US00D875250S

(12) **United States Design Patent**
Hillukka

(10) **Patent No.: US D875,250 S**
(45) **Date of Patent: ** Feb. 11, 2020**

(54) **STENT HAVING TAPERED AORTIC STRUTS**

(71) Applicant: **St. Jude Medical, Cardiology Division, Inc.**, St. Paul, MN (US)

(72) Inventor: **Brett Allen Hillukka**, Hanover, MN (US)

(73) Assignee: **St. Jude Medical, Cardiology Division, Inc.**, St. Paul, MN (US)

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

(21) Appl. No.: **29/604,160**

(22) Filed: **May 15, 2017**

(51) **LOC (12) Cl.** **24-03**

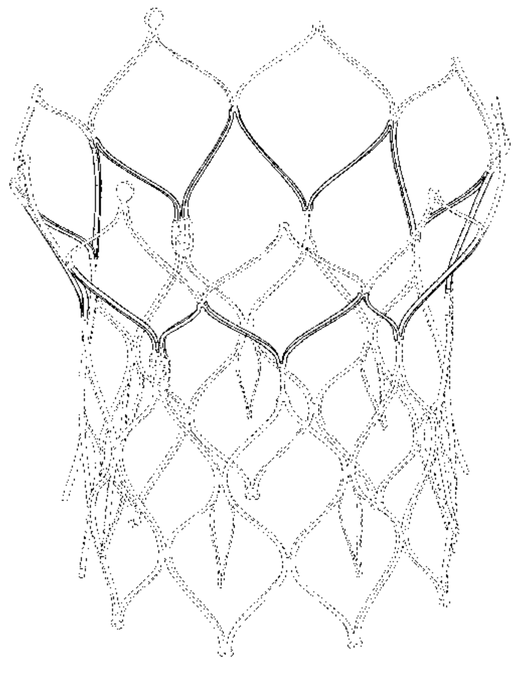
(52) **U.S. Cl.**
USPC **D24/155**

(58) **Field of Classification Search**
USPC D24/155
CPC A61F 2/07; A61F 2/90; A61F 2/958; A61F 2002/016; A61F 2002/072; A61F 2002/075; A61F 2002/91541; A61F 2220/0075; A61F 2230/0069
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,657,744	A	4/1972	Ersek
4,275,469	A	6/1981	Gabbay
4,491,986	A	1/1985	Gabbay
4,759,758	A	7/1988	Gabbay
4,878,906	A	11/1989	Lindemann et al.
4,922,905	A	5/1990	Strecker
4,994,077	A	2/1991	Dobben
5,411,552	A	5/1995	Andersen et al.
5,415,664	A	5/1995	Pinchuk
5,480,423	A	1/1996	Ravenscroft et al.
5,843,167	A	12/1998	Dwyer et al.
5,855,601	A	1/1999	Bessler et al.
5,935,163	A	8/1999	Gabbay
5,961,549	A	10/1999	Nguyen et al.
6,045,576	A	4/2000	Starr et al.
6,077,297	A	6/2000	Robinson et al.
6,083,257	A	7/2000	Taylor et al.
6,090,140	A	7/2000	Gabbay
6,214,036	B1	4/2001	Letendre et al.
6,264,691	B1	7/2001	Gabbay
6,267,783	B1	7/2001	Letendre et al.
6,368,348	B1	4/2002	Gabbay
6,419,695	B1	7/2002	Gabbay
6,458,153	B1	10/2002	Bailey et al.
6,468,660	B2	10/2002	Ogle et al.
6,488,702	B1	12/2002	Besselink
6,517,576	B2	2/2003	Gabbay
6,533,810	B2	3/2003	Hankh et al.
6,582,464	B2	6/2003	Gabbay
6,610,088	B1	8/2003	Gabbay
6,623,518	B2	9/2003	Thompson et al.
6,652,578	B2	11/2003	Bailey et al.
6,685,625	B2	2/2004	Gabbay
6,716,244	B2	4/2004	Klaco
6,719,789	B2	4/2004	Cox
6,730,118	B2	5/2004	Spenser et al.
6,783,556	B1	8/2004	Gabbay
6,790,230	B2	9/2004	Beyersdorf et al.
6,814,746	B2	11/2004	Thompson et al.
6,830,584	B1	12/2004	Seguin
6,869,444	B2	3/2005	Gabbay
6,893,460	B2	5/2005	Spenser et al.
6,908,481	B2	6/2005	Cribier
6,951,573	B1	10/2005	Dilling
7,018,406	B2	3/2006	Seguin et al.
7,025,780	B2	4/2006	Gabbay
7,137,184	B2	11/2006	Schreck
7,147,661	B2	12/2006	Chobotov et al.
7,160,322	B2	1/2007	Gabbay
7,195,641	B2	3/2007	Palmaz et al.
7,247,167	B2	7/2007	Gabbay
7,267,686	B2	9/2007	DiMatteo et al.
7,276,078	B2	10/2007	Spenser et al.
7,311,730	B2	12/2007	Gabbay
7,320,704	B2	1/2008	Lashinski et al.
7,329,278	B2	2/2008	Seguin et al.
7,374,573	B2	5/2008	Gabbay
7,381,218	B2	6/2008	Schreck
7,381,219	B2	6/2008	Salahieh et al.
7,452,371	B2	11/2008	Pavcnik et al.
7,510,572	B2	3/2009	Gabbay
7,510,575	B2	3/2009	Spenser et al.
7,524,331	B2	4/2009	Birdsall
7,534,261	B2	5/2009	Friedman
RE40,816	E	6/2009	Taylor et al.
7,585,321	B2	9/2009	Cribier
7,628,805	B2	12/2009	Spenser et al.
7,682,390	B2	3/2010	Seguin
7,708,775	B2	5/2010	Rowe et al.
7,731,742	B2	6/2010	Schlick et al.



7,748,389	B2	7/2010	Salahieh et al.	
7,780,725	B2	8/2010	Haug et al.	
7,799,069	B2	9/2010	Bailey et al.	
7,803,185	B2	9/2010	Gabbay	
7,824,442	B2	11/2010	Salahieh et al.	
7,837,727	B2	11/2010	Goetz et al.	
7,846,203	B2	12/2010	Cribier	
7,846,204	B2	12/2010	Letac et al.	
7,892,281	B2	2/2011	Seguin et al.	
7,914,569	B2	3/2011	Nguyen et al.	
7,959,666	B2	6/2011	Salahieh et al.	
7,959,672	B2	6/2011	Salahieh et al.	
7,972,378	B2	7/2011	Tabor et al.	
7,988,724	B2	8/2011	Salahieh et al.	
7,993,394	B2	8/2011	Hariton et al.	
8,016,877	B2	9/2011	Seguin et al.	
D648,854	S	11/2011	Braido	
8,048,153	B2	11/2011	Salahieh et al.	
8,052,741	B2	11/2011	Bruszewski et al.	
8,052,749	B2	11/2011	Salahieh et al.	
8,052,750	B2	11/2011	Tuval et al.	
8,062,355	B2	11/2011	Figulla et al.	
8,075,611	B2	12/2011	Millwee et al.	
D652,926	S	1/2012	Braido	
D652,927	S *	1/2012	Braido	A61F 2/91 D24/155
D653,341	S *	1/2012	Braido	A61F 2/91 D24/155
D653,342	S	1/2012	Braido et al.	
D653,343	S	1/2012	Ness et al.	
D654,169	S	2/2012	Braido	
D654,170	S	2/2012	Braido et al.	
8,137,398	B2	3/2012	Tuval et al.	
8,142,497	B2	3/2012	Friedman	
D660,432	S	5/2012	Braido	
D660,433	S *	5/2012	Braido	A61F 2/91 D24/155
D660,967	S *	5/2012	Braido	A61F 2/91 D24/155
8,182,528	B2	5/2012	Salahieh et al.	
8,221,493	B2	7/2012	Boyle et al.	
8,230,717	B2	7/2012	Matonick	
8,231,670	B2	7/2012	Salahieh et al.	
8,252,051	B2	8/2012	Chau et al.	
8,308,798	B2	11/2012	Pintor et al.	
8,313,525	B2	11/2012	Tuval et al.	
8,323,335	B2	12/2012	Rowe et al.	
8,323,336	B2	12/2012	Hill et al.	
8,343,213	B2	1/2013	Salahieh et al.	
8,348,995	B2	1/2013	Tuval et al.	
8,348,996	B2	1/2013	Tuval et al.	
8,348,998	B2	1/2013	Pintor et al.	
8,366,769	B2	2/2013	Huynh et al.	
8,403,983	B2	3/2013	Quadri et al.	
8,408,214	B2	4/2013	Spenser	
8,414,643	B2	4/2013	Tuval et al.	
8,425,593	B2	4/2013	Braido et al.	
8,449,599	B2	5/2013	Chau et al.	
8,449,604	B2	5/2013	Moaddeb et al.	
8,454,686	B2	6/2013	Alkhatib	
8,500,798	B2	8/2013	Rowe et al.	
8,568,474	B2	10/2013	Yeung et al.	
8,579,962	B2	11/2013	Salahieh et al.	
8,579,966	B2	11/2013	Seguin et al.	
8,585,755	B2	11/2013	Chau et al.	
8,591,575	B2	11/2013	Cribier	
8,597,349	B2	12/2013	Alkhatib	
8,603,159	B2	12/2013	Seguin et al.	
8,603,160	B2	12/2013	Salahieh et al.	
8,613,765	B2	12/2013	Bonhoeffer et al.	
8,623,074	B2	1/2014	Ryan	
8,652,204	B2	2/2014	Quill et al.	
8,663,322	B2	3/2014	Keranen	
8,668,733	B2	3/2014	Haug et al.	
8,685,080	B2	4/2014	White	
8,728,154	B2	5/2014	Alkhatib	
8,747,459	B2	6/2014	Nguyen et al.	
8,764,820	B2	7/2014	Dehdashtian et al.	
8,784,481	B2 *	7/2014	Alkhatib	A61F 2/2418 623/2.18
8,795,357	B2	8/2014	Yohanan et al.	
8,801,776	B2	8/2014	House et al.	
8,808,356	B2	8/2014	Braido et al.	
8,828,078	B2	9/2014	Salahieh et al.	
8,834,563	B2	9/2014	Righini	
8,840,663	B2	9/2014	Salahieh et al.	
8,876,894	B2	11/2014	Tuval et al.	
8,876,895	B2	11/2014	Tuval et al.	
8,940,040	B2	1/2015	Shahriari	
8,945,209	B2	2/2015	Bonyuet et al.	
8,961,595	B2	2/2015	Alkhatib	
8,974,523	B2	3/2015	Thill et al.	
8,974,524	B2	3/2015	Yeung et al.	
8,986,375	B2 *	3/2015	Garde	A61F 2/2403 623/1.26
D730,520	S *	5/2015	Braido	D24/155
D730,521	S *	5/2015	Braido	D24/155
D732,666	S *	6/2015	Nguyen	A61F 2/2412 D24/155
D755,384	S *	5/2016	Pesce	D24/155
D802,764	S *	11/2017	Erzberger	D24/155
D802,765	S *	11/2017	Erzberger	D24/155
D802,766	S *	11/2017	Erzberger	D24/155
2002/0036220	A1	3/2002	Gabbay	
2003/0023303	A1	1/2003	Palmaz et al.	
2003/0050694	A1	3/2003	Yang et al.	
2003/0130726	A1	7/2003	Thorpe et al.	
2004/0049262	A1	3/2004	Obermiller et al.	
2004/0093075	A1	5/2004	Kuehne	
2004/0111111	A1	6/2004	Lin	
2004/0210304	A1	10/2004	Seguin et al.	
2004/0260389	A1	12/2004	Case et al.	
2005/0096726	A1	5/2005	Sequin et al.	
2005/0137682	A1	6/2005	Justino	
2005/0137695	A1	6/2005	Salahieh et al.	
2005/0137697	A1	6/2005	Salahieh et al.	
2005/0203605	A1	9/2005	Dolan	
2005/0240200	A1	10/2005	Bergheim	
2005/0256566	A1	11/2005	Gabbay	
2006/0008497	A1	1/2006	Gabbay	
2006/0074484	A1	4/2006	Huber	
2006/0122692	A1	6/2006	Gilad et al.	
2006/0149360	A1	7/2006	Schwammenthal et al.	
2006/0161249	A1	7/2006	Realyvasquez et al.	
2006/0173532	A1	8/2006	Flagle et al.	
2006/0178740	A1	8/2006	Stacchino et al.	
2006/0195180	A1	8/2006	Kheradvar et al.	
2006/0206202	A1	9/2006	Bonhoeffer et al.	
2006/0241744	A1	10/2006	Beith	
2006/0241745	A1	10/2006	Solem	
2006/0259120	A1	11/2006	Vongphakdy et al.	
2006/0259137	A1	11/2006	Artof et al.	
2006/0265056	A1	11/2006	Nguyen et al.	
2006/0276813	A1	12/2006	Greenberg	
2006/0276874	A1	12/2006	Wilson et al.	
2007/0010876	A1	1/2007	Salahieh et al.	
2007/0027534	A1	2/2007	Bergheim et al.	
2007/0043435	A1	2/2007	Seguin et al.	
2007/0055358	A1	3/2007	Krolik et al.	
2007/0067029	A1	3/2007	Gabbay	
2007/0093890	A1	4/2007	Eliasen et al.	
2007/0100435	A1	5/2007	Case et al.	
2007/0118210	A1	5/2007	Pinchuk	
2007/0213813	A1	9/2007	Von Segesser et al.	
2007/0233228	A1	10/2007	Eberhardt et al.	
2007/0244545	A1	10/2007	Birdsall et al.	
2007/0244552	A1	10/2007	Salahieh et al.	
2007/0288087	A1	12/2007	Fearnot et al.	
2008/0021552	A1	1/2008	Gabbay	
2008/0039934	A1	2/2008	Styrc	
2008/0071369	A1	3/2008	Tuval et al.	
2008/0082164	A1	4/2008	Friedman	
2008/0097595	A1	4/2008	Gabbay	
2008/0114452	A1	5/2008	Gabbay	
2008/0125853	A1	5/2008	Bailey et al.	
2008/0140189	A1	6/2008	Nguyen et al.	
2008/0147183	A1	6/2008	Styrc	

2008/0154355	A1	6/2008	Benichou et al.	
2008/0154356	A1	6/2008	Obermiller et al.	
2008/0243245	A1	10/2008	Thambar et al.	
2008/0255662	A1	10/2008	Stacchino et al.	
2008/0262602	A1	10/2008	Wilk et al.	
2008/0269879	A1	10/2008	Sathe et al.	
2009/0099653	A1	4/2009	Suri et al.	
2009/0112309	A1	4/2009	Jaramillo et al.	
2009/0138079	A1	5/2009	Tuval et al.	
2009/0234443	A1	9/2009	Ottma et al.	
2009/0276027	A1	11/2009	Glynn	
2010/0004740	A1	1/2010	Seguin et al.	
2010/0036484	A1	2/2010	Hariton et al.	
2010/0049306	A1	2/2010	House et al.	
2010/0087907	A1	4/2010	Lattouf	
2010/0131055	A1	5/2010	Case et al.	
2010/0168778	A1	7/2010	Braido	
2010/0168839	A1	7/2010	Braido et al.	
2010/0168844	A1	7/2010	Toomes et al.	
2010/0185277	A1	7/2010	Braido et al.	
2010/0191326	A1	7/2010	Alkhatib	
2010/0204781	A1	8/2010	Alkhatib	
2010/0204785	A1	8/2010	Alkhatib	
2010/0217382	A1	8/2010	Chau et al.	
2010/0234940	A1	9/2010	Dolan	
2010/0249911	A1	9/2010	Alkhatib	
2010/0249923	A1	9/2010	Alkhatib et al.	
2010/0256737	A1*	10/2010	Pollock	A61F 2/91 623/1.15
2010/0286768	A1	11/2010	Alkhatib	
2010/0298931	A1	11/2010	Quadri et al.	
2011/0029072	A1	2/2011	Gabbay	
2011/0054466	A1	3/2011	Rothstein et al.	
2011/0098800	A1	4/2011	Braido et al.	
2011/0098802	A1	4/2011	Braido et al.	
2011/0137397	A1	6/2011	Chau et al.	
2011/0172765	A1	7/2011	Nguyen et al.	
2011/0208283	A1	8/2011	Rust	
2011/0264196	A1*	10/2011	Savage	A61F 2/2418 623/1.26
2011/0264206	A1	10/2011	Tabor	
2012/0035722	A1	2/2012	Tuval	
2012/0078347	A1	3/2012	Braido et al.	
2012/0101572	A1	4/2012	Kovalsky et al.	
2012/0123529	A1	5/2012	Levi et al.	
2012/0303116	A1	11/2012	Gorman, III et al.	
2013/0274873	A1	10/2013	Delaloye et al.	
2014/0121763	A1	5/2014	Duffy et al.	
2014/0155997	A1	6/2014	Braido	
2014/0194981	A1*	7/2014	Menk	A61F 2/2418 623/2.17
2014/0214159	A1	7/2014	Vidlund et al.	
2014/0228946	A1	8/2014	Chau et al.	
2014/0277417	A1	9/2014	Schraut et al.	
2014/0303719	A1	10/2014	Cox et al.	
2014/0324164	A1	10/2014	Gross et al.	
2014/0343670	A1*	11/2014	Bakis	A61F 2/2436 623/2.11
2014/0343671	A1	11/2014	Yohanan et al.	
2014/0350668	A1	11/2014	Delaloye et al.	
2014/0350669	A1	11/2014	Gillespie et al.	
2015/0018944	A1*	1/2015	O'Connell	A61F 2/2427 623/2.42
2015/0142104	A1	5/2015	Braido	
2015/0148893	A1	5/2015	Braido et al.	
2015/0320556	A1	11/2015	Levi et al.	
2015/0335429	A1	11/2015	Morriss et al.	

FOREIGN PATENT DOCUMENTS

DE	19857887	A1	7/2000
DE	10121210	B4	11/2005
DE	102005003632	A1	8/2006
DE	202008009610	U1	12/2008
EP	0850607	A1	7/1998
EP	1000590	A1	5/2000
EP	1584306	A1	10/2005
EP	1598031	A2	11/2005
EP	1360942	B1	12/2005
EP	1926455	A2	6/2008
EP	2537487	A1	12/2012
FR	2847800	B1	6/2004
FR	2850008	A1	7/2004
WO	9117720	A1	11/1991
WO	9716133	A1	5/1997
WO	9832412	A2	7/1998
WO	9913801	A1	3/1999
WO	2001028459	A1	4/2001
WO	2001049213	A2	7/2001
WO	0154625	A1	8/2001
WO	2001056500	A2	8/2001
WO	200176510	A2	10/2001
WO	0236048	A1	5/2002
WO	0247575	A2	6/2002
WO	2002067782	A2	9/2002
WO	2003047468	A1	6/2003
WO	2005070343	A1	8/2005
WO	06073626	A2	7/2006
WO	2007053243	A2	5/2007
WO	2007071436	A2	6/2007
WO	08070797	A2	6/2008
WO	2010008548	A2	1/2010
WO	2010008549	A1	1/2010
WO	2010096176	A1	8/2010
WO	2010098857	A1	9/2010
WO	2015126711	A1	8/2015
WO	2015152980	A1	10/2015

OTHER PUBLICATIONS

Andersen et al., "Transluminal implantation of artificial heart valves", European Heart Journal, vol. 13, Issue 5, 704-708, May 1992.

Andersen, "Transluminal Catheter Implanted Prosthetic Heart Valves", International Journal of Angiology 7:102-106, Mar. 1998.

Buellesfeld et al., "Treatment of paravalvular leaks through inverventional techniques", Multimed Man Cardiothorac Surg MMCTS, 924, Jan. 2011.

De Cicco et al., "Aortic valve periprosthetic leakage: anatomic observations and surgical results", The Annals of thoracic surgery 79.5 (May 2005): 1480-1485.

Dewey et al., "Transapical aortic valve implantation: an animal feasibility study"; The annals of thoracic surgery, 82: 110-6 (Feb. 13, 2006).

Gössl et al., "Percutaneous treatment of aortic and mitral valve paravalvular regurgitation", Current cardiology reports, vol. 15:388, pp. 1-8, Aug. 2013.

Heat Advisor, "Heart repairs without surgery. Minimally invasive procedures aim to correct valve leakage", Sep. 2004, PubMed ID 15586429.

Hourihan et al., "Transcatheter Umbrella Closure of Valvular and Paravalvular Leaks", Journal of the American College of Cardiology, vol. 20, No. 6, pp. 1371-1377, (Nov. 1992).

Huber, et al., "Direct-Access Valve Replacement", Journal of the American College of Cardiology, vol. 46, No. 2, (Jul. 19, 2005).

International Search Report for Application No. PCT/US2017/048580 dated Nov. 16, 2017.

Knudsen et al., "Catheter-implanted prosthetic heart valves", The International Journal of Artificial Organs, vol. 16, No. 5, pp. 253-262, May 1993.

Lichtenstein et al., "Transapical Transcatheter Aortic Valve Implantation in Humans", Circulation, vol. 114, pp. 591-596 (Jul. 31, 2006).

Lichtenstein, "Closed heart surgery: Back to the future", The Journal of Thoracic and Cardiovascular Surgery, May 2006, vol. 131, No. 5, pp. 941-943.

Mack, "Minimally invasive cardiac surgery", Surgical Endoscopy, vol. 20, Supplement 2, pp. S488-S492, Apr. 2006.

Moazami et al., "Transluminal Aortic Valve Placement", ASAIO Journal, vol. 42(5), pp. M381-M385, Sep. 1996.

Muñoz et al., "Guidance of treatment of perivalvular prosthetic leaks", Current cardiology reports, vol. 16(1), p. 430, Jan. 2014.

Quaden et al., "Percutaneous aortic valve replacement: resection before implantation", European J. of Cardio-thoracic Surgery, vol. 27, Issue 5, pp. 836-840, May 2005.
Rohde et al., "Resection of Calcified Aortic Heart Leaflets In Vitro by Q-Switched 2 μm Microsecond Laser Radiation", Journal of Cardiac Surgery, vol. 30(2), pp. 157-162, Feb. 2015.
Ruiz, "Overview of PRE-CE Mark Transcatheter Aortic Valve Technologies", Euro PCR, dated May 25, 2010.
Swiatkiewicz et al., "Percutaneous closure of mitral perivalvular leak", Kardiologia polska, vol. 67(7), pp. 762-764, Jun. 2009.
Textbook "Transcatheter Valve Repair", 2006, pp. 165-186.
Walther et al., "Transapical approach for sutureless stent-fixed aortic valve implantation: experimental results", European Journal of Cardio-thoracic Surgery, vol. 29(5), pp. 703-708 (Jan. 30, 2006).
Webb et al., "Percutaneous Aortic Valve Implantation Retrograde From the Femoral Artery", Circulation, vol. 113:842-850, Jun. 2006.
Zegdi, Rachid, MD, PhD et al., "Is It Reasonable to Treat All Calcified Stenotic Aortic Valves With a Valved Stent?", 579-584, J. of the American College of Cardiology, vol. 51, No. 5, Feb. 5, 2008.
U.S. Design Appl. No. 29/604,136 Filed May 15, 2017 entitled "Stent Having Tapered Struts" (Not Yet Published).
U.S. Design Appl. No. 29/604,139 Filed May 15, 2017 entitled "Stent Having Tapered Struts" (Not Yet Published).
U.S. Design Appl. No. 29/604,148 Filed May 15, 2017 entitled "Stent Having Tapered Struts" (Not Yet Published).
U.S. Design Appl. No. 29/604,134 Filed May 15, 2017 entitled "Stent Having Tapered Struts" (Not Yet Published).

* cited by examiner

Primary Examiner — Charles D Hanson
(74) *Attorney, Agent, or Firm* — Lerner, David, Littenberg, Krumholz & Mentlik, LLP

(57) **CLAIM**

The ornamental design for a stent having tapered aortic struts, as shown and described.

DESCRIPTION

FIG. **1** is a front perspective view of a stent having tapered aortic struts according to my new design;
FIG. **2** is a front elevational view of thereof;
FIG. **3** is a rear elevational view thereof;
FIG. **4** is a right side elevational view of thereof;
FIG. **5** is a left side elevational view of thereof;
FIG. **6** is a top plan view of thereof;
FIG. **7** is a bottom plan view of thereof;
FIG. **8** is an enlarged front elevational view of a portion of FIG. **2**; and
FIG. **9** is an enlarged front elevational view of a section of FIG. **8**, which is an enlarged strut of the stent having tapered aortic struts according to my new design.

FIG. **8** is an enlarged front elevational view of a portion of FIG. **2**. FIG. **8** illustrates a pattern of three one-half cells of the stent adjacent one another, wherein each one-half cell includes two struts. As shown, a central one-half cell is positioned in the middle or center of the three one-half cells. The central one-half cell includes two struts that do not taper along their respective lengths. A first one-half cell is positioned to the left of the central one-half cell and a second one-half cell is positioned to the right of the central one-half cell. Each of the struts of the first and second one-half cells that are adjacent the central one-half cell tapers at some point along its respective length; and,

FIG. **9** is an enlarged view of a single strut, as shown in FIG. **8**, which illustrates the taper of the single strut. A second strut is shown in FIG. **8** directly to the left of the single strut. The second strut is a mirror image of the single strut taken across a plane that extends along the y-axis and possesses the same shape and configuration as the single strut.

The pattern shown in FIG. **8** of a central one-half cell with first and second adjacent one-half cells continues around the circumference of the stent, such that there are two additional patterns of a central one-half cell with adjacent one-half cells positioned on each side of the central one-half cell.

Each of the struts in the two additional patterns that are oriented in the same positions as the struts shown in FIG. **8** possess the same shapes and configurations as the struts shown in FIG. **8**. As shown, the struts of the central one-half cell in the two additional patterns do not taper along their lengths. The struts in the first and second one-half cells that are adjacent the central one-half cell in the two additional patterns, however, do taper along their lengths. In particular, the struts in the two additional patterns that are oriented in the same position as the single strut shown in FIG. **8** and enlarged in FIG. **9** will possess the same shape and configuration as the single strut shown in FIG. **9**. The struts in the two additional patterns that are oriented in the same position as the second strut shown in FIG. **8** will possess the same shape and configuration as the second strut shown in FIG. **8**.

The broken lines shown in the drawings illustrate environmental structure and form no part of the claimed design. The dot-dash lines represent boundary lines and form no part of the claimed design. It is to be understood that the claimed design extends to but does not include the defined boundary.

1 Claim, 8 Drawing Sheets

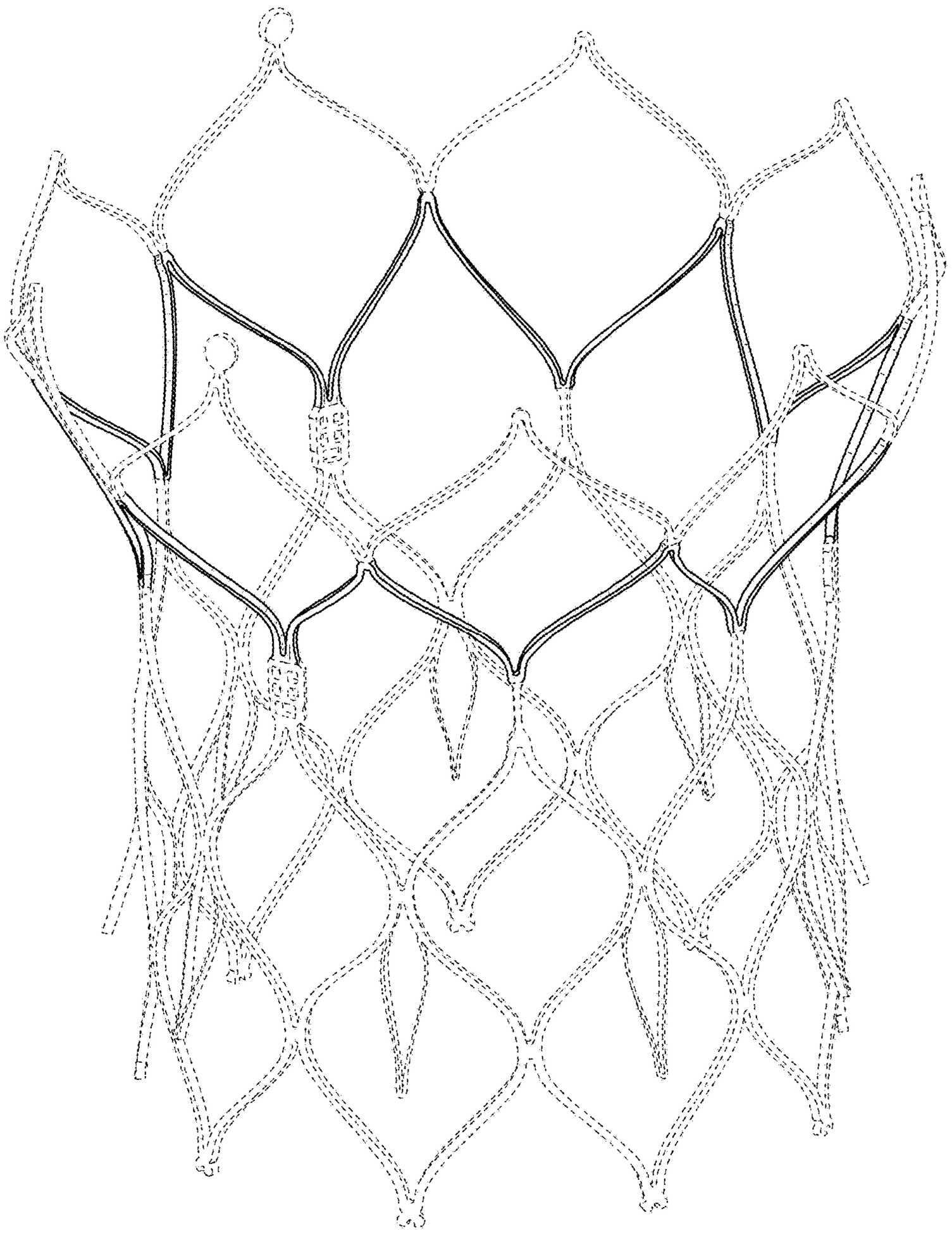


FIG. 1

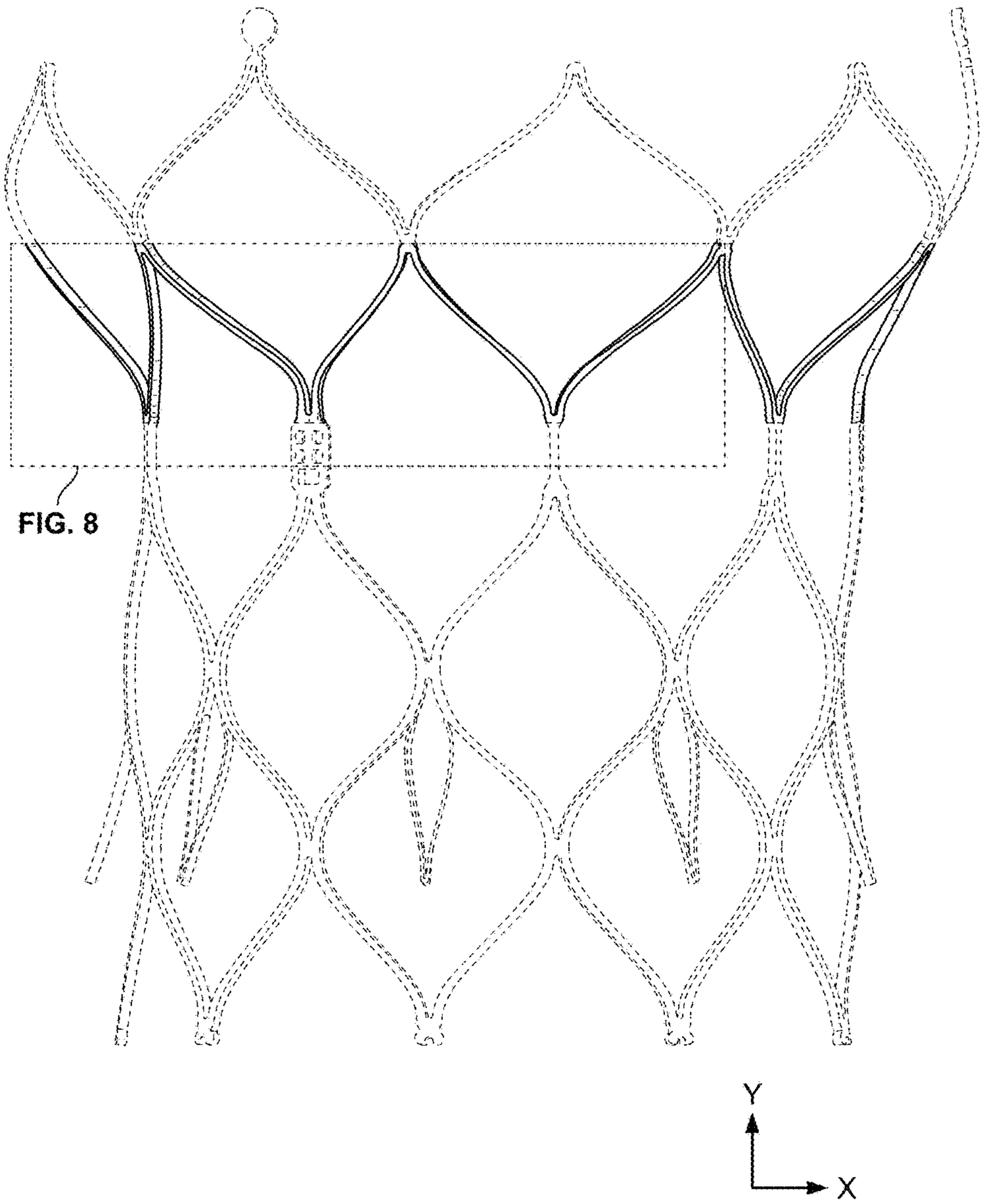


FIG. 8

FIG. 2

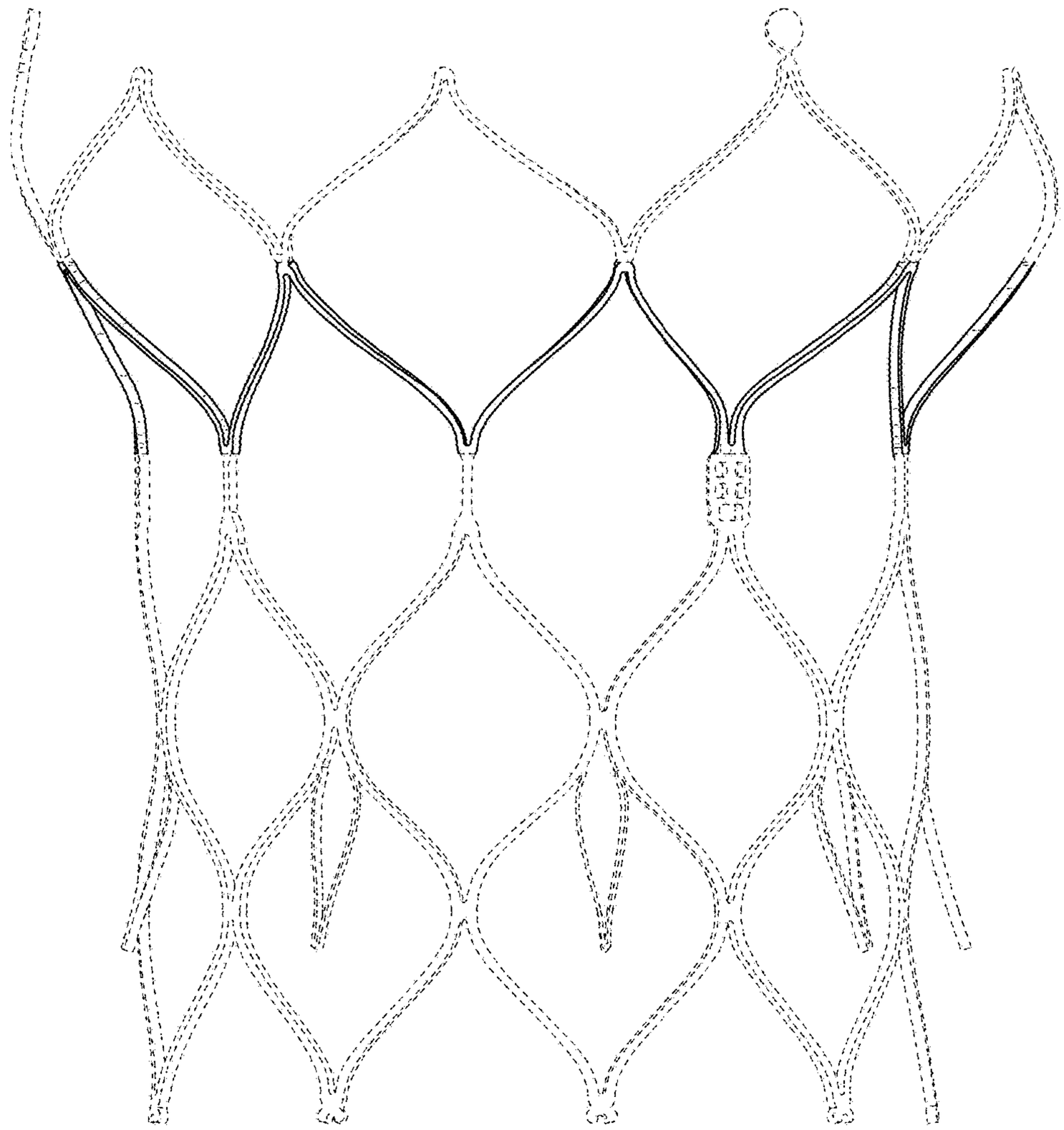


FIG. 3

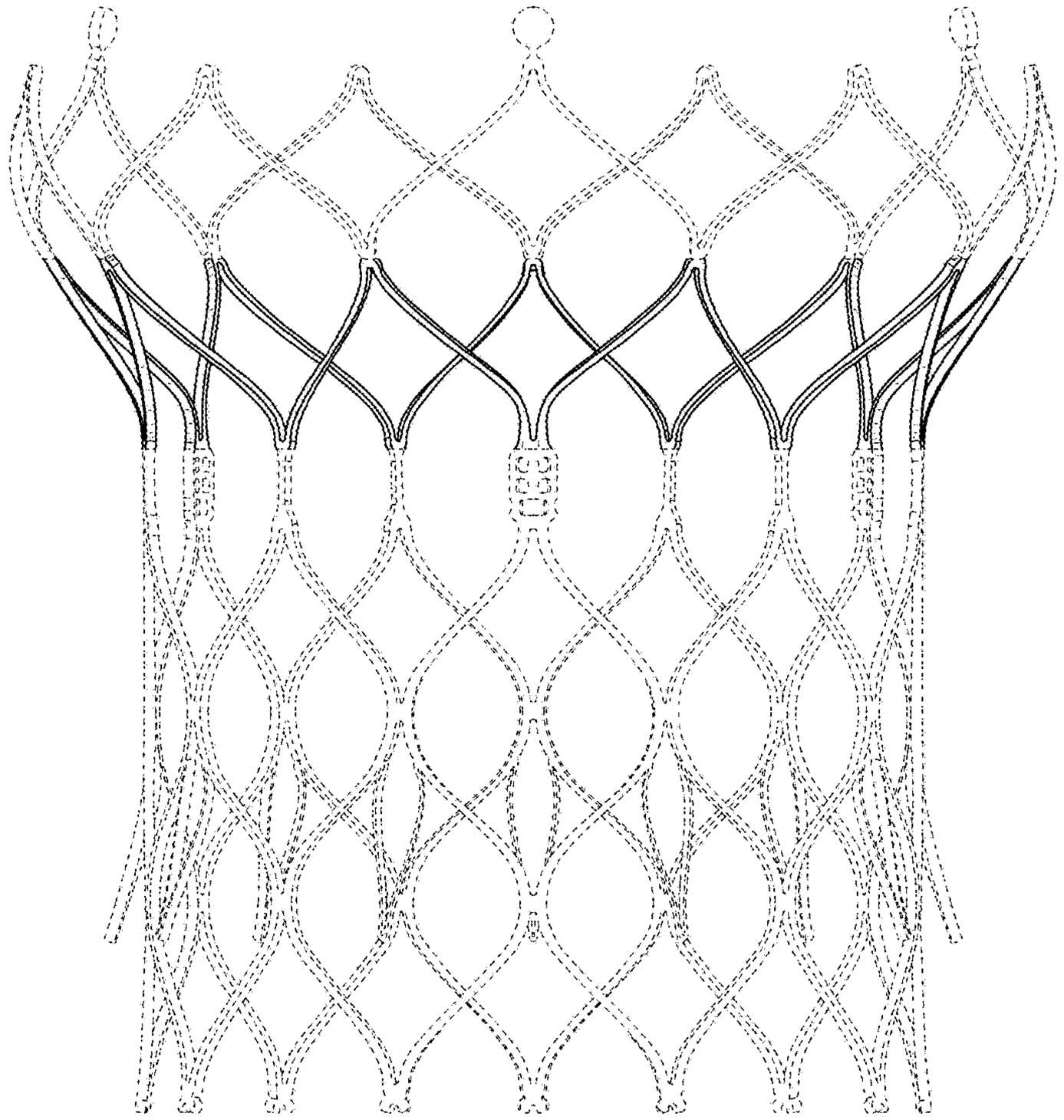


FIG. 4

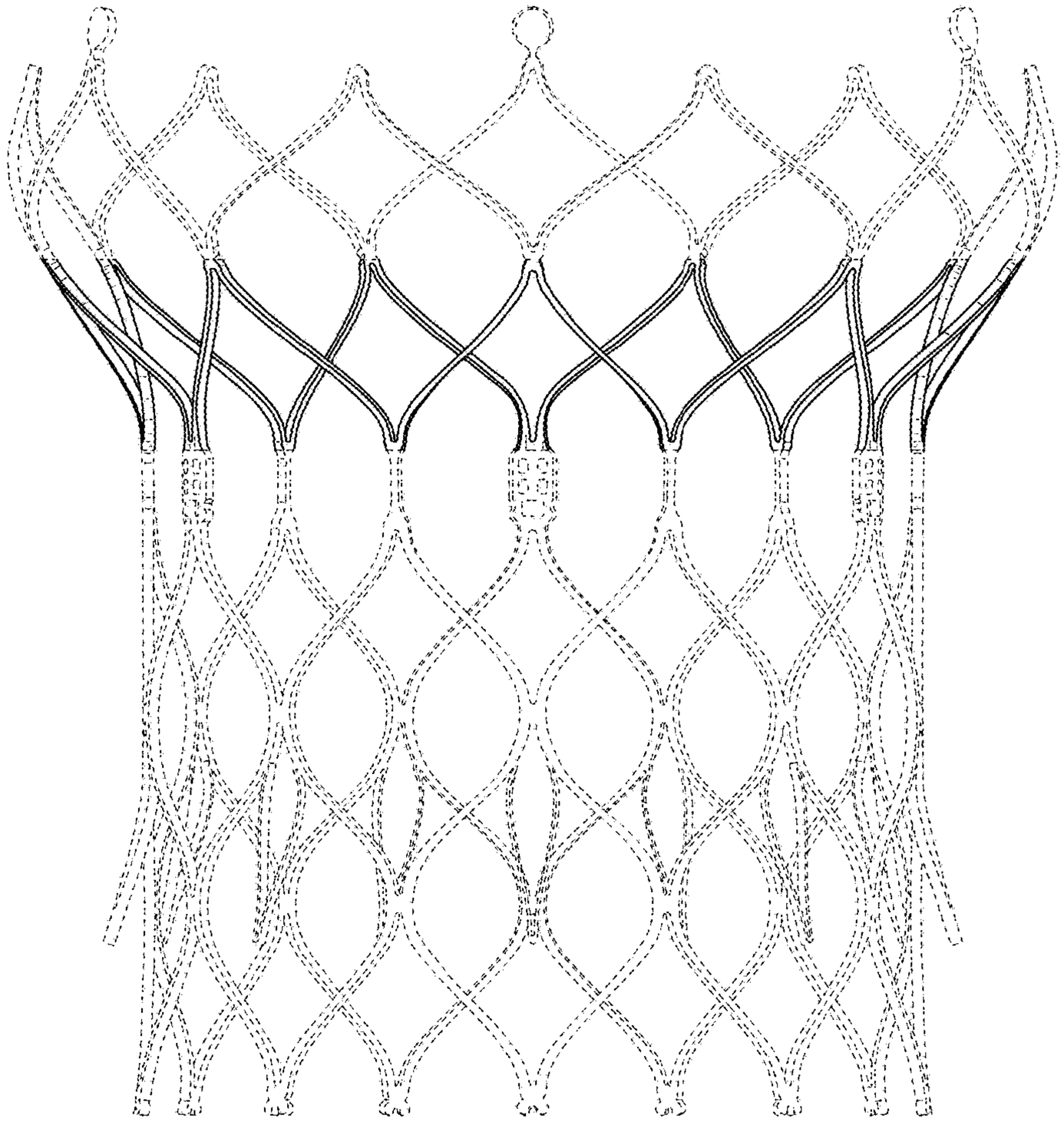


FIG. 5

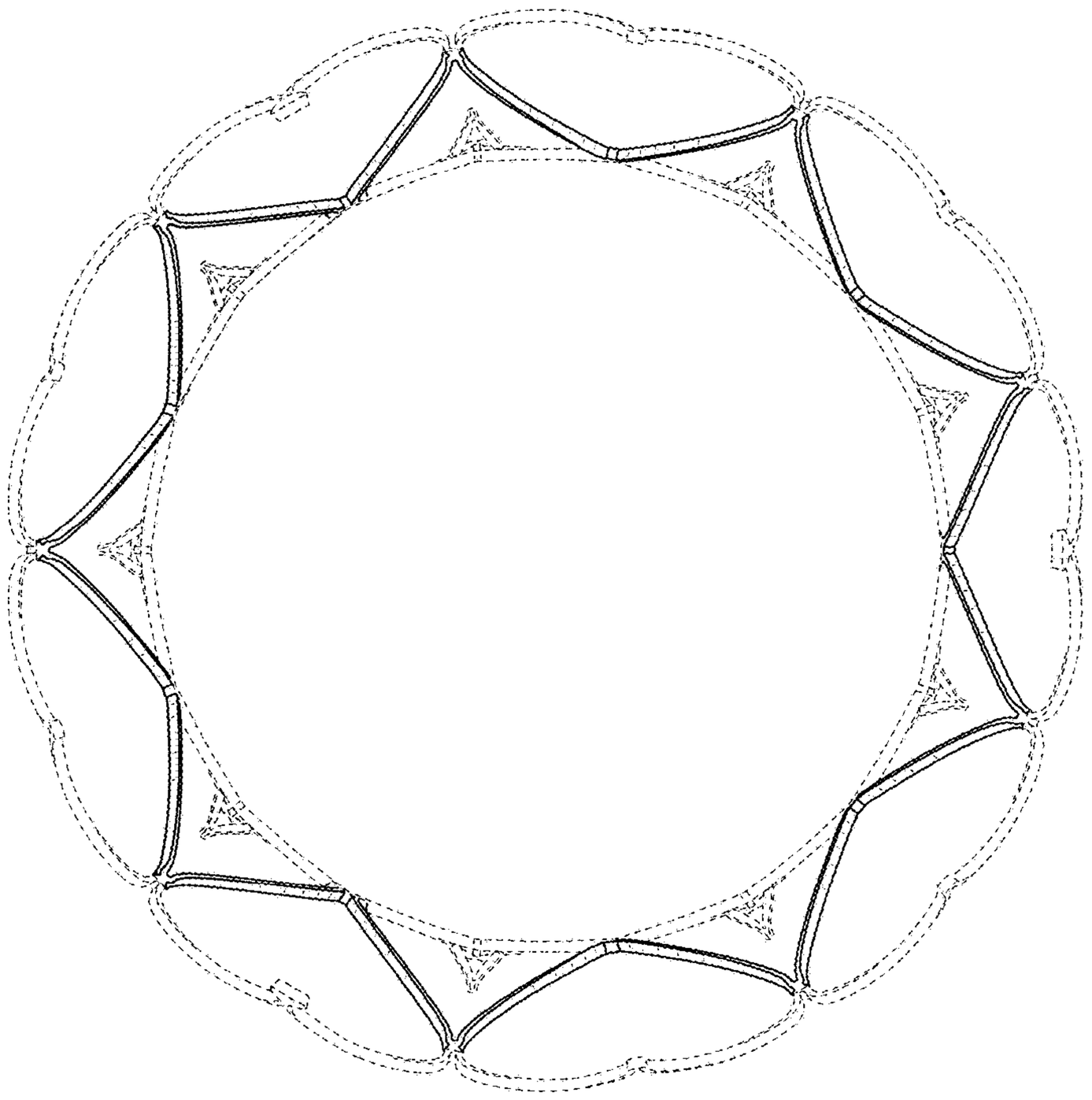


FIG. 6

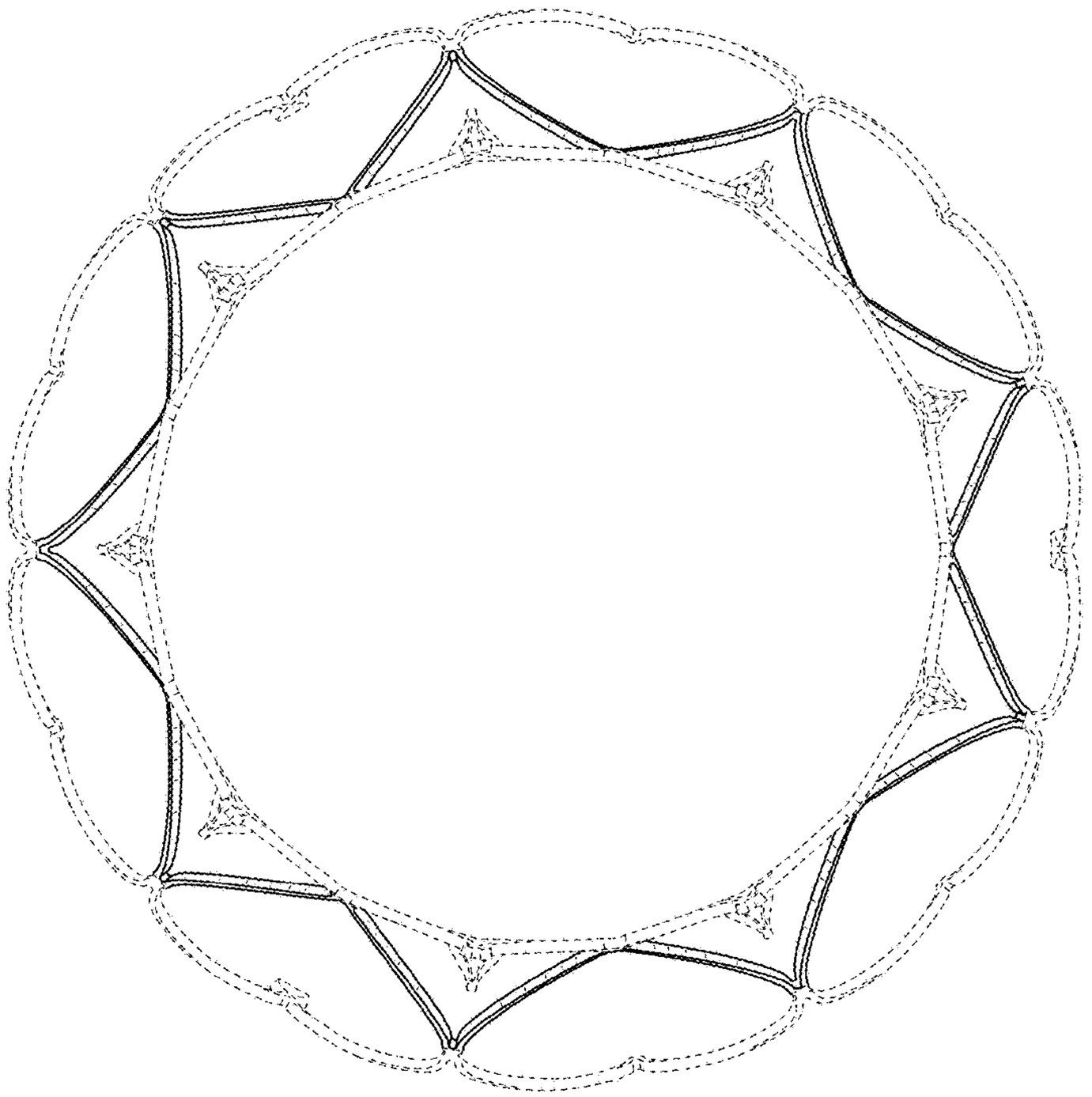
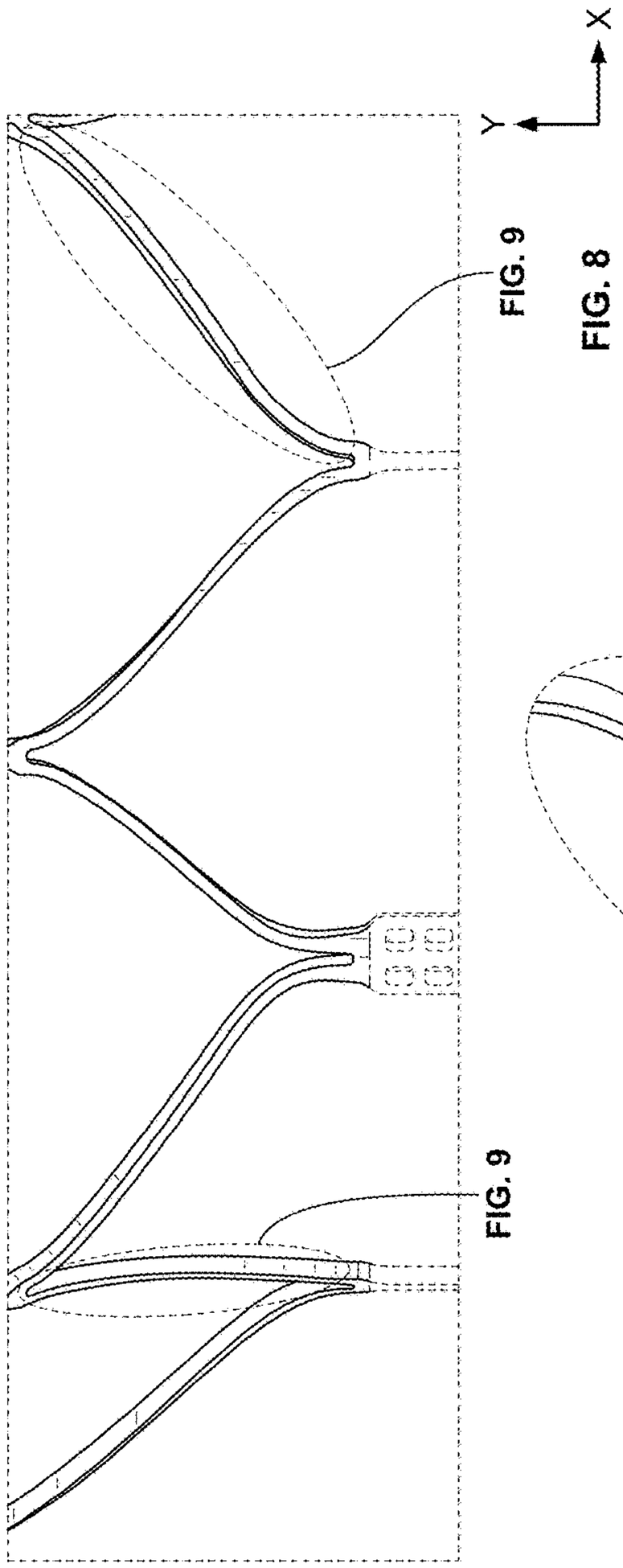


FIG. 7


X
Y
FIG. 9
FIG. 8
FIG. 9
FIG. 9