FORM PTO-1595

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12-06-2001 101908245

Docket No. 45140/GTL/S61

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Post Office Box 7068 Pasadena, CA 91109-7068

Box Assignment Commissioner of Patents and Trademarks Washington, D.C. 20231

Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof:

1. Name of conveying party(ies):	2. Name and address of receiving party(ies):			
Anthony Griffo, Zhigang Fang, Robert Denton	Name: Smith International, Inc.			
Additional name(s) of conveying party(ies) attached: no	Street Address: 16740 Hardy Street, Houston, Texas 77032			
3. Name of conveyance:				
M Assignment ☐ Merger ☐ Security Agreement ☐ Change of Name ☐ Other:				
Execution Date: 5 October 2001, 26 October 2001, 4 October 2001	Additional name(s) & address(es) attached? no			
4. Application number(s) or patent number(s):				
If this document is being filed together with a new app is: .	lication, the execution date of the application			
A. Patent Application No.(s) 09/846,944	B. Patent No.(s)			
Additional numbers attached? no				
5. Please return the recorded document and address all correspondence to:	6. Total number of applications and patents involved			
CHRISTIE, PARKER & HALE, LLP P.O. Box 7068 Pasadena, CA 91109-7068 Attention: Grant T. Langton 10. Explanatory letter is enclosed.	 7. X Total fee enclosed (37 CFR 3.41): \$40.00 8. X Any deficiency or overpayment of fees should be charged or credited to Deposit Account No. 03-1728, except for payment of issue fees required under 37 CFR § 1.18. Please show our docket number with any credit or charge to our Deposit Account. 			
10. Despianatory letter is enclosed.				
original document. Date: November 12, 2001 By_	Name: Grant T. Langton 526/795-9900			
HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE U.S. POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO: ASSISTANT COMMISSIONER FOR PATENT. WASHINGTON, D.C. 20231 DN				
05/2001 DBYRNE 00000039 09846944	Total number of pages including cover sheet, attachments, and document:			
FG.581 40.00 0P				

PATENT REEL: 012335 FRAME: 0136

ASSIGNMENT

WHEREAS, WE, ANTHONY GRIFFO, ZHIGANG FANG, ROBERT DENTON, residing at 70 NorthAcacia Park Circle, The Woodlands, Texas 77382; 230 South Crimson Clover Circle, The Woodlands, Texas 77382; and 2201 Mykawa Road, Pearland, Texas 77581, respectively, have invented certain new and useful improvements disclosed in an application for United States Letters Patent entitled ROTARY CONE BIT WITH FUNCTIONALLY-ENGINEERED COMPOSITE INSETS, filed May 1, 2001, Application No. 09/846,944 and with claim to the priority of United States Provisional Application No. 60/200,851, filed May 1, 2000.

AND WHEREAS SMITH INTERNATIONAL, INC., a Delaware corporation, having a place of business at 16740 Hardy Street, Houston, Texas 77032 (hereafter, together with any successors, legal representatives or assigns thereof, called "ASSIGNEE") wants to acquire the entire right, title and interest in and to said improvements and application.

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned, transferred and set over, and do hereby sell, assign, transfer and set over to ASSIGNEE the entire right, title and interest in and to said improvements, and said application and all divisions and continuations thereof, and all United States Letters Patents which may be granted thereon and all reissues, reexaminations and extensions thereof, and all priority rights under all available International Agreements, Treaties and Conventions for the protection of intellectual property in its various forms in every participating country, and all applications for patents (including related rights such as utility-model registrations, inventor's certificates, and the like) heretofore or hereafter filed for said improvements in any foreign countries, and all patents (including all continuations, divisions, extensions, renewals, substitutes, and reissues thereof) granted for said improvements in any foreign countries; and we hereby authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty it is to issue patents on applications as aforesaid, to issue all patents for said improvements to ASSIGNEE in accordance with the terms of this Assignment;

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith;

AND WE HEREBY further covenant and agree that we will communicate to ASSIGNEE any facts known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute and reissue applications, make all rightful oaths and generally do everything possible to aid ASSIGNEE to obtain and enforce proper patent protection for said improvements in all countries.

IN TESTIMONY WHEREOF, I hereunto set my hand this 5 day of October, 2001.
19/1/201/201/201/201/201/201/201/201/201/2
Anthony Griffo
STATE OF Texas COUNTY OF Harris)
on 10-5-01, before me 10ez Sch, fan, Notary Public, personally appeared Anthony Griffo personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
INEZ G. SCHIFANI MY COMMISSION EXPIRES June 8, 2004 WITNESS my hand and official seal. Signature of Notary

N TESTIMONY WHEREOF, I hereunto set my hand this 26 day of October, 20 01.
STATE OF Texas COUNTY OF Harris
on 10-26-0, before me 10-2 Schifon, Notary Public, bersonally appeared Zhigang Fang personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
WITNESS my hand and official seal. WITNESS my hand and official seal. WITNESS my hand and official seal. Signature of Notary MY COMMISSION EXPIRES June 8, 2004 **********************************

IN TESTIMONY WHEREO	F, I hereunto set m	y hand this 14/1 day of 1 CCT	16er, 20 <u>01</u>
		W/ //	
		(blue length	
STATE OF TEXAS COUNTY OF Harris	,	Robert Denton	
STATE OF	,		
COUNTY OF Harris)		
4.0		1 010	
On 16-4-01	, before me	Inez Schifani	, Notary Public.
		ly known to me (or proved to me	
		name is subscribed to the within	
		his authorized capacity, and that by	
the instrument the person, or t	he entity upon beha	lf of which the person acted, execute	ed the instrument.
		TTTTT3 TT3 C1 C1	

INEZ G. SCHIFANI MY COMMISSION EXPIRES June 8, 2004

RECORDED: 11/12/2001

WITNESS my hand and official seal.

Signature of Notar:

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