

07/29/2019

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office



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103680626

To the Director of the U.S. Patent and Trademark Office, Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

FIFTH THIRD BANK SBM MB FINANCIAL BANK, N.A.

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) 6/27/2019

- ☐ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☒ Other RELEASE OF SECURITY INTEREST

2. Name and address of receiving party(ies)

Name: TITAN SPINE, LLC

Internal Address: _____

Street Address: 6140 WEST EXECUTIVE DRIVE

City: MEQUON

State: WISCONSIN

Country: USA Zip: 53092

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application or patent number(s):

☐ This document serves as an Oath/Declaration (37 CFR 1.63).

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☒ Yes ☐ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: KATHY BOHMAN

Internal Address: MD 1MOBB1

Street Address: 5001 KINGSLEY DRIVE

City: CINCINNATI

State: OH Zip: 45227

Phone Number: 513-358-3309

Docket Number: _____

Email Address: KATHY.BOHMAN@53.COM

6. Total number of applications and patents involved: 39

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 1560.00
1950.00

- ☐ Authorized to be charged to deposit account
☒ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

Deposit Account Number _____

Authorized User Name _____

9. Signature:

Kathy Bohman
Signature

7/1/19
Date

KATHY BOHMAN

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

13

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

PATENT
REEL: 050188 FRAME: 0722

PROPERTY NUMBERS Total: 39

Property Type	Number
Application Number:	10339816
Application Number:	11123359
Application Number:	12151198
Application Number:	13334146
Application Number:	13480683
Application Number:	13462904
Application Number:	13572077
Application Number:	13480761
Application Number:	13534624
Application Number:	13484504
Application Number:	13571693
Application Number:	13484516
Application Number:	13484528
Application Number:	13484535
Application Number:	13571714
Application Number:	13570418
Application Number:	13558390
Application Number:	13607890
Application Number:	13557727

Property Type	Number
Application Number:	13929927
Application Number:	14057035
Application Number:	14063031
Application Number:	14293271
Application Number:	13566357
Application Number:	13713417
Application Number:	14456049
Application Number:	13571413
Application Number:	13566384
Application Number:	13784144
Application Number:	13949417
Application Number:	14040899
Application Number:	14043171
Application Number:	13826304
Application Number:	14293291
Application Number:	14450316
Application Number:	14486285
Application Number:	14580326
Application Number:	14644274
Application Number:	14500470

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3570801

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
TITAN SPINE, LLC	10/14/2015

RECEIVING PARTY DATA

Name:	MB FINANCIAL BANK, N.A.
Street Address:	9809 SOUTH FRANKLIN DRIVE
Internal Address:	SUITE 302
City:	FRANKLIN
State/Country:	WISCONSIN
Postal Code:	53132

PROPERTY NUMBERS Total: 39

Property Type	Number
Application Number:	10339816
Application Number:	11123359
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Application Number:	13570418
Application Number:	13558390
Application Number:	13607890
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Property Type	Number
Application Number:	13929927
Application Number:	14057035
Application Number:	14063031
Application Number:	14293271
Application Number:	13566357
Application Number:	13713417
Application Number:	14456049
Application Number:	13571413
Application Number:	13566384
Application Number:	13784144
Application Number:	13949417
Application Number:	14040899
Application Number:	14043171
Application Number:	13826304
Application Number:	14293291
Application Number:	14450316
Application Number:	14486285
Application Number:	14580326
Application Number:	14644274
Application Number:	14500470

CORRESPONDENCE DATA

Fax Number:

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.

Email: lwahl@vonbriesen.com

Correspondent Name: LOUIS E. WAHL IV

Address Line 1: 411 EAST WISCONSIN AVENUE

Address Line 2: SUITE 1000

Address Line 4: MILWAUKEE, WISCONSIN 53202

NAME OF SUBMITTER:	LOUIS E. WAHL IV
SIGNATURE:	/LEW/
DATE SIGNED:	10/15/2015

Total Attachments: 9

source=2015-10-14 Abridged Intellectual Property Security Agreement#page1.tif
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PATENT

REEL: 050188 FRAME: 0727

ABRIDGED INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS ABRIDGED INTELLECTUAL PROPERTY SECURITY AGREEMENT ("Abridged Security Agreement") is made and entered into as of October 14, 2015, by and between **TITAN SPINE, LLC**, a Delaware limited liability company ("**Grantor**"), whose address is 6140 West Executive Drive, Mequon, Wisconsin 53092, and **MB FINANCIAL BANK, N.A.** ("**Bank**"), whose address is 9809 South Franklin Drive, Franklin, Wisconsin 53132.

RECITALS

- (a) This Abridged Security Agreement is executed pursuant to the Intellectual Property Security Agreement, dated contemporaneously herewith, between Grantor and Bank (as it may be restated, modified, amended, or replaced from time to time, the "**IP Security Agreement**"), and the Credit Agreement.
- (b) Bank has agreed to make available to Grantor, subject to the Credit Agreement, certain revolving loans, which are evidenced by the Note, and Grantor has agreed to provide certain Pledged Collateral to secure the Obligations, all on the terms and conditions set forth in the Credit Agreement, the IP Security Agreement, and the other related Loan Documents.
- (c) The terms and conditions of the IP Security Agreement include the execution, delivery, and recordation of this Abridged Security Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

AGREEMENT

1. **Supplement to IP Security Agreement.** This Abridged Security Agreement has been entered into in conjunction with the security interest granted by Grantor to Bank under the IP Security Agreement. The terms of this Abridged Security Agreement are supplemental to and not in replacement of the terms of the IP Security Agreement, and the rights and remedies of Bank with respect to the security interest granted herein are without prejudice to, but in addition to, those set forth in the IP Security Agreement. If there is any conflict between this Abridged Security Agreement and the IP Security Agreement, the IP Security Agreement shall govern.

2. **Security Interest and Collateral.** To secure the payment and performance of all of the Obligations, Grantor grants Bank a security interest in all of Grantor's present and future rights, title, and interest in the Patents identified on Schedule A attached hereto, the Trademarks, identified on Schedule B attached hereto, and the Copyrights identified on Schedule C attached hereto.

3. **General Provisions.** Sections 11. through 17. of the IP Security Agreement are incorporated herein by reference, except that the term "Security Agreement" as used in Sections 11. through 17. of the IP Security Agreement shall mean this Abridged Security Agreement.

4. **Terms and Usages in IP Security Agreement.** All capitalized terms used in this Abridged Security Agreement and not otherwise defined herein will have the meanings assigned to them in the IP Security Agreement.

5. **Recording.** Grantor authorizes and requests the United States Patent and Trademark Office and the United States Copyright Office to record this Abridged Security Agreement.

[Signatures on following page.]

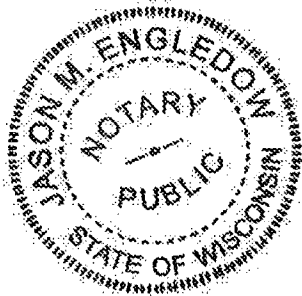
IN WITNESS WHEREOF, the parties have executed this Abridged Intellectual Property Security Agreement as of the date first set forth above.

TITAN SPINE, LLC

By: [Signature]
Name: Kevin W. Gemas
Title: President

STATE OF WI)
) ss
MKE COUNTY)

On the 14 day of October, 2015, before me personally appeared Kevin Gemas, the COO of Titan Spine, LLC, to me known to be the person executing the foregoing instrument, for and on behalf of Titan Spine, LLC, and she/he acknowledged said instrument by her/him to be her/his free act and deed, her/his free act and deed in her/his capacity as aforesaid, and the free act and deed of Titan Spine, LLC.



[Signature]
Notary Public
Print Name: JASON ENGLEDOW
My Commission Expires: 5/8/2018

MB FINANCIAL BANK, N.A.

[Signature]
By: JASON ENGLEDOW
Name:
Title: SVP Commercial Banking

STATE OF Wisconsin)
) ss
Milwaukee COUNTY)

On the 14 day of October, 2015, before me personally appeared Jason Engledow, a SVP-Commercial Banking of MB Financial Bank, N.A., to me known to be the person executing the foregoing instrument, for and on behalf of MB Financial Bank, N.A., and he acknowledged said instrument by him to be his free act and deed, his free act and deed in his capacity as aforesaid, and the free act and deed of MB Financial Bank, N.A.

[Signature]
Notary Public
Print Name: Anne E. Wal
My Commission Expires: is permanent

SCHEDULE A

Titan Spine, LLC
A. Patent List

Title	Country	Filing Date	Application No.	Issue Date	Patent No.
Surface for use on implantable device	US	01/10/2003	10/339,816	06/28/2005	6,911,249
Anterior interbody spinal implant	US	05/06/2005	11/123,359	02/16/2010	7,662,186
Composite interbody spinal implant having openings of predetermined size and shape	US	05/05/2008	12/151,198	09/11/2012	8,262,737
Implant with critical ratio of load bearing surface area to central opening area	US	12/22/2011	13/334,146	03/26/2013	8,403,991
Instruments and interbody spinal implants enhancing disc space distraction	US	05/25/2012	13/480,683	05/07/2013	8,435,302
Friction fit and vertebral endplate-preserving spinal implant	US	06/06/2012	13/462,904	07/09/2013	8,480,749
Interbody spinal implant having a roughened surface topography	US	08/10/2012	13/572,077	07/30/2013	8,496,710
Method of using instruments and interbody spinal implants to enhance distraction	US	05/25/2012	13/480,761	10/01/2013	8,545,568
Spinal implant having a passage for enhancing contact between bone graft material and cortical endplate bone	US	06/27/2012	13/534,624	10/08/2013	8,551,176
Endplate-preserving spinal implant with an integration plate having a roughened surface topography	US	05/31/2012	13/484,504	10/22/2013	8,562,684

Title	Country	Filing Date	Application No.	Issue Date	Serial No.
Spinal implant and integration plate for optimizing vertebral endplate contact load-bearing edges	US	08/10/2012	13/571,693	10/22/2013	8,562,685
Endplate-preserving spinal implant having a raised expulsion-resistant edge	US	05/31/2012	13/484,516	11/19/2013	8,585,765
Endplate-preserving spinal implant with an integration plate having durable connectors	US	05/31/2012	13/484,528	11/19/2013	8,585,766
Endplate-preserving spinal implant with an integration plate having durable connectors	US	05/31/2012	13/484,535	11/19/2013	8,585,767
Spinal implant having a transverse aperture	US	08/10/2012	13/571,714	11/26/2013	8,591,590
Spinal implant having variable ratios of the integration surface area to the axial passage area	US	08/09/2012	13/570,418	12/31/2013	8,617,248
Composite implants having integration surfaces composed of a regular repeating pattern	US	07/26/2012	13/558,390	06/24/2014	8,758,442
Implants with integration surfaces having regular repeating surface patterns	US	09/10/2012	13/607,890	06/24/2014	8,758,443
Implants having three distinct surfaces	US	07/25/2012	13/557,727	08/26/2014	8,814,939
Interbody spinal implant having a roughened surface topography	US	06/28/2013	13/929,927	09/16/2014	8,834,571
Spinal implant and integration plate for optimizing vertebral endplate contact load-bearing edges	US	10/18/2013	14/057,035	01/27/2015	8,940,053
Interbody spinal implant having a roughened surface topography	US	10/25/2013	14/063,031	03/31/2015	8,992,622
Composite implants having integration surfaces composed of a regular repeating pattern	US	06/02/2014	14/293,271	04/21/2015	9,011,546

Title	Country	Filing Date	Application No.	Issue Date	Patent No.
Processes for producing regular repeating patterns on surfaces of interbody devices	US	08/03/2012	13/566,357		
Self-deploying locking screw retention device	US	12/13/2012	13/713,417		
Interbody Spinal Implant Having a Roughened Surface Topography	US	08/11/2014	14/456,049		
Implants having internal features for graft retention and load transfer between implant and vertebrae	US	08/10/2012	13/571,413		
Methods for manufacturing implants having integration surfaces	US	08/03/2012	13/566,384		
Interbody spinal implant having a roughened surface topography on one or more internal surfaces	US	03/04/2013	13/784,144		
Process of fabricating composite implants having integration surfaces composed of a regular repeating	US	07/24/2013	13/949,417		
Implants with self-deploying anchors	US	09/30/2013	14/040,899		
Expandable spinal implant with expansion wedge and anchor	US	10/01/2013	14/043,171		
Surface and subsurface chemistry of an integration surface	US	03/14/2014	13/826,504		
Implants with integration surfaces having regular repeating surface patterns	US	06/02/2014	14/293,291		
Implants having three distinct surfaces	US	08/04/2014	14/450,316		
Friction-fit spinal endplate and endplate-preserving method	US	09/15/2014	14/486,285		

Title	Country	Filing Date	Application No.	Issue Date	Patent No.
Spinal implant and integration plate for optimizing vertebral endplate contact load-bearing edges	US	12/23/2014	14/580326		
Microstructured implant surfaces	US	03/11/2015	14/644274		
Coaptation enhancement implant, system, and method	US	09/29/2014	14/500470		

Tian Spine, LLC
B. Trademark List

[illegible]

JULY 08, 2019

KATHY BOHMAN
MD 1MOBB1
5001 KINGSLEY DRIVE
CINCINNATI, OHIO 45227



To whom it may concern:

We received a request for recording along with a check \$1,560.00 for recording fee. The fee for Patent application property is \$50.00 for each.

Fee for Trademark application property is \$40.00 for the first property and \$25.00 for each additional properties.

If you have any question. Please contact ARB customer service at 571-272-3350.

Thanks

Assignment recordation branch.

addition, \$390.00 attached
total of \$1950.00 for 39

If this incorrect pls contact
Vicky.Callahan@53.com



Commercial Loan Operations
5001 Kingsley Drive
MD: 1MOBB1
Cincinnati, OH 45227

June 27, 2019

UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. Box 1450
Alexandria, VA 22313-1450

To Whom It May Concern:

RE: Release of Security Interest for Patents

Number(s): PATENT REEL 036799 FRAME 0001 Document #503524175

Name: TITAN SPINE, LLC

On OCTOBER 15, 2015 we asked you to note SECURITY OF INTEREST in connection with TITAN SPINE, LLC with your organization recorded on Application Numbers: See Attached document with the 39 application numbers, as collateral to a note given us by the above.

Inasmuch as this note has been paid, and we have no further interest in this account, we ask that you release the SECURITY INTEREST in Reel 036799 Frame 0001 Document # 503524175 see attached documentation.

Dated at Cincinnati, Ohio the 27th day of June, 2019.

FIFTH THIRD BANK

By: Kathy Bohman
Name: Kathy Bohman
Title: Assistant Vice-President

Request ID: 102093
Prepared By: Vicky Callahan