



US00D777921S

(12) **United States Design Patent** (10) **Patent No.:** **US D777,921 S**
Blain (45) **Date of Patent:** **** Jan. 31, 2017**

(54) **INTERBODY BONE IMPLANT**

(56)

References Cited

(71) Applicant: **Spinal Elements, Inc.**, Carlsbad, CA (US)

U.S. PATENT DOCUMENTS

(72) Inventor: **Jason Blain**, Encinitas, CA (US)

(73) Assignee: **Spinal Elements, Inc.**, Carlsbad, CA (US)

(**) Term: **15 Years**

(21) Appl. No.: **29/545,447**

(22) Filed: **Nov. 12, 2015**

86,016 A	1/1869	Howell
1,822,280 A	9/1931	Ervay
1,822,330 A	9/1931	Anslie
2,486,303 A	10/1949	Longfellow
3,111,945 A	11/1963	Von Solbrig
3,867,728 A	2/1975	Stubstad et al.
3,875,595 A	4/1975	Froning
3,879,767 A	4/1975	Stubstad
4,001,896 A	1/1977	Arkangel
4,037,603 A	7/1977	Wendorff
4,085,466 A	4/1978	Goodfellow et al.
4,119,091 A	10/1978	Partridge
4,156,296 A	5/1979	Johnson et al.
4,231,121 A	11/1980	Lewis
D261,935 S	11/1981	Halloran
4,312,337 A	1/1982	Donohue
4,349,921 A	9/1982	Kuntz
4,502,161 A	3/1985	Wall
D279,502 S	7/1985	Halloran
D279,503 S	7/1985	Halloran
4,535,764 A	8/1985	Ebert
4,573,458 A	3/1986	Lower
4,634,445 A	1/1987	Helal
4,662,371 A	5/1987	Whipple et al.
4,714,469 A	12/1987	Kenna
4,722,331 A	2/1988	Fox
4,730,615 A	3/1988	Sutherland et al.
4,759,766 A	7/1988	Buettner-Janz et al.
4,759,769 A	7/1988	Hedman et al.
4,772,287 A	9/1988	Ray et al.
4,773,402 A	9/1988	Asher et al.
4,834,757 A	5/1989	Brantigan
4,863,477 A	9/1989	Monson
4,904,260 A	2/1990	Ray et al.
4,907,577 A	3/1990	Wu
4,911,718 A	3/1990	Lee et al.
4,919,667 A	4/1990	Richmond
4,923,471 A	5/1990	Morgan
4,936,848 A	6/1990	Bagby
4,941,466 A	7/1990	Romano
4,959,065 A	9/1990	Arnett et al.
4,969,909 A	11/1990	Barouk
5,000,165 A	3/1991	Watanabe
5,002,546 A	3/1991	Romano
5,011,484 A	4/1991	Bréard
5,015,255 A	5/1991	Kuslich
5,047,055 A	9/1991	Bao et al.
5,062,845 A	11/1991	Kuslich
5,071,437 A	12/1991	Steffee

Related U.S. Application Data

(60) Continuation of application No. 29/515,527, filed on Jan. 23, 2015, now Pat. No. Des. 748,793, which is a division of application No. 29/404,922, filed on Oct. 26, 2011, now Pat. No. Des. 724,733, which is a continuation-in-part of application No. 13/033,791, filed on Feb. 24, 2011, now Pat. No. 8,740,949.

(51) **LOC (10) Cl.** **24-02**

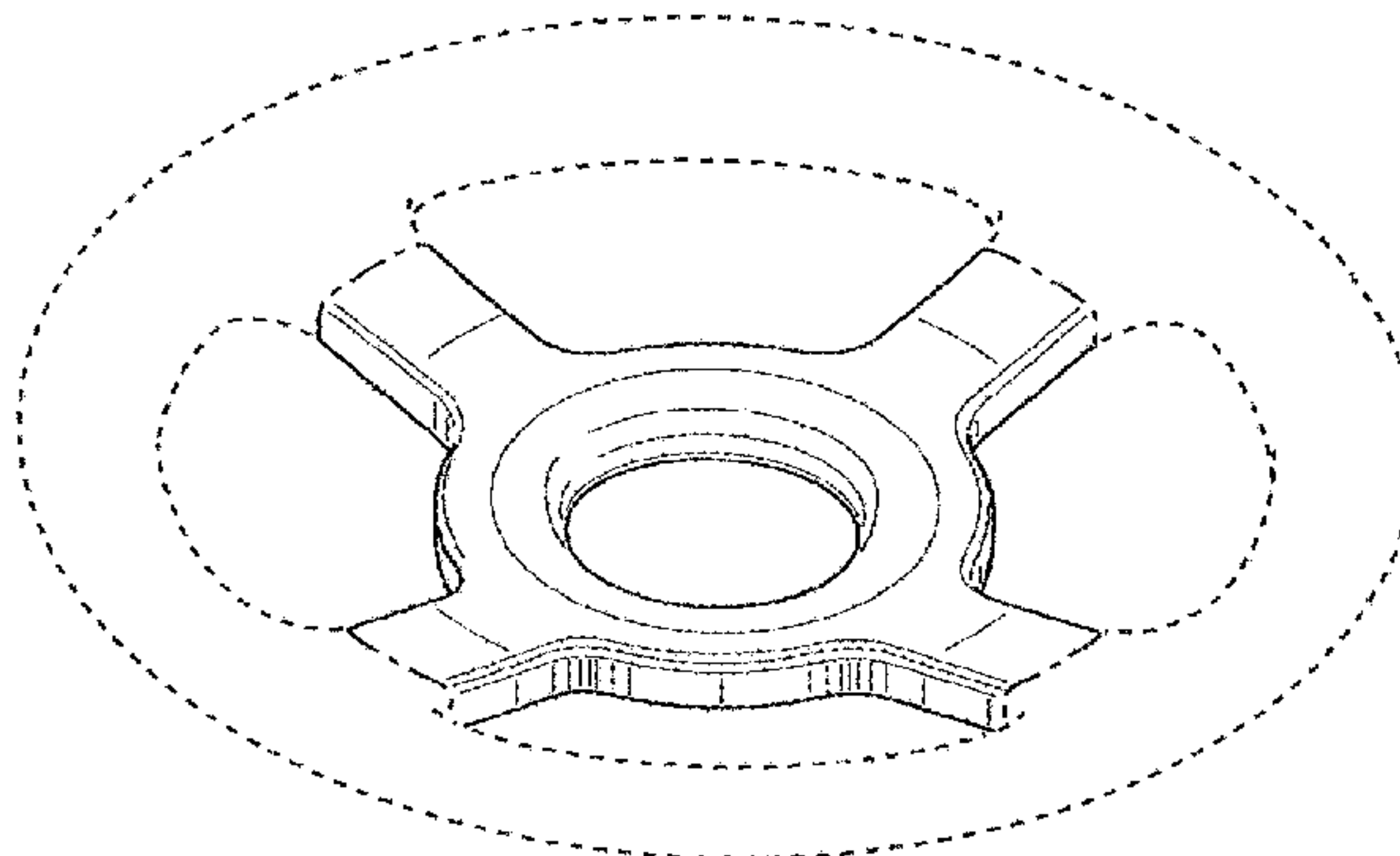
(52) **U.S. Cl.**
USPC **D24/155**

(58) **Field of Classification Search**

USPC D24/155, 133, 135; D12/204, 207; D1/100, 127, 130; D21/386

CPC A61B 17/8061; A61B 17/7059; A61B 17/8052; A61B 17/8605; A61B 17/8085; A61B 17/809; A61B 17/8014; A61B 17/8033; A61B 17/8004; A61B 17/888; A61B 17/842; A61B 17/8023; A61B 17/8009; A61B 17/86; A61B 17/1739; A61B 17/8066; A61B 17/1671; A61B 17/1757; A61B 17/8071; A61B 17/176; A61B 2017/1782; A61B 2017/1775

See application file for complete search history.



(56)

References Cited

U.S. PATENT DOCUMENTS

5,092,866 A	3/1992	Breard et al.	5,865,846 A	2/1999	Bryan et al.
5,112,346 A	5/1992	Hiltebrandt et al.	5,868,745 A	2/1999	Alleyne
5,127,912 A	7/1992	Ray et al.	5,876,404 A	3/1999	Zucherman et al.
5,147,404 A	9/1992	Downey	5,879,396 A	3/1999	Walston et al.
5,171,280 A	12/1992	Baumgartner	5,888,203 A	3/1999	Goldberg
5,192,326 A	3/1993	Bao et al.	5,893,889 A	4/1999	Harrington
5,209,755 A	5/1993	Abrahan et al.	5,895,428 A	4/1999	Berry
5,258,031 A	11/1993	Salib et al.	RE36,221 E	6/1999	Breard et al.
5,300,073 A	4/1994	Ray et al.	5,951,555 A	9/1999	Rehak et al.
5,306,275 A	4/1994	Bryan	5,964,765 A	10/1999	Fenton et al.
5,306,308 A	4/1994	Gross et al.	5,997,542 A	12/1999	Burke
5,306,309 A	4/1994	Wagner et al.	6,001,130 A	12/1999	Bryan et al.
5,330,479 A	7/1994	Whitmore	6,014,588 A	1/2000	Fitz
5,360,431 A	11/1994	Puno et al.	6,019,763 A *	2/2000	Nakamura A61B 17/866 523/105
5,368,596 A	11/1994	Burkhart	6,019,792 A	2/2000	Cauthen
5,370,697 A	12/1994	Baumgartner	6,039,763 A	3/2000	Shelokov
5,372,598 A	12/1994	Luhr et al.	6,048,342 A	4/2000	Zucherman et al.
5,400,784 A	3/1995	Durand et al.	6,050,998 A	4/2000	Fletcher
5,401,269 A	3/1995	Buttner-Janz et al.	6,063,121 A	5/2000	Xavier et al.
5,413,576 A	5/1995	Rivard	6,066,325 A	5/2000	Wallace et al.
5,415,661 A	5/1995	Holmes	6,068,630 A	5/2000	Zucherman et al.
5,425,773 A	6/1995	Boyd et al.	RE36,758 E	6/2000	Fitz
5,437,672 A	8/1995	Alleyne	6,080,157 A	6/2000	Cathro et al.
5,445,639 A	8/1995	Kuslich et al.	6,099,531 A	8/2000	Bonutti
5,458,642 A	10/1995	Beer et al.	6,106,558 A	8/2000	Picha
5,458,643 A	10/1995	Oka et al.	6,113,637 A	9/2000	Gill et al.
5,462,542 A	10/1995	Alesi, Jr.	6,132,464 A	10/2000	Martin
5,487,756 A	1/1996	Kallesoe et al.	6,132,465 A	10/2000	Ray et al.
5,491,882 A	2/1996	Walston et al.	6,146,422 A	11/2000	Lawson
5,496,318 A	3/1996	Howland et al.	6,156,067 A	12/2000	Bryan et al.
5,507,823 A	4/1996	Walston et al.	6,179,839 B1 *	1/2001	Weiss A61B 17/1659 606/280
5,514,180 A	5/1996	Heggeness et al.	D439,340 S *	3/2001	Michelson D24/155
5,527,312 A	6/1996	Ray	6,200,322 B1	3/2001	Branch et al.
5,527,314 A	6/1996	Brumfield et al.	6,293,949 B1	9/2001	Justis et al.
5,534,028 A	7/1996	Bao et al.	D450,122 S *	11/2001	Michelson D24/155
5,534,030 A	7/1996	Navarro et al.	6,325,803 B1	12/2001	Schumacher et al.
5,540,706 A	7/1996	Aust et al.	D454,953 S *	3/2002	Michelson D24/155
5,545,229 A	8/1996	Parsons et al.	6,368,325 B1	4/2002	McKinley et al.
5,549,619 A	8/1996	Peters et al.	6,368,350 B1	4/2002	Erickson et al.
5,556,431 A	9/1996	Buttner-Janz	6,371,958 B1 *	4/2002	Overaker A61B 17/0642 606/151
5,562,738 A	10/1996	Boyd et al.	6,375,573 B2	4/2002	Romano
5,571,131 A	11/1996	Ek et al.	6,379,386 B1	4/2002	Resch et al.
5,571,189 A	11/1996	Kuslich	D460,188 S *	7/2002	Michelson D24/155
5,571,191 A	11/1996	Fitz	D460,189 S *	7/2002	Michelson D24/155
5,577,995 A	11/1996	Walker et al.	6,419,678 B1	7/2002	Asfora
5,586,989 A	12/1996	Bray, Jr.	6,419,703 B1	7/2002	Fallin et al.
5,591,165 A	1/1997	Jackson	6,436,099 B1	8/2002	Drewry et al.
5,603,713 A	2/1997	Aust et al.	6,436,101 B1	8/2002	Hamada et al.
5,638,700 A	6/1997	Shechter	D463,560 S *	9/2002	Michelson D24/155
5,645,597 A	7/1997	Krapiva	6,470,207 B1	10/2002	Simon et al.
5,645,599 A	7/1997	Samani	6,565,605 B2	5/2003	Goble et al.
5,649,947 A	7/1997	Auerbach et al.	6,572,617 B1	6/2003	Senegas
5,653,762 A	8/1997	Pisharodi	6,579,318 B2	6/2003	Varga et al.
5,674,295 A	10/1997	Ray et al.	6,579,319 B2	6/2003	Goble et al.
5,674,296 A	10/1997	Bryan et al.	6,589,244 B1	7/2003	Sevrain et al.
5,676,701 A	10/1997	Yuan et al.	6,600,956 B2	7/2003	Maschino et al.
5,683,464 A	11/1997	Wagner et al.	6,607,530 B1	8/2003	Carl et al.
5,683,466 A	11/1997	Vitale	6,610,091 B1	8/2003	Reiley
5,700,265 A	12/1997	Romano	D479,331 S	9/2003	Pike et al.
5,702,450 A	12/1997	Bisserie	6,626,944 B1	9/2003	Taylor
5,707,373 A	1/1998	Sevrain et al.	6,641,614 B1	11/2003	Wagner et al.
5,716,415 A	2/1998	Steffee	6,656,195 B2	12/2003	Peters et al.
5,725,582 A	3/1998	Bevan et al.	6,669,697 B1	12/2003	Pisharodi
5,741,260 A	4/1998	Songer et al.	6,669,729 B2	12/2003	Chin
5,741,261 A	4/1998	Moskovitz et al.	6,706,068 B2	3/2004	Ferree
D395,138 S	6/1998	Ohata	6,743,232 B2 *	6/2004	Overaker A61F 2/30756 606/327
5,766,251 A	6/1998	Koshino	6,761,720 B1	7/2004	Senegas
5,766,253 A	6/1998	Brosnahan	6,764,491 B2	7/2004	Frey et al.
5,772,663 A	6/1998	Whiteside et al.	6,770,095 B2	8/2004	Grinberg et al.
5,797,916 A	8/1998	McDowell	6,783,527 B2	8/2004	Drewry et al.
5,824,093 A	10/1998	Ray et al.	6,790,210 B1	9/2004	Cragg et al.
5,824,094 A	10/1998	Serhan et al.	6,811,567 B2	11/2004	Reiley
5,836,948 A	11/1998	Zucherman et al.	6,902,566 B2	6/2005	Zucherman et al.
5,851,208 A	12/1998	Trott	6,908,484 B2	6/2005	Zubok et al.
5,860,977 A	1/1999	Zucherman et al.	6,966,930 B2	11/2005	Arnin et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

6,974,478 B2	12/2005	Reiley et al.	2004/0049271 A1	3/2004	Biedermann et al.
6,974,479 B2	12/2005	Trieu	2004/0049272 A1	3/2004	Reiley
D517,404 S *	3/2006	Schluter D8/387	2004/0049273 A1	3/2004	Reiley
7,008,429 B2	3/2006	Golobek	2004/0049274 A1	3/2004	Reiley
7,013,675 B2	3/2006	Marquez-Pickering	2004/0049275 A1	3/2004	Reiley
7,051,451 B2	5/2006	Augustino et al.	2004/0049276 A1	3/2004	Reiley
7,074,238 B2	7/2006	Stinson et al.	2004/0049277 A1	3/2004	Reiley
7,101,375 B2	9/2006	Zucherman et al.	2004/0049278 A1	3/2004	Reiley
7,223,269 B2	5/2007	Chappuis	2004/0059429 A1	3/2004	Amin et al.
D565,180 S *	3/2008	Liao D24/155	2004/0087954 A1	5/2004	Allen et al.
7,371,238 B2	5/2008	Soboleski et al.	2004/0116927 A1	6/2004	Graf
7,458,981 B2	12/2008	Fielding et al.	2004/0127989 A1	7/2004	Dooris et al.
7,517,358 B2	4/2009	Petersen	2004/0143264 A1	7/2004	McAfee
7,537,611 B2	5/2009	Lee	2004/0176844 A1	9/2004	Zubok et al.
7,559,940 B2	7/2009	McGuire et al.	2004/0215341 A1	10/2004	Sybert et al.
7,563,286 B2	7/2009	Gerber et al.	2004/0230201 A1	11/2004	Yuan et al.
7,585,300 B2	9/2009	Cha	2004/0230304 A1	11/2004	Yuan et al.
7,608,104 B2	10/2009	Yuan et al.	2005/0010291 A1	1/2005	Stinson et al.
7,695,472 B2	4/2010	Young	2005/0015146 A1	1/2005	Louis et al.
7,799,077 B2	9/2010	Lang et al.	2005/0043797 A1	2/2005	Lee
7,806,895 B2	10/2010	Weier et al.	2005/0043799 A1	2/2005	Reiley
7,846,183 B2	12/2010	Blain	2005/0049705 A1	3/2005	Hale et al.
7,862,590 B2	1/2011	Lim et al.	2005/0055096 A1	3/2005	Serhan et al.
7,935,136 B2	5/2011	Alamin et al.	2005/0059972 A1	3/2005	Biscup
D643,121 S	8/2011	Milford et al.	2005/0131409 A1	6/2005	Chervitz et al.
7,993,370 B2	8/2011	Jahng	2005/0131538 A1	6/2005	Chervitz et al.
7,998,172 B2	8/2011	Blain	2005/0143818 A1	6/2005	Yuan et al.
8,052,728 B2	11/2011	Hestad	2005/0159746 A1	7/2005	Grob et al.
8,109,971 B2	2/2012	Hale	2005/0197700 A1	9/2005	Boehem et al.
8,163,016 B2	4/2012	Linares	2005/0216017 A1	9/2005	Fielding et al.
8,192,468 B2	6/2012	Biedermann et al.	2005/0251256 A1	11/2005	Reiley
8,216,275 B2	7/2012	Fielding et al.	2005/0256494 A1	11/2005	Datta
8,246,655 B2	8/2012	Jackson et al.	2006/0004367 A1	1/2006	Alamin et al.
8,394,125 B2	3/2013	Assell	2006/0036323 A1	2/2006	Carl et al.
8,652,137 B2	2/2014	Blain et al.	2006/0041311 A1	2/2006	McLeer
8,740,942 B2	6/2014	Blain	2006/0084985 A1	4/2006	Kim
8,740,949 B2	6/2014	Blain	2006/0085072 A1	4/2006	Funk et al.
8,858,597 B2	10/2014	Blain	2006/0111782 A1	5/2006	Petersen
8,882,804 B2	11/2014	Blain	2006/0149375 A1	7/2006	Yuan et al.
8,961,613 B2	2/2015	Assell et al.	2006/0200137 A1	9/2006	Soboleski et al.
D724,733 S *	3/2015	Blain D24/155	2006/0241601 A1	10/2006	Trautwein et al.
8,992,533 B2	3/2015	Blain et al.	2006/0241758 A1	10/2006	Peterman et al.
8,998,953 B2	4/2015	Blain	2006/0293691 A1	12/2006	Mitra et al.
9,017,389 B2	4/2015	Assell et al.	2007/0055236 A1	3/2007	Hudgins et al.
9,060,787 B2	6/2015	Blain et al.	2007/0078464 A1	4/2007	Jones et al.
D739,935 S	9/2015	Blain et al.	2007/0118218 A1	5/2007	Hooper
9,149,283 B2	10/2015	Assell et al.	2007/0149976 A1	6/2007	Hale et al.
9,161,763 B2	10/2015	Assell et al.	2007/0179619 A1	8/2007	Grab
9,179,943 B2	11/2015	Blain	2007/0250166 A1	10/2007	McKay
2001/0018614 A1	8/2001	Bianchi	2007/0270812 A1	11/2007	Peckham
2002/0018799 A1	2/2002	Spector et al.	2008/0009866 A1	1/2008	Alamin et al.
2002/0019637 A1	2/2002	Frey et al.	2008/0177264 A1	7/2008	Alamin et al.
2002/0029039 A1	3/2002	Zucherman et al.	2008/0183211 A1	7/2008	Lamborne et al.
2002/0040227 A1	4/2002	Harari	2008/0228225 A1	9/2008	Trautwein et al.
2002/0065557 A1	5/2002	Goble et al.	2008/0287996 A1	11/2008	Soboleski et al.
2002/0072800 A1	6/2002	Goble et al.	2009/0005818 A1	1/2009	Chin et al.
2002/0077700 A1	6/2002	Varga et al.	2009/0018662 A1	1/2009	Pasquet et al.
2002/0086047 A1	7/2002	Mueller et al.	2009/0024166 A1	1/2009	Carl et al.
2002/0120335 A1	8/2002	Angelucci et al.	2009/0076617 A1	3/2009	Ralph et al.
2002/0123806 A1	9/2002	Reiley	2009/0125066 A1	5/2009	Kraus et al.
2002/0151895 A1	10/2002	Soboleski et al.	2009/0138048 A1	5/2009	Baccelli et al.
2002/0173800 A1	11/2002	Dreyfuss et al.	2009/0198282 A1	8/2009	Fielding et al.
2002/0173813 A1	11/2002	Peterson et al.	2009/0264928 A1	10/2009	Blain
2002/0198527 A1	12/2002	Muckter	2009/0264929 A1	10/2009	Alamin et al.
2003/0004572 A1	1/2003	Goble et al.	2009/0270918 A1	10/2009	Attia et al.
2003/0028250 A1	2/2003	Reiley et al.	2010/0185241 A1	7/2010	Malandain et al.
2003/0040797 A1	2/2003	Fallin et al.	2010/0204732 A1	8/2010	Aschmann et al.
2003/0187454 A1	10/2003	Gill et al.	2010/0234894 A1	9/2010	Alamin et al.
2003/0191532 A1	10/2003	Goble et al.	2010/0274289 A1	10/2010	Carls et al.
2003/0204259 A1	10/2003	Goble et al.	2010/0318133 A1	12/2010	Tornier
2003/0216669 A1	11/2003	Lang et al.	2011/0022089 A1	1/2011	Assell et al.
2003/0233146 A1	12/2003	Grinberg et al.	2011/0098816 A1	4/2011	Jacob et al.
2004/0006391 A1	1/2004	Reiley	2011/0172712 A1	7/2011	Chee et al.
2004/0010318 A1	1/2004	Ferree	2011/0295318 A1	12/2011	Alamin et al.
2004/0024462 A1	2/2004	Ferree et al.	2012/0035658 A1	2/2012	Goble et al.
			2012/0101502 A1	4/2012	Kartalian et al.
			2012/0150231 A1	6/2012	Alamin et al.
			2012/0221048 A1	8/2012	Blain

(56)

References Cited

U.S. PATENT DOCUMENTS

2012/0221049	A1	8/2012	Blain
2012/0245586	A1	9/2012	Lehenkari et al.
2012/0271354	A1	10/2012	Bacelli et al.
2013/0325065	A1	12/2013	Malandain et al.
2014/0257397	A1	9/2014	Akbarnia et al.
2014/0277142	A1	9/2014	Blain
2014/0277148	A1	9/2014	Blain
2014/0336653	A1	11/2014	Bromer
2015/0081023	A1	3/2015	Blain
2015/0094766	A1	4/2015	Blain et al.
2015/0094767	A1	4/2015	Blain et al.
2015/0119988	A1	4/2015	Assell et al.
2015/0164516	A1	6/2015	Blain et al.
2015/0164652	A1	6/2015	Assell et al.
2015/0190149	A1	7/2015	Assell et al.
2015/0196330	A1	7/2015	Blain
2015/0257770	A1	9/2015	Assell et al.
2015/0257773	A1	9/2015	Blain

FOREIGN PATENT DOCUMENTS

CA	2 437 575	4/2009
DE	93 04 368	5/1993
DE	201 12 123	9/2001
DE	101 35 771	2/2003
EP	0 322 334	6/1989
EP	0 392 124	10/1990
EP	0 610 837	8/1994
EP	1 201 202	5/2002
EP	2 919 717	9/2015
FR	2 722 980	2/1996
GB	2 366 736	3/2002
JP	10-179622	7/1998
JP	2007-503884	3/2007
JP	2008-510526	4/2008
MX	6012309	1/2007
WO	WO 93/14721	8/1993
WO	WO 94/04088	3/1994
WO	WO 98/48717	11/1998
WO	WO 99/23963	5/1999
WO	WO 00/38582	7/2000
WO	WO 00/53126	9/2000
WO	WO 01/30248	5/2001
WO	WO 02/45765	6/2002
WO	WO 02/065954	8/2002
WO	WO 02/096300	12/2002
WO	WO 03/101350	12/2003
WO	WO 2004/071358	8/2004
WO	WO 2005/020850	3/2005
WO	WO 2005/072661	8/2005
WO	WO 2006/096803	9/2006
WO	WO 2011/011621	1/2011
WO	WO 2012/116266	8/2012
WO	WO 2013/138655	9/2013

OTHER PUBLICATIONS

Notice of Acceptance in Australian Application No. AU2013237744, dated Apr. 23, 2015.
 Official Communication in Canadian Application No. 2,803,783, dated Aug. 5, 2015.
 Official Communication in Japanese Application No. 2012-272106, dated Nov. 2, 2015.
 Official Communication in Japanese Application No. 2013-524882, dated Mar. 2, 2015.
 Official Communication in Japanese Application No. 2013-524882, dated Nov. 16, 2015.
 Official Communication in Australian Application No. AU2012222229, dated Aug. 21, 2015.
 Official Communication in Australian Application No. AU2012222230, dated Aug. 21, 2015.
 International Search Report and Written Opinion in International Application No. PCT/US2014/019302, dated May 18, 2015.

International Preliminary Report on Patentability and Written Opinion in International Application No. PCT/US2014/019325, dated Sep. 24, 2015.
 3rd Party Lab Notebook, "Facet Cartilage Repair," dated May 20, 2003 in 2 pages.
 ArthroTek, "CurvTek® Bone Tunneling System," Surgical Technique, 2000, pp. 6.
 E-mail from 3rd Party citing U.S. Appl. No. 60/721,909; U.S. Appl. No. 60/750,005 and U.S. Appl. No. 60/749,000, initial e-mail dated May 11, 2009, reply e-mail dated May 18, 2009.
 King et al., "Mechanism of Spinal Injury Due to Caudocephalad Acceleration," Symposium on the Lumbar Spine, Orthopedic Clinic of North America, Jan. 1975, vol. 6, pp. 19-31.
 PARTEQ Innovations, "Facet Joint Implants & Resurfacing Devices," Technology Opportunity Bulletin, Tech ID 1999-012, Queen's University, Ontario Canada.
 Official Communication in Australian Application No. 2005213459, dated Dec. 11, 2009.
 Official Communication in Australian Application No. 2005213459, dated Dec. 15, 2010.
 Official Communication in Australian Application No. 2011226832, dated Sep. 4, 2012.
 Official Communication in Australian Application No. 2011226832, dated Oct. 31, 2012.
 Official Communication in Australian Application No. AU2013237744, dated Sep. 2, 2014.
 Official Communication in Canadian Application No. 2,555,355, dated Sep. 2, 2011.
 Official Communication in Canadian Application No. 2,803,783, dated Sep. 29, 2014.
 Official Communication in European Application No. 05712981.9, dated Jul. 24, 2007.
 Official Communication in European Application No. 05712981.9, dated Mar. 10, 2008.
 Official Communication in European Application No. 05712981.9, dated Apr. 6, 2009.
 Official Communication in European Application No. 05712981.9, dated Jun. 15, 2010.
 Official Communication in European Application No. 10178979.0, dated Mar. 14, 2011.
 Official Communication in European Application No. 10178979.0, dated Nov. 13, 2012.
 Official Communication in European Application No. 10178979.0, dated Aug. 5, 2013.
 Official Communication in European Application No. 14175088.5, dated Sep. 8, 2014.
 Official Communication in Japanese Application No. 2006-552309, dated May 25, 2010.
 Official Communication in Japanese Application No. 2006-552309, dated Feb. 15, 2011.
 Official Communication in Japanese Application No. 2010-221380, dated Feb. 15, 2011.
 Official Communication in Japanese Application No. 2012-272106, dated Dec. 3, 2013.
 Official Communication in Japanese Application No. 2012-272106, dated May 26, 2014.
 Official Communication in Japanese Application No. 2012-272106, dated Feb. 23, 2015.
 International Search Report and Written Opinion in International Application No. PCT/US2005/003753, dated Dec. 5, 2006.
 International Preliminary Report and Written Opinion in International App No. PCT/US2005/003753, dated Jan. 9, 2007.
 Official Communication in European Application No. 08730413.5, dated Feb. 16, 2012.
 Official Communication in European Application No. 14177951.2, dated Nov. 13, 2014.
 International Search Report and Written Opinion in International Application No. PCT/US2008/054607, dated Jul. 10, 2008.
 International Preliminary Report on Patentability in International Application No. PCT/US2008/054607, dated Sep. 3, 2009.
 Official Communication in Australian Application No. 2011292297, dated Jul. 10, 2013.

(56)

References Cited

OTHER PUBLICATIONS

Official Communication in European Application No. 11818586.7, dated Nov. 6, 2014.

International Search Report and Written Opinion in International Application No. PCT/US2011/047432, dated Dec. 12, 2011.

International Preliminary Report on Patentability in International Application No. PCT/US2011/047432, dated Feb. 28, 2013.

International Search Report in International Application No. PCT/US2012/026470, dated May 30, 2012.

International Preliminary Report on Patentability and Written Opinion in International Application No. PCT/US2012/026470, dated Sep. 6, 2013.

International Search Report and Written Opinion in International Application No. PCT/US2012/026472, dated Jun. 20, 2012.

International Preliminary Report on Patentability and Written Opinion in International Application No. PCT/US2012/026472, dated Mar. 12, 2014.

International Search Report and Written Opinion in International Application No. PCT/US2014/019325, dated Jun. 17, 2014.

International Search Report and Written Opinion in International Application No. PCT/US2014/056598, dated Dec. 29, 2014.

Official Communication in Japanese Application No. 2009-074336, dated Feb. 15, 2011.

International Search Report in International Application No. PCT/CA2002/000193 filed Feb. 15, 2002, dated Jun. 18, 2002.

International Search Report and Written Opinion in International Application No. PCT/US2004/028094, dated May 16, 2005.

International Preliminary Report on Patentability in International Application No. PCT/US2004/028094, dated Feb. 25, 2013.

International Search Report in International Application No. PCT/US2005/000987 filed Jan. 13, 2005, dated May 24, 2005.

International Preliminary Report on Patentability in International Application No. PCT/US2005/000987 filed Jan. 13, 2005, dated Jan. 17, 2006.

* cited by examiner

Primary Examiner — Charles Hanson

(74) *Attorney, Agent, or Firm* — Knobbe, Martens, Olson & Bear, LLP

(57)

CLAIM

The ornamental design for an interbody bone implant, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of an interbody bone implant according to an embodiment;

FIG. 2 is a top view of the interbody bone implant illustrated in FIG. 1;

FIG. 3 is a bottom view of the interbody bone implant illustrated in FIG. 1;

FIG. 4 is a side view of the interbody bone implant illustrated in FIG. 1; and,

FIG. 5 is a cross-sectional view of the interbody bone implant taken along line 15-15 in FIG. 2.

The broken-jagged lines which define the boundary of the claimed design do not form part of the claimed design. The broken lines are for environmental purposes only and form no part of the claimed design.

1 Claim, 2 Drawing Sheets

FIG. 1

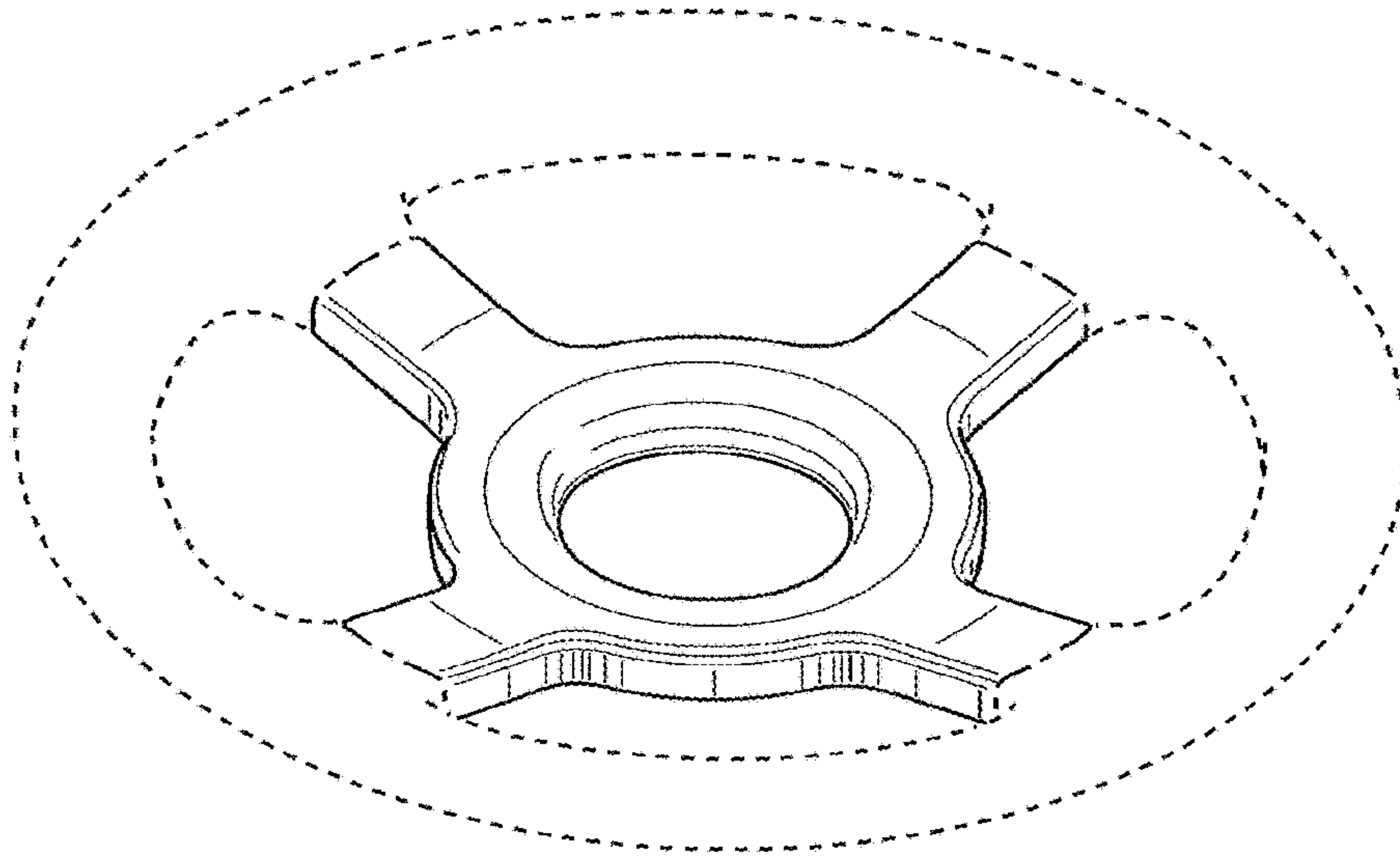


FIG. 2

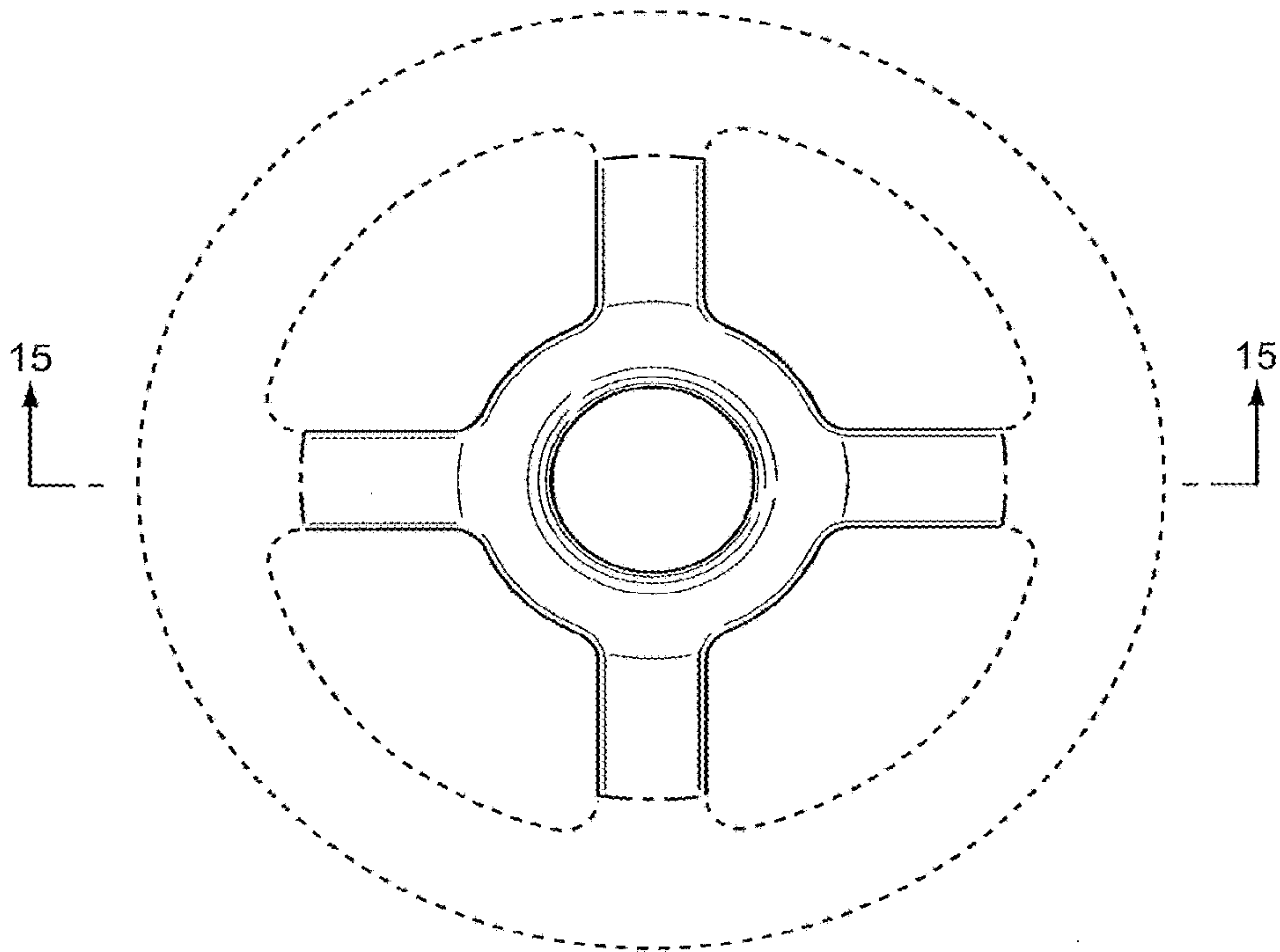


FIG. 3

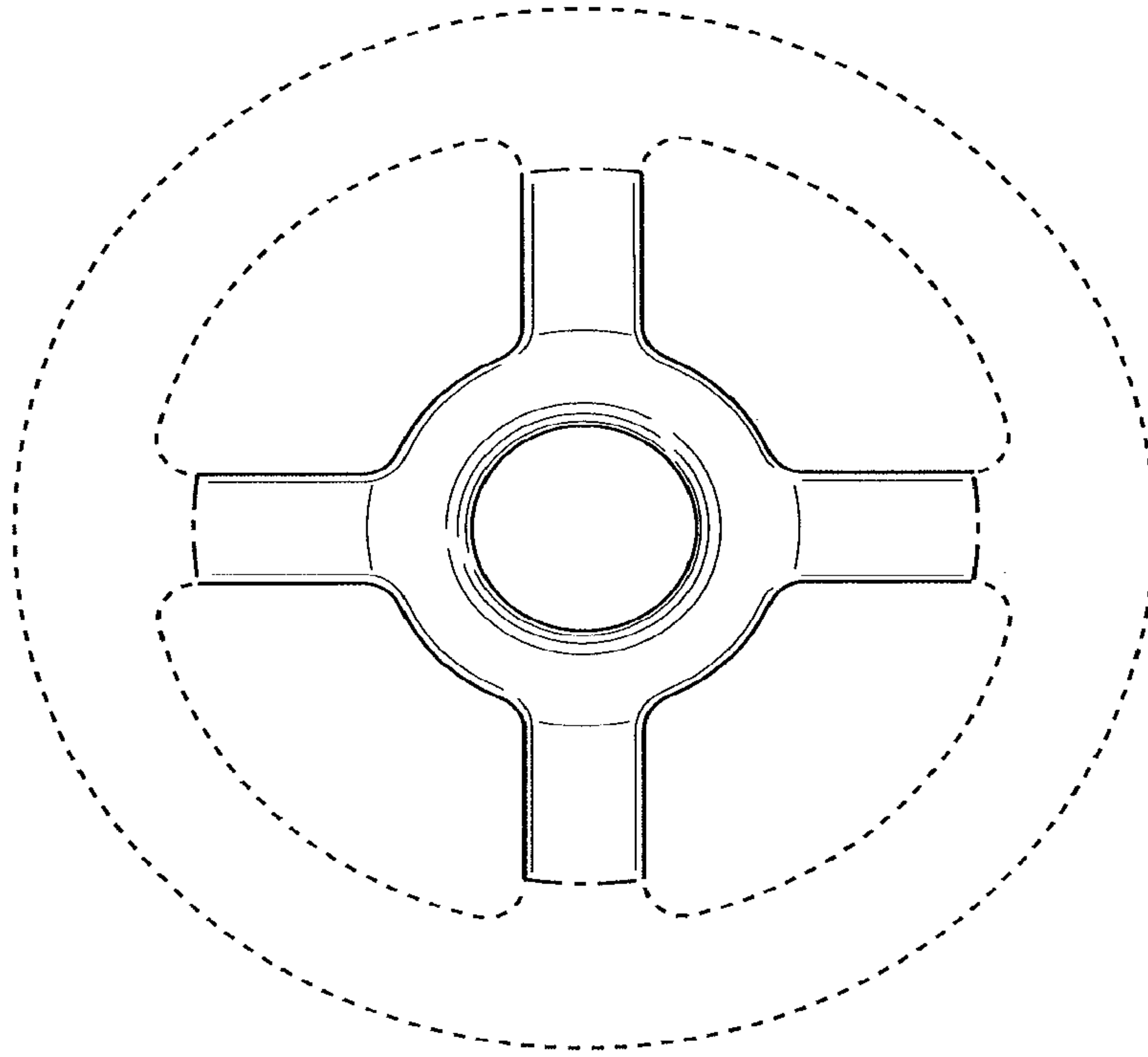


FIG. 4

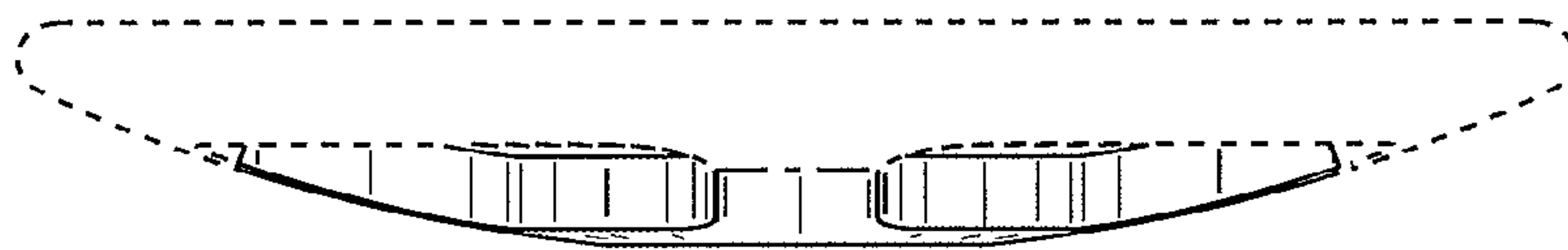


FIG. 5

