503867107 06/12/2016

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHEN CHEN	06/04/2015
HUIMIN SONG	03/03/2015
LIANG ZHAO	05/15/2015
YOUHE ZHANG	05/07/2015
MICHAEL G. AZAR	03/03/2015
XIAOGE GAN	03/02/2015
MADAPUSI K. KESHAVAN	05/22/2015
ZHIJUN LIN	03/03/2015
BALA DURAIRAJAN	04/22/2015
MICHAEL L. STEWART	03/02/2015

RECEIVING PARTY DATA

Name:	SMITH INTERNATIONAL, INC.	
Street Address: 1310 RANKIN ROAD		
City:	HOUSTON	
State/Country:	TEXAS	
Postal Code:	77073	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14613144

CORRESPONDENCE DATA

Fax Number:

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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Correspondent Name: KRISTINE DUMAS-SCARBER

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ATTORNEY DOCKET NUMBER: | IS13.3833A-US-NP

PATENT REEL: 038891 FRAME: 0334

503867107

NAME OF SUBMITTER: KRISTINE DUMAS-SCARBER	
SIGNATURE:	/KRISTINE DUMAS-SCARBER/
DATE SIGNED:	06/12/2016

Total Attachments: 11

source=IS133833AUSNP_20160612_Signed_Assignment#page1.tif source=IS133833AUSNP_20160612_Signed_Assignment#page2.tif source=IS133833AUSNP_20160612_Signed_Assignment#page3.tif source=IS133833AUSNP_20160612_Signed_Assignment#page4.tif source=IS133833AUSNP_20160612_Signed_Assignment#page5.tif source=IS133833AUSNP_20160612_Signed_Assignment#page6.tif source=IS133833AUSNP_20160612_Signed_Assignment#page7.tif source=IS133833AUSNP_20160612_Signed_Assignment#page8.tif source=IS133833AUSNP_20160612_Signed_Assignment#page9.tif source=IS133833AUSNP_20160612_Signed_Assignment#page10.tif source=IS133833AUSNP_20160612_Signed_Assignment#page10.tif source=IS133833AUSNP_20160612_Signed_Assignment#page11.tif

PATENT REEL: 038891 FRAME: 0335

ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual(s) (referred to herein as the "INVENTOR(S)") hereby assign, transfer and set over to:

Smith International, Inc.

Having the following address:

1310 Rankin Rd. Houston, Texas 77073

(Referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

CUTTING ELEMENTS HAVING NON-PLANAR SURFACES AND DOWNHOLE CUTTING TOOLS USING SUCH CUTTING ELEMENTS

for which the undersigned is/are going to file or has/have filed an application for patent in the United States of America, together with said patent application, all divisions, continuations, continuations-in-part, reissues, re-examinations, and extensions thereof, and all United States Letters Patent and any legal equivalent thereof in a foreign country, including the right to claim priority, which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR(S) if this assignment had not been made.

In addition, the undersigned INVENTOR(S) each hereby agrees:

- To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States Patent and any legal equivalent thereof in a foreign country, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY:
- To execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
- 3. To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent to COMPANY;

The undersigned INVENTOR(S) each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, reissue or re-examination thereof to COMPANY.

The undersigned INVENTOR(S) each hereby grants to COMPANY the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

Assignment - Worldwide Attorney Docket No. IS13.3833A-US-NP

Page 1

06/04/2015

Date

Inventor Signature:

Print or Type Name:

Chen Chen

Notary Public

State of: Connecticut

County of: New Haven

Before me personally appeared <u>Chen Chen</u>, who acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.

Dated:

LAVANH BQUNNAVONG Notary Public

Connecticut
My Commission Expires Apr 30, 2018

y Public My Cor

My Commission expires:

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

U.S. Application Serial No.: 14/613,144
Filing Date: February 3, 2015

Assignment - Worldwide Attorney Docket No. 1S13.3833A-US-NP

Page 2

PATENT

REEL: 038891 FRAME: 0337

3/3/2015

Inventor Signature:

Print or Type Name:

Huimin Song

Notary Public

State of: TUCUS

County of:

Before me personally appeared Huimin Song, who acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.

Dated:

KRISTEN MARTIN

3/3/2015

My Commission Expires March 3, 2018

Notary Public My Commission expires: MULS 2018

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

5/1	5/2015	Inventor Signature:	2
	Date	Print or Type Name:	Liang Zhao
Notary Public	State of: TUXUS County of: HW/15 Before me personal free act and deed an Dated: 5/15/6	ly appeared Liang Zhao , who a d also represented that he/she is	acknowledged the foregoing instrument to be authorized to execute this Assignment. Public My Commission expires: 11/15/17
NESSES	Date	Signature of Witness:	CRYSTAL REDMON Notory Public. State of Texas My Commission Expires November 15, 2017
T N	Date		
		signment is <u>not</u> filed concurrently wi ring identifying information may be a	
		U.S. Application Serial No.: 14/613,1 Filing Date: February 3, 2015	44

PATENT REEL: 038891 FRAME: 0339

Page 4

5/7/15

Inventor Signature:

Date

Print or Type Name:

Youhe Zhang

otary Public

State of: TOYUS
County of: HOYIS

Before me personally appeared <u>Youhe Zhang</u>, who acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.

Datade

KRISTEN MARTIN
My Commission Expires
March 3, 2018

Notary Public My Commission expires: 1100 3

When this Assignment is <u>not</u> filed concurrently with the patent application, the following identifying information may be added <u>after</u> execution:

Inventor Signature:

Print or Type Name:

Michael G. Azar

State of: TEXUS

County of: Horris

Before me personally appeared Michael G. Azar, who acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.

Dated: March 3, 2015

My Commission expires: Fela, 1, 2019

MARY B. HICKS MY COMMISSION EXPIRES February 1, 2019

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

03/02/15

Inventor Signature:

Print or Type Name:

Xidoge Gan

Notary Public

State of: TOYG

County of: Harris

Before me personally appeared Xiaoge Gan, who acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.

KRISTEN MARTIN My Commission Expires March 3, 2018

Notary Public

My Commission expires: MACA 3, 2018

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

5/22/15

Date

Inventor Signature:

Print or Type Name:

Madapusi K. Keshavan

rio L. Desha

otary Public

State of: Texas

County of: Hear (1)

Before me personally appeared <u>Madapusi K. Keshavan</u>, who acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.

Dated:

44,6015

Notary Public My Commission expires:

MARY B. HICKS
MY COMMISSION EXPIRES
February 1, 2019

When this Assignment is <u>not</u> filed concurrently with the patent application, the following identifying information may be added <u>after</u> execution:

3/3/2015

Inventor Signature:

Print or Type Name:

State of: TOUCH

County of:

Before me personally appeared Zhijun Lin, who acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.

KRISTEN MARTIN My Commission Expires March 3, 2018

Notary Public My Commission expires: March 3, 2018

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

04-22-2015

Inventor Signature:

D.Bale

Date

Print or Type Name:

Bala Durairajan

lotary Public

State of: TEXES

County of: HUMIS

Before me personally appeared <u>Bala Durairajan</u>, who acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.

Dated:

KRISTEN MARTIN
My Commission Expires
March 3, 2018

ULATA MUTA

Notary Public My Commission expires: MWCh3,2018

When this Assignment is <u>not</u> filed concurrently with the patent application, the following identifying information may be added <u>after</u> execution:

2 March 2015

Inventor Signature:

Print or Type Name:

Michael L. Stewart

State of: THUS

County of: Herris

Before me personally appeared Michael L. Stewart, who acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.

KRISTEN MARTIN My Commission Expires March 3, 2018

My Commission expires: MOKS 3, 2018 Notary Public

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

> U.S. Application Serial No.: 14/613,144 Filing Date: February 3, 2015

RECORDED: 06/12/2016

REEL: 038891 FRAME: 0346