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PTO/SB/08a (01-10)

Doc description: Information Disclosure Statement (IDS) Filed

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	16689073
Filing Date	2019-11-19
First Named Inventor	Troy Schifano
Art Unit	
Examiner Name	
Attorney Docket Number	13079.02.USU05

U.S.PATENTS

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Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	D835787		2018-12-11	Radocy et al.	
	2	D816469		2018-05-01	Toomey	
	3	D9757119		2017-09-12	Norton et al.	
	4	D765855		2016-09-06	Ben-Yehuda et al.	
	5	D728892		2015-05-12	Rogers et al.	
	6	D653344		2012-01-31	Bar-Shalom	
	7	D628292		2010-11-30	Berberich	
	8	D588700		2009-03-17	Aldecoa	

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9	6689153	2004-02-10	Skiba
10	5891146	1999-04-06	Simon et al.
11	5443509	1995-08-22	Boucher et al.
12	4927421	1990-05-22	Goble et al.

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	1	20120158137		2012-06-21	Pinczewski	

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☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

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A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/William K. Nelson/	Date (YYYY-MM-DD)	2021-09-28
Name/Print	William K. Nelson	Registration Number	63501

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The information provided by you in this form will be subject to the following routine uses:

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	6652533		2003-11-25	O'Neil	
	2	8157865		2012-04-17	Hochschuler et al.	
	3	10682150		2020-06-16	Stark	
	4	8945224		2015-02-03	Trieu	
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	1	20050080422		2005-04-14	Otte et al.	
	2	20150073552		2015-03-12	Ouroboros Medical, Inc.	

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3	20150230937	2015-08-20	Medos International Sarl
4	20160030191	2016-02-04	Neuropro Technologies, Inc.
5	20180303624	2018-10-25	Life Spine, Inc.

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	1	10456175		2019-10-29	Carver et al.	
	2	10806823		2020-10-20	Altschuler	
	3	8764729		2014-07-01	Muni et al.	
	4	9333090		2016-05-10	Donner et al.	
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	1	20190125371		2019-05-02	Asfora et al.	
	2	20180092748		2018-04-05	Donner et al.	

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3	20160184105	2016-06-30	Donner et al.
4	20070123995	2007-05-31	Hawkins et al.
5	20030220646	2003-11-27	Hawkins et al.

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	1	2018522678	JP		2018-08-16	Berthelme et al.		
	2	108175460	CN		2018-06-19	Wang		
	3	356207	MX		2018-05-18	Swensgard et al.		
	4	6259513	JP		2018-01-10	Frey et al.		
	5	102248576	KR		2021-05-06	Altschuler et al.		
	6	353031	MX		2017-12-18	Shelton et al.		

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7	20110106413	KR		2011-09-28	Muni et al.		
8	2013056121	WO		2013-04-18	Brogna et al.		
9	2010077359	WO		2010-07-08	Hardenbrook et al.		
10	2009038781	WO		2009-02-19	Khamis et al.		
11	60020851	DE		2005-07-21	Branch et al.		
12	69726491	DE		2004-01-15	Kogasaka et al.		
13	2203568	CA		1996-05-02	Grinberg		

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	1	World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases (WCO-IOF-ESCEO 2020): Poster Abstracts, from "Osteoporosis International, suppl. 1 31 : 133-621. Springer Nature B.V. (Dec 2020)"	
	2	Deutscher Wirbelsaulenkongress, from "European Spine Journal 29.11: 2853-2939. Springer Nature B.V. (Nov 2020)"	

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3	SCIENTIFIC ABSTRACTS, from "Journal of General Internal Medicine, suppl. Supplement 33.2: 83-840. Springer Nature B.V. (Apr 2018)"
4	World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases (WCO-IOF-ESCEO 2018): Poster Abstracts, from "Osteoporosis International, suppl. Supplement 29.1: 149-565. Springer Nature B.V. (Apr 2018)"
5	2017 TERMIS - Americas Conference & Exhibition Charlotte, NC December 3-6, 2017, from "Tissue Engineering Part A 23.S1: S-1-S-159. Mary Ann Liebert, Inc. (Dec 2017)"
6	Abstracts from the 37th Congress of the Societe Internationale d'Urologie, Centro de Congresses de Lisboa, October 19-22, 2017, from "World Journal of Urology, suppl. Supplement 35.1: 1-360. Springer Nature B.V. (Oct 2017)"
7	CIRSE 2017, from "Cardiovascular and Interventional Radiology, suppl. Supplement 40 : 25-412. Springer Nature B.V. (Aug 2017)"
8	2016 TERMIS - Americas Conference and Exhibition San Diego, CA December 11-14, 2016, from "Tissue Engineering Part A 22.S1: S-1-S-156. Mary Ann Liebert, Inc. (Dec 2016)"
9	Abstract SIU 2016 Buenos Aires, Argentina book, from "World Journal of Urology, suppl. Supplement 34 : 1-248. Springer Nature B.V. (Oct 2016)"
10	IPR 2016, from "Pediatric Radiology, suppl. Supplement 46 : 1-372. Springer Nature B.V. (May 2016)"
11	Abstracts from the 38th Annual Meeting of the Society of General Internal Medicine, from "Journal of General Internal Medicine, suppl. Supplement 30 : 45-551. Springer Nature B.V. (Apr 2015)"
12	The 48th Congress of the European Society for Surgical Research, May 29 - June 1, 2013, Istanbul, Turkey, from "European Surgical Research, suppl. S1 50 : 1-161. S. Karger AG. (May 2013)"
13	Proceedings of the 2010 World Molecular Imaging Congress, Kyoto, Japan, September 8-11, 2010, from "Molecular Imaging and Biology : MIB, suppl. Supplement 12 : 495-1636. Springer Nature B.V. (Dec 2010)"

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14	CIRSE 2009: Lisbon, Portugal, September 19-23, from "Cardiovascular and Interventional Radiology, suppl. Supplement 32 : 29-346. Springer Nature B.V. (Sep 2009)"
15	International Surgical Week ISW 2009: Adelaide, September 6-10, 2009, from "World Journal of Surgery, suppl. Supplement 33 : 1-268. Springer Nature B.V. (Sep 2009)"
16	Scientific Abstracts, from "Journal of General Internal Medicine, suppl. Supplement 24 : 1-380. Springer Nature B.V. (Apr 2009)"
17	21st National Congress of the Italian Polyspecialist Society of Young Surgeons (IPSYS). June 15-18, 2008, Perugia, from "European Surgical Research 41.2: 59-196. S. Karger AG. (Aug 2008)"
18	20th National Congress of the Italian Polyspecialist Society of Young Surgeons (IPSYS): November 8-10, 2007, Naples, from "European Surgical Research 40.2: 61-183. S. Karger AG. (Feb 2008)"
19	Society of general internal medicine 23rd annual meeting Boston, Massachusetts May 4-6, 2000 abstracts, from "Journal of General Internal Medicine, suppl. Supplement 15 : 1-13. Springer Nature B.V. (Jan 2000)"

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¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)

Application Number	16689073
Filing Date	2019-11-19
First Named Inventor	Schifano, Troy
Art Unit	
Examiner Name	
Attorney Docket Number	13709.02.USU05

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

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☒ A certification statement is not submitted herewith.

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Signature	/William K. Nelson/	Date (YYYY-MM-DD)	2021-06-21
Name/Print	William K. Nelson	Registration Number	63501

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Doc code: IDS

PTO/SB/08a (01-10)

Doc description: Information Disclosure Statement (IDS) Filed

Approved for use through 07/31/2012. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Art Unit	
Examiner Name	MATTHEWS, TESSA M
Attorney Docket Number	13709.02.USU05

U.S.PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	10492802		2019-12-03	Donner et al.	
	2	6991656		2006-01-31	Mears	
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Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20060129238		2006-06-00	Paltzer	
	2	20090024174		2009-01-00	Stark	
	3	20090131986		2009-05-00	Lee	
	4	20210100662		2021-04-00	LaNeve	

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Examiner Name	MATTHEWS, TESSA M
Attorney Docket Number	13709.02.USU05

	5	20210100658	2021-04-00	LaNeve
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FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T ⁵
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NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
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EXAMINER SIGNATURE

Examiner Signature	/TESSA M MATTHEWS/	Date Considered	11/18/2021
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Bibliographic Data

Application No: 16/689,073

Foreign Priority claimed: ☐ Yes ☒ No

35 USC 119 (a-d) conditions met: ☐ Yes ☐ No ☐ Met After Allowance

Verified and Acknowledged: /TESSA M MATTHEWS/

Examiner's Signature

Initials

Title:

METHOD AND IMPLANT SYSTEM FOR SACROILIAC JOINT
FIXATION AND FUSION

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
11/19/2019	623	3773	13079.02.USU05
RULE			

APPLICANTS

Orthocision Inc., Folsom, CA, UNITED STATES

INVENTORS

Troy Schifano, Morgantown, WV, UNITED STATES

Steve Anderson, Folsom, CA, UNITED STATES

Teck-Mun Soo, Southfield, MI, UNITED STATES

Gowriharan Thaiyananthan, Irvine, CA, UNITED STATES

CONTINUING DATA

This application is a CON of 14668976 03/25/2015 PAT 10993757

14668976 is a CIP of 13842227 03/15/2013 PAT 9119732

FOREIGN APPLICATIONS

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Fresno, CA 93755-5637

UNITED STATES

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Doc code: IDS

PTO/SB/08a (01-10)

Doc description: Information Disclosure Statement (IDS) Filed

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U.S.PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	10219841		2019-03-05	Compton et al.	
	2	D704334		2014-05-06	Walthall	
	3	9186155		2015-11-17	Katzman et al.	
	4	8882818		2014-11-11	Vestgaarden	
	5	9375243		2016-06-28	Vestgaarden	
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1	20120095560	2012-04-19	Donner
2	20100268228	2010-10-21	Petersen
3	20130172736	2012-01-03	Abdou
4	20160310197	2016-10-27	Black et al.
5	20156215184	2015-04-23	Black et al.
6	20160175113	2016-06-23	Lins
7	20146209512	2014-12-22	Lins
8	20140277165	2014-09-18	Katzman et al.

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	1	6436098		2002-08-20	Michelson	
	2	6770074		2004-08-03	Michelson	
	3	6652533		2003-11-25	O'Neil	
	4	6648917		2003-11-18	Gerbec et al.	
	5	6846327		2005-01-25	Khandkar et al.	
	6	7018416		2006-03-28	Hanson et al.	
	7	7125425		2006-10-24	Foley et al.	
	8	7229477		2007-06-12	Biscup	

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9	7648509		2010-01-19	Stark	
10	8740912		2014-06-03	Stark	
11	9668781		2017-06-06	Stark	
12	9808346		2017-11-07	Stark	
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14	10682150		2020-06-16	Stark	
15	8021392		2011-09-20	Petersen	
16	9241798		2016-01-26	Petersen	
17	10245044		2019-04-02	Petersen	
18	8025684		2011-09-27	Garcia-Bengochea et al.	
19	8128700		2012-03-06	Delurio et al.	

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20	8157865		2012-04-17	Hochschuler et al.	
21	8162981		2012-04-24	Vestgaarden	
22	8623053		2014-01-07	Vestgaarden	
23	8882818		2014-11-11	Vestgaarden	
24	9375243		2016-06-28	Vestgaarden	
25	9883874		2018-02-06	Vestgaarden	
26	9895176		2018-02-20	Vestgaarden	
27	8197513		2012-06-12	Fisher et al.	
28	8221503		2012-07-17	Garcia et al.	
29	8348950		2013-01-08	Assell et al.	
30	9101371		2015-08-11	Assell et al.	

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31	8403991		2013-03-26	Ullrich, Jr. et al.	
32	8551171		2013-10-08	Johnson et al.	
33	8579912		2013-11-12	Isaza et al.	
34	8945224		2015-02-03	Trieu	
35	8961571		2015-02-24	Lee et al.	
36	8979928		2015-03-17	Donner	
37	9017407		2015-04-28	Donner	
38	9421109		2016-08-23	Donner	
39	9700356		2017-07-11	Donner et al.	
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42	10265176		2019-04-23	Donner et al.	
43	10292720		2019-05-21	Donner	
44	10314710		2019-06-11	Donner et al.	
45	10492802		2019-12-03	Donner et al.	
46	10646258		2020-05-12	Donner et al.	
47	9119732		2015-09-01	Schifano et al.	
48	10321945		2019-06-18	Schifano et al.	
49	10426539		2019-10-01	Schifano et al.	
50	10736752		2020-08-11	Schifano et al.	
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52	9186155		2015-11-17	Katzman et al.	

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53	9247943		2016-02-02	Kleiner	
54	9451986		2016-09-27	Stoffman	
55	9492284		2016-11-15	Ginn et al.	
56	9662128		2017-05-30	Reiley	
57	9949843		2018-04-24	Reiley et al.	
58	10004547		2018-06-26	Reiley	
59	10166033		2019-01-01	Reiley et al.	
60	9801732		2017-10-31	Chin et al.	
61	9833321		2017-12-05	Rindal	
62	10070970		2018-09-11	Lynn et al.	
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64	10194962		2019-02-05	Schneider et al.	
65	10201427		2019-02-12	Mauldin	
66	10363140		2019-07-30	Mauldin et al.	
67	10206739		2019-02-19	Godara et al.	
68	10219841		2019-03-05	Compton	
69	10219912		2019-03-05	Suh et al.	
70	10245158		2019-04-02	Song	
71	10357368		2019-07-23	Aksu	
72	10555818		2020-02-11	McConnell et al.	
73	10744003		2020-08-18	Ryan et al.	
74	10765532		2020-09-08	Ashleigh et al.	

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75	10779958		2020-09-22	Lins	
76	10820917		2020-11-03	Sharifi-Mehr et al.	
77	D905232		2020-12-15	Schifano et al.	
78	10492802		2019-12-03	Donner et al.	
79	10646258		2020-05-12	Donner et al.	
80	9498349		2016-11-22	Patterson et al.	
81	10254044		2019-04-09	Schindler et al.	
82	10660763		2020-05-26	Wilson et al.	
83	10849764		2020-12-01	Moore et al.	
84	5722978		1998-03-03	Jenkins, Jr.	
85	6080155		2000-06-27	Michelson	

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87	10682150		2020-06-16	Stark	
88	10492802		2019-12-03	Donner et al.	
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90	6053916		2000-04-25	Moore	

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U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20010031967		2001-10-18	Nicholson et al.	
	2	20020143400		2007-06-12	Biscup	
	3	20050080422		2005-04-14	Otte et al.	
	4	20050240195		2010-02-23	Axelsson, Jr. et al.	

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6	20060089633		2011-04-05	Bleich et al.	
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9	20090259261		2017-05-30	Reiley	
10	20190133613		2019-05-09	Reiley et al.	
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16	20090076551		2009-03-19	Petersen	
17	20090099610		2009-04-16	Johnson et al.	
18	20090312763		2009-12-17	McCormack	
19	20110098817		2011-04-28	Eckhardt	
20	20110184518		2011-07-28	Trieu	
21	20110238181		2011-09-29	Trieu	
22	20110264229		2011-10-27	Donner	
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39	20150012097		2015-01-08	Ibarra	
40	20150025534		2015-01-22	Gordon et al.	
41	20150073552		2015-03-12	To	
42	20150112444		2015-04-23	Aksu	
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44	20150230937		2015-08-20	Voellmicke	
45	20150250611		2015-09-10	Schifano et al.	
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50	20160310197		2016-10-27	Black et al	
51	20180303624		2018-10-25	Shoshtaev	
52	20190021868		2019-01-24	Ludwig	
53	20190090888		2019-03-28	Sand et al.	
54	20190262010		2019-08-29	Cerundolo et al.	
55	20200093612		2020-03-26	Blain	
56	20200138452		2020-05-07	Gatrell et al.	
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58	20200179135		2020-06-11	Castro	
59	20200253619		2020-08-13	Gregory	

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60	20200315811		2020-10-08	Cryder	
61	20200390566		2020-12-17	Murray	
62	20210015502		2021-01-21	Sharifi-Mehr	
63	20200029979		2020-01-30	Donner et al.	
64	20200337856		2020-10-29	Moore et al.	
65	20040133279		2004-07-08	Krueger et al.	
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67	20120259365		2012-10-11	Richelsoph	
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	71	20050165420		2005-07-28	Cha	
	72	20140277460		2014-09-18	Schifano	

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FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	110123436	CN		2019-08-16	李勇 et al.		☐
	2	2727004	FR		1996-05-24	Tisserand		☐
	3	2017066443	WO		2017-04-20	Moore et al.		☐
	4	2018195406	WO		2018-10-25	Harshman et al.		☐
	5	2019137626	WO		2019-07-18	Bake et al.		☐
	6	1328216	EP		2009-09-02	White et al.		☐
	7	1290985	EP		2008-04-09	Casquero et al.		☐

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8	2877128	EP		2018-06-27	ULLRICH et al.		☐
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NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	Giannikas, K. A., Khan, A. M., Karski, M. T., & Maxwell, H. A. (2004). Sacroiliac joint fusion for chronic pain: a simple technique avoiding the use of metalwork. European Spine Journal, 13(3), 253–256 accessed from "https://doi.org/10.1007/s00586-003-0620-1"	☐
	2	Captiva Spine, TransFasten Posterior Sacroiloc (SI) Joint Fusion System, accessed on November 3 from "https://transfasten.captivaspine.com/si-joint-surgeon-providers/"	☐
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	5	English Abstract of FR2727004A - Retrieved from Espacenet at https://worldwide.espacenet.com/patent/search/family/009469098/publication/FR2727004A1?q=pn%3DFR2727004A1	☐

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Examiner Signature	/TESSA M MATTHEWS/	Date Considered	11/18/2021
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

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CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/William K. Nelson/	Date (YYYY-MM-DD)	2021-11-03
Name/Print	William K. Nelson	Registration Number	63501

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 16/689,073		Filing Date 11/19/2019		☐ To be Mailed			
ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO											
APPLICATION AS FILED - PART I											
		(Column 1)	(Column 2)								
FOR		NUMBER FILED	NUMBER EXTRA	RATE (\$)		FEE (\$)					
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A	N/A	N/A							
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))		N/A	N/A	N/A							
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A	N/A	N/A							
TOTAL CLAIMS (37 CFR 1.16(i))		minus 20 =	*	x \$50 =							
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =	*	x \$230 =							
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).									
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))											
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL							
APPLICATION AS AMENDED - PART II											
		(Column 1)	(Column 2)	(Column 3)							
AMENDMENT	04/25/2022	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)				
	Total (37 CFR 1.16(i))	* 7	Minus	** 25	= 0	x \$50 =	0				
	Independent (37 CFR 1.16(h))	* 1	Minus	*** 3	= 0	x \$240 =	0				
	☐ Application Size Fee (37 CFR 1.16(s))										
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE	0				
		(Column 1)	(Column 2)	(Column 3)							
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)				
	Total (37 CFR 1.16(i))	*	Minus	**	=	x \$0 =					
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x \$0 =					
	☐ Application Size Fee (37 CFR 1.16(s))										
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE					
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						LIE					
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/DAWN BREWER/					
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".											
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Electronic Patent Application Fee Transmittal

Application Number:	16689073			
Filing Date:	19-Nov-2019			
Title of Invention:	METHOD AND IMPLANT SYSTEM FOR SACROILIAC JOINT FIXATION AND FUSION			
First Named Inventor/Applicant Name:	Troy Schifano			
Filer:	William Kenneth Nelson			
Attorney Docket Number:	13079.02.USU05			
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 2 months with \$0 paid	2252	1	320	320
Miscellaneous:				
Total in USD (\$)				320

Electronic Acknowledgement Receipt

EFS ID:	45558104
Application Number:	16689073
International Application Number:	
Confirmation Number:	8990
Title of Invention:	METHOD AND IMPLANT SYSTEM FOR SACROILIAC JOINT FIXATION AND FUSION
First Named Inventor/Applicant Name:	Troy Schifano
Customer Number:	13442
Filer:	William Kenneth Nelson
Filer Authorized By:	
Attorney Docket Number:	13079.02.USU05
Receipt Date:	25-APR-2022
Filing Date:	19-NOV-2019
Time Stamp:	20:34:25
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 320
RAM confirmation Number	E202240K34433889
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Request for Reconsideration-After Non-Final Rejection	20220425_resposne_AM_USUO 5.pdf	178899	no	14
			3fbc101a44dcddfeb7c07624de6bab6cad4 89b1		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	38367	no	2
			0f184bbdf2f2b1be04855cc2733e8f5fe445 b6ab		
Warnings:					
Information:					
Total Files Size (in bytes):			217266		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. 16/689,073)
)
5 Confirmation No. 8990)
)
Applicant: Orthocision Inc.)
)
Examiner: MATTHEWS, TESSA M.)
10)
TC/Art Unit: 3773)
)
For: METHOD AND IMPLANT SYSTEM)
FOR SACROILIAC JOINT FIXATION)
15 AND FUSION)
)
Filed: November 19, 2019)
_____)

20 Certificate of Transmission

I hereby certify that this paper, together with any documents referred to as being attached,
enclosed or submitted herewith, is being transmitted to the Commissioner for Patents, P.O. Box
25 1450, Alexandria, VA 22313-1450 via the USPTO EFS-Web filing system on April 25, 2022.

Signed: _____
William K. Nelson

30 AMENDMENT AND REQUEST FOR RECONSIDERATION

Honorable Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

35 Dear Sir:

In response to the non-final office action dated November 23, 2022 (the "Office
Action"), Applicant respectfully requests reconsideration of the above-identified
application in view of the following amendments and remarks.

40 Amendments to the claims are found in the **listing of claims** which begins on **page 2**
of this paper.

Remarks begin on **page 11** of this paper.

In the Claims:

1-31. (Canceled)

- 5 32. (Canceled) ~~A method for repairing a sacroiliac joint of a patient, comprising:~~
- ~~a. creating a first incision in the patient's skin proximal to the patient's sacroiliac joint;~~
 - ~~b. inserting a working channel having at least one tang on a distal end thereof into said first incision and spreading said sacroiliac joint with an inserted end of said first working channel;~~
 - ~~c. creating a void in said sacroiliac joint; and~~
 - ~~d. inserting a fusion implant into said void, said fusion implant having:~~
 - ~~i. a tapered distal end configured to be inserted between an ilium and a sacrum of said sacroiliac joint, and~~
 - ~~ii. a central body comprising~~
 - ~~1. first two opposite lateral sides, each opposite side comprising a groove beginning at the proximal end of the body and continuing along each of the two opposite sides for at least part of the length, the distance between the two sides defining a width of the body, and~~
 - ~~2. a second two opposite sides located between the first two opposite sides, each of said two opposite sides having a plurality of protrusions for engagement with bone tissue in an articular surface of at least one of the sacrum and the ilium of said sacroiliac joint to prevent pullout of said fusion implant.~~
- 10
- 15
- 20
- 25

33. (Canceled)

34. (Canceled)

5 35. (Canceled) ~~The method of claim 32, further comprising driving said fusion implant into said void with an impactor, wherein driving said fusion implant engages said pluralities of protrusions with said bone tissue.~~

36. (Canceled)

10

37. (Canceled)

38. (Canceled)

15

39. (Canceled)

40. (Canceled)

20

41. (Canceled) ~~The method of claim 32, wherein said fusion implant fixes and fuses the patient's ilium to the patient's sacrum, thereby substantially immobilizes the patient's sacroiliac joint.~~

42. (Canceled)

25

43. (Canceled) ~~The method of claim 41, wherein said fusion implant comprises at least one passage therethrough for for holding a fusion-promoting material and allowing growth of bone through the said at least one passage.~~

30

44. (Canceled) ~~The method of claim 43, wherein said at least one passage comprises a plurality of passages through said fusion implant.~~

45. (Canceled)

46. (Canceled)

5
47. (Canceled) ~~The method of claim 32, wherein the inserting said fusion implant comprises:~~

a. ~~attaching said fusion implant to an inserter having groove engagement arms that nest in said grooves; and~~

10 b. ~~inserting said inserter into a hollow barrel of said working channel with said slot engagement arms aligned with a guidance slot within said hollow barrel and advancing said inserter until said guidance slot arrests the penetration of said inserter and said fusion implant into said sacroiliac joint at a pre-determined depth.~~

15
48. (Canceled)

49. (Currently Amended) A method for repairing a sacroiliac joint of a patient using an intra-articular joint fusion device for connecting the sacrum and ilium,
20 comprising:

a. creating a first incision in the patient's skin proximal to the patient's sacroiliac joint;

25 b. inserting a working channel of a surgical channel tool into said incision from the posterior of the patient, wherein said working channel includes at least one distal tang integral to and extending from a distal end of said working channel that are inserted into the sacroiliac joint, said working channel further including an insertion control mechanism—guide for controlling the advancement of surgical tools into said working channel;

- 5
- c. creating a void in said sacroiliac joint;
 - d. inserting a fusion implant into said void using an inserter tool, said fusion implant having a plurality of protrusions for engagement with bone tissue in an articular surface of at least one of the sacrum and the ilium of said sacroiliac joint to prevent pullout of said fusion implant; and
 - e. driving said fusion implant into said void such that said plurality of protrusions engages with said bone tissue.

10 50. (Canceled)

51. (Previously Presented) The method of claim 49, wherein said plurality of protrusions comprises two sets of pluralities of protrusions, a first plurality of protrusions on a first lateral face of said fusion implant and a second plurality of protrusions on a second lateral face of said fusion implant.

15 52. (Canceled)

53. (Canceled)

20 54. (Canceled)

55. (Canceled)

56. (Canceled)

25 57. (Canceled)

58. (Canceled)

59. (Currently Amended) The method of claim 49, wherein said fusion implant comprises a body having a passage therethrough for holding a fusion-promoting material and allowing growth of bone through the said passage and a second two opposite lateral sides, each opposite side comprising a groove beginning at the proximal end of the body and continuing along each of the second two opposite lateral sides for at least part of ~~the~~ a length, the distance between the second two opposite lateral sides defining a width of the first lateral face and ~~the~~ a second lateral face.
60. (Previously Presented) The method of claim 51, wherein said fusion implant is operable to connect said sacrum to said ilium in fixed relative positions in the sacroiliac joint.
61. (Canceled)
62. (Canceled)
63. (Canceled)
64. (Canceled)
65. (Canceled)
66. (Canceled)
67. (Currently Amended) The method of claim 59, wherein the inserting the fusion implant comprises:
- a. attaching said fusion implant to said inserter tool to said grooves of said fusion implant, wherein said inserter tool has a groove-engagement arms that nest in said grooves; and

5 b. inserting the inserter tool into a hollow barrel of said working channel and engaging said insertion control protrusion with said insertion control mechanism and advancing the inserter tool until ~~said~~an insertion control protrusion is arrested by the insertion control mechanism at a pre-determined point in the hollow barrel, and said inserter tool is prevented from moving the fusion implant further into said sacroiliac joint.

68. (Canceled)

10 69. (Previously Presented) The method of claim 49, wherein driving said fusion implant into said void comprises pushing said fusion implant into said void such that the plurality of protrusions contacts said bone tissue.

70. (Canceled)

15

71. (Canceled)

72. (Canceled)

20 73. (Canceled)

74. (Canceled)

75. (Canceled)

25

76. (Canceled)

77. ~~(Canceled) A method for repairing a sacroiliac joint of a patient using an intra-articular joint fusion device for connecting the sacrum and ilium, comprising:~~

~~a. creating an incision in the patient's skin in a position proximal to the patient's sacroiliac joint to allow access to the posterior portion of the sacroiliac joint;~~

~~b. inserting a working channel of a surgical channel tool into said incision from the posterior of the patient, said working channel including at least one tang protruding from a distal end of the working channel and an insertion control mechanism for controlling the advancement of surgical tools into said working channel;~~

~~c. creating a void in said sacroiliac joint;~~

~~d. inserting a fusion implant using an inserter into said void on a path that is substantially parallel to articular surfaces of the sacroiliac joint, wherein said fusion implant includes two opposing articular engagement faces, each of said faces having a plurality of protrusions for engagement with bone tissue in articular surfaces of each of said sacroiliac joint to prevent pullout of said fusion implant from said sacroiliac joint;~~

~~e. advancing the inserter tool until said insertion control protrusion to a pre-determined point in the hollow barrel and placing said fusion implant into said sacroiliac joint; and~~

~~f. driving said fusion implant into said void such that said fusion implant engages with said bone tissue.~~

78. ~~(Canceled)~~

79. ~~(Canceled)~~

80. ~~(Canceled) The method of claim 77, wherein said fusion implant comprises at least one passage through said two opposing articular engagement faces for holding a fusion promoting material.~~

5

81. ~~(Canceled) The method of claim 80, wherein said at least one passage allows for the growth of bone tissue through said at least one passage.~~

10

82. ~~(Canceled) The method of claim 80, wherein no further fusion implants are introduced into said sacroiliac joint and said fusion implant is sufficient to fuse the sacroiliac joint.~~

15

83. ~~(Canceled) The method of Claim 77, wherein said at least one tang secures a position of said working channel in said sacroiliac joint to avoid movement of said working channel during insertion of said fusion implant.~~

20

84. ~~(Canceled) The method of Claim 77, wherein said inserter has an insertion control protrusion for engagement with said insertion control mechanism and engagement of said insertion control protrusion with said insertion control mechanism maintains said inserter and said fusion implant in proper orientation for insertion of the fusion implant into said sacroiliac joint.~~

25

85. ~~(Canceled) The method of claim 32, wherein the inserting said fusion implant comprises:~~

~~a. attaching said fusion implant to an inserter having a slot engagement protrusion; and~~

~~b. inserting said inserter into a hollow barrel of said working channel with said slot engagement protrusion aligned with a guidance slot within said hollow barrel, wherein engagement of said slot engagement protrusion with said guidance slot maintains said inserter and said fusion~~

30

implant in proper orientation for insertion of the fusion implant into said sacroiliac joint.

86. (Currently Amended) The method of claim 49, wherein the inserting said fusion implant comprises:

- a. attaching said fusion implant to an inserter tool having a slot-engagement element; and
- b. inserting said inserter into a hollow barrel of said working channel with said slot-engagement ~~protrusion~~-element aligned with said insertion control mechanism within said hollow barrel, wherein engagement of said slot-engagement element with said insertion control mechanism maintains said inserter tool and said fusion implant in proper orientation for insertion of the fusion implant into said sacroiliac joint.

REMARKS

Applicant and his representatives wish to thank Examiner Matthews for the thorough examination of the present application and the detailed explanations in the Office Action dated November 23, 2022. The Examiner's concerns have been given
5 serious consideration. However, the present claims are considered allowable over the cited references.

Claims 32, 35, 41, 43-44, 47, 77, and 80-85 have been canceled. Claims 49, 59, 61, and 86 have been amended. Claims 49, 51, 59-61, 69, and 86 are currently pending in the present application. Thus, the present claims are considered patentable over the
10 cited references.

Interpretation of Claims 49 and 77 Under 35 USC § 112(f)

The interpretation issue raised in the Office Action regarding Claims 49 and 77 has been obviated by appropriate amendment.

15

Objections to Claims 32, 59, 67, and 77

The objections to Claims 32, 59, 67, and 77 have been obviated by appropriate amendment.

20

Rejections of Claims 47, 77, 80-84, and 86 Under 35 USC § 112(b)

The rejections of Claims 47, 77, 80-84, and 86 as being indefinite under 35 USC § 112(b) have been obviated by appropriate amendment.

***Rejection of Claims 32, 35, 40-41, 43-44, 47, 49, 51, 59-60, 67, 69, and 77-86
under 35 U.S.C. § 103(a)***

Claims 32, 35, 40-41, 43-44, 47, 49, 51, 59-60, 67, 69, and 77-86 has been
rejected under 35 U.S.C. § 103(a) as being obvious in view of Petersen (US
5 2010/0268228) and Paltzer (US 2006/0129238). This rejection is respectfully traversed.

In determining obviousness, one must consider whether one of ordinary skill in
the art would be motivated to combine known elements to arrive at a claimed
combination. See M.P.E.P. § 2141. This inquiry includes, but is not limited to, an
examination of the teachings, suggestions, or motivations of the patentees of the prior art
10 cited by the Examiner. See *KSR Intern. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1742 (U.S.
2007). See also M.P.E.P. § 2141. The Examiner must provide “some articulated
reasoning with some rational underpinnings to support the legal conclusion of
obviousness.” See *KSR Intern. Co.*, 127 S.Ct. 1727, 1741 (U.S. 2007), citing *In re Kahn*,
441 F.3d 977, 988 (C.A. Fed. 2006). See also M.P.E.P. § 2141.

15 Referring to reference no. 980, the Office Action states that the “pins ref. 908
[sic] ... are considered to be tangs” as shown in FIGS. 17A-17C of Petersen. (see section
12.b. on p. 9 of the Office Action). This is not an accurate interpretation of the disclosure
of Petersen. Pins 908 are clearly described as stabilizing pins, which are not part of the
guide 90 (cannula) and clearly is not integral to or extend from the guide 90 (see
20 paragraph [0055] of Petersen). Claim 49 is patentable over Petersen for at least this
reason.

It is submitted that Paltzer fails to cure the deficiencies of Petersen explained
above, and therefore Claim 49 and the claims dependent therefrom are patentable over
Serial No. 16/689,073

Petersen in view of Paltzer for at least the reasons provided above. Thus, the arguments provided above are sufficient to overcome this rejection, and no additional arguments or amendments are submitted at this time. However, the applicant reserves the right to do so in response to any future rejection(s).

- 5 The remaining rejections have been obviated by the cancelation of the remaining claims.

CONCLUSION

In view of the above amendments and remarks, the present application is in condition for allowance. Early notice to that effect is earnestly requested. If it is deemed helpful or beneficial to the efficient prosecution of the present application, the Examiner is invited to contact Applicant's undersigned representative by telephone.

The office is authorized to charge any fees required by this paper, or credit any overpayments to deposit account 600741.

Dated: April 25, 2022.

Respectfully Submitted,

By /William Nelson/
William K. Nelson
Registration No. 63,501
Customer No. 13442



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/689,073	11/19/2019	Troy Schifano	13079.02.USU05	8990
13442	7590	06/27/2022		
Sierra IP Law, PC P.O. Box 5637 Fresno, CA 93755-5637			EXAMINER MATTHEWS, TESSA M	
			ART UNIT	PAPER NUMBER
			3773	
			MAIL DATE	DELIVERY MODE
			06/27/2022	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

16/689,073

Applicant(s)

Schifano et al.

Examiner

TESSA M MATTHEWS

Art Unit

3773

AIA (FITF) Status

No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 04/25/2022.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on ____.

2a) ☒ This action is **FINAL**.

2b) ☐ This action is non-final.

3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.

4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☒ Claim(s) 49,51,59-60,67,69 and 86 is/are pending in the application.

5a) Of the above claim(s) ____ is/are withdrawn from consideration.

6) ☐ Claim(s) ____ is/are allowed.

7) ☒ Claim(s) 49,51,59-60,67,69 and 86 is/are rejected.

8) ☐ Claim(s) ____ is/are objected to.

9) ☐ Claim(s) ____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10) ☐ The specification is objected to by the Examiner.

11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☐ All b) ☐ Some** c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. ____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

3) ☐ Interview Summary (PTO-413)

Paper No(s)/Mail Date ____.

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)

4) ☐ Other: ____.

Paper No(s)/Mail Date ____.

Notice of Pre-AIA or AIA Status

1. The present application is being examined under the pre-AIA first to invent provisions.

Claim Objections

2. Claims 67 and 86 are objected to because of the following informalities:

Claim 67, section b, line 3, "an insertion control protrusion" should be changed to "said or the insertion control protrusion".

Claim 86, line 3, "an inserter tool" should read "the inserter tool".

Claim 86, line 5, "said inserter" should read "said inserter tool" for reasons of consistency and clarity. Appropriate correction is required.

Claim Interpretation

3. The following is a quotation of 35 U.S.C. 112(f):

(f) Element in Claim for a Combination. – An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

The following is a quotation of pre-AIA 35 U.S.C. 112, sixth paragraph:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

4. The claims in this application are given their broadest reasonable interpretation using the plain meaning of the claim language in light of the specification as it would be understood by one of ordinary skill in the art. The broadest reasonable interpretation of a claim element (also commonly referred to as a claim limitation) is limited by the

description in the specification when 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, is invoked.

As explained in MPEP § 2181, subsection I, claim limitations that meet the following three-prong test will be interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph:

- (A) the claim limitation uses the term “means” or “step” or a term used as a substitute for “means” that is a generic placeholder (also called a nonce term or a non-structural term having no specific structural meaning) for performing the claimed function;
- (B) the term “means” or “step” or the generic placeholder is modified by functional language, typically, but not always linked by the transition word “for” (e.g., “means for”) or another linking word or phrase, such as “configured to” or “so that”; and
- (C) the term “means” or “step” or the generic placeholder is not modified by sufficient structure, material, or acts for performing the claimed function.

Use of the word “means” (or “step”) in a claim with functional language creates a rebuttable presumption that the claim limitation is to be treated in accordance with 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph. The presumption that the claim limitation is interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, is rebutted when the claim limitation recites sufficient structure, material, or acts to entirely perform the recited function.

Absence of the word “means” (or “step”) in a claim creates a rebuttable presumption that the claim limitation is not to be treated in accordance with 35 U.S.C.

112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph. The presumption that the claim limitation is not interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, is rebutted when the claim limitation recites function without reciting sufficient structure, material or acts to entirely perform the recited function.

Claim limitations in this application that use the word “means” (or “step”) are being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, except as otherwise indicated in an Office action. Conversely, claim limitations in this application that do not use the word “means” (or “step”) are not being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, except as otherwise indicated in an Office action.

5. This application includes one or more claim limitations that do not use the word “means,” but are nonetheless being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, because the claim limitation(s) uses a generic placeholder that is coupled with functional language without reciting sufficient structure to perform the recited function and the generic placeholder is not preceded by a structural modifier. Such claim limitation(s) is/are: “an insertion control guide” in claims 49.

Because this/these claim limitation(s) is/are being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, it/they is/are being interpreted to cover the corresponding structure described in the specification as performing the claimed function, and equivalents thereof.

Regarding the insertion control guide, paragraph [0163] discloses a slot (ref. 146) inside the hollow barrel of the working channel to control advancement of tools.

Therefore the structure determined sufficient to perform the function of controlling the advancement of surgical tools is a slot or functional equivalent thereof.

If applicant does not intend to have this/these limitation(s) interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, applicant may: (1) amend the claim limitation(s) to avoid it/them being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph (e.g., by reciting sufficient structure to perform the claimed function); or (2) present a sufficient showing that the claim limitation(s) recite(s) sufficient structure to perform the claimed function so as to avoid it/them being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph.

Claim Rejections - 35 USC § 112

6. The following is a quotation of 35 U.S.C. 112(b):
(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 67 and 86 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor (or for applications subject to pre-AIA 35 U.S.C. 112, the applicant), regards as the invention.

Claim 67 recites “the insertion control mechanism” in lines 8 and 10. It is unclear if the mechanism is the same as the guide as recited in preceding claim 49. For purposes of examination it is assumed to be the same.

Likewise, claim 86 recites "said insertion control mechanism". It is unclear if these are the same as the guide or different. For purposes of examination they are assumed to be the same.

Claim Rejections - 35 USC § 103

8. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

9. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 49, 51, 59, 60, 67, 69 and 86 is/are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Petersen (US 2010/0268228 A1) in view of Paltzer (US 2006/0129238 A1) and in view of Michelson (US 6,436,098 B1).

Regarding claim 49, Petersen discloses a method for repairing a sacroiliac joint of a patient using an intra-articular joint fusion device for connecting the sacrum and ilium (Abstract), comprising:

a. creating a first incision in the patient's skin proximal to the patient's sacroiliac joint (paragraph [0083], ref. 940, Fig. 13A);

b. inserting a working channel of a surgical channel tool into said incision from the posterior of the patient (paragraph [0086], ref. 90, Fig. 16A-C), wherein said working channel includes

an insertion control guide for controlling the advancement of surgical tools into said working channel (the substantially planar top and opening dimension ref. 380 are considered to be the insertion control mechanism because they work with corresponding insertion control elements, refs. 460, 590, 720, of various surgical instruments to control the depth of advancement, this is considered to be functionally equivalent to the disclosed insertion control mechanism of the present application);

c. creating a void in said sacroiliac joint (paragraph [0092], Figs. 20A-C);

d. inserting a fusion implant into said void using an inserter tool (paragraph [0096] discloses inserting an implant ref. 40 into said void via an inserter tool ref. 130).

Peterson is silent regarding the limitation "wherein said working channel includes at least one distal tang integral to and extending from a distal end of the said working channel that are inserted into the sacroiliac joint". In addition, Peterson discloses a fusion implant (ref. 40) and further discloses that the implant may be of a variety of configurations (e.g. rectangular, cylindrical, triangular or any suitable configuration) (paragraph [0101]) and may be made from a variety of materials (e.g. bone, metals or alloys) (paragraph [0102]). Peterson is silent regarding that the fusion implant has a plurality of protrusions for engagement with bone tissue in an articular surface of at least

one of the sacrum and the ilium of said sacroiliac joint to prevent pullout of said fusion implant; and e. driving said fusion implant into said void such that said plurality of protrusions engages with said bone tissue.

Paltzer teaches a spinal fusion implant (paragraph [0002]) comprising;
a plurality of protrusions for engagement with bone tissue in an articular surface of a spinal joint to prevent pullout of said fusion implant (paragraph [0067], ref. 40, Fig. 4). In addition Paltzer discloses an inserter (Fig. 9, ref. 260) for inserting said fusion implant having a distal end configured to engage with said fusion implant (paragraph [0084]). Paltzer teaches that the spinal fusion implant is beneficial because the plurality of protrusions maximize gripping strength and resist counter-rotation once seated and therefor resist unwanted movement (paragraph [0067]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the spinal fusion implant of Petersen for the spinal fusion implant of Paltzer and to modify the distal end of the inserter of Petersen for the distal end of the inserter of Paltzer such that the inserter and implant may engage one another and for the beneficial purpose of resistance to unwanted movement once placed. It is noted that Petersen in view Paltzer does not alter the method of Petersen, which discloses that the fusion implant is placed between the articular surfaces of the sacroiliac joint (Fig. 25A) and the gripping surfaces or plurality of protrusions (as taught by Paltzer) are configured to engaged the articular surfaces of the spinal joint and thus the articular surfaces of the sacrum and ilium thus fulling the limitation of section "e".

Michelson teaches a surgical channel tool (Fig. 5) for use with spinal surgical procedures (Abstract), wherein a working channel (interior) of the tool comprises at least one distal tangle integral to and extending from a distal end of the said working channel (Fig. 6, ref. 142) for the purpose of penetrating and holding onto the bone at the surgical site (Col. 19, lines 51 - 67]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the distal end of the surgical channel tool such that the said working channel includes at least one distal tang integral to and extending from the distal end of said working channel, as taught by Michelson, for the purpose of allowing the surgical tool to gain better purchasing power over bone tissue at the surgical site.

Regarding claim 51, Petersen in view of Paltzer and in view of Michelson discloses the method of claim 49, wherein said plurality of protrusions comprises two sets of pluralities of protrusions, a first plurality of protrusions on a first lateral face of said fusion implant and a second plurality of protrusions on a second lateral face of said fusion implant (Michelson, when the device is divided along a lateral plane there are two sets of protrusions each on a lateral side).

Regarding claim 59, Petersen in view of Paltzer and in view of Michelson discloses the method of claim 49, wherein said fusion implant comprises a body having a passage therethrough for holding a fusion-promoting material and allowing growth of bone through the said passage (Paltzer, paragraph[0059], refs. 52, 54) and a second two opposite lateral sides, each opposite side comprising a groove beginning at the

proximal end of the body and continuing along each of the second two opposite lateral sides for at least part of a length, the distance between the second two opposite lateral sides defining a width of the first lateral face and a second lateral face (Paltzer, paragraph [0065], ref. 240, Figs. 4 - 5).

Regarding claim 60 (as best understood), Petersen in view of Paltzer and in view of Michelson discloses the method of claim 51, wherein said fusion implant is operable to connect said sacrum to said ilium in fixed relative positions in the sacroiliac joint (Petersen as modified by Paltzer discloses a fusion implant configured to fuse two spinal bodies and more specifically the sacroiliac joint, thus discloses the step of connecting said sacrum to said ilium in a fixed position).

Regarding claim 67, Petersen in view of Paltzer and in view of Michelson discloses the method of claim 59, wherein the inserting the fusion implant comprises:

a. attaching said fusion implant to said inserter tool to said grooves of said fusion implant, wherein said inserter tool has a groove-engagement arms that nest in said grooves (Paltzer, paragraph [0082], ref. 202, Fig. 9); and

b. inserting the inserter tool into a hollow barrel of said working channel and engaging said insertion control protrusion with said insertion control mechanism and advancing the inserter tool until an insertion control protrusion is arrested by the insertion control mechanism at a pre-determined point in the hollow barrel, and said inserter tool is prevented from moving the fusion implant further into said sacroiliac joint (Petersen, paragraph [0069], Figs. 22C - 23C).

Regarding claim 69, Petersen in view of Paltzer and in view of Michelson discloses the method of claim 49, wherein driving said fusion implant into said void comprises pushing said fusion implant into said void such that the plurality of protrusions contacts said bone tissue (Petersen, Figs. 25A shows implant placement within said sacroiliac joint, and thus Petersen as modified by Paltzer results in the protrusions contacting the bone tissue of the sacroiliac joint).

Regarding claim 86, Petersen in view of Paltzer and in view of Michelson discloses the method of claim 49, wherein the inserting said fusion implant comprises:

- a. attaching said fusion implant to an inserter tool having a slot-engagement element (Petersen, paragraph [0073], ref. 760); and
- b. inserting said inserter into a hollow barrel of said working channel with said slot-engagement element aligned with said insertion control mechanism within said hollow barrel (Petersen, Fig. 23C shows the slot-engagement element ref. 760 engaged with said insertion control mechanism ref. 380), wherein engagement of said slot-engagement element with said insertion control mechanism maintains said inserter tool and said fusion implant in proper orientation for insertion of the fusion implant into said sacroiliac joint (Petersen, paragraph [0073]).

Response to Arguments

11. Applicant's arguments with respect to claim(s) 49, 51, 59, 60, 67, 69 and 86 have been considered but are moot because the new ground of rejection does not rely on any

combination of references applied in the prior rejection of record for any teaching or matter specifically challenged in the argument.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TESSA M MATTHEWS whose telephone number is (571)272-8817. The examiner can normally be reached M - F 8am - 1pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: <https://patentcenter.uspto.gov>. Visit <https://www.uspto.gov/patents/apply/patent-center> for more information about Patent Center and <https://www.uspto.gov/patents/docx> for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TESSA M MATTHEWS/
Examiner, Art Unit 3773

<i>Search Notes</i> 	Application/Control No. 16/689,073	Applicant(s)/Patent Under Reexamination Schifano et al.
	Examiner TESSA M MATTHEWS	Art Unit 3773

CPC - Searched*		
Symbol	Date	Examiner
A61B17/8872,1757,7055 - modified with text	11/20/2021	T. Matthews
A61F2/4455,447,4611 - modified with text	11/20/2021	T. Matthews
Updated Search	06/21/2022	T. Matthews

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
Inventor and applicant name search in EAST	11/20/2021	T. Matthews
See attached EAST search history	11/20/2021	T. Matthews
Updated Search	06/21/2022	T. Matthews

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/TESSA M MATTHEWS/ Examiner, Art Unit 3773	/TESSA M MATTHEWS/ Examiner, Art Unit 3773
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<i>Index of Claims</i> 	Application/Control No. 16/689,073	Applicant(s)/Patent Under Reexamination Schifano et al.
	Examiner TESSA M MATTHEWS	Art Unit 3773

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS										
☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
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<i>Index of Claims</i> 	Application/Control No. 16/689,073	Applicant(s)/Patent Under Reexamination Schifano et al.
	Examiner TESSA M MATTHEWS	Art Unit 3773

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PE2E SEARCH - Search History (Prior Art)

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L26	0	("2021/0100662").URP N.	(USPAT)	OR	OFF	OFF	2021/11/18 09:40 AM
L27	2	("20100268228").PN.	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	OFF	OFF	2021/11/19 10:03 AM
L28	3	("20060129238").PN.	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	OFF	OFF	2021/11/19 10:03 AM
L29	2	"20100268228"	(US-PGPUB; USPAT)	OR	ON	ON	2022/06/21 02:57 PM
L30	69	((US-20110184518-A1 OR US-20140277165- A1 OR US- 20070270879-A1 OR US-20090099610-A1 OR US-20100268228- A1 OR US- 20110098817-A1 OR US-20120095560-A1 OR US-20110184519- A1 OR US- 20110230966-A1 OR US-20120083883-A1 OR US-20110264229- A1 OR US- 20080009861-A1 OR US-20130172736-A1 OR US-20140135927- A1 OR US- 20060129238-A1 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/21 03:25 PM

		US-20090216238-A1 OR US-20200029979-A1 OR US-20170135733-A1 OR US-20090259261-A1 OR US-20150039037-A1 OR US-20120296428-A1 OR US-20140031935-A1 OR US-20160081809-A1 OR US-20160081810-A1 OR US-20130296953-A1 OR US-20140088707-A1 OR US-20190343640-A1 OR US-20190083271-A1 OR US-20200268518-A1 OR US-20200261240-A1 OR US-20200281729-A1 OR US-20210085470-A1 OR US-20210100662-A1 OR US-20130144343-A1 OR US-20010053914-A1 OR US-20030009222-A1 OR US-20020077641-A1 OR US-20110238181-A1 OR US-20140277460-A1 OR US-20130245703-A1 OR US-20140207240-A1 OR US-20140277463-A1 OR US-20150173805-A1 OR US-20150182268-A1 OR US-20160175113-A1 OR US-20160310197-A1).did. AND PGPB.dbnm.) OR ((US-5334205-A OR US-8388667-B2 OR US-10245087-B2 OR US-10736752-B1 OR US-9492284-B2 OR US-6770074-B2 OR US-8025684-B2 OR US-8551171-B2 OR US-8579912-B2 OR US-8961571-B2 OR US-9186155-B2 OR US-9421109-B2 OR US-9119732-B2 OR US-7648509-B2 OR US-10492802-B2 OR US-					
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		10849764-B2 OR US- 9241798-B2 OR US- 8945224-B2 OR US- 10682150-B2 OR US- 9149286-B1 OR US- 9370433-B1 OR US- 11172939-B2 OR US- 6436098-B1).did. AND USPT.dbnm.)					
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PE2E SEARCH - Search History (Interference)

There are no Interference searches to show.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 16/689,073	Filing Date 11/19/2019	☐ To be Mailed
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ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE (\$)	FEE (\$)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 = *		x \$50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 = *		x \$230 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED - PART II

	(Column 1)		(Column 2)	(Column 3)	RATE (\$)	ADDITIONAL FEE (\$)
AMENDMENT	09/28/2022		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	
	Total (37 CFR 1.16(i))	* 20	Minus	** 25	= 0	x \$50 = 0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0	x \$240 = 0
	☐ Application Size Fee (37 CFR 1.16(s))					
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					
TOTAL ADD'L FEE						0
AMENDMENT			CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	
	Total (37 CFR 1.16(i))	*	Minus	**	=	x \$0 =
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x \$0 =
	☐ Application Size Fee (37 CFR 1.16(s))					
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					
TOTAL ADD'L FEE						
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/DELEACHES M YOUNG/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".						
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.						

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL **(Submitted Only via EFS-Web)**

Application Number	16/689,073	Filing Date	2019-11-19	Docket Number (if applicable)	13079.02.USU05	Art Unit	
First Named Inventor	Schifano			Examiner Name			

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.

Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

☐ Other _____

☒ Enclosed

☒ Amendment/Reply

☐ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____
 (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

☐ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No _____

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature

Applicant Signature

Signature of Registered U.S. Patent Practitioner			
Signature	William K. Nelson/	Date (YYYY-MM-DD)	2022-09-27
Name	William K. Nelson	Registration Number	63501

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	16689073			
Filing Date:	19-Nov-2019			
Title of Invention:	METHOD AND IMPLANT SYSTEM FOR SACROILIAC JOINT FIXATION AND FUSION			
First Named Inventor/Applicant Name:	Troy Schifano			
Filer:	William Kenneth Nelson			
Attorney Docket Number:	13079.02.USU05			
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 1 month with \$0 paid	2251	1	110	110
Miscellaneous:				
RCE- 1ST REQUEST	2801	1	680	680
Total in USD (\$)				790

Electronic Acknowledgement Receipt

EFS ID:	46707296
Application Number:	16689073
International Application Number:	
Confirmation Number:	8990
Title of Invention:	METHOD AND IMPLANT SYSTEM FOR SACROILIAC JOINT FIXATION AND FUSION
First Named Inventor/Applicant Name:	Troy Schifano
Customer Number:	13442
Filer:	William Kenneth Nelson
Filer Authorized By:	
Attorney Docket Number:	13079.02.USU05
Receipt Date:	28-SEP-2022
Filing Date:	19-NOV-2019
Time Stamp:	00:02:38
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 790
RAM confirmation Number	E20229R103011158
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Response After Final Action	20220829_draft_resposne_AM_USU05_rcE.pdf	438848	no	17
			3079b87aa82dc29f1f825bdb8b52a683fe4f83c7		
Warnings:					
Information:					
2	Request for Continued Examination (RCE)	sb0030e_fill.pdf	697557	no	3
			9441be72bf6247303e7e5c774d5ba8530d9dc37e		
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	40709	no	2
			ddd58768ab59e57cb09c6c86a09a09403296838e		
Warnings:					
Information:					
Total Files Size (in bytes):			1177114		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. 16/689,073)
)
5 Confirmation No. 8990)
)
Applicant: Orthocision Inc.)
)
Examiner: MATTHEWS, TESSA M.)
10)
TC/Art Unit: 3773)
)
For: METHOD AND IMPLANT SYSTEM)
FOR SACROILIAC JOINT FIXATION)
15 AND FUSION)
)
Filed: November 19, 2019)
_____)

Certificate of Transmission

I hereby certify that this paper, together with any documents referred to as being attached,
enclosed or submitted herewith, is being transmitted to the Commissioner for Patents, P.O. Box
1450, Alexandria, VA 22313-1450 via the USPTO EFS-Web filing system on September 27,
2022.

Signed: /William K. Nelson/
William K. Nelson

AMENDMENT AND REQUEST FOR CONTINUED EXAMINATION

Honorable Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the non-final office action dated June 27, 2022 (the "Office
Action"), Applicant respectfully requests reconsideration of the above-identified
application in view of the following amendments and remarks. A request for continued
examination and the corresponding fee are submitted herewith.

Amendments to the claims are found in the **listing of claims** which begins on **page 2**
of this paper.

Remarks begin on **page 11** of this paper.

In the Claims:

1-31. (Canceled)

5 32. (Canceled)

33. (Canceled)

34. (Canceled)

10 35. (Canceled)

36. (Canceled)

15 37. (Canceled)

38. (Canceled)

39. (Canceled)

20 40. (Canceled)

41. (Canceled)

25 42. (Canceled)

43. (Canceled)

44. (Canceled)

45. (Canceled)

5 46. (Canceled)

47. (Canceled)

48. (Canceled)

10

49. (Currently Amended) A method for repairing a sacroiliac joint of a patient using an intra-articular joint fusion device for connecting the sacrum and ilium, comprising:

15

a. creating a first incision in the patient's skin proximal to the patient's sacroiliac joint;

20

b. inserting a working channel of a surgical channel tool into said incision from the posterior of the patient, wherein said working channel includes ~~at least one~~ a plurality of distal tangs integral to and extending from a perimeter of said working channel at a distal end of said working channel that are inserted into the sacroiliac joint such that the distal tangs are substantially parallel with the articular surfaces of the sacroiliac joint, said working channel further including an insertion control ~~guide-slot~~ for controlling the advancement of surgical tools into said working channel;

25

c. creating a void in said sacroiliac joint;

d. inserting an allograft fusion implant into said void using an inserter tool, said fusion implant having a plurality of protrusions for engagement with bone tissue in an articular surface of at least one of the sacrum and the

ilium of said sacroiliac joint to prevent ~~pullout~~ dislodgement of said fusion implant; and

- e. driving said fusion implant into said void such that said plurality of protrusions engages with said bone tissue.

5

50. (Canceled)

51. (Previously Presented) The method of claim 49, wherein said plurality of protrusions comprises two sets of pluralities of protrusions, a first plurality of protrusions on a first lateral face of said fusion implant and a second plurality of protrusions on a second lateral face of said fusion implant.

10

52. (Canceled)

15 53. (Canceled)

54. (Canceled)

55. (Canceled)

20

56. (Canceled)

57. (Canceled)

25 58. (Canceled)

59. (Currently Amended) The method of claim 49, wherein said fusion implant comprises a body having a passage therethrough for holding a fusion-promoting material and allowing growth of bone through the said passage and a second two

opposite lateral sides, each opposite side comprising a groove beginning at the proximal end of the body and continuing along each of the second two opposite lateral sides for at least part of ~~the~~ a length, the distance between the second two opposite lateral sides defining a width of the first lateral face and ~~the~~ a second lateral face.

60. (Previously Presented) The method of claim 51, wherein said fusion implant is operable to connect said sacrum to said ilium in fixed relative positions in the sacroiliac joint.

61. (Canceled)

62. (Canceled)

63. (Canceled)

64. (Canceled)

65. (Canceled)

66. (Canceled)

67. (Currently Amended) The method of claim 59, wherein the inserting the fusion implant comprises:

- a. attaching said fusion implant to said inserter tool to said grooves of said fusion implant, wherein said inserter tool has a groove-engagement arms that nest in said grooves; and
- b. inserting the inserter tool into a hollow barrel of said working channel and engaging ~~said~~ an insertion control protrusion with said insertion control

mechanism and advancing the inserter tool until ~~an~~ said insertion control protrusion is arrested by the insertion control ~~mechanism~~ slot at a predetermined point in the hollow barrel, and said inserter tool is prevented from moving the fusion implant further into said sacroiliac joint.

5

68. (Canceled)

69. (Previously Presented) The method of claim 49, wherein driving said fusion implant into said void comprises pushing said fusion implant into said void such that the plurality of protrusions contacts said bone tissue.

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70. (Canceled)

71. (Canceled)

15

72. (Canceled)

73. (Canceled)

20

74. (Canceled)

75. (Canceled)

76. (Canceled)

25

77. (Canceled)

78. (Canceled)

79. (Canceled)

5

80. (Canceled)

81. (Canceled)

10

82. (Canceled)

83. (Canceled)

84. (Canceled)

15

85. (Canceled)

86. (Currently Amended) The method of claim 49, wherein the inserting said fusion implant comprises:

20

a. attaching said fusion implant to ~~an~~the inserter tool having a slot-engagement element; and

|

b. inserting said inserter tool into a hollow barrel of said working channel with said slot-engagement element aligned with said insertion control mechanism within said hollow barrel, wherein engagement of said slot-engagement element with said insertion control ~~mechanism~~slot maintains said inserter tool and said fusion implant in proper orientation for insertion of the fusion implant into said sacroiliac joint.

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5 87. (New) The method of claim 49, a central body comprising a groove beginning at the proximal end of the body and continuing along each of the two opposite sides for at least part of the length, the distance between the two sides defining a width of the body

- a. two opposing articular engagement faces, each of said faces having a plurality of protrusions for engagement with bone tissue in articular surfaces of each of said sacroiliac joint to prevent pullout of said fusion implant from said sacroiliac joint, and
- 10 b. a tapered distal end configured to be inserted between an ilium and a sacrum of said sacroiliac joint.

88. (New) A method for repairing a sacroiliac joint of a patient using an intra-articular joint fusion device for connecting the sacrum and ilium, comprising:

- 15 a. creating an incision in the patient's skin in a position proximal to the patient's sacroiliac joint to allow access to the posterior portion of the sacroiliac joint;
- b. inserting a working channel of a surgical channel tool into said incision from the posterior of the patient, said working channel including at least one tang protruding from a distal end of the working channel and an insertion control mechanism for controlling the advancement of surgical tools into said working channel;
- 20 c. creating a void in said sacroiliac joint;
- d. inserting a fusion implant using an inserter into said void on a path that is substantially parallel to articular surfaces of the sacroiliac joint, wherein said fusion implant includes
- 25

- 5
- i. a central body comprising a groove beginning at the proximal end of the body and continuing along each of the two opposite sides for at least part of the length, the distance between the two sides defining a width of the body
 - ii. two opposing articular engagement faces, each of said faces having a plurality of protrusions for engagement with bone tissue in articular surfaces of each of said sacroiliac joint to prevent pullout of said fusion implant from said sacroiliac joint, and
 - 10 iii. a tapered distal end configured to be inserted between an ilium and a sacrum of said sacroiliac joint;
- 15
- e. advancing the inserter tool until said insertion control protrusion to a pre-determined point in the hollow barrel and placing said fusion implant into said sacroiliac joint; and
 - f. driving said fusion implant into said void such that said fusion implant engages with said bone tissue.
- 20
89. (New) The method of claim 88, wherein said fusion implant comprises at least one passage through said two opposing articular engagement faces for holding a fusion-promoting material.
90. (New) The method of claim 89, wherein said at least one passage allows for the growth of bone tissue through said at least one passage.
- 25
91. (New) The method of claim 88, wherein no further fusion implants are introduced into said sacroiliac joint and said fusion implant is sufficient to fuse the sacroiliac joint.

92. (New) The method of claim 88, wherein said fusion implant is operable to hold said sacrum to said ilium in fixed relative positions in the sacroiliac joint.

93. (New) The method of claim 88, wherein driving said fusion implant comprises:

5 a. attaching said fusion implant to an inserter having a slot-engagement protrusion; and

b. inserting said inserter into a hollow barrel of said working channel with said slot-engagement protrusion aligned with a guidance slot within said hollow barrel, wherein engagement of said slot-engagement protrusion with said guidance slot maintains said inserter and said fusion implant in proper orientation for insertion of the fusion implant into said sacroiliac joint.

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94. (New) A method for repairing a sacroiliac joint of a patient, comprising:

15 a. creating a first incision in the patient's skin proximal to the patient's sacroiliac joint;

b. inserting a working channel having at least one tang on a distal end thereof into said first incision and spreading said sacroiliac joint with an inserted end of said first working channel;

20 c. creating a void in said sacroiliac joint; and

d. inserting a fusion implant into said void, said fusion implant having:

i. a tapered distal end configured to be inserted between an ilium and a sacrum of said sacroiliac joint, and

ii. a central body comprising

25 1. first two opposite lateral sides, each opposite side comprising a groove beginning at the proximal end of the

body and continuing along each of the two opposite sides for at least part of the length, the distance between the two sides defining a width of the body, and

- e. a second two opposite sides located between the first two opposite sides, each of said two opposite sides having a plurality of protrusions for engagement with bone tissue in an articular surface of at least one of the sacrum and the ilium of said sacroiliac joint to prevent pullout of said fusion implant.

95. (New) The method of claim 94, wherein said fusion implant comprises at least one passage through said two opposing articular engagement faces for holding a fusion-promoting material.

96. (New) The method of claim 94, wherein said at least one passage allows for the growth of bone tissue through said at least one passage.

97. (New) The method of claim 94, wherein no further fusion implants are introduced into said sacroiliac joint and said fusion implant is sufficient to fuse the sacroiliac joint.

98. (New) The method of claim 94, wherein driving said fusion implant comprises:

- a. attaching said fusion implant to an inserter having a slot-engagement protrusion; and
- b. inserting said inserter into a hollow barrel of said working channel with said slot-engagement protrusion aligned with a guidance slot within said hollow barrel, wherein engagement of said slot-engagement protrusion with said guidance slot maintains said inserter and said fusion implant in

proper orientation for insertion of the fusion implant into said sacroiliac joint.

99. (New) The method of claim 96, wherein said fusion implant is an allograft.

5

REMARKS

Applicant and his representatives wish to thank Examiner Matthews for the thorough examination of the present application and the detailed explanations in the Office Action dated June 27, 2022. The Examiner's concerns have been given serious
5 consideration. However, the present claims are considered allowable over the cited references.

Claims 49, 59, 67, and 86 have been amended. New Claims 87-99 are currently pending in the present application. Thus, the present claims are considered patentable over the cited references.

10

Interpretation of Claim 49 Under 35 USC § 112(f)

The interpretation issue raised in the Office Action regarding Claim 49 has obviated by appropriate amendment. The Office Action asserts that the term “an insertion control guide” in Claim 49 must be interpreted under 35 U.S.C. 112(f). This
15 rejection has been obviated by appropriate amendment. Applicant has amended the rejected claims to recite an internal guidance slot, which provides sufficient structural description to inform one of ordinary skill in the art of the structure and function of the “insertion control slot”. Furthermore, the term “an insertion control guide” does not include the term “means”, and thus there is a presumption that the claim limitation is not
20 to be interpreted under 35 U.S.C. 112(f). As a result, the application of 35 U.S.C. 112(f) to Claim 49 should be withdrawn.

Objections to Claims 67 and 86

The objections to Claims 32, 59, 67, and 77 have been obviated by appropriate amendment.

5

Rejections of Claims 67 and 86 Under 35 USC § 112(b)

The rejections of Claims 67 and 86 as being indefinite under 35 USC § 112(b) have been obviated by appropriate amendment.

Rejection of Claims 49, 51, 59, 60, 67, 69 and 86 under 35 U.S.C. § 103(a)

10

Claims 49, 51, 59, 60, 67, 69 and 86 has been rejected under 35 U.S.C. § 103(a) as being obvious in view of Petersen (US 2010/0268228) and Paltzer (US 2006/0129238). This rejection is respectfully traversed.

15

In determining obviousness, one must consider whether one of ordinary skill in the art would be motivated to combine known elements to arrive at a claimed combination. See M.P.E.P. § 2141. This inquiry includes, but is not limited to, an examination of the teachings, suggestions, or motivations of the patentees of the prior art cited by the Examiner. See *KSR Intern. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1742 (U.S. 2007). See also M.P.E.P. § 2141. The Examiner must provide “some articulated reasoning with some rational underpinnings to support the legal conclusion of obviousness.” See *KSR Intern. Co.*, 127 S.Ct. 1727, 1741 (U.S. 2007), citing *In re Kahn*, 441 F.3d 977, 988 (C.A. Fed. 2006). See also M.P.E.P. § 2141.

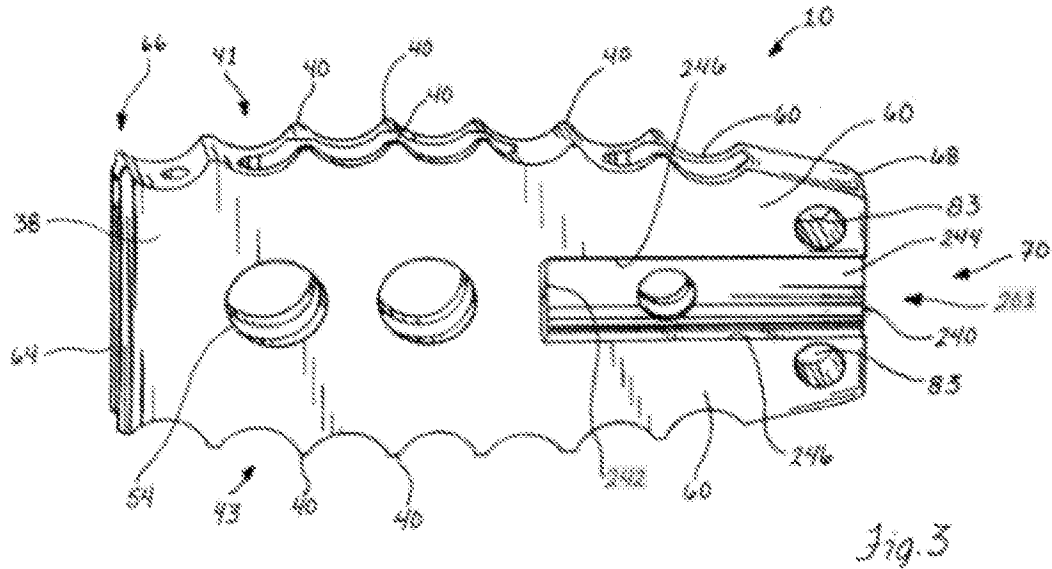
20

The Office Action acknowledges that Peterson fails to disclose or suggest the

following features:

- a working channel that includes at least one distal tang integral to and extending from a distal end of a working channel that are inserted into the sacroiliac joint;
- 5 • a fusion implant having a plurality of protrusions for engagement with bone tissue in an articular surface of at least one of the sacrum and the ilium of a sacroiliac joint to prevent pullout of the fusion implant; or
- driving said fusion implant into a void such that the plurality of protrusions engages with said bone tissue (see the paragraph bridging pp. 10 7-8 of the Office Action).

The Office Action cites Paltzer for the alleged disclosure of a fusion implant having a plurality of protrusions (see the second paragraph on p. 8 of the Office Action). However, Paltzer fails to disclose a fusion implant that is allograft and has a plurality of protrusions, and discloses that the implant 10 is made from PEEK or stainless steel (see, 15 e.g., paragraph [0063]). Additionally, the implant device disclosed by Paltzer has a highly machined appearance that would not be formed from bone material (see below). Moreover, Paltzer discloses that the implant includes internal cavities 52 into which bone graft material is packed prior to insertion in the intervertebral space 30, rather than the implant being made from bone graft material (see, e.g., paragraphs [0056] and [0059] of 20 Paltzer). Thus, Paltzer fails to disclose an allograft fusion implant as presently claimed.



The Office Action cites Michelson for the alleged disclosure of a working channel that includes at least one integral distal tang (see the first paragraph on p. 9 of the Office Action). However, Michelson fails to disclose a working channel includes a plurality of distal tangs integral to and extending from a perimeter of the working channel at a distal end of the working channel that are inserted into the sacroiliac joint such that the distal tangs are substantially parallel with the articular surfaces of the sacroiliac joint. The protrusion 102 referred to in the Office Action is not part of a working channel, but rather is a distal end of a distractor 100 (see, e.g., col. 21, ll. 7-23). Thus, Michaelson fails to disclose a working channel as presently claimed.

CONCLUSION

In view of the above amendments and remarks, the present application is in condition for allowance. Early notice to that effect is earnestly requested. If it is deemed helpful or beneficial to the efficient prosecution of the present application, the Examiner is invited to contact Applicant's undersigned representative by telephone.

The office is authorized to charge any fees required by this paper, or credit any overpayments to deposit account 600741.

Dated: September 27, 2022.

Respectfully Submitted,

By /William Nelson/
William K. Nelson
Registration No. 63,501
Customer No. 13442



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/689,073	11/19/2019	Troy Schifano	13079.02.USU05	8990
13442	7590	11/08/2022	EXAMINER	
Sierra IP Law, PC P.O. Box 5637 Fresno, CA 93755-5637			MATTHEWS, TESSA M	
			ART UNIT	PAPER NUMBER
			3773	
			MAIL DATE	DELIVERY MODE
			11/08/2022	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 16/689,073	Applicant(s) Schifano et al.	
	Examiner TESSA M MATTHEWS	Art Unit 3773	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 09/28/2022.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on ____.

2a) ☐ This action is **FINAL**.

2b) ☒ This action is non-final.

3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.

4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☒ Claim(s) 49,51,59-60,67,69 and 86-99 is/are pending in the application.

5a) Of the above claim(s) ____ is/are withdrawn from consideration.

6) ☐ Claim(s) ____ is/are allowed.

7) ☒ Claim(s) 49,51,59-60,67,69 and 86-99 is/are rejected.

8) ☐ Claim(s) ____ is/are objected to.

9) ☐ Claim(s) ____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10) ☐ The specification is objected to by the Examiner.

11) ☒ The drawing(s) filed on 05/18/2021 and 11/19/2019 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☐ All b) ☐ Some** c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. ____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

3) ☐ Interview Summary (PTO-413)

Paper No(s)/Mail Date ____.

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)

4) ☐ Other: ____.

Paper No(s)/Mail Date ____.

Notice of Pre-AIA or AIA Status

1. The present application is being examined under the pre-AIA first to invent provisions.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/28/2022 has been entered.

Claim Interpretation

3. The insertion control guide is amended to read “the insertion control slot” and no longer interpreted under 35 U.S.C. 112(f).

4. New claim 88 recites “an insertion control mechanism” and will be interpreted under 35 U.S.C. 112(f) as previous detailed in the Office Action of 06/27/2022.

Drawings

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 127 shows reference number 154 which was not found in the Written Description. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or

amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claims 67 and 86 are objected to because of the following informalities: "said insertion control mechanism" should read "said insertion control slot". Appropriate correction is required.

7. Claim 59 has claim amendment markings from the previous listing, for example "the second two opposite lateral sides". Therefore the status of claim 59 should be changed to "previous presented" and not "currently amended" since no new amendments were found.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112(a):

(a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of the first paragraph of pre-AIA 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 49, 51, 59, 60, 67, 69, 86, 87 and 99 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for applications subject to pre-AIA 35 U.S.C. 112, the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 49 recites an “allograft fusion implant” and claim 99 recites “said fusion implant is an allograft”. Paragraph [0187] discloses that implant ref. 151 may be formed from PEEK, metal or biologic material but does not specifically recite allograft material. It is noted that there is support for the implant to hold allograft material (see paragraphs [0199 & 203]), but not to be formed from it. Therefore, this is considered to new matter.

10. The following is a quotation of 35 U.S.C. 112(b):
(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 59, 87 - 93, 96 and 98 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor (or for applications subject to pre-AIA 35 U.S.C. 112, the applicant), regards as the invention.

Claim 59 is dependent upon claim 49, which recites an allograft fusion implant. Claim 59 further requires that the fusion implant has a passage for holding a fusion-promoting material. It is unclear if the fusion-promoting material is the same or different from the allograft requirement of claim 49. Paragraph [0152] discloses that the implant may deliver bone growth-promoting materials (allograft) and paragraph [0193] discloses passages to hold bone growth-promoting materials (allograft). Other recitations, see paragraphs [0199 & 203] recite similar uses for different embodiment. Paragraph [0187] discloses that the fusion implant may be formed from PEEK, metal or biologic material, but does specifically recite that implant ref. 151 is formed from allograft. For purposes of examination the allograft requirement of claim 49 is assumed to be the same as the fusion-promoting material of claim 59.

Claim 87 recites "a central body", but there is no indication of which component of the method the central body belongs to. For purposes of examination the central body is assumed to be part of the fusion implant. In addition, claim 87 further recites "a plurality of protrusions". It is unclear if these are the same or different from the protrusions recited in claim 49, for purposes of examination they are assumed to be the same.

Claim 88 recites the inserter and the inserter tool. It is unclear if these are the same or different. For purposes of examination they are assumed to be the same.

Claim 88 recites “said insertion control protrusion”. There is no antecedent basis for this limitation. For purposes of examination it will be read as “an insertion control protrusion”.

Claim 88 recites “the hollow barrel”. There is no antecedent basis for this component and it is unclear if the hollow barrel is the same as or different from the working channel of the surgical tool. For purposes of examination they are assumed to be the same.

Claim 93 recites “an inserter”. It is unclear if this is the same as or different from the insert of claim 88. For purposes of examination it is assumed to be the same.

Claim 93 recites “a slot-engagement protrusion”. It is unclear if this is the same as or different from the insertion control protrusion of claim 88. For purposes of examination it is assumed to be the same.

Claim 93 recites “the hollow barrel”. It is unclear if this is the same as or different from “the working channel”. For purposes of examination it is assumed to be the same.

Claim 96 recites “said at least one passage” but is dependent upon claim 94 which does not provide any antecedent basis for the passage. It is unclear if claim 96 should be dependent upon claim 95 or if it should read “wherein said fusion implant comprises at least one passage”. For purposes of examination claim 96 is assumed to depend from claim 95.

Claim 98 recites “an inserter”. It is unclear if this is the same as or different from the inserter of claim 94. For purposes of examination they are assumed to be the same.

Claim Rejections - 35 USC § 103

12. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

13. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 49, 51, 59, 60, 67, 69, and 86 - 93 is/are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Petersen (US 2010/0268228 A1) in view of Michelson (US 6,436,098 B1) and in view of Lins (US 2015/00088200 A1) and in view of Garcia et al. (US 2003/0135275 A1).

Regarding claim 49, Petersen discloses a method for repairing a sacroiliac joint of a patient using an intra-articular joint fusion device for connecting the sacrum and ilium (Abstract), comprising:

a. creating a first incision in the patient's skin proximal to the patient's sacroiliac joint (paragraph [0083], ref. 940, Fig. 13A);

b. inserting a working channel of a surgical channel tool into said incision from the posterior of the patient (paragraph [0086], ref. 90, Fig. 16A-C);

- c. creating a void in said sacroiliac joint (paragraph [0092], Figs. 20A-C);
- d. inserting a fusion implant into said void using an inserter tool (paragraph [0096] discloses inserting an implant ref. 40 into said void via an inserter tool ref. 130).

Peterson is silent regarding the limitations “wherein said working channel includes a plurality of distal tangs integral to and extending from a perimeter of said working channel at a distal end of the said working channel that are inserted into the sacroiliac joint such that the distal tangs are substantially parallel with the articular surfaces of the sacroiliac joint”.

Peterson is silent regarding “said working channel further including an insertion control slot for controlling the advancement of surgical tools into said working channel”.

Peterson discloses a fusion implant (ref. 40) and further discloses that the implant may be of a variety of configurations (e.g. rectangular, cylindrical, triangular or any suitable configuration) (paragraph [0101]) and may be made from a variety of materials (e.g. bone, metals or alloys) (paragraph [0102]). Peterson is silent regarding that the fusion implant is an allograft implant and has a plurality of protrusions for engagement with bone tissue in an articular surface of at least one of the sacrum and the ilium of said sacroiliac joint to prevent dislodgement of said fusion implant; and e. driving said fusion implant into said void such that said plurality of protrusions engages with said bone tissue.

Michelson teaches a surgical channel tool (Fig. 5) for use with spinal surgical procedures (Abstract), wherein a working channel (interior) of the tool comprises at a

plurality of distal tangs integral to and extending from a perimeter of said working channel at a distal end (Fig. 5, ref. 142) for the purpose of penetrating and holding onto the bone at the surgical site (Col. 19, lines 51 - 67)]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the distal end of the surgical channel tool to include the plurality of tangs, as taught by Michelson, for the purpose of allowing the surgical tool to gain better purchasing power over bone tissue at the surgical site. It is noted that the tangs of Michelson surround the entire perimeter and of the distal end of the working channel and whose longitudinal axis is substantially parallel to the a longitudinal axis of the surfaces of the bone joint, thus they will also be substantially parallel with the articular surfaces of the sacroiliac joint of Petersen.

Lins teach a spinal surgical method (Abstract) comprising a working channel including an insertion control slot for controlling the advancement of surgical tools into said working channel (paragraph [0038] discloses protrusions ref. 46 on a surgical tool configured to engage an insertion control slot). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the working channel and related surgical tools of Petersen to include the insertion control slot and to modify the surgical tools associated with the working channel to include the protrusions, as taught by Lins, for the purpose of controlling and guiding a depth of penetration of the surgical tools relative to the working channel (paragraph [0038]).

Garcia teaches a spinal fusion implant configured to engage the bones of the spine (Abstract, paragraph [0012]), wherein the allograft fusion implant (Fig. 1, ref. 40, paragraphs [0019, 21] disclose the use of allograft) and has a plurality of protrusions for engagement with bone tissue in an articular surface the target bones to prevent dislodgement of said fusion implant (paragraph [0082], ref. 48, Fig. 1). Garcia also teaches that the implant may be inserted using an inserter tool (paragraph [0125], ref. 500) via grooves (ref. 46, Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the spinal fusion implant of Petersen for the spinal fusion implant of Garcia and to modify the distal end of the inserter of Petersen for the distal end of the inserter of Garcia such that the inserter and implant may engage one another and for the beneficial purpose of resistance to unwanted movement once placed. It is noted that Petersen in view Garcia does not alter the method of Petersen, which discloses that the fusion implant is placed between the articular surfaces of the sacroiliac joint (Fig. 25A) and the plurality of protrusions (as taught by Garcia) are configured to engaged the articular surfaces of the spinal joint and thus the articular surfaces of the sacrum and ilium thus fulling the limitation of section "e".

Regarding claim 51, Petersen in view of Lins and in view of Michelson and in view of Garcia discloses the method of claim 49, wherein said plurality of protrusions comprises two sets of pluralities of protrusions, a first plurality of protrusions on a first lateral face of said fusion implant and a second plurality of protrusions on a second

lateral face of said fusion implant (Garcia, Fig. 1 shows protrusions on two sides which may be defined as lateral sides).

Regarding claim 59, Petersen in view of Lins and in view of Michelson and in view of Garcia discloses the method of claim 49, wherein said fusion implant comprises a body having a passage therethrough for holding a fusion-promoting material and allowing growth of bone through the said passage (Garcia, paragraph [0069]) and a second two opposite lateral sides, each opposite side comprising a groove beginning at the proximal end of the body and continuing along each of the second two opposite lateral sides for at least part of a length, the distance between the second two opposite lateral sides defining a width of the first lateral face and a second lateral face (Garcia, Fig. 1, ref. 46).

Regarding claim 60, Petersen in view of Lins and in view of Michelson and in view of Garcia discloses the method of claim 51, wherein said fusion implant is operable to connect said sacrum to said ilium in fixed relative positions in the sacroiliac joint (Petersen as modified by Garcia discloses a fusion implant configured to fuse two spinal bodies and more specifically the sacroiliac joint, thus discloses the step of connecting said sacrum to said ilium in a fixed position).

Regarding claim 67, Petersen in view of Lins and in view of Michelson and in view of Garcia discloses the method of claim 59, wherein the inserting the fusion implant comprises:

a. attaching said fusion implant to said inserter tool to said grooves of said fusion implant, wherein said inserter tool has a groove-engagement arms that nest in said grooves (Garcia, paragraph [0125]); and

b. inserting the inserter tool into a hollow barrel of said working channel and engaging said insertion control protrusion with said insertion control mechanism and advancing the inserter tool until an insertion control protrusion is arrested by the insertion control mechanism at a pre- determined point in the hollow barrel, and said inserter tool is prevented from moving the fusion implant further into said sacroiliac joint (Petersen, paragraph [0069], Figs. 22C - 23C).

Regarding claim 69, Petersen in view of Lins and in view of Michelson and in view of Garcia discloses the method of claim 49, wherein driving said fusion implant into said void comprises pushing said fusion implant into said void such that the plurality of protrusions contacts said bone tissue (Petersen, Figs. 25A shows implant placement within said sacroiliac joint, and thus Petersen as modified by Garcia results in the protrusions contacting the bone tissue of the sacroiliac joint since the protrusions are configured to attached to bone).

Regarding claim 86, Petersen in view of Lins and in view of Michelson and in view of Garcia discloses the method of claim 49, wherein the inserting said fusion implant comprises:

a. attaching said fusion implant to the inserter tool having a slot-engagement element (Lins, paragraph [0038]); and

b. inserting said inserter tool into a hollow barrel of said working channel with said slot-engagement element aligned with said insertion control mechanism within said hollow barrel (Petersen as modified by Lins discloses the alignment of the depth control mechanisms, slot and protrusions), wherein engagement of said slot- engagement element with said insertion control slot maintains said inserter tool and said fusion implant in proper orientation for insertion of the fusion implant into said sacroiliac joint (Lins, paragraph [0038]).

Regarding claim 87, Petersen in view of Lins and in view of Michelson and in view of Garcia discloses the method of claim 49, a central body comprising a groove beginning at the proximal end of the body and continuing along each of the two opposite sides for at least part of the length (Garcia, Fig. 1, ref. 46), the distance between the two sides defining a width of the body

a. two opposing articular engagement faces, each of said faces having a plurality of protrusions for engagement with bone tissue in articular surfaces of each of said sacroiliac joint to prevent pullout of said fusion implant from said sacroiliac joint (see rejection of claim 49 above and Fig. 1 of Garcia), and

b. a tapered distal end configured to be inserted between an ilium and a sacrum of said sacroiliac joint (Garcia, Figs. 1-2, ref. 70).

Regarding claim 88 (as best understood), Petersen discloses a method for repairing a sacroiliac joint of a patient using an intra-articular joint fusion device for connecting the sacrum and ilium (Abstract), comprising:

- a. creating an incision in the patient's skin in a position proximal to the patient's sacroiliac joint to allow access to the posterior portion of the sacroiliac joint (paragraph [0083], ref. 940, Fig. 13A);
- b. inserting a working channel of a surgical channel tool into said incision from the posterior of the patient (paragraph [0086], ref. 90, Fig. 16A-C);
- c. creating a void in said sacroiliac joint (paragraphs [0086-92], Figs. 20A-C);
- d. inserting a fusion implant using an inserter into said void on a path that is substantially parallel to articular surfaces of the sacroiliac joint (paragraph [0096] discloses inserting an implant ref. 40 into said void via an inserter tool ref. 130 and Figs. 24A - 25A show the steps of inserting the implant into the joint through a posterior approach wherein the implant is implanted between the articular surfaces in which sides of the implant are parallel said surfaces);
- f. driving said fusion implant into said void such that said fusion implant engages with said bone tissue (Fig. 25A).

Petersen is silent regarding "said working channel including at least one tang protruding from a distal end of the working channel".

Petersen is silent regarding "an insertion control mechanism for controlling the advancement of surgical tools into said working channel".

Peterson discloses a fusion implant (ref. 40) and further discloses that the implant may be of a variety of configurations (e.g. rectangular, cylindrical, triangular or any suitable configuration) (paragraph [0101]) and may be made from a variety of materials (e.g. bone, metals or alloys) (paragraph [0102]). Petersen is silent regarding

“wherein said fusion implant includes a central body comprising a groove beginning at the proximal end of the body and continuing along each of the two opposite sides for at least part of the length, the distance between the two sides defining a width of the body

ii. two opposing articular engagement faces, each of said faces having a plurality of protrusions for engagement with bone tissue in articular surfaces of each of said sacroiliac joint to prevent pullout of said fusion implant from said sacroiliac joint, and iii. a tapered distal end configured to be inserted between an ilium and a sacrum of said sacroiliac joint; and e. advancing the inserter tool until said insertion control protrusion to a pre- determined point in the hollow barrel and placing said fusion implant into said sacroiliac joint;”.

Michelson teaches a surgical channel tool (Fig. 5) for use with spinal surgical procedures (Abstract), wherein a working channel (interior) of the tool comprises at a plurality of distal tangs extending from said working channel (Fig. 5, ref. 142) for the purpose of penetrating and holding onto the bone at the surgical site (Col. 19, lines 51 - 67]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the distal end of the surgical channel tool to include the plurality of tangs, as taught by Michelson, for the purpose of allowing the surgical tool to gain better purchasing power over bone tissue at the surgical site. It is noted that the tangs of Michelson surround the entire perimeter and of the distal end of the working channel and whose longitudinal axis is substantially parallel to the a longitudinal axis of the surfaces of the bone joint, thus they will also be substantially parallel with the articular surfaces of the sacroiliac joint of Petersen.

Lins teach a spinal surgical method (Abstract) comprising a working channel including an insertion control mechanism for controlling the advancement of surgical tools into said working channel (paragraph [0038] discloses protrusions ref. 46 on a surgical tool configured to engage an insertion control slot). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the working channel and related surgical tools of Petersen to include the insertion control mechanism and to modify the surgical tools associated with the working channel to include the protrusions, as taught by Lins, for the purpose of controlling and guiding a depth of penetration of the surgical tools relative to the working channel (paragraph [0038]). It is noted that Petersen as modified by Lins discloses the step of advancing an inserter tool such that the insertion control protrusion would engage the insertion control mechanism in the hollow barrel/working channel when placing the fusion implant into the joint.

Garcia teaches a spinal fusion implant configured to engage the bones of the spine (Abstract, paragraph [0012]), wherein the fusion implant (Fig. 1, ref. 40) comprises a groove beginning at the proximal end of the body and continuing along each of the two opposite sides for at least part of the length, the distance between the two sides defining a width of the body (Fig. 1, ref. 46) ii. two opposing articular engagement faces, each of said faces having a plurality of protrusions for engagement with bone tissue in articular surfaces of each of said joint to prevent pullout of said fusion implant from said joint (Fig. 1, ref. 48), and iii. a tapered distal end configured to

be inserted between an ilium and a sacrum of said sacroiliac joint (Figs. 1 - 2, ref. 70).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the spinal fusion implant of Petersen for the spinal fusion implant of Garcia and to modify the distal end of the inserter of Petersen for the distal end of the inserter of Garcia such that the inserter and implant may engage one another and for the beneficial purpose of resistance to unwanted movement once placed. It is noted that Petersen in view Garcia does not alter the method of Petersen, which discloses that the fusion implant is placed between the articular surfaces of the sacroiliac joint (Fig. 25A) and the plurality of protrusions (as taught by Garcia) are configured to engaged the articular surfaces of the spinal joint and thus the articular surfaces of the sacrum and ilium.

Regarding claim 89, Petersen in view of Lins and in view of Michelson and in view of Garcia discloses the method of claim 88, wherein said fusion implant comprises at least one passage through said two opposing articular engagement faces for holding a fusion-promoting material (Garcia, Fig. 6, ref. 60 and Fig. 7, ref. 60).

Regarding claim 90, Petersen in view of Lins and in view of Michelson and in view of Garcia discloses the method of claim of claim 89, wherein said at least one passage allows for the growth of bone tissue through said at least one passage (Garcin, paragraph [0069]).

Regarding claim 91, Petersen in view of Lins and in view of Michelson and in view of Garcia discloses the method of claim 88, wherein no further fusion implants are introduced into said sacroiliac joint and said fusion implant is sufficient to fuse the sacroiliac joint (Petersen, Fig. 25A shows a single implant ref. 40).

Regarding claim 92, Petersen in view of Lins and in view of Michelson and in view of Garcia discloses the method of claim 88, wherein said fusion implant is operable to hold said sacrum to said ilium in fixed relative positions in the sacroiliac joint (Petersen discloses the method of fusion the SI joint, thus holding the sacrum and ilium in a fixed relative position).

Regarding claim 93 (as best understood), Petersen in view of Lins and in view of Michelson and in view of Garcia discloses the method of claim 88, wherein driving said fusion implant comprises:

- a. attaching said fusion implant to an inserter having a slot-engagement protrusion (Peresen as modified by Lins discloses that the inserter will have a protrusion, Lins paragraph [0038]); and
- b. inserting said inserter into a hollow barrel of said working channel with said slot-engagement protrusion aligned with a guidance slot within said hollow barrel, wherein engagement of said slot-engagement protrusion with said guidance slot maintains said inserter and said fusion implant in proper orientation for insertion of the fusion implant into said sacroiliac joint (Lins, paragraph [0038]).

15. Claims 94 - 97 and 99 is/are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Petersen (US 2010/0268228 A1) in view of Michelson (US 6,436,098 B1) and in view of Garcia et al. (US 2003/0135275 A1).

Regarding claim 94, Petersen discloses a method for repairing a sacroiliac joint of a patient (Abstract), comprising:

- a. creating a first incision in the patient's skin proximal to the patient's sacroiliac joint (paragraph [0083], ref. 940, Fig. 13A);
- b. inserting a working channel into said first incision and spreading said sacroiliac joint with an inserted end of said first working channel (paragraph [0086], refs. 70, 90, Fig. 16A-C,);
- c. creating a void in said sacroiliac joint (paragraph [0086]); and
- d. inserting a fusion implant into said void (paragraph [0096] discloses inserting an implant ref. 40 into said void via an inserter tool ref. 130, Figs. 24A - 25A), said fusion implant having:
 - i. a tapered distal end configured to be inserted between an ilium and a sacrum of said sacroiliac joint (paragraph [0007]), and
 - ii. a central body comprising
 1. first two opposite lateral sides (Fig. 22D), and

Petersen is silent that the working channel has at least one tang on a distal end.

Petersen is silent that each opposite side comprising a groove beginning at the proximal end of the body and continuing along each of the two opposite sides for at least part of the length, the distance between the two sides defining a width of the body and e. a second two opposite sides located between the first two opposite sides, each of said two opposite sides having a plurality of protrusions for engagement with bone tissue in an articular surface of at least one of the sacrum and the ilium of said sacroiliac joint to prevent pullout of said fusion implant.

Michelson teaches a surgical channel tool (Fig. 5) for use with spinal surgical procedures (Abstract), wherein a working channel (interior) of the tool comprises at a plurality of distal tangs extending from said working channel (Fig. 5, ref. 142) for the purpose of penetrating and holding onto the bone at the surgical site (Col. 19, lines 51 - 67]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the distal end of the surgical channel tool to include the plurality of tangs, as taught by Michelson, for the purpose of allowing the surgical tool to gain better purchasing power over bone tissue at the surgical site. It is noted that the tangs of Michelson surround the entire perimeter and of the distal end of the working channel and whose longitudinal axis is substantially parallel to the a longitudinal axis of the surfaces of the bone joint, thus they will also be substantially parallel with the articular surfaces of the sacroiliac joint of Petersen.

Garcia teaches a spinal fusion implant configured to engage the bones of the spine (Abstract, paragraph [0012]), wherein the fusion implant (Fig. 1, ref. 40)

comprises a groove beginning at the proximal end of the body and continuing along each of the two opposite sides for at least part of the length, the distance between the two sides defining a width of the body (Fig. 1, ref. 46) ii. two opposing sides having a plurality of protrusions for engagement with bone tissue in articular surfaces of each of said joint to prevent pullout of said fusion implant from said joint (Fig. 1, ref. 48), and iii. a tapered distal end configured to be inserted between an ilium and a sacrum of said sacroiliac joint (Figs. 1 - 2, ref. 70). It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the spinal fusion implant of Petersen for the spinal fusion implant of Garcia and to modify the distal end of the inserter of Petersen for the distal end of the inserter of Garcia such that the inserter and implant may engage one another and for the beneficial purpose of resistance to unwanted movement once placed. It is noted that Petersen in view Garcia does not alter the method of Petersen, which discloses that the fusion implant is placed between the articular surfaces of the sacroiliac joint (Fig. 25A) and the plurality of protrusions (as taught by Garcia) are configured to engaged the articular surfaces of the spinal joint and thus the articular surfaces of the sacrum and ilium.

Regarding claim 95, Petersen in view of Michelson and in view of Garcia discloses the method of claim 94, wherein said fusion implant comprises at least one passage through said two opposing articular engagement faces for holding a fusion-promoting material (Garcia, Fig. 6, ref. 60, paragraph [0069]).

Regarding claim 96 (as best understood), Petersen in view of Michelson and in view of Garcia discloses the method of claim 94 (95), wherein said at least one passage allows for the growth of bone tissue through said at least one passage (Garcia, paragraph [0069]).

Regarding claim 97, Petersen in view of Michelson and in view of Garcia discloses the method of claim 94, wherein no further fusion implants are introduced into said sacroiliac joint and said fusion implant is sufficient to fuse the sacroiliac joint (Petersen, Fig. 25A shows a single implant ref. 40).

Regarding claim 99, Petersen in view of Michelson and in view of Garcia discloses the method of claim 96, wherein said fusion implant is an allograft (Garcia, paragraph [0019-21]).

16. Claim 98 is/are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Petersen (US 2010/0268228 A1) in view of Michelson (US 6,436,098 B1) and in view of Lins (US 2015/00088200 A1) and in view of Garcia et al. (US 2003/0135275 A1).

Regarding claim 98, Petersen in view of Michelson and in view of Garcia discloses the method of claim 94, except wherein driving said fusion implant comprises:

a. attaching said fusion implant to an inserter having a slot-engagement protrusion; and

b. inserting said inserter into a hollow barrel of said working channel with said slot-engagement protrusion aligned with a guidance slot within said hollow barrel, wherein engagement of said slot-engagement protrusion with said guidance slot maintains said inserter and said fusion implant in proper orientation for insertion of the fusion implant into said sacroiliac joint.

Lins teach a spinal surgical method (Abstract) comprising a working channel including a guidance slot for controlling the advancement of surgical tools into said working channel wherein the surgical tools comprise a slot-engagement protrusion (paragraph [0038] discloses protrusions ref. 46 on a surgical tool configured to engage an insertion control slot). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the working channel and related surgical tools of Petersen to include the guidance slot and to modify the surgical tools associated with the working channel to include the slot-engagement protrusions, as taught by Lins, for the purpose of controlling and guiding a depth of penetration of the surgical tools relative to the working channel (paragraph [0038]).

Response to Arguments

17. Applicant's arguments with respect to claim(s) 49, 51, 59, 60, 67, 68 and 86-99 have been considered but are moot because the new ground of rejection does not rely on any combination of references applied in the prior rejection of record for any teaching or matter specifically challenged in the argument.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TESSA M MATTHEWS whose telephone number is (571)272-8817. The examiner can normally be reached M - F 8am - 1pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: <https://patentcenter.uspto.gov>. Visit <https://www.uspto.gov/patents/apply/patent-center> for more information about Patent Center and <https://www.uspto.gov/patents/docx> for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TESSA M MATTHEWS/
Examiner, Art Unit 3773

<i>Notice of References Cited</i>	Application/Control No. 16/689,073		Applicant(s)/Patent Under Reexamination Schifano et al.	
	Examiner TESSA M MATTHEWS		Art Unit 3773	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20030135275-A1	07-2003	Garcia, Javier	A61B17/1671	623/17.11
*	B	US-20150088200-A1	03-2015	LINS; Robert E.	A61B17/7064	606/247
	C					
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FOREIGN PATENT DOCUMENTS

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	N					
	O					
	P					
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	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes 	Application/Control No. 16/689,073	Applicant(s)/Patent Under Reexamination Schifano et al.
	Examiner TESSA M MATTHEWS	Art Unit 3773

CPC - Searched*		
Symbol	Date	Examiner
A61B17/8872,1757,7055 - modified with text	11/20/2021	T. Matthews
A61F2/4455,447,4611 - modified with text	11/20/2021	T. Matthews
Updated Search	06/21/2022	T. Matthews
Updated Search	11/05/2022	T. Matthews

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
Inventor and applicant name search in EAST	11/20/2021	T. Matthews
See attached EAST search history	11/20/2021	T. Matthews
Updated Search	06/21/2022	T. Matthews
See attached updated search	11/05/2022	T. Matthews

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<i>Search Notes</i> 	Application/Control No. 16/689,073	Applicant(s)/Patent Under Reexamination Schifano et al.
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Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

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<i>Index of Claims</i> 	Application/Control No. 16/689,073	Applicant(s)/Patent Under Reexamination Schifano et al.
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✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS										
☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
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PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
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L21	9	("10456175" "10806823" "20030220646" "20070123995" "20160184105" "20180092748" "20190125371" "8764729" "9333090").PN.	(US-PGPUB; USPAT)	OR	OFF	OFF	2021/11/18 09:27 AM
L22	13	("20120158137" "4927421" "5443509" "5891146" "6689153" "9757119" "D588700" "D628292" "D653344" "D728892" "D765855" "D816469" "D835787").PN.	(US-PGPUB; USPAT)	OR	OFF	OFF	2021/11/18 09:27 AM
L23	160	("10004547" "10070970" "10136932" "10149764" "10166033" "10194962" "10201427" "10206739" "10219841" "10219912" "10245044" "10245158" "10254044" "10265176" "10292720" "10314710" "10321945" "10357368" "10363140" "10426539" "1049280" "10492802" "10555818" "1064625" "10646258" "10660763" "1068215" "10682150" "10736752" "10744003" "10751196" "10765532" "10779958" "10820917" "10849764" "20010000532" "200	(US-PGPUB; USPAT)	OR	OFF	OFF	2021/11/18 09:27 AM

		10031967 "200201434 00 "20040133279 "20 050080422 "20050165 420 "20050240195 "2 0060054171 "2006008 9633 "20060178673 " " 20070156241 "200800 09861 "20080154374 " " "20080249569 "20090 024174 "20090076551 "20090099610 "2009 0216238 "2009025926 1 "20090312763 "201 10098817 "201101062 61 "20110184518 "20 110238181 "20110264 229 "20120083883 "2 0120259365 "2012027 7801 "20130006368 " " 20130173004 "201302 18215 "20140031935 " " "20140081279 "20140 088711 "20140207191 "20140277204 "2014 0277460 "2015001209 7 "20150025534 "201 50073552 "201501121 11 "20150112444 "20 150230937 "20150250 611 "20150250612 "2 0150328012 "2016003 0191 "20160175113 " " 20160310197 "201702 09155 "20170245999 " " "20180036017 "20180 092748 "20180303624 "20190021868 "2019 0083271 "2019009088 8 "20190133613 "201 90254840 "201902620 10 "20190336292 "20 190343640 "20200029 979 "20200093612 "2 0200138452 "2020013 8589 "20200179135 " " 20200253619 "202003 15811 "20200337856 " " "20200390566 "20210 015502 "5722978 "60 53916 "6080155 "637 1988 "6436098 "6648 917 "6652533 "67700 74 "6846327 "701841 6 "7125425 "7229477" "7648509 "8021392 " " 8025684 "8128700 "8 157865 "8162981 "81 97513 "8221503 "834					
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L24	7	("10492802 "20060129 238 "20090024174 "2 0090131986 "2021010 0658 "20210100662 "2 6991656").PN.	(US-PGPUB; USPAT)	OR	OFF	OFF	2021/11/18 09:35 AM
L25	29	("2014/0288605").URP N.	(USPAT)	OR	OFF	OFF	2021/11/18 09:37 AM
L26	0	("2021/0100662").URP N.	(USPAT)	OR	OFF	OFF	2021/11/18 09:40 AM
L27	2	("20100268228").PN.	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	OFF	OFF	2021/11/19 10:03 AM
L28	3	("20060129238").PN.	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	OFF	OFF	2021/11/19 10:03 AM
L29	2	"20100268228"	(US-PGPUB; USPAT)	OR	ON	ON	2022/06/21 02:57 PM
L30	69	((US-20110184518-A1 OR US-20140277165- A1 OR US- 20070270879-A1 OR US-20090099610-A1 OR US-20100268228- A1 OR US- 20110098817-A1 OR US-20120095560-A1 OR US-20110184519- A1 OR US- 20110230966-A1 OR US-20120083883-A1 OR US-20110264229- A1 OR US- 20080009861-A1 OR US-20130172736-A1 OR US-20140135927- A1 OR US- 20060129238-A1 OR US-20090216238-A1	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/21 03:25 PM

		OR US-20200029979-A1 OR US-20170135733-A1 OR US-20090259261-A1 OR US-20150039037-A1 OR US-20120296428-A1 OR US-20140031935-A1 OR US-20160081809-A1 OR US-20160081810-A1 OR US-20130296953-A1 OR US-20140088707-A1 OR US-20190343640-A1 OR US-20190083271-A1 OR US-20200268518-A1 OR US-20200261240-A1 OR US-20200281729-A1 OR US-20210085470-A1 OR US-20210100662-A1 OR US-20130144343-A1 OR US-20010053914-A1 OR US-20030009222-A1 OR US-20020077641-A1 OR US-20110238181-A1 OR US-20140277460-A1 OR US-20130245703-A1 OR US-20140207240-A1 OR US-20140277463-A1 OR US-20150173805-A1 OR US-20150182268-A1 OR US-20160175113-A1 OR US-20160310197-A1).did. AND PGPB.dbnm.) OR ((US-5334205-A OR US-8388667-B2 OR US-10245087-B2 OR US-10736752-B1 OR US-9492284-B2 OR US-6770074-B2 OR US-8025684-B2 OR US-8551171-B2 OR US-8579912-B2 OR US-8961571-B2 OR US-9186155-B2 OR US-9421109-B2 OR US-9119732-B2 OR US-7648509-B2 OR US-10492802-B2 OR US-10849764-B2 OR US-					
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L31	27	9241798-B2 OR US-8945224-B2 OR US-10682150-B2 OR US-9149286-B1 OR US-9370433-B1 OR US-11172939-B2 OR US-6436098-B1).did. AND USPT.dbnm.) ("20060089633" "20060178673" "20080009861" "20090216238" "20090312763" "20110184518" "20120277801" "20140031935" "20140081279" "20140088711" "20140277204" "20150012097" "20150073552" "20150230937" "20150328012" "20160030191" "20180303624" "20190021868" "20190083271" "20190343640" "2020093612" "20200179135" "20200253619" "20200315811" "20200390566" "20210015502" "9101371").PN.	(US-PGPUB; USPAT)	OR	ON	ON	2022/11/04 02:04 PM
L32	7	("2020/0253619").urpn. AND (PGPB USPT USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/11/04 02:06 PM
L33	148	("4569338" "5334205" "5722978" "6080155" "6371988" "6436098" "6648917" "6652533" "6770074" "6846327" "7018416" "7125425" "7229477" "7648509" "8021392" "8025684" "8128700" "8157865" "8162981" "8197513" "8221503" "8348950" "8403991" "8551171" "8579912" "8623053" "8740912" "8882818" "8945224" "8961571" "8979928" "9017407" "9101371" "9119732" "9186155" "9241798" "9247943" "9375243" "9421109" "9451986" "9492284" "9662128" "9668781" "9700356" "9757154" "9795396" "9801732" "9808346" "9833321" "9883874" "9895176" "9949843" "10004547"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/11/04 02:09 PM

		"10070970" "10136932" "10149764" "10166033" "10194962" "10201427" "10206739" "10219841" "10219912" "10245044" "10245158" "10265176" "10292720" "10314710" "10321945" "10357368" "10363140" "10426539" "1049280" "10555818" "1064625" "1068215" "10736752" "10744003" "10751196" "10765532" "10779958" "10820917" "D905232" "20010031967" "20020143400" "20050080422" "20050240195" "20060054171" "20060089633" "20060178673" "20070156241" "20080009861" "20080154374" "20080249569" "20090024174" "20090076551" "20090099610" "20090216238" "20090259261" "20090312763" "20110098817" "20110184518" "20110238181" "20110264229" "20120083883" "20120259365" "20120277801" "20130006368" "20130173004" "20130218215" "20140031935" "20140081279" "20140088711" "20140207191" "20140277204"					
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L34	15	("5554191" "6200322" "20020077641" "20120004660" "20130211526" "20130238093" "20140276846" "20150148907").pn. OR ("10219841").urpn. AND (PGPB USPT USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/11/04 02:12 PM
L35	401	("2878809" "3618611" "3848601" "3867950" "3875595" "3888260" "3892232" "3916907" "3918440" "3942535" "4027392" "4082097" "4197850" "4232679" "4258716" "D260525" "4341206" "4414979" "5292252" "4450834" "4497320" "4535374" "4549547" "D281814" "4592346" "4602638"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/11/04 02:59 PM

		"4619264" "4653509" "4664567" "4743256" "4769881" "4781591" "4805602" "4863476" "5030236" "5062845" "5105819" "5108422" "5112336" "5171278" "5246458" "5314427" "5324295" "5352229" "5370697" "5441527" "5458638").pn. OR ("6436098").urpn. AND (PGPB USPT USOC).dbnm.					
L36	2	"20140018810"	(US-PGPUB; USPAT)	OR	ON	ON	2022/11/04 03:06 PM
L37	14	("2014/0018810").urpn. AND (PGPB USPT USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/11/04 03:06 PM
L38	118	(tessa near1 matthews).xp.	(US-PGPUB; USPAT)	OR	ON	ON	2022/11/04 03:20 PM
L39	103	("4697586" "4878915" "5314477" "5522899" "5554191" "5571109" "5716415" "5885299" "6042582" "6080155" "6309421" "6436098" "6478800" "6517544" "6524318" "20010010002" "20020016633" "20020099377" "20020111679" "20020120259" "20020165612" "20030045884" "20030055434").pn. OR ("7491204").urpn. AND (PGPB USPT USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/11/04 03:43 PM
L40	8	L38 AND (intramedullary)	(US-PGPUB; USPAT)	OR	ON	ON	2022/11/04 03:51 PM
L41	2	"20150088200"	(US-PGPUB; USPAT)	OR	ON	ON	2022/11/04 03:58 PM
L42	78	((US-20110184518-A1 OR US-20140277165- A1 OR US- 20070270879-A1 OR US-20090099610-A1 OR US-20100268228- A1 OR US- 20110098817-A1 OR US-20120095560-A1 OR US-20110184519- A1 OR US- 20110230966-A1 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK,	OR	ON	ON	2022/11/04 06:21 PM

	US-20120083883-A1 OR US-20110264229-A1 OR US-20080009861-A1 OR US-20130172736-A1 OR US-20140135927-A1 OR US-20060129238-A1 OR US-20090216238-A1 OR US-20200029979-A1 OR US-20170135733-A1 OR US-20090259261-A1 OR US-20150039037-A1 OR US-20120296428-A1 OR US-20140031935-A1 OR US-20160081809-A1 OR US-20160081810-A1 OR US-20130296953-A1 OR US-20140088707-A1 OR US-20190343640-A1 OR US-20190083271-A1 OR US-20200268518-A1 OR US-20200261240-A1 OR US-20200281729-A1 OR US-20210085470-A1 OR US-20210100662-A1 OR US-20130144343-A1 OR US-20010053914-A1 OR US-20030009222-A1 OR US-20020077641-A1 OR US-20110238181-A1 OR US-20140277460-A1 OR US-20130245703-A1 OR US-20140207240-A1 OR US-20140277463-A1 OR US-20150173805-A1 OR US-20150182268-A1 OR US-20160175113-A1 OR US-20160310197-A1 OR US-20200253619-A1 OR US-20140018810-A1 OR US-20150088200-A1).did. AND PGPB.dbnm.) OR ((US-5334205-A OR US-8388667-B2 OR US-10245087-B2 OR US-	TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
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		10736752-B1 OR US-9492284-B2 OR US-6770074-B2 OR US-8025684-B2 OR US-8551171-B2 OR US-8579912-B2 OR US-8961571-B2 OR US-9186155-B2 OR US-9421109-B2 OR US-9119732-B2 OR US-7648509-B2 OR US-10492802-B2 OR US-10849764-B2 OR US-9241798-B2 OR US-8945224-B2 OR US-10682150-B2 OR US-9149286-B1 OR US-9370433-B1 OR US-11172939-B2 OR US-6436098-B1 OR US-11154402-B1 OR US-10219841-B1 OR US-6200322-B1 OR US-9572589-B2 OR US-8206397-B2 OR US-7491204-B2).did. AND USPT.dbnm.)					
L43	35	L42 AND (allograft)	(US-PGPUB; USPAT)	OR	ON	ON	2022/11/04 06:21 PM
L44	2	"20030135275"	(US-PGPUB; USPAT)	OR	ON	ON	2022/11/04 06:25 PM
L45	368	"6436098"	(US-PGPUB; USPAT)	OR	ON	ON	2022/11/04 06:39 PM
L46	394	(L12 L11 L10 L9 L8 L1 L2) AND @pd>="20220627"	(US-PGPUB; USPAT)	OR	ON	ON	2022/11/05 03:45 PM

PE2E SEARCH - Search History (Interference)

There are no Interference searches to show.