503464825 09/03/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3511450

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------|----------------|
| JASMEET KAUR | 08/18/2015 |
| JACOB M. ZWIER | 07/20/2015 |
| EDWARD J. WOO | 07/24/2015 |

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14772414 |

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: skweber@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: | 71227US004 | |
|-------------------------|--|--|
| NAME OF SUBMITTER: | SHERRI K.W. JOHNSON | |
| SIGNATURE: | /Sherri K.W. Johnson/ | |
| DATE SIGNED: | 09/03/2015 | |
| | This document serves as an Oath/Declaration (37 CFR 1.63). | |

Total Attachments: 3

source=Declaration-Assignment-71227US004#page1.tif source=Declaration-Assignment-71227US004#page2.tif source=Declaration-Assignment-71227US004#page3.tif

PATENT REEL: 036484 FRAME: 0973 503464825

DECLARATION AND ASSIGNMENT, FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR § 1.63)

Case No:

71227US004

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:

| NONWOVEN ABRASIVE ARTICLE CONTAINING FORMED ABRASIVE PARTICLES | | |
|---|--|--|
| The specification of which: | | |
| is attached hereto; | | |
| was filed on as United States Application No. | | |
| is identified as PCT International Application No. filed on March 4, 2014 | PCT/US2014/020106 | |
| The above-identified application was made or authorized to | o be made by me. | |
| I hereby acknowledge that any willful false statement made fine or imprisonment of not more than 5 years, or both. | e in this declaration is punishable under 18 U.S.C. 1001 by | |
| and do hereby assign and transfer unto the 3M INNOVATI 3M COMPANY, and a corporation of Delaware, having its assigns, 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 impro- termination of, my employment with 3M COMPANY and ar all Letters Patent, reexaminations, reissues, or extensions thereto (including the right to apply for Letters Patent, Utilit own name and to claim any priority rights for such foreign a international conventions, treaties, or otherwise), which ha continuation (in whole or in part), renewal, reexamination, in part upon the said invention or improvements thereon, to be have been by me had this assignment and transfer not bec | and to any and all improvements in the said invention made overment is made during, or within one year after the ny of its existing or future subsidiaries), and in and to any and thereof, of the United States of America and countries foreign y Models, or Inventors' Certificates in foreign countries in its applications to which such applications are entitled under ve been or may be granted thereon or on any divisional, reissue, or other or further application based in whole or in be held and enjoyed as fully and exclusively as they would en made; | |
| that may be deemed necessary by said Company, its succ | nd administrators, to execute and deliver without παποεπ locuments, and to perform such other acts as I lawfully may, lessors, assigns, and nominees, fully to secure its right, title, Patent, Utility Models, or Inventors' Certificates in any and all | |
| I do hereby authorize and request the Commissioner of Pa granted upon any of the said applications, to said 3M Inno title, and interest therein. | itents to issue any and all Letters Patent which may be vative Properties Company, as the assignee of the entire righ | |
| Legal Name of Inventor: | | |
| Jasmeet Kaur | | |
| Inventor's Signature: | Date: | |
| Tarmeet Kaur | 08 11812015 | |

PATENT REEL: 036484 FRAME: 0974

DECLARATION AND ASSIGNMENT, FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR § 1.63)

Case No:

71227US004

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:

| NONWOVEN ABRASIVE ARTICLE CONTAINING FORMED ABRASIVE PARTICLES |
|--|
| The specification of which: |
| is attached hereto; |
| was filed on as United States Application No. |
| is identified as PCT International Application No. filed on March 4, 2014 |
| The above-identified application was made or authorized to be made by me. |
| I hereby acknowledge that any wiltful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than 5 years, or both. |
| In addition, for good and valuable consideration, receipt of which is acknowledged, I have agreed to assign and transfer and do hereby assign and transfer unto the 3M INNOVATIVE PROPERTIES COMPANY, a wholly-owned subsidiary of 3M COMPANY, and a corporation of Delaware, having its principal office at Saint Paul, Minnesota, its successors and assigns, the entire right, title, and interest in and to the said invention and application, and in and to any division or continuation (in whole or in part) of said application, and in and to any and all improvements in the said invention made by me or made jointly with others (provided any such improvement is made during, or within one year after the termination of, my employment with 3M COMPANY and any of its existing or future subsidiaries), and in and to any and all Letters Patent, reexaminations, reissues, or extensions thereof, of the United States of America and countries foreign thereto (including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in foreign countries in its 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 have been by me had this assignment and transfer not been made; |
| 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 |
| 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: |
| Jacob M. Zwier |
| Inventor's Signature: Date: 7/20/15 |

PATENT REEL: 036484 FRAME: 0975

DECLARATION AND ASSIGNMENT, FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR § 1.63)

Case No:

71227US004

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:

| NONWOVEN ABRASIVE ARTICLE CONTAINING FORMED ABRASIVE PARTICLES |
|--|
| The specification of which: |
| is attached hereto; |
| was filed on as United States Application No. |
| is identified as PCT International Application No. filed on March 4, 2014 |
| The above-identified application was made or authorized to be made by me. |
| hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by ine or imprisonment of not more than 5 years, or both. |
| n addition, for good and valuable consideration, receipt of which is acknowledged, I have agreed to assign and transferand do hereby assign and transfer unto the 3M INNOVATIVE PROPERTIES COMPANY, a wholly-owned subsidiary of 3M COMPANY, and a corporation of Delaware, having its principal office at Saint Paul, Minnesota, its successors and assigns, the entire right, title, and interest in and to the said invention and application, and in and to any division or continuation (in whole or in part) of said application, and in and to any and all improvements in the said invention made by me or made jointly with others (provided any such improvement is made during, or within one year after the ermination of, my employment with 3M COMPANY and any of its existing or future subsidiaries), and in and to any and all Letters Patent, reexaminations, reissues, or extensions thereof, of the United States of America and countries foreign hereto (including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in foreign countries in its 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 have been by me had this assignment and transfer not been made; |
| 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, hat 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 alcountries; and |
| 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 rightitle, and interest therein. |
| Legal Name of Inventor: |
| Edward J. Woo |
| Inventor's Signature: Date: 7 - 24 - 2015 |

PATENT REEL: 036484 FRAME: 0976

RECORDED: 09/03/2015