Please record the attached document.  Total number of pages including cover sheet, attachments, and document:4  1. A. Name of conveying parties:  1. Hidehiko NISHINO 2. Yoshihiro HIRANO 3. Junichi UCHIDA B. Additional name(s) of conveying party(ies) attached?    Yes   No    3. A. Nature of conveyance:   Assignment	Mail Stop: Assignment Recordation Services Director of the U.S. Patent and Trademark Office P.O. Box 1450	RECORDATION FORM ( PATENTS OF		U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office				
Total number of pages including cover sheet, attachments, and document: 4  1. A. Name of conveying parties:  2. A. Name and address of receiving party:  3. Hidehiko NISHINO 2. Yoshihiro HIRANO 3. Junichi UCHIDA  4. A. Nature of conveyance:  Assignment			At	ttorney Docket No. <u>148384</u>				
1. A. Name of conveying parties:  1. Hidehiko NISHINO 2. Yoshihiro HIRANO 3. Junichi UCHIDA B. Additional name(s) of conveying party(ies) attached?  □ Yes ☒ No  3. A. Nature of conveyance: □ Assignment □ Merger □ Security Agreement □ Change of Name □ Other □ B. Execution Date: All: January 18, 2011  4. A. Patent Application: BAND SAW CUTTING APPARATUS AND INGOT CUTTING METHOD  5. Name and address of party to whom correspondence concerning document should be mailed:  Name: William P, Berridge  Address: OLIFF & BERRIDGE, PLC P.O. Box 320859 Alexandria, 703-836-6400 Fax Number: 703-836-6400 Fax Number: 703-836-62787	Please record the attached document.							
1. Hidehiko NISHINO 2. Yoshihiro HIRANO 3. Junichi UCHIDA B. Additional name(s) of conveying party(ies) attached?  □ Yes ☒ No  3. A. Nature of conveyance: □ Assignment □ Merger □ Security Agreement □ Change of Name □ Other □ B. Execution Date: All: January 18, 2011  4. A. Patent Application: BAND SAW CUTTING APPARATUS AND INGOT CUTTING METHOD  5. Name and address of party to whom correspondence concerning document should be mailed:  Name: William P. Berridge  Address: OLIFF & BERRIDGE, PLC P.O. Box 320850 Phone Number: 703-836-6400 Fax Number: 703-836-6787	Total number of pages including cover sheet, attachments, and document: 4							
Assignment	1. Hidehiko NISHINO 2. Yoshihiro HIRANO 3. Junichi UCHIDA	ying party(ies) attached?	SHIN 6-2, 0	I-ETSU HANDOTAI CO., LTD. OHTEMACHI 2-CHOME				
Additional numbers attached? ☐ Yes ☒ No  C. Title of Application: BAND SAW CUTTING APPARATUS AND INGOT CUTTING METHOD  5. Name and address of party to whom correspondence concerning document should be mailed:  Name: William P. Berridge  Address: OLIFF & BERRIDGE, PLC P.O. Box 320850 Alexandria, VA 22320-4850 Phone Number: 703-836-6400 Fax Number: 703-836-2787  Additional numbers attached? ☐ Yes ☒ No  6. Total number of applications and patents involved: 1  7. Please charge Deposit Account No. 15-046 total fee (37 CFR 3.41) in the amount of \$40 deposit account number 15-0461.		Change of Name	B. Additic	onal name(s) & address(es) attached? □Yes ☑ No				
C. Title of Application:  BAND SAW CUTTING APPARATUS AND INGOT CUTTING  METHOD  5. Name and address of party to whom correspondence concerning document should be mailed:  Name: William P. Berridge  Address: OLIFF & BERRIDGE, PLC P.O. Box 320850 Alexandria, VA 22320-4850 Phone Number: 703-836-6400 Fax Number: 703-836-2787  Alexandria P.D. Saw Cutting Apparatus And Independence of applications and patents involved: 1  7. Please charge Deposit Account No. 15-046 total fee (37 CFR 3.41) in the amount of \$40  8. Credit any overpayment or charge any underpayment deposit account number 15-0461.	4. A. Patent Application No.: 13							
5. Name and address of party to whom correspondence concerning document should be mailed:  Name: William P. Berridge  Address: OLIFF & BERRIDGE, PLC P.O. Box 320850 Alexandria, VA 22320-4850 Phone Number: 703-836-6400 Fax Number: 703-836-2787  Alexandria P. Berridge  6. Total number of applications and patents involved: 1  7. Please charge Deposit Account No. 15-046 total fee (37 CFR 3.41) in the amount of \$40  8. Credit any overpayment or charge any underpayment deposit account number 15-0461.	C. Title of Application: BAND SAW CUTTING APPARATUS AND INGOT CUTTING							
Address: Oliff & Berridge, PLC P.O. Box 320850 Alexandria, VA 22320-4850 Phone Number: 703-836-6400 Fax Number: 703-836-2787  total fee (37 CFR 3.41) in the amount of \$40  8. Credit any overpayment or charge any underpayment deposit account number 15-0461.	5 Name and address of party to who	om correspondence	6. Total numb	per of applications and patents involved: 1				
P.O. Box 320850 deposit account number 15-0461.  Alexandria, VA 22320-4850 Phone Number: 703-836-6400 Fax Number: 703-836-2787	Name: William P. Berridge		7. Please total fe	charge Deposit Account No. 15-0461 the e (37 CFR 3.41) in the amount of \$40.00.				
9. Statement and signature.  9. Statement and signature.  1. Statement and signature.  1. Statement and signature.  1. Statement and signature.	P.O. Box 3208 Alexandria, VA Phone Number: 703	850 22320-4850 3-836-6400	8. Credit any deposit acc	overpayment or charge any underpayment to count number 15-0461.				
9. Statement and signature.  9. Statement and signature.  1. In the foregoing information is true and correct and any attached copy is a true copy								
Original document  William P. Berridge Registration No. 30,024 Stephen J. Pachol, IV, Registration No. 62,487	witten P Berridge Registratio	on No. 30,024						

PATENT REEL: 025748 FRAME: 0953

## Assignment

Japanese Language Assignment

(1-8)	Insert Name(s) of Inventor(s) 発明者の氏名を記入すること	
(1)	Hidehiko Nishino	
(2)	Yoshihiro Hirano	
(3)	Junichi Uchida	
(4)		
(5)		
(6)		
(7)		
(8)		
各々 およひ	・の署名人に対して支払われた総額 1 ドル (\$1.00) ド他の適切な有価約因を考慮して、各々の署名人は	In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, each undersigned agrees to assign, and hereby does assign, transfer and set over to
(9)	Insert Name of Assignee 譲受人氏名を記入すること	
(9)	Shin-Etsu Handotai Co., Ltd.	
(10)	Insert Address of Assignee 譲受人住所を記入すること	
(10)	6-2, Ohtemachi 2-chome, Chiyod	a-ku, Tokyo, Japan
譲渡発際に対象人	譲受人と称する)に対して、譲渡に同意し、ここに し、米国法第 35 章第 100 条に定義されるごとく、こ 明および仮出願、非仮出願、分割出願、継続出願、 出願、差替え出願、及び再発行出願、および前記発 関するすべての特許証、延長証、再発行証、再審査 含む特許のための全ての出願において、アメリカ合 のためのすべての権利、所有権、および利益を譲受 継承人、後継者、被譲渡者、および法定代理人に移 よび譲渡し、	(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, international, substitute, and reissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as
(11)	Insert Identification such as Title, Case Number, or Foreign Application Number	
	名称、事件番号、もしくは外国出願番号のよう な確認事項を記入のこと	
(11)	Japanese Patent Application N	
	(International Application No	D. PCT/JP2009/003876)
	orney Docket No. ) 女士整理番号	
前部 出願	2署名人が下記の日付でアメリカ合衆国において特許 質を履行するものであり、	for which the undersigned has (have) executed an application for patent in the United States of America on even date herewith

**PATENT** REEL: 025748 FRAME: 0954 or もしくは

- (12) Insert Date of Signing of Application 出願に署名する日付を記入のこと
- (12) or
- (13) Alternative Identification for filed applications提出された出願のための代案確認事項
- U.S. application Serial Number 右記の米国出願整理番号で filed

上記日付において提出されたものである。

- 1) 各々の署名人は前記発明のための 出願関係および、継続出願、分割出願、再発行 出願およびこの件に関しての発行する特許にお いて、必要な全ての書類を履行することに同意 し、譲受人が必要と思われる、このような出願 および特許に関しての別途譲渡証を履行するこ とにも同意する。
- 2) 各々の署名人は、前記発明のための、出願もしくは継続出願、もしくはその分割出願、特許もしくはそれに基づく再発行出願に関して宣言されるインターフェレンスに関して必要な全ての書類を履行することに同意し、証拠取得およびそのようなインターフェレンスを進行するにあたり、いかなる方法においても前記譲受人と協力することに同意する。
- 3) 各々の署名人は、すべての用紙および書類を履行し、国際工業所有権保護協定の請求もしくは規定もしくは類似協定に関して必要ないかなる行為を施行することに同意する。
- 4) 各々の署名人は、前記譲受人に対して有効な米国特許の承認を取得し、維持し、もしくは再発行もしくは再審査により、確認するために、必要なすべての積極的な行為を履行することに同意する。
- 5) 各々の署名人は、米国特許商標庁 長官に前記出願から発生したすべての米国特許 証を、全ての利益の譲受人としての前記譲受人 に対して発行することを許可および請求し、こ に署名するにおいて、署名人は全ての利益に 譲るためのすべての権利を有し、対立関係にあ る協定を過去に履行することなくもしくは将来 履行しないことを誓約し、この協定が前記譲受 人、譲受人の継承人、後継者、被譲渡者、おる び法定代理人に法的義務を負わせるものである ことに同意する。
- 6) 各々の署名人は、この書類の記録上、米国特許商標庁の規定に従うために、必要もしくは所望であればこの譲渡証にさらに確認事項を記入するための権利が オリフ・ベッリジ 法律弁護士事務所(Oliff & Berridge)に付与されていることをここに承認する。

- Each undersigned agrees to execute all
  papers necessary in connection with any application
  and any continuing, divisional or reissue applications
  for the invention, and any patent(s) issuing thereon, and
  also to execute separate assignments in connection with
  such applications and patents as the Assignee may
  deem necessary.
- 2) Each undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning any application or continuation or division thereof, or any patent or reissue application based thereon, for the invention, and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.
- 3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.
- 4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignee.
- 5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all Letters Patents of the United States resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and covenants that he has full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreements in conflict herewith, and agrees that this assignment is binding on him and his heirs, successors, assigns and legal representatives.
- 6) Each undersigned hereby grants the firm of Oliff & Berridge the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

証人立ち会いのもとで、著名人覧の解の日付をもってこの署名が履行される。			in witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).			
Date 日付	January 18 2011	Inventor Signature 発明者署名	Ididehiko nahino	(SEAL	)	
Date 日付	- Jan 18.2011	Inventor Signature 発明者署名	Jackibina Chica	(SEAL	)	
Date 日付	January 18-2011	Inventor Signature 発明者署名	Funishi Mchide	<b>见</b> (SEAL 印	)	
Date 日付		Inventor Signature 発明者署名		_ (SEAL 印	)	
Date 日付		Inventor Signature 発明者署名		_ (SEAL FD	)	
Date 日付		Inventor Signature 発明者署名		_ (SEAL FD	)	
Date 日付		Inventor Signature 発明者署名		_ (SEAL FJ	)	
Date 日付		Inventor Signature 発明者署名		_ (SEAL 印	)	
公証人 には* くは(t	<ul><li>譲渡証は(a)アメリカ合衆国内で署名の目前で、(b)アメリカ合衆国外でを国領事の目前で署名されるべきでかが不可能な際には、下記に署名が証人の目前で署名されるべきであり</li></ul>	で署名される際 ごある。(a)もし する少なくとも	This assignment should pret (a) a Notary Public if within the U.S. outside the U.S.A. If neither, the before at least two witnesses who also	S.A. (b) a U.S en it should	. Consul if	
Date 日付		Witness 証人			F - 1111000 W	
Date		Witness				

証人

PATENT REEL: 025748 FRAME: 0956

日付