FORM PTO-1619A Expires 06/30/99 OMB 0651-0027

07-24-1998



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**U.S. Department of Commerce** Patent and Trademark Office

**PATENT** 

## **RECORDATION FORM COVER SHEET**

DATERITE ON V COT 2-033-1-2TT

		PATENTS UNLY	COL2-033-1-211			
TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies) 2						
Submission Type Conveyance Type						
X New		X Assignment	Security Agreement			
Resubmission (Non-Recordation) Document ID#		License	Change of Name			
Correction of PTO Error Reel # Frame #		Merger				
<u> </u>	e Document	(For Use ONL	J.S. Government LY by U.S. Government Agencies)			
Reel #	Frame #	· · · · · · · · · · · · · · · · · · ·	mental File Secret File			
Conveying F	Party(ies)	X Mark if additional name	es of conveying parties attached Execution Date  Month Day Year			
Name (line 1)	Glen Prater, Jr.		01-17-1997			
Name (line 2)			Execution Date			
Second Party Name (line 1)	Robert L. Collins		Month Day Year 01-17-1997			
	ROBELL II. COLLING					
Name (line 2)						
Receiving P			additional names of receiving parties attached			
Name (line 1)	Columbia Gas Distrib	ution Companies	If document to be recorded is an assignment and the receiving party is not			
Name (line 2)			domiciled in the United States, an appointment			
Address (line 1)	1600 Dublin Road	A	of a domestic representative is attached. (Designation must be a			
Address (line 2)			separate document from Assignment.)			
Address (line 3)	Columbus	Ohio/USA	43216			
City State/Country Zip Code  Domestic Representative Name and Address  Enter for the first Receiving Party only.						
/14/1998 QUERFATE	00000037 09110779					
FC:581 Address (line 1)	40.00 BP					
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Address (line 2)						
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Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0027), Washington, D.C. 2053. See OMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

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## Page 2

U.S. Department of Commerce Patent and Trademark Office

OMB 0651-0027						
Correspondent Name and Address Area Code and Telephone Number 614/575-2100						
Name Christen M. Millard						
Address (line 1) KREMBLAS, FOSTER, MILLARD & POLLICK						
Address (line 2) 7632 Slate Ridge Boulevard						
Address (line 3) Reynoldsburg, Ohio 43068						
Address (line 4)						
Pages Enter the total number of pages of the attached conveyance document including any attachments.  # Three						
Application Number(s) or Patent Number(s) Mark if additional numbers attached						
Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).						
Patent Application Number(s) Patent Number(s)						
Kekinda wasakin ki a Si da sa						
If this document is being filed together with a <u>new</u> Patent Application, enter the date the patent application was signed by the first named executing inventor.  Month Day Year $0.1-1.7-1.99.7$						
Patent Cooperation Treaty (PCT)	_					
Enter PCT application number  PCT PCT PCT PCT PCT						
only if a U.S. Application, Number						
has not been assigned.						
Number of Properties  Enter the total number of properties involved. # One						
Fee Amount Fee Amount for Properties Listed (37 CFR 3.41): \$ 40.00						
Method of Payment: Enclosed X Deposit Account Deposit Account						
(Enter for payment by deposit account or if additional fees can be charged to the account.)						
Deposit Account Number: # 13-3393						
Authorization to charge additional fees: Yes $X$ No						
Statement and Signature						
To the best of my knowledge and belief, the foregoing information is true and correct and any						
attached copy is a true copy of the original document. Charges to deposit account are authorized, as						
indicated herein.						
Christen M. Millard / 1/6/98						
Name of Person Signing Signature Date						
Date Date						

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## RECORDATION FORM COVER SHEET CONTINUATION PATENTS ONLY

U.S. Department of Commerce Patent and Trademark Office PATENT

Conveying Party(ies)  Enter additional Conveying Parties  Name (line 1)   Songnian Wang	OM8 0651-0027		PATENTS ONLY	PATENT				
Name (line 1) Songnian Wang  Name (line 2)  Execution Date Month Day Year  Name (line 2)  Receiving Party (les)  In a substitute of the su			Mark if additional names of conveying partie	Execution Date				
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Name (line 2)  Name (line 2)  Receiving Party(les)  Execution Date Month Day Year  Month Day Y	realite (line i) [5	Jiigii Tan Wang		<u> </u>				
Name (line 1)   William P. Hnat   O1-17-1997    Name (line 2)   Execution Date   Month Day Year    Name (line 1)   Execution Date   Month Day Year    Name (line 2)   Execution Date   Month Day Year    Name (line 2)   If document to be recorded is an assignment and the receiving party (sine 1)   If document to be recorded in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)  Address (line 1)   If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)  Address (line 1)   If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)  Address (line 2)   If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)  Address (line 2)   If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)	Name (line 2)			Execution Date				
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## ASSIGNMENT

WHEREAS, We, Glen Prater, Jr., Ph.D., of the City of Crestwood, County of Oldham; and Robert L. Collins, Ph.D., of the City of Louisville, County of Jefferson; and Songnian Wang, of the City of Louisville, County of Jefferson; all of the State of Kentucky; and William P. Hnat, Ph.D. of the City of Floyd Knob, County of Floyd, of the State of Indiana, have invented certain new and useful improvements in SMALL DIAMETER IMPACT BORING TOOL for which we are about to make application for Letters Patent of the United States; and

WHEREAS, Columbia Gas Distribution Companies, a corporation of the State of Ohio, having a place of business at 1600 Dublin Road, Columbus, Ohio, herein called "ASSIGNEE", is desirous of acquiring our entire right, title, and interest in said invention and application therefor, and in any patent or patents to be obtained therefor;

And we further covenant and agree that we will, at the request and expense of the said Assignee, execute such other and further assurance of title as may be necessary or proper to fully convey the interest herein sought to be conveyed; that we will, at the request and expense of the said Assignee, execute such application papers as may be desired by the said Assignee for the filing of any division or renewal of the application herein conveyed, or for the reissues or extension of any Letters Patent that may be granted upon said application, and we will execute such Supplemental Oaths and Preliminary Statements, or other papers as desired by the said Assignee.

And we further assign unto the said Assignee our whole right, title, and interest to the invention disclosed in the application throughout all countries foreign to the United States, and do hereby authorize the said Assignee to apply for patents therefore

PATENT REEL: 9330 FRAME: 0695 in its own name in countries where such procedure is proper and to claim the benefit of the International Convention and do agree to execute application for the said invention in the several countries where it is necessary that the same be executed by the inventors, and to execute assignments of such applications and the patents to be obtained therefor to the said Assignee, as well as all other necessary papers.

IN TESTIMONY WHEREOF I have hereunto set my hand at lowishe,

NY, Jefferson County, this 17 day of January, 1997, Ap

STATE OF Kentucky

SSS.

COUNTY OF Jefferson

Personally appeared before me this day the above named Glen
Prater, Jr., Ph.D., to me personally known, who acknowledged that
he signed the foregoing instrument for the uses and purposes
therein mentioned, and that the same is his free act and deed.

Notary Public

Notary Public, State at Large, KY
My commission expires Oct. 30,1999

IN TESTIMONY WHEREOF I have hereunto set my hand at Louishile,
KY, Jefferson County, this 17 day of January, 19987 (Q.H.)

William P. Hnat, Ph.D.

STATE OF <u>Kentucky</u> ) SS COUNTY OF <u>Jefferson</u> )

Personally appeared before me this day the above named William P. Hnat, Ph.D., to me personally known, who acknowledged that he signed the foregoing instrument for the uses and purposes therein mentioned, and that the same is his free act and deed.

Mle a. Crowe 1/17/97
Notary Public

Notary Public Fight Mange, KY
My commission expires Cot 201306
REEL: 9330 FRAME: 0696

IN TESTIMONY WHEREOF I have hereunto set my hand at Louisille KY, Tefferson County, this 17 day of January, 1998. P. Robert L. Collins, Ph.D.
STATE OF Kentucky ) ) SS. COUNTY OF Jefferson )
Personally appeared before me this day the above named Robert L. Collins, Ph.D., to me personally known, who acknowledged that he signed the foregoing instrument for the uses and purposes therein mentioned, and that the same is his free act and deed.
Notary Public Notary Public, State at Large, KY My commission expires Oct 30,1999
IN TESTIMONY WHEREOF I have hereunto set my hand at Louiselle,  KY, Jefferson County, this _/7 day of
Songnian Wang
STATE OF Kentucky )  COUNTY OF Jefferson )

Personally appeared before me this day the above named Songninan Wang, to me personally known, who acknowledged that he signed the foregoing instrument for the uses and purposes therein mentioned, and that the same is his free act and deed.

Notary Public

Notary Public, State at Large, KY My commission expires Oct. 30,1999

PATENT REEL: 9330 FRAME: 0697

RECORDED: 07/06/1998