PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4320581

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
REAL ALLOY RECYCLING, INC. (F/K/A ALERIS RECYCLING, INC.	03/14/2017
REAL ALLOY SPECIALTY PRODUCTS, INC. (F/K/A ALERIS SPECIALTY PRODUCTS, INC.)	03/14/2017
ETS SCHAEFER, LLC	03/14/2017

RECEIVING PARTY DATA

Name:	BANK OF AMERICA, N.A, AS AGENT		
Street Address:	135 SOUTH LASALLE STREET, SUITE 925		
City:	CHICAGO		
State/Country:	ILLINOIS		
Postal Code:	60603		

PROPERTY NUMBERS Total: 12

Property Type	Number
Patent Number:	6350295
Patent Number:	5996677
Patent Number:	6110434
Patent Number:	5901910
Patent Number:	6213763
Patent Number:	6435864
Patent Number:	6530779
Patent Number:	6705858
Patent Number:	6609908
Patent Number:	6920731
Patent Number:	5727479
Patent Number:	6077326

CORRESPONDENCE DATA

Fax Number: (312)201-3865

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: 312-201-3865

Email: sharon.patterson@goldbergkohn.com

REEL: 041586 FRAME: 0253

PATENT

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Correspondent Name: SHARON PATTERSON, PARALEGAL

Address Line 1: GOLDBERG KOHN LTD., 55 E. MONROE ST.

Address Line 2: STE. 3300

Address Line 4: CHICAGO, ILLINOIS 60603

ATTORNEY DOCKET NUMBER:	2759.185	
NAME OF SUBMITTER:	SHARON PATTERSON	
SIGNATURE:	/sharon patterson/	
DATE SIGNED:	03/15/2017	

Total Attachments: 6

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PATENT SECURITY AGREEMENT

THIS PATENT SECURITY AGREEMENT, dated as of March 14, 2017, 2017, is made by each of the entities listed on the signature pages hereof (each a "<u>Grantor</u>" and, collectively, the "<u>Grantors</u>"), in favor of BANK OF AMERICA, N.A., as administrative agent (in such capacity, together with its successors and permitted assigns, "<u>Agent</u>") for the Secured Parties (as defined in the Credit Agreement referred to below).

WITNESSETH:

WHEREAS, pursuant to the Revolving Credit Agreement, dated as of the date hereof (as the same may be amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), by and among REAL ALLOY HOLDING, INC., a Delaware corporation, the other Credit Parties, the Lenders and the L/C Issuers from time to time party thereto and Agent, the Lenders and the L/C Issuers have severally agreed to make extensions of credit to the Borrowers upon the terms and subject to the conditions set forth therein

WHEREAS, each Grantor has agreed, pursuant to that certain U.S. Revolving Guaranty and Security Agreement dated as of the date hereof in favor of Agent (as such agreement may be amended, restated, supplemented or otherwise modified from time to time, the "Guaranty and Security Agreement"), to guarantee the Obligations (as defined in the Credit Agreement) of each Borrower; and

WHEREAS, all of the Grantors are party to the Guaranty and Security Agreement pursuant to which the Grantors are required to execute and deliver this Patent Security Agreement;

NOW, THEREFORE, in consideration of the premises and to induce the Lenders, the L/C Issuers and Agent to enter into the Credit Agreement and to induce the Lenders and the L/C Issuers to make their respective extensions of credit to the Borrowers thereunder, each Grantor hereby agrees with Agent as follows:

Section 1. Defined Terms. Capitalized terms used herein without definition are used as defined in the Guaranty and Security Agreement or Credit Agreement.

Section 2. Grant of Security Interest in Patent Collateral. Each Grantor, as collateral security for the prompt and complete payment and performance when due (whether at stated maturity, by acceleration or otherwise) of the Secured Obligations of such Grantor, hereby assigns mortgages, pledges and hypothecates to Agent for the benefit of the Secured Parties, and grants to Agent for the benefit of the Secured Parties a Lien on and security interest in, all of its right, title and interest in, to and under the following Collateral of such Grantor (the "Patent Collateral"):

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- (a) all of its Patents and all IP Licenses providing for the grant by or to such Grantor of any right under any Patent, including, without limitation, those referred to on Schedule 1 hereto;
- (b) all reissues, reexaminations, continuations, continuations-in-part, divisionals, renewals and extensions of the foregoing; and
- (c) all income, royalties, proceeds and Liabilities at any time due or payable or asserted under and with respect to any of the foregoing, including, without limitation, all rights to sue and recover at law or in equity for any past, present and future infringement, misappropriation, dilution, violation or other impairment thereof.]
- Section 3. Guaranty and Security Agreement. The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interest granted to Agent pursuant to the Guaranty and Security Agreement and each Grantor hereby acknowledges and agrees that the rights and remedies of Agent with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Guaranty and Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.
- <u>Section 4.</u> Representations and Warranties. The undersigned hereby represents and warrants that each of the representations and warranties contained in <u>Section 4.5</u> of the Guaranty and Security Agreement is true and correct on and as of the date hereof as if made on and as of such date.
- Section 5. Grantor Remains Liable. Each Grantor hereby agrees that, anything herein to the contrary notwithstanding, such Grantor shall remain solely responsible for the prosecution, defense, enforcement or any other necessary or desirable actions in connection with their Patents and IP Licenses subject to a security interest hereunder.
- Section 6. Counterparts. This Patent Security Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart.
- Section 7. Governing Law. THIS PATENT SECURITY AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HERETO SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK.

[Remainder of page intentionally blank; signature pages follow.]

IN WITNESS WHEREOF, each Grantor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

REAL ALLOY RECYCLING, INC.

f/k/a Aleris Recycling, Inc., a Delaware corporation, as a Grantor

Name: Michael J. Hobey

Title: Vice President, Treasurer and Assistant

Secretary

REAL ALLOY SPECIALTY PRODUCTS, INC.

f/k/a Aleris Specialty Products, Inc., a Delaware corporation, as a Grantor

By: Michael I Hohav

Name: Michael J. Hobey

Title: Vice President, Treasurer and Assistant

Secretary

ETS SCHAEFER, LLC,

an Ohio limited liability company, as a Grantor

Name: Michael J. Hobey

Title: Vice President, Treasurer and Assistant

Secretary

SIGNATURE PAGE TO PATENT SECURITY AGREEMENT

ACCEPTED AND AGREED as of the date first above written:

BANK OF AMERICA, N.A.,

as Agent

By: _ Name: _

Title:

SIGNATURE PAGE TO PATENT SECURITY AGREEMENT

SCHEDULE 1 TO PATENT SECURITY AGREEMENT

Patent Registrations

Debtor/Grantor	<u>Title</u>	Application Number and Date	<u>Status</u>	Reg No. and Date	<u>Jurisdiction</u>
Aleris Specialty Products, Inc.	Method for Densifying Aluminum and Iron Briquettes and	09/887,752 06/22/2001	Live	6,350,295 02/26/2002	USA
Aleris Recycling, Inc.	Method and Apparatus for Supplying Molten Metal	08/597,952 2/7/1996	Live	5,996,677 12/07/1999	USA
Aleris Specialty Products, Inc.	Recovery of Products from Non-Metallic Products Derived from Aluminum Dross	09/257,071 2/24/1999	Live	6,110,434 8/29/2000	USA
Aleris Recycling, Inc.	Metal Recovery From Salt Cake and Other Compositions	08/797,528 02/07/1997	Live	5,901,910 5/11/1999	USA
Aleris Recycling, Inc.	Door Assembly for Rotary Furnace	09/558,696 4/25/2000	Live	6,213,763 4/10/2001	USA
Aleris Recycling, Inc.	Door Assembly for Rotary Furnace	09/770,025 1/25/2001	Live	6,435,864 8/20/2002	USA
Aleris Recycling, Inc.	Door Assembly for Rotary Furnace	10/126,332 4/19/2002	Live	6,530,779 3/11/2003	USA
Aleris Recycling, Inc.	Door Assembly for Rotary Furnace	10/382,299 3/5/2003	Live	6,705,858 3/16/2004	USA
ETS Schaefer, LLC	Replaceable Heater Cover	10/010,364 11/13/2001	Live	6,609,908 8/26/2003	USA

Debtor/Grantor	<u>Title</u>	Application Number and Date	<u>Status</u>	Reg No. and Date	<u>Jurisdiction</u>
ETS Schaefer, LLC	Insulated Structure	10/193,840 07/12/2002	Live	6,920,731 07/26/2005	USA
ETS Schaefer, LLC	Furnace Door Closure System	08/721,280 09/26/1996	Live	5,727,479 03/7/1998	USA
Aleris Specialty Products, Inc.	Steel Additive For Processing Molten Steel	07/01/1997 08/886,676	Live	6,077,326 06/20/2000	USA
Aleris Recycling, Inc.	Metal Recovery from Salt Cake and Other Compositions	2,279,964 02/06/1998	Live	2,279,964 5/11/1999	Canada
Aleris Recycling, Inc.	Door Assembly for Rotary Furnace*	2,399,749 2/14/2003	Live	2399749 7/8/2008	Canada
Aleris Specialty Products, Inc.	Method for Densifying Aluminum Briquettes*	2,390,461 6/12/2002	Live	2390461	Canada
ETS Schaefer, LLC	Furnace Door Closure System*	2,212,107 07/31/1997	Live	2,212,107 01/27/2004	Canada

RECORDED: 03/15/2017