501776078 01/05/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date		
Ronald Barrett	12/13/2011		
Donald Abrino	12/13/2011		

RECEIVING PARTY DATA

Name:	NORTH AMERICAN REFRACTORIES CO.		
Street Address:	400 FAIRWAY DRIVE		
Internal Address:	CHERRINGTON CORPORATE CENTER		
City:	MOON TOWNSHIP		
State/Country:	PENNSYLVANIA		
Postal Code:	15108		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	29410165

CORRESPONDENCE DATA

Fax Number: (440)684-1095 Phone: 4406841090

Email: mkusner@kusnerjaffe.com, cgoellner@kusnerjaffe.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US

Mail.

Correspondent Name: KUSNER & JAFFE

Address Line 1: 6150 Parkland Boulevard, Suite 105

Address Line 2: Paragon Center II

Address Line 4: Mayfield Heights, OHIO 44124

ATTORNEY DOCKET NUMBER: NR9521US.2

NAME OF SUBMITTER: Mark Kusner

Total Attachments: 2

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PATENT REEL: 027481 FRAME: 0321 OP \$40.00 29410165

For:

U.S. Rights and Foreign Rights

For: U.S. Application

By: Inventors

ASSIGNMENT OF INVENTION

In consideration of the payment by ASSIGNEE to ASSIGNORS of the sum of Ten Dollars (\$10.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration,

ASSIGNORS:

Ronald Barrett
111 Cornetti Road
Fenelton, Pennsylvania 16034

Nationality: US

Donald Abrino Road H1 Curwensville, Pennsylvania 16833

Nationality: US

hereby sells, assigns and transfers to:

ASSIGNEE:

North American Refractories Co. Cherrington Corporate Center 400 Fairway Drive Moon Township, PA 15108

An Ohio Corporation

and the successors, assigns and legal representatives of the ASSIGNEE the entire right, title and interest for the United States and its territorial possessions in and to any and all improvements which are disclosed in the invention entitled:

HIGH-YIELD LADLE BOTTOM

and which i	s found in (3'	7 C.F.R. §3.2	1) 11 C notes	at application	n avenuted or	. annan data l	ith au	r 1:
		, Си ил дэгг		n application	n executed of			
Application			, filed on _			and,	in and	to, al
Letters Pat	ent to be obta	ained for said	l invention b	y the above	application	or any cont	inuation. d	ivision
renewal, or	substitute the	reof, and as to	letters pater	it anv reissuo	e or re-exami	nation there	e e	

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

ASSIGNORS further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNORS and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue

(Assignment of Invention-page 1

PATENT REEL: 027481 FRAME: 0322 and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

IN WITNESS WHEREOF, I have hereunto set hand and seal.

Date: 12-13-2011

Signature of Ronald Barrett

Date: 12/13/2011

Signature of Donald Abrino

(Assignment of Invention—page 2

PATENT

REEL: 027481 FRAME: 0323

RECORDED: 01/05/2012