNE	L BORING MACHINE A INTERACTIONS	S A FUNCTION OF GROUND/MACHINE		
	(Tule of the Invention)			
As a below named inventor, I hereby declare that: This declaration is directed to: The attached application, OR				
United States Application Number or PCT In	iternational Application N	Number 16/674,882		
filed on11/05/2019				
The above-identified application was made or authorized to be ma	ide by me.			
I believe I am the original inventor or an original joint inventor of a	claimed invention in the applic	cation.		
I have reviewed and understand the contents of the above-Identifi	ed application, including the cl	aim(s).		
I am aware of the duty to disclose to the Patent and Trademark 1,56, including for a continuation-in-part application, information application and the national or PCT international filing date of the	n material to patentability the	at became available between the filing date of the prior		
I hereby acknowledge that any willful false statement made in more than five (5) years, or both.	this declaration is punisha	ble under 18 U.S.C. 1001 by fine or imprisonment of not		
Willful false statements and the like are punishable by fine or imp any patent issuing thereon. I declare that all statements made he are believed to be true.				
Authorization To Permit Access to Application by	/ Participating Offices			
If checked, the undersigned hereby grants the U Office (JPO), the Korean Intellectual Property Office (KI property offices in which a foreign application claiming identified patent application. See 37 CFR 1.14(c) and (h) KIPO, WIPO, or other intellectual property office in which filed to have access to the above-identified patent application	PO), the World Intellectua priority to the above-ident). This box should not be a a foreign application claim	ilied patent application is filed access to the above- shecked if the applicant does not wish the EPO, JPO,		
In accordance with 37 CFR 1.14(h)(3), access will be pro- above-identified patent application-as-filed; 2) any foreign 35 U.S.C. 119(a)-(d) if a copy of the foreign application the above-identified patent application; and 3) any U.S. ap application.	application to which the a nat satisfies the certified co	bove-identified patent application claims priority under opy requirement of 37 CFR 1.55 has been filed in the		
In accordance with 37 CFR 1.14(c), access may be provid to Application by Participating Offices.	ed to information concerni	ng the date of filing the Authorization to Permit Access		
Modified on 03/01/2018.	[Page 1]	15675P1350		

DECLARATION AND ASSIGNMENT -- Utility or Design Patent Application

correspondence to: as	ne address sociated with 08791 ustomer Number:	OR 🗌	Correspondence address below:
Name			
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Country U.S.A.	Telephone (404) 872-7000	Email	IPDocketing@wbd-us.com

Assignment of Patent Application:

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, the below-named inventors: hereby sell, assign, and transfer to

BOUYGUES TRAVAUX PUBLICS

having a principal place of business at 1, avenue Eugene Freyssinet , Guyancourt, 78280 FR

("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the above identified application and in and to said application and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continuation applications, continuation, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the below named inventor(s).

Modified on 03/01/2018.

[Page 2]

15675P1350

DECLARATION AND ASSIGNMENT -- Utility or Design Patent Application

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not relained in the application file and therefore are not publicly available. Petitioner/applicant is advised that documents which form the record of a patent application (such as the PTO/SB/01) are placed into the Privacy Act system of records DEPARTMENT OF COMMERCE, COMMERCE-PAT-7, System name: Patent Application File . Documents not relained in an application file (such as the PTO-2038) are placed into the Privacy Act system of COMMERCE/PAT-TM-10, System name: Deposit Accounts and Electronic Funds Transfer Profiles.

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(E.g., Given Name (first and Estelle LORANT	I middle (if any)) and Family Na	me or Surname)		
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Philippe MARIMOUTO		Date ACth Decim	(<u> </u>	
Sector States and States		AC" Decin	iller with	
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Modified on 03/01/2018.		[Page 3]		15675P1350

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RECORDED: 01/02/2020