504601197 10/19/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4647909

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JIE YANG	06/29/2017
NAIMUL KARIM	05/22/2017
TODD D. JONES	06/28/2017
GERALD S. DEEB	08/12/2017
DWIGHT W. JACOBS	05/19/2017

RECEIVING PARTY DATA

Name:	3M INNOVATIVE PROPERTIES COMPANY
Street Address:	P.O. BOX 33427
City:	ST. PAUL
State/Country:	MINNESOTA
Postal Code:	55133-3427

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15324979

CORRESPONDENCE DATA

Fax Number: (651)736-7586

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.

Phone: 651-733-1500 **Email:** tlriley@mmm.com

Correspondent Name: 3M INNOVATIVE PROPERTIES COMPANY

Address Line 1: PO BOX 33427

Address Line 4: ST. PAUL, MINNESOTA 55133-3427

ATTORNEY DOCKET NUMBER: 75438US004	
NAME OF SUBMITTER: TRACEY L. RILEY	
SIGNATURE:	/Tracey L. Riley/
DATE SIGNED: 10/19/2017	
This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 5

PATENT REEL: 043901 FRAME: 0374

504601197

source=FullyExecutedDeclaration-75348US004#page1.tif source=FullyExecutedDeclaration-75348US004#page2.tif source=FullyExecutedDeclaration-75348US004#page3.tif source=FullyExecutedDeclaration-75348US004#page4.tif source=FullyExecutedDeclaration-75348US004#page5.tif

Case No:

75348US004

As a below named inventor, I believe I am an original inventor or an original joint inventor of a claimed invention in the application and for which a patent is sought on the invention entitled:

		METHODS OF USING HARDE	NABLE DE	NTAL ARTICLES
The s	specification of wh	nich:		
	is attached here	to;		
\boxtimes	was filed on as United States	January 9, 2017 Application No.		15/324979
\boxtimes	is identified as F filed on	CT International Application No. July 14, 2015		PCT/US2015/040240
The a	above-identified a	pplication was made or authorized to t	pe made by m	₩.
fine continued in additional c	or imprisonment of dition, for good at the hereby assign to MPANY, and a tens, the entire right nuation (in whole ters Patent, ree) to (including the iname and to clair national conventionation (in whole upon the said investion the said investigation the said investigatio	If not more than 5 years, or both, and valuable consideration, receipt of wand transfer unto the 3M INNOVATIVE corporation of Delaware, having its print, title, and interest in and to the said in or in part) of said application, and in a with others (provided any such improvoloyment with 3M COMPANY and any caminations, reissues, or extensions thinght to apply for Letters Patent, Utility In any priority rights for such foreign apons, treaties, or otherwise), which have or in part), renewal, reexamination, rei	hich is acknow EPROPERTIE incipal office a rivention and a nd to any and ement is made of its existing ereof, of the L Models, or Inv plications to w been or may issue, or other held and enjo	viedged, I have agreed to assign and transfer ES COMPANY, a wholly-owned subsidiary of it Saint Paul, Minnesota, its successors and application, and in and to any division or all improvements in the said invention made e during, or within one year after the or future subsidiaries), and in and to any and Inited States of America and countries foreign entors' Certificates in foreign countries in its which such applications are entitled under be granted thereon or on any divisional, or further application based in whole or in yed as fully and exclusively as they would
consi that r and i	ideration any furti may be deemed r	ner applications, assignments, and doc secessary by said Company, its succes	:uments, and i isors, assigns	is, to execute and deliver without further to perform such other acts as I lawfully may, , and nominees, fully to secure its right, title, todels, or inventors' Certificates in any and all
grant		ie said applications, to said 3M Innova		ny and all Letters Patent which may be s Company, as the assignee of the entire right
Le	gai Name of Inve			
3	e Yang			uuuun
153)	ventor's Signatun		Date: June 29, 20	17

Case No:

75348US004

As a below named inventor, I believe I am an original inventor or an original joint inventor of a claimed invention in the application and for which a patent is sought on the invention entitled:

				
	i	METHODS OF USING HARDE	ENABLE DI	ENTAL ARTICLES
The	specification of wh	ich:		
	is attached hereto	; ;		
	was filed on	January 0, 2047		
	as United States /	January 9, 2017 Application No.		15/324979
ברי א				
\boxtimes	is identified as PC filed on	T International Application No. July 14, 2015		PCT/US2015/040240
	med on	Odiy 14, 2010		
The	above-identified a	oplication was made or authorized to	be made by	me.
l he fine	reby acknowledge to or imprisonment of	that any willful false statement made not more than 5 years, or both.	in this declar	ation is punishable under 18 U.S.C. 1001 by
and assi control by notern all Louinter control by notern all Louinter control by artificial by a control by	do hereby assign a COMPANY, and a cigns, the entire right inuation (in whole cone or made jointly value of the control of the	and transfer unto the 3M INNOVATIVe corporation of Delaware, having its part, title, and interest in and to the said or in part) of said application, and in with others (provided any such improsorment with 3M COMPANY and an aminations, reissues, or extensions to ght to apply for Letters Patent, Utility any priority rights for such foreign ans, treaties, or otherwise), which have in part), renewal, reexamination, rention or improvements thereon, to be his assignment and transfer not bee	JE PROPERT orincipal office invention and and to any are exement is may of its existing thereof, of the polications to be en or may eissue, or other held and en made;	owledged, I have agreed to assign and transfer TES COMPANY, a wholly-owned subsidiary of at Saint Paul, Minnesota, its successors and application, and in and to any division or ad all improvements in the said invention made de during, or within one year after the g or future subsidiaries), and in and to any and United States of America and countries foreign eventors' Certificates in foreign countries in its which such applications are entitled under by be granted thereon or on any divisional, er or further application based in whole or in joyed as fully and exclusively as they would
con: that and	sideration any furth may be deemed no	er applications, assignments, and do ecessary by said Company, its succe	ocuments, and essors, assigr	ors, to execute and deliver without further d to perform such other acts as I lawfully may, as, and nominees, fully to secure its right, title, Models, or Inventors' Certificates in any and all
grar	hereby authorize a nted upon any of the and interest therei	e said applications, to said 3M Innov	tents to issue rative Properti	any and all Letters Patent which may be es Company, as the assignee of the entire right
Le	gal Name of Invent	or:		
Ná	aimul Karim			
Inv	entor's Signature:		Date:	
	aze -	Chamile .		5(22)17

Case No:

75348US004

As a below named inventor, I believe I am an original inventor or an original joint inventor of a claimed invention in the application and for which a patent is sought on the invention entitled:

	n endled,
METHODS OF USING HARDS	ENABLE DENTAL ARTICLES
The specification of which:	
is attached hereto;	
was filed on January 9, 2017	
as United States Application No.	15/324979
M is identified as BCT International Application No.	PCT/US2015/040240
is identified as PCT International Application No. filed on July 14, 2015	PC1/U\$2015/040240
The above-identified application was made or authorized to	he made by me
	•
hereby acknowledge that any willful false statement made line or imprisonment of not more than 5 years, or both.	in this declaration is punishable under 18 U.S.C. 1001 by
BM COMPANY, and a corporation of Delaware, having its passigns, the entire right, title, and interest in and to the said continuation (in whole or in part) of said application, and in by me or made jointly with others (provided any such impropermination of, my employment with 3M COMPANY and an all Letters Patent, reexaminations, reissues, or extensions thereto (including the right to apply for Letters Patent, Utility own name and to claim any priority rights for such foreign anternational conventions, treaties, or otherwise), which have continuation (in whole or in part), renewal, reexamination, repart upon the said invention or improvements thereon, to be average by me had this assignment and transfer not been do further agree for myself and for my heirs, executors, are consideration any further applications, assignments, and do hat may be deemed necessary by said Company, its successions.	and to any and all improvements in the said invention made ovement is made during, or within one year after the y of its existing or future subsidiaries), and in and to any and thereof, of the United States of America and countries foreign Models, or Inventors' Certificates in foreign countries in its applications to which such applications are entitled under we been or may be granted thereon or on any divisional, eissue, or other or further application based in whole or in the held and enjoyed as fully and exclusively as they would n made;
do hereby authorize and request the Commissioner of Pat granted upon any of the said applications, to said 3M Innov itle, and interest therein.	tents to issue any and all Letters Patent which may be rative Properties Company, as the assignee of the entire right
Legal Name of Inventor:	
Todd D. Jones	
Inventor's Signature:	Date:
Inva Og	6/28/2017
	l K

have been by me had this assignment and transfer not been made;

Case No:

75348US004

application and for w	hich a patent is sought on the invention ent METHODS OF USING HARDENA	
The specification of v	which:	
is attached here	eto;	
was filed on	January 9, 2017	
as United State	s Application No.	15/324979
is identified as filed on	PCT International Application No. July 14, 2015	PCT/US2015/040240
The above-identified	application was made or authorized to be r	nade by me.
	e that any willful false statement made in th of not more than 5 years, or both.	is declaration is punishable under 18 U.S.C. 1001 by
and do hereby assign 3M COMPANY, and assigns, the entire riccontinuation (in whole by me or made jointly termination of, my enall Letters Patent, received.	n and transfer unto the 3M INNOVATIVE Pl a corporation of Delaware, having its princi ght, title, and interest in and to the said inve e or in part) of said application, and in and t y with others (provided any such improvement inployment with 3M COMPANY and any of it examinations, reissues, or extensions there	is acknowledged, I have agreed to assign and transfer ROPERTIES COMPANY, a wholly-owned subsidiary of pal office at Saint Paul, Minnesota, its successors and ntion and application, and in and to any division or to any and all improvements in the said invention made ent is made during, or within one year after the ts existing or future subsidiaries), and in and to any and of, of the United States of America and countries foreign tels, or Inventors' Certificates in foreign countries in its

I do further agree for myself and for my heirs, executors, and administrators, to execute and deliver without further consideration any further applications, assignments, and documents, and to perform such other acts as I lawfully may. that may be deemed necessary by said Company, its successors, assigns, and nominees, fully to secure its right, title, and interest as aforesaid and to obtain or maintain Letters Patent, Utility Models, or Inventors' Certificates in any and all countries; and

own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reexamination, reissue, or other or further application based in whole or in part upon the said invention or improvements thereon, to be held and enjoyed as fully and exclusively as they would

I do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of the said applications, to said 3M Innovative Properties Company, as the assignee of the entire right, title, and interest therein.

Legal Name of Inventor:	
Gerald S. Deeb	
Inventoris Signature:	Date:
Gange S. Deel	8/42/2017

Case No:

75348US004

As a below named inventor, I believe I am an original inventor or an original joint inventor of a claimed invention in the application and for which a patent is sought on the invention entitled:

	METHODS OF USING HAR	DENABLE DENTAL ARTICLES
The specification of	which:	
is attached her	eto;	
was filed on as United State	January 9, 2017 es Application No.	15/324979
is identified as filed on	PCT International Application No. July 14, 2015	PCT/US2015/040240
The above-identified	l application was made or authorized	to be made by me.
fine or imprisonment in addition, for good and do hereby assig 3M COMPANY, and assigns, the entire ricontinuation (in who by me or made joint termination of, my erall Letters Patent, rethereto (including thown name and to clain termational conventionation (in who part upon the said in have been by me have	of not more than 5 years, or both, and valuable consideration, receipt in and transfer unto the 3M INNOVA a corporation of Delaware, having it ght, title, and interest in and to the sile or in part) of said application, and by with others (provided any such impropriet with 3M COMPANY and examinations, reissues, or extension e right to apply for Letters Patent, Utiliam any priority rights for such foreign tions, treaties, or otherwise), which have or in part), renewal, reexamination overtion or improvements thereon, to do this assignment and transfer not be	
consideration any fu that may be deemed	rther applications, assignments, and I necessary by said Company, its sur	and administrators, to execute and deliver without further documents, and to perform such other acts as I lawfully may, coessors, assigns, and nominees, fully to secure its right, title, s Patent, Utility Models, or Inventors' Certificates in any and al
	the said applications, to said 3M Inn	Patents to issue any and all Letters Patent which may be ovative Properties Company, as the assignee of the entire righ
Legal Name of Inve		
Inventor's Signatur		Date:
	1. (1)	5/19/2017

PATENT REEL: 043901 FRAME: 0380

RECORDED: 10/19/2017