#### 08/12/2019 505618007

#### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5664809

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
YOHICHI HARAGUCHI	06/10/2019
YOSHIHIRO SERIZAWA	06/04/2019
TATSURO HONDA	06/12/2019
HISAYOSHI TACHIBANA	06/10/2019
SUSUMU NAKAGAWA	06/26/2019
KOKI TANAKA	06/11/2019
SHOTA ISHITSUKA	06/07/2019

#### **RECEIVING PARTY DATA**

Name:	NIPPON STEEL CORPORATION
Street Address:	6-1, MARUNOUCHI 2-CHOME, CHIYODA-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	100-8071

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

Property Type	Number
Application Number:	16484765

#### **CORRESPONDENCE DATA**

Fax Number: (703)205-8050

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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ATTORNEY DOCKET NUMBER:	4670-0162PUS1
NAME OF SUBMITTER:	ANH-VU DAO
SIGNATURE:	/anh-vu dao/
DATE SIGNED:	08/12/2019

**PATENT** REEL: 050031 FRAME: 0631

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# **Total Attachments: 5**source=2019-08-08\_DecAssignment\_4670-0162PUS1#page1.tif source=2019-08-08\_DecAssignment\_4670-0162PUS1#page2.tif source=2019-08-08\_DecAssignment\_4670-0162PUS1#page3.tif

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PATENT REEL: 050031 FRAME: 0632

#### BIRCH, STEWART, KOLASCH & BIRCH, LLP

P.O. Box 747 • Falls Church, Virginia 22040-0747 Telephone: (703) 205-8000 • Facsimile: (703) 205-8050 • Email: mailroom@bskb.com

### **DECLARATION AND ASSIGNMENT** FOR PATENT AND DESIGN APPLICATIONS

UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

	OWIED DIVIDED FOR MENT MENT MONTO
Title of Invention	COOLING DEVICE FOR HOT ROLLED STEEL SHEET AND COOLING METHOD FOR THE SAME
	As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:
	This declaration is directed to the application attached hereto.
Application not Attached	$^{\Rightarrow}$ If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:
Enter Appln. No.	⇒ United States Application Number or PCT International Appln. PCT/JP2017/013865 No.
Enter Filing Date	⇒ filed on March 31, 2017 .
	The above-identified application was 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.
	I have reviewed and understand the contents of the above-identified application, including the claims.
	I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.
	WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified.
Insert Name of Assignee	⇒WHEREAS, NIPPON STEEL CORPORATION
Insert Address of Assignee	⇒ of 6-1, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8071 Japan,
	its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and
Check Box if Appropriate	⇔ in any foreign countries.
	NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

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BSKB-DECASSIGN(09-12)

Attorney Docket No. 4670-0162PUS1

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of (a) valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

The undersigned hereby acknowledges 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 witness whereof, executed by the undersigned on the date opposite the undersigned name.

	LEGAL N	AME OF INVENTO	R					
Inventor's Name	⇔ Inventor:	Yohichi HARAGUC	ні		Date:	June	10,	2019
Inventor's Signature	² ⇒ Signature:	原口	9年					
An application Use a separate	n data sheet (P form for each	TO/SB/14 or equivale inventor; or check the	nt), including nam box below and co	ing the entire inver	ntive entity l page(s) to	y, must accom o list addition	pany this al inventor	form. s.
☑ Additional	inventors are	being named on the _	1_supplemental s	sheet(s) attached he	reto.			

Attorney Docket No. 4670-0162PUS1

## SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

## ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

	LEGAL N.	AME OF JOINT INVENTOR, IF ANY			
Inventor's Name	⇒ Inventor:	Yoshihiro SERIZAWA	Date: _	June	4,2019
Inventor's Signature	⇒ Signature:				
	LEGAL N	AME OF JOINT INVENTOR, IF ANY			
Inventor's Name	⇒ Inventor:	Tatsuro HONDA	Date:		
Inventor's Signature	⇒ Signature:		<del></del>		
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY			
Inventor's Name	⇒Inventor:	Hisayoshi TACHIBANA	Date: _	June 1	10, 2019
Inventor's Signature	⇒Signature;				
	LEGAL N	AME OF JOINT INVENTOR, IF ANY			
Inventor's Name	⇔Inventor:	Susumu NAKAGAWA	Date: _		•…
Inventor's Signature	⇔Signature:				•
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY		_	
Inventor's Name	⇔Inventor:	Koki TANAKA	Date: _	June	11 , 2019
Inventor's Signature	⇔Signature:	田中引毅			
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY			
Inventor's Name	⇒Inventor:	Shota ISHITSUKA	Date: _	June	7, 2019
Inventor's Signature	⇔Signature:	五根物质			
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY			
Inventor's Name	⇔Inventor;		Date: _		
Inventor's Signature	⇔Signature:				
	LEGAL N	AME OF JOINT INVENTOR, IF ANY			
Inventor's Name	<sup>⇔</sup> Inventor:		Date: _		
Inventor's Signature	⇔Signature:				

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PATENT REEL: 050031 FRAME: 0635

 ${\tt Attorney\ Docket\ No.}\quad 4670\text{-}0162PUS1$ 

## SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

## ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name =	Inventor:	Yoshihiro SERIZAWA	Date:
Inventor's Signature =	Signature:		
	LEGAL NA	ME OF JOINT INVENTOR, IF ANY	
Inventor's Name	Inventor:	Tatsuro HONDA	Date: June 12, 2019
Inventor's Signature	Signature:	Tatawo 9 Londa	
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒Inventor:	Hisayoshi TACHIBANA	Date:
Inventor's Signature	⇒Signature:		
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	Susumu NAKAGAWA	Date:
Inventor's Signature	⇔Signature:		
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	Koki TANAKA	Date:
Inventor's Signature	⇔Signature:		
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor;	Shota ISHITSUKA	Date:
Inventor's Signature	⇔Signature:		
	LEGALNA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:		Date:
Inventor's Signature	⇒Signature:		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:		Date:
Inventor's Signature	⇔Signature:		

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PATENT REEL: 050031 FRAME: 0636

Attorney Docket No. 4670-0162PUS1

## SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

## ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name =	Inventor:	Yoshihiro SERIZAWA	Date:
Inventor's Signature =	Signature:		
	1701111		
		AME OF JOINT INVENTOR, IF ANY	•
Inventor's Name =	Inventor:	Tatsuro HONDA	Date:
Inventor's Signature	Signature:	·	
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒Inventor:	Hisayoshi TACHIBANA	Date:
Inventor's Signature	⇔Signature:		
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒Inventor:	Susumu NAKAGAWA	Date: June 26, 2019
Inventor's Signature	⇔Signature:	Susumu Natragama	
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	Koki TANAKA	Date:
Inventor's Signature	⇔Signature:		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	Shota ISHITSUKA	Date:
Inventor's Signature	⇒Signature:		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:		Date:
Inventor's Signature	⇒Signature:		<u> </u>
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:		Date:
Inventor's Signature	⇔Signature:		

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PATENT REEL: 050031 FRAME: 0637

**RECORDED: 08/12/2019**