

**PATENT ASSIGNMENT**

Electronic Version v1.1  
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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT						
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT						
<b>CONVEYING PARTY DATA</b>							
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Bala DURAIRAJAN</td> <td>08/29/2008</td> </tr> <tr> <td>Carl M. HOFFMASTER</td> <td>09/29/2008</td> </tr> </tbody> </table>		Name	Execution Date	Bala DURAIRAJAN	08/29/2008	Carl M. HOFFMASTER	09/29/2008
Name	Execution Date						
Bala DURAIRAJAN	08/29/2008						
Carl M. HOFFMASTER	09/29/2008						
<b>RECEIVING PARTY DATA</b>							
<b>Name:</b>	SMITH INTERNATIONAL, INC.						
<b>Street Address:</b>	16740 Hardy Street						
<b>City:</b>	Houston						
<b>State/Country:</b>	TEXAS						
<b>Postal Code:</b>	77032						
<b>PROPERTY NUMBERS Total: 1</b>							
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12247959</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12247959		
Property Type	Number						
Application Number:	12247959						
<b>CORRESPONDENCE DATA</b>							
<b>Fax Number:</b>	(713)228-8778						
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>							
<b>Phone:</b>	713-228-8600						
<b>Email:</b>	risinger@oshaliang.com						
<b>Correspondent Name:</b>	OSHA, LIANG LLP / SMITH						
<b>Address Line 1:</b>	TWO HOUSTON CENTER						
<b>Address Line 2:</b>	909 FANNIN STREET, SUITE 3500						
<b>Address Line 4:</b>	HOUSTON, TEXAS 77010						
<b>ATTORNEY DOCKET NUMBER:</b>	05516/379001						
<b>NAME OF SUBMITTER:</b>	Jeffrey S. Bergman						
<b>Total Attachments: 2</b> source=05516_379001_Assignment#page1.tif source=05516_379001_Assignment#page2.tif							

OP \$40.00 12247959

## 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:

16740 Hardy Street  
Houston, Texas 77032

(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:

### CUTTERS FOR PLASTIC SHALE APPLICATIONS

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all divisions, continuations, continuations-in-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) 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:

1. 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, 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;
2. 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, or reissue thereof to COMPANY.

The undersigned INVENTOR(S) each hereby grants to the firm of OSHA LIANG LLP 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.

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OSHA LIANG LLP

IN WITNESS WHEREOF, this Assignment has been executed by each of the undersigned individuals on the date appearing by such individual's signature:

Aug/29/08  
Date

1<sup>st</sup> Inventor Signature: Bala Durairajan  
Print or Type Name: Bala Durairajan

9-29-08  
Date

2<sup>nd</sup> Inventor Signature: [Signature]  
Print or Type Name: Carl M. Hoffmaster

\_\_\_\_\_  
Date

3<sup>rd</sup> Inventor Signature: \_\_\_\_\_  
Print or Type Name: \_\_\_\_\_

\_\_\_\_\_  
Date

4<sup>th</sup> Inventor Signature: \_\_\_\_\_  
Print or Type Name: \_\_\_\_\_

State of Texas  
County of Harris

NOTARY PUBLIC

Before me personally appeared: Bala Durairajan Carl M. Hoffmaster  
1<sup>st</sup> Inventor 2<sup>nd</sup> Inventor  
\_\_\_\_\_  
3<sup>rd</sup> Inventor 4<sup>th</sup> Inventor  
\_\_\_\_\_  
5<sup>th</sup> Inventor 6<sup>th</sup> Inventor  
\_\_\_\_\_  
7<sup>th</sup> Inventor 8<sup>th</sup> Inventor

each of whom acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.

Dated: 8/29+9/29/08  
Notary Public  
INEZ G. CAMERON  
MY COMMISSION EXPIRES  
June 8, 2012  
My commission expires: 6-8-2012

WITNESSES

Signature of Witness: \_\_\_\_\_  
Date \_\_\_\_\_  
Print or Type Name: \_\_\_\_\_

Signature of Witness: \_\_\_\_\_  
Date \_\_\_\_\_  
Print or Type Name: \_\_\_\_\_

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.: 12/247,959  
Filing Date: October 8, 2008