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Combs et al.

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(54) ORTHOPEDIC DEVICE WITH MULTIPLE Q-ANGLE ADJUSTERS

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(58) Field of Classification Search USPC D24/188, 190–192, 200, 206, 214, 215, D24/171, 199, 212, 213, 185; D2/970, D2/980, 984–986, 989; D29/120.1, D29/121.2, 121.1, 122, 100, 113, 114 CPC A61F 5/0111; A61F 5/0113; A61F 5/0127; A61F 5/0585; A61F 5/0195; A61F 5/0123; A61F 5/0125; A61F 2005/0139; A61F 2005/0176; A61F 5/0102; A61F 13/085; A61H 3/00

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

1,622,211 A * 3/1927 Sheehan A63B 71/1225 2/22
3,046,981 A * 7/1962 Biggs, Jr. A61F 5/0109 602/26

4,366,813 A * 1/1983 Nelson A61F 5/0109 2/24
4,370,978 A * 2/1983 Palumbo A61F 13/062 602/26
4,565,190 A * 1/1986 Pirmantgen A61F 5/0125 602/16
D346,028 S * 4/1994 Lengyel D24/190
D353,005 S * 11/1994 Glidden D24/190
D357,070 S * 4/1995 Castillo D24/190

(Continued)

FOREIGN PATENT DOCUMENTS

CN 304888800 * 11/2018
CN 305967545 * 8/2020

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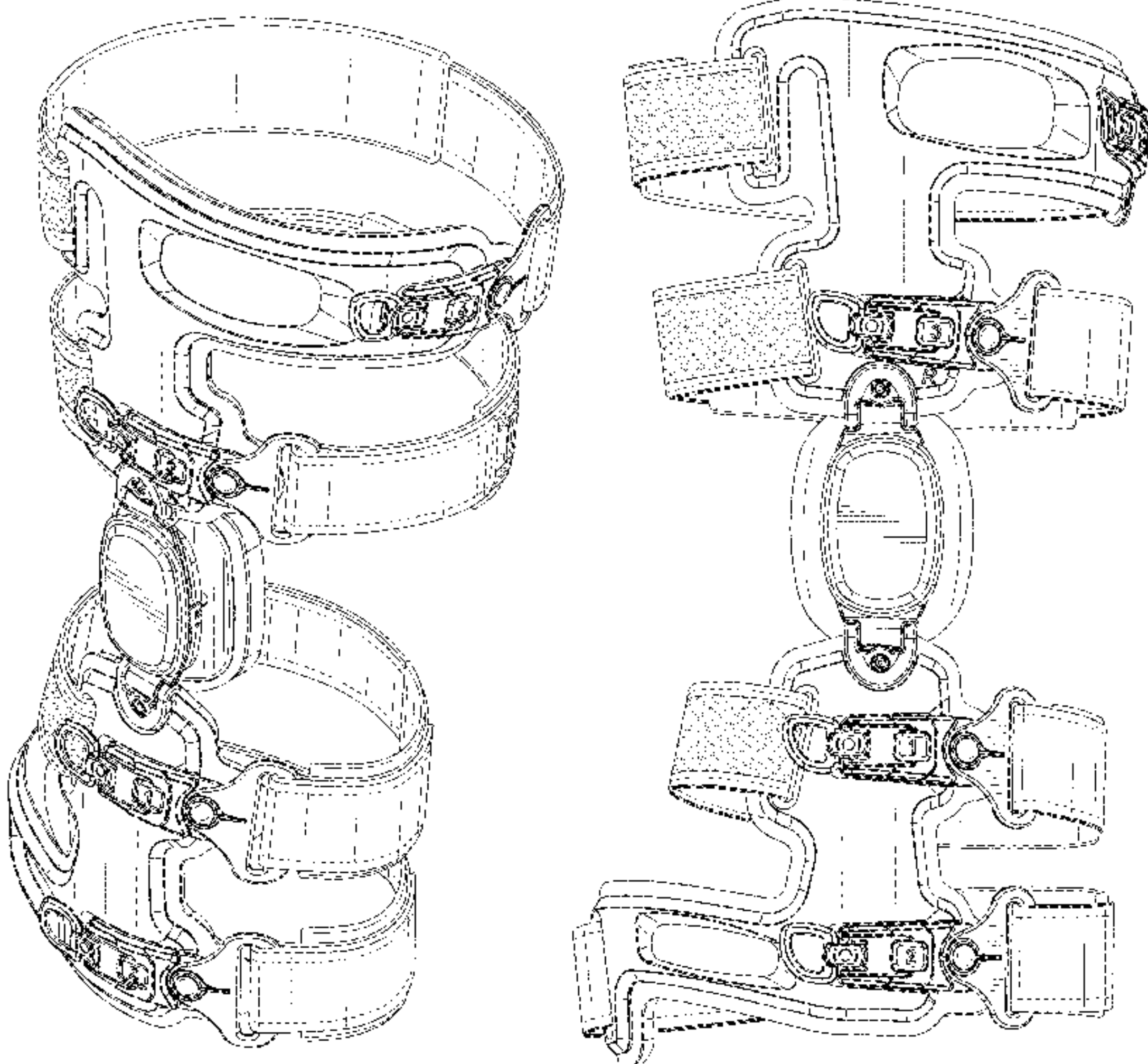
(57) CLAIM

The ornamental design for an orthopedic device with multiple Q-angle adjusters, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of an orthopedic device with multiple Q-angle adjusters showing our new design; FIG. 2 is a rear perspective view thereof; FIG. 3 is a front elevational view thereof; FIG. 4 is a rear elevational view thereof; FIG. 5 is a top plan view thereof; FIG. 6 is a bottom plan view thereof; FIG. 7 is a left side elevational view thereof; and, FIG. 8 is a right side elevational view thereof. The broken line showing of portions of the orthopedic device with multiple Q-angle adjusters, forms no part of the claimed design.

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D362,305 S *	9/1995	Scott	.....	D24/190	9,439,800 B2 *	9/2016	Ingimundarson	.....	A61F 5/0193
5,460,599 A *	10/1995	Davis	.....	A61F 5/0125	9,504,592 B2 *	11/2016	Schwartz	.....	A61F 5/0127
				602/16	9,526,635 B2 *	12/2016	Gilbert	.....	A61F 2/605
D370,533 S *	6/1996	Kilbey	.....	D24/190	9,532,894 B2 *	1/2017	Gilbert	.....	F16D 65/065
D404,819 S *	1/1999	Rodgers	.....	D24/190	9,554,933 B2 *	1/2017	Ingimundarson	.....	A44B 99/00
5,865,776 A *	2/1999	Springs	.....	A61F 5/0109	9,597,217 B2 *	3/2017	Patton	.....	A63B 21/155
				602/26	D784,547 S *	4/2017	Kwon	.....	D24/190
D416,624 S *	11/1999	Nauert	.....	D24/190	9,649,215 B2 *	5/2017	Friesen	.....	A61F 5/0102
D448,084 S *	9/2001	Hopwood	.....	D24/190	9,744,063 B2 *	8/2017	Huffa	.....	A61F 5/0109
D501,927 S *	2/2005	McCormick	.....	D24/190	D801,540 S *	10/2017	Yang	.....	D24/190
D510,140 S *	9/2005	Brown	.....	D24/190	9,833,896 B2 *	12/2017	Kim	.....	B25J 9/1633
D527,825 S *	9/2006	Ingimundarson	.....	D24/190	D810,309 S *	2/2018	Forbes	.....	D24/190
D530,426 S *	10/2006	Muehlenberend	.....	D24/190	10,159,590 B2 *	12/2018	Bonutti	.....	A61F 5/00
7,128,725 B2 *	10/2006	Rabe	.....	A61F 5/0111	10,182,935 B2 *	1/2019	Sigurdsson	.....	A61F 5/0102
				602/27	10,226,373 B1 *	3/2019	McCoy	.....	A61F 5/0125
D548,844 S *	8/2007	Castillo	.....	D24/190	10,231,860 B2 *	3/2019	Forbes	.....	A61F 5/0109
D573,713 S *	7/2008	Mueller	.....	D24/190	D846,130 S *	4/2019	Watabe	.....	D24/190
D577,828 S *	9/2008	Ingimundarson	.....	D24/190	D854,173 S *	7/2019	Violeau	.....	D24/190
D588,753 S *	3/2009	Ingimundarson	.....	D29/121.1	10,350,129 B2 *	7/2019	Takenaka	.....	A61H 1/0244
7,618,389 B2 *	11/2009	Nordt, III	.....	A41D 13/05	10,383,404 B2 *	8/2019	Gaylord	.....	A61F 5/0104
				602/21	10,413,437 B2 *	9/2019	Romo	.....	A61F 5/0123
7,713,225 B2 *	5/2010	Ingimundarson	.....	A61F 5/0123	D888,257 S *	6/2020	Larouche	.....	D24/190
				602/26	10,667,978 B2 *	6/2020	Takizawa	.....	A61H 3/04
D623,760 S *	9/2010	Chiang	.....	D24/190	D891,623 S *	7/2020	Sigurdsson	.....	D24/171
D626,243 S *	10/2010	Sagnip	.....	D24/190	10,736,765 B1 *	8/2020	Lahiff	.....	A61F 5/0125
D634,437 S *	3/2011	Gramza	.....	D24/190	10,736,810 B2 *	8/2020	Caires	.....	A61H 1/0244
D634,851 S *	3/2011	Chiang	.....	D24/190	D895,816 S *	9/2020	Lan	.....	D24/190
D635,267 S *	3/2011	Chiang	.....	D24/190	D898,204 S *	10/2020	Siddiqui	.....	D24/192
D638,546 S *	5/2011	Janzon	.....	D24/190	10,792,177 B2 *	10/2020	Drewitz	.....	A61F 5/0127
8,016,781 B2 *	9/2011	Ingimundarson	.....	A61F 5/0123	10,835,443 B2 *	11/2020	Tsai	.....	A61H 3/00
				602/26	10,898,403 B2 *	1/2021	Auger	.....	A61F 5/0195
D646,790 S *	10/2011	Castillo	.....	D24/190	10,932,939 B1 *	3/2021	Pahls	.....	A61F 5/0123
D683,859 S *	6/2013	Forbes	.....	D24/190	D916,384 S *	4/2021	Chang	.....	D29/121.1
D688,378 S *	8/2013	Matsuda	.....	D24/190	D917,706 S *	4/2021	Singh	.....	D24/190
D706,942 S *	6/2014	Bradshaw	.....	A61F 5/0195	D917,708 S *	4/2021	Chahine	.....	D24/190
				D24/192	11,045,343 B2 *	6/2021	Ostergard	.....	A61F 5/0127
D710,018 S *	7/2014	Forbes	.....	D24/190	D931,442 S *	9/2021	Gajadhar	.....	D24/128
8,845,567 B2 *	9/2014	Herresthal	.....	A61F 5/0109	D932,042 S *	9/2021	Hu	.....	D24/215
				602/26	D952,870 S *	5/2022	Ho	.....	D24/190
8,852,133 B2 *	10/2014	Paulos	.....	A61F 5/0123	D955,590 S *	6/2022	Richmond	.....	D24/190
				602/26	D958,375 S *	7/2022	Becton	.....	D24/190
8,864,692 B2 *	10/2014	Ingimundarson	.....	A61F 5/0123	D962,451 S *	8/2022	Combs	.....	D24/190
				602/16	2003/0204156 A1 *	10/2003	Nelson	.....	A61F 5/0106
D716,954 S *	11/2014	Forbes	.....	D24/190					602/26
D716,955 S *	11/2014	Forbes	.....	D24/190	2004/0225245 A1 *	11/2004	Nelson	.....	A61F 5/0123
D716,956 S *	11/2014	Ortega	.....	D24/190					602/26
8,911,389 B2 *	12/2014	Reinhardt	.....	A61F 5/0109	2006/0015047 A1 *	1/2006	Besselink	.....	A61F 5/0102
				602/62					602/16
D720,860 S *	1/2015	Meyer	.....	D24/190	2011/0071452 A1 *	3/2011	Auberger	.....	A61F 5/0125
8,936,560 B2 *	1/2015	Lunau	.....	A61F 5/01					602/26
				602/2	2012/0271207 A1 *	10/2012	Schoen	.....	A61F 5/0102
8,986,235 B2 *	3/2015	Weaver, II	.....	A61F 5/0111					601/34
				602/65	2014/0358053 A1 *	12/2014	Triolo	.....	B25J 9/0006
D733,894 S *	7/2015	Ortega	.....	D24/190					602/16
D733,895 S *	7/2015	Wratten	.....	D24/190	2015/0335457 A1 *	11/2015	Bauer	.....	A61F 5/30
9,089,403 B2 *	7/2015	Nace	.....	A61F 5/0125					602/26
D743,563 S *	11/2015	Wen	.....	D24/188	2016/0175134 A1 *	6/2016	Ghahfarokhi	.....	A61F 5/0127
D745,176 S *	12/2015	Kusmirek	.....	D24/190					602/16
D749,227 S *	2/2016	Takama	.....	D24/190	2018/0125693 A1 *	5/2018	Best	.....	A61F 5/0109
D750,261 S *	2/2016	Kusmirek	.....	D24/190	2018/0318122 A1 *	11/2018	LeCursi	.....	A61B 5/1077
D750,262 S *	2/2016	Kusmirek	.....	D24/190	2019/0070059 A1 *	3/2019	Dalley	.....	A61B 5/1117
9,265,642 B2 *	2/2016	Giza	.....	A61F 5/0111	2019/0350736 A1 *	11/2019	Beck	.....	A61F 5/01
D750,790 S *	3/2016	Ortega	.....	D24/190	2020/0060921 A1 *	2/2020	Dalley	.....	A61F 5/0123
9,295,575 B1 *	3/2016	Dignam	.....	A61F 5/0102	2020/0163788 A1 *	5/2020	Ostergard	.....	A61F 5/0104
D758,598 S *	6/2016	Forbes	.....	D24/190	2020/0346009 A1 *	11/2020	Murray	.....	A61N 1/36031
9,375,341 B2 *	6/2016	Ingimundarson	.....	A61F 5/0125	2020/0352769 A1 *	11/2020	Schilling	.....	A61F 5/0102
9,377,079 B2 *	6/2016	DeHarde	.....	A61F 5/013	2021/0077288 A1 *	3/2021	Shimada	.....	A61F 5/0127
					2021/0228430 A1 *	7/2021	Farris	.....	A61H 1/024
					2021/0275382 A1 *	9/2021	Farris	.....	A61H 1/0244
					2021/0290470 A1 *	9/2021	Farris	.....	F16H 7/06

* cited by examiner

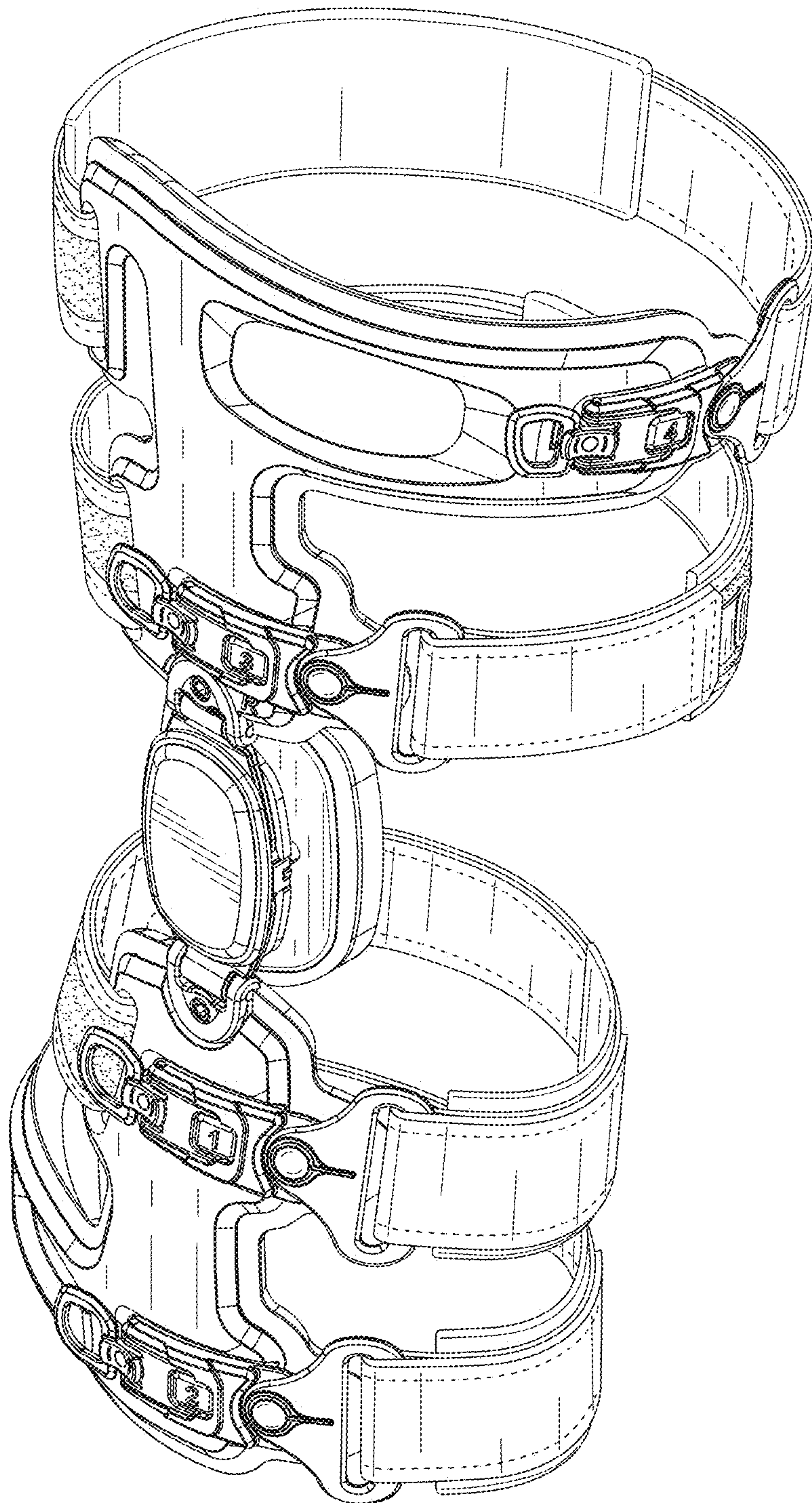


FIG. 1

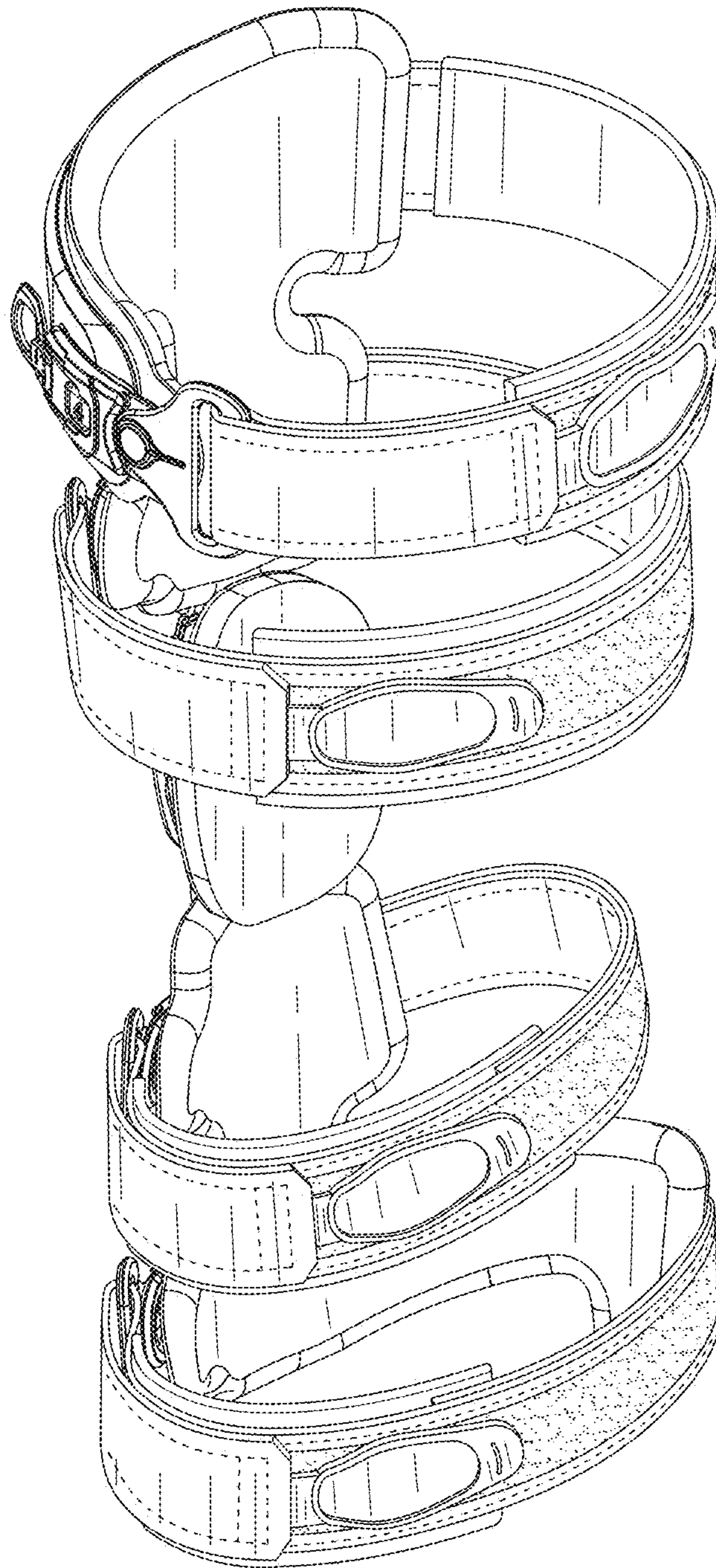


FIG. 2

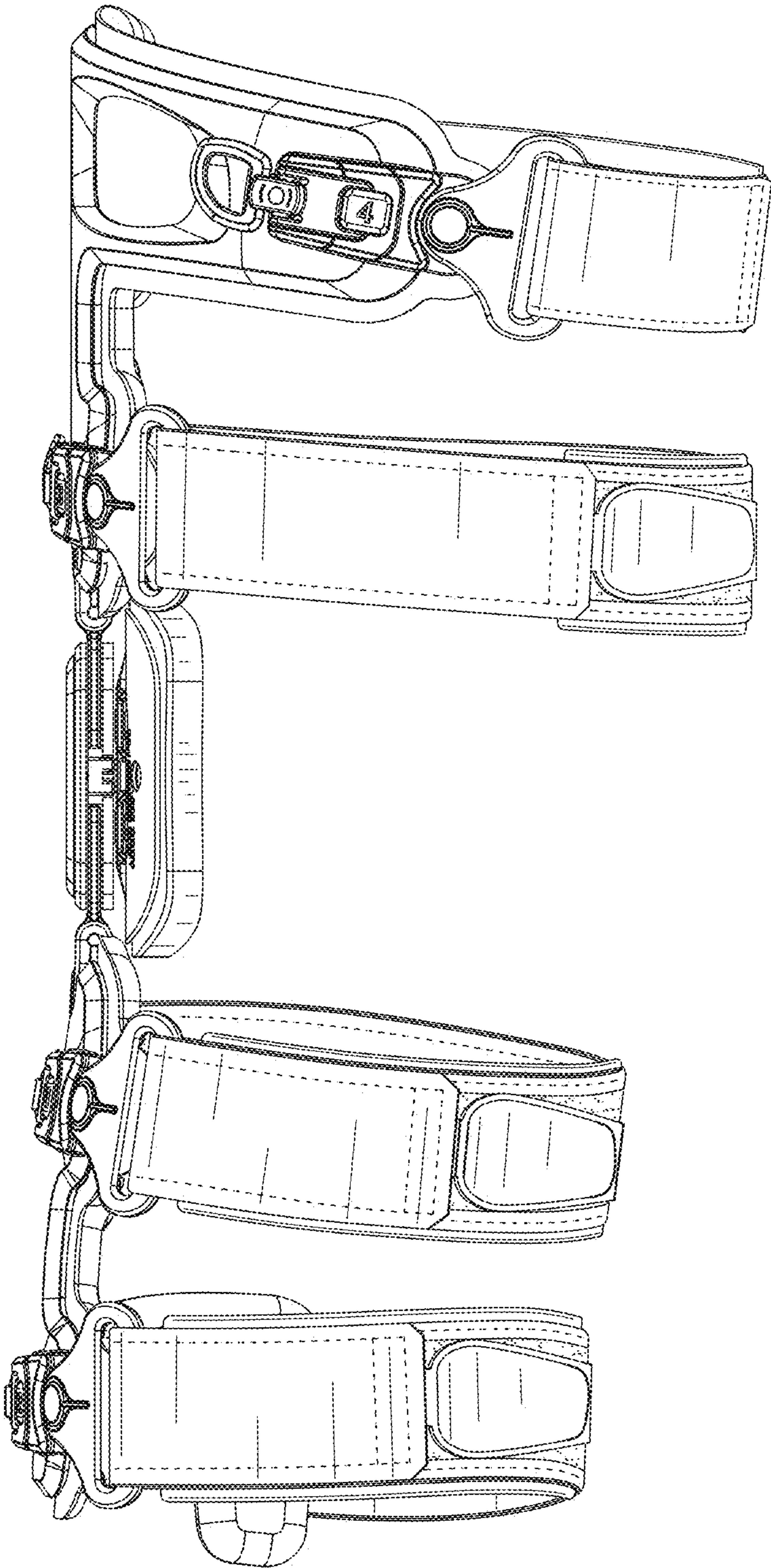


FIG. 3

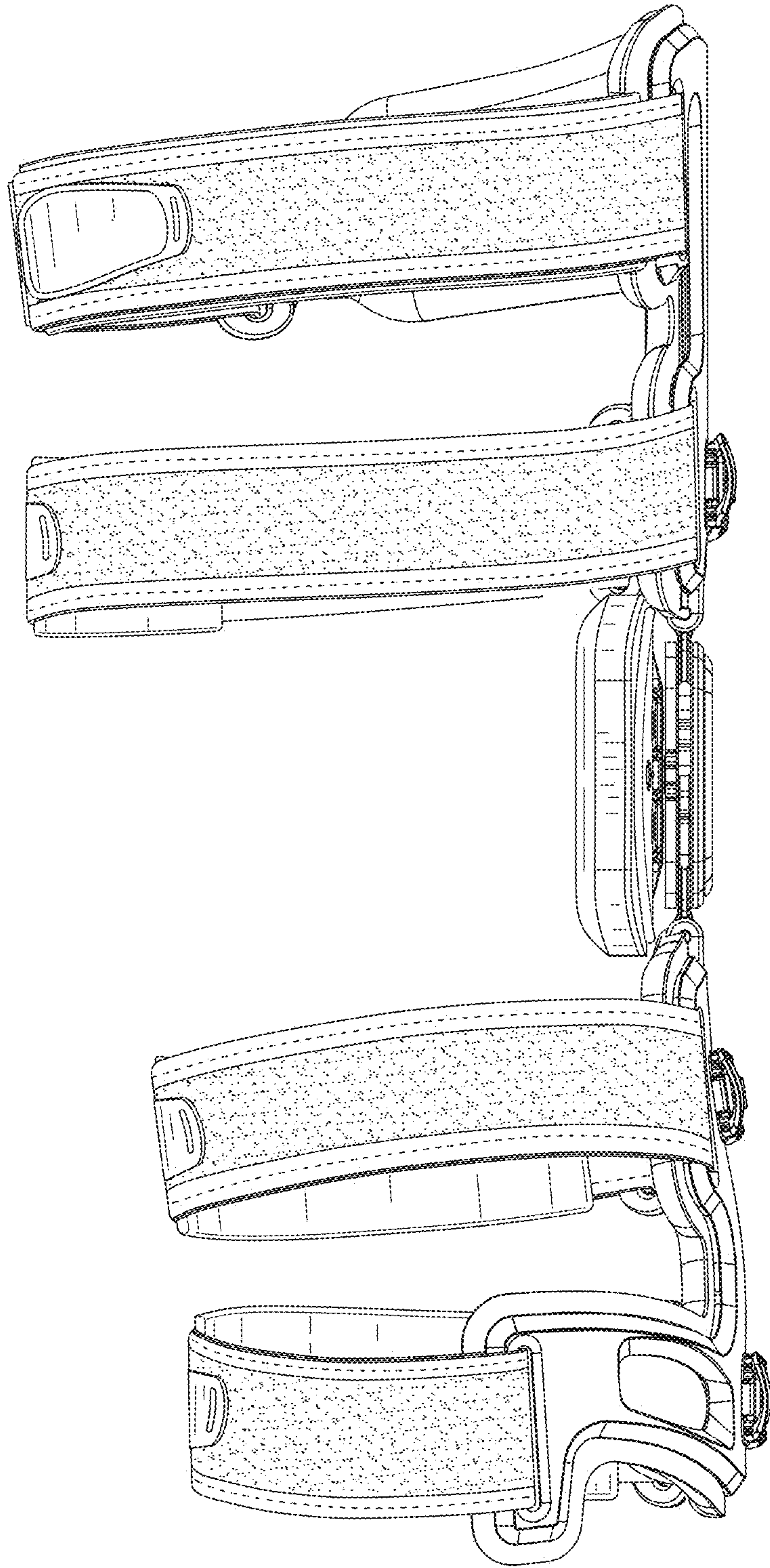


FIG. 4

FIG. 5

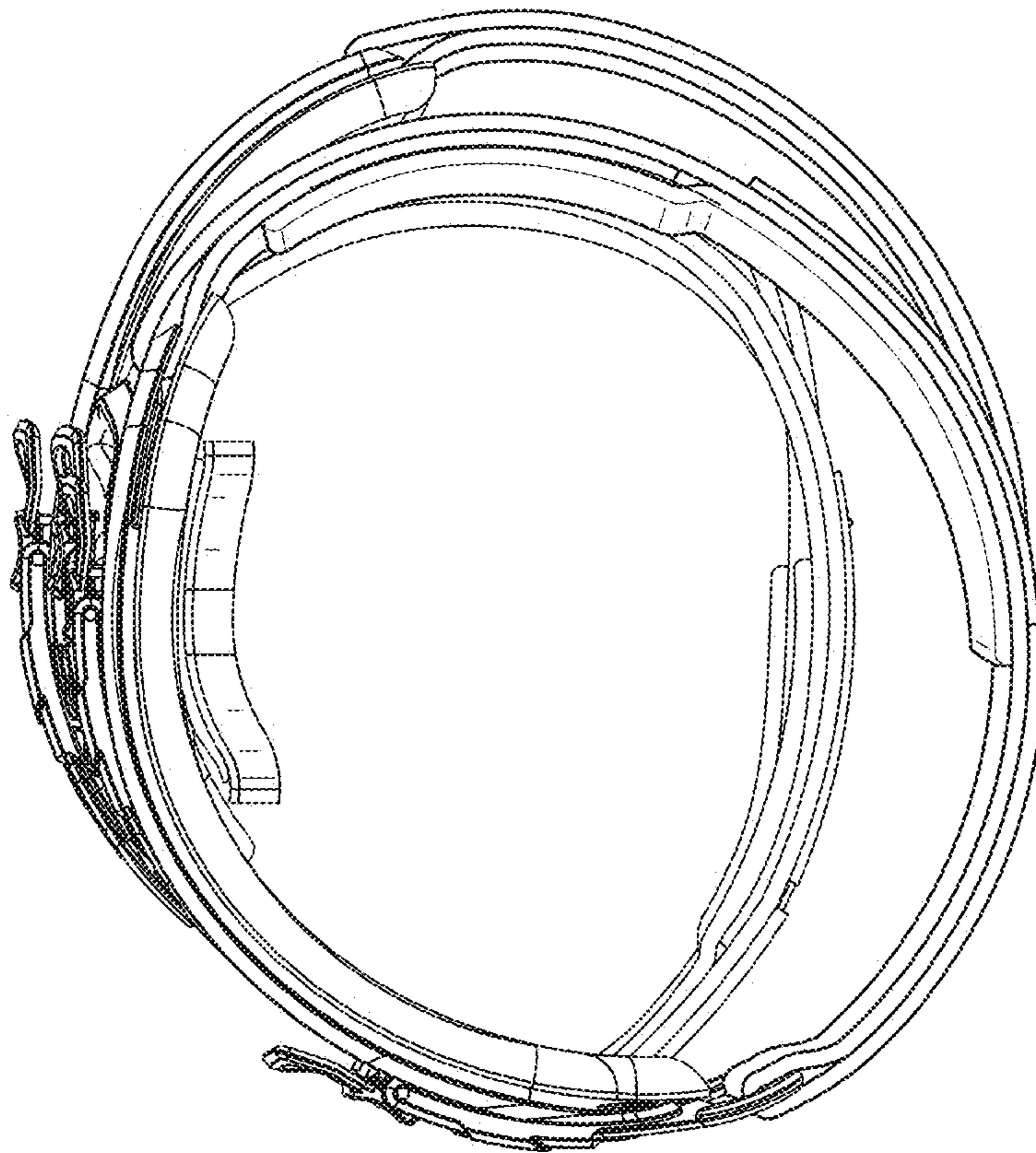
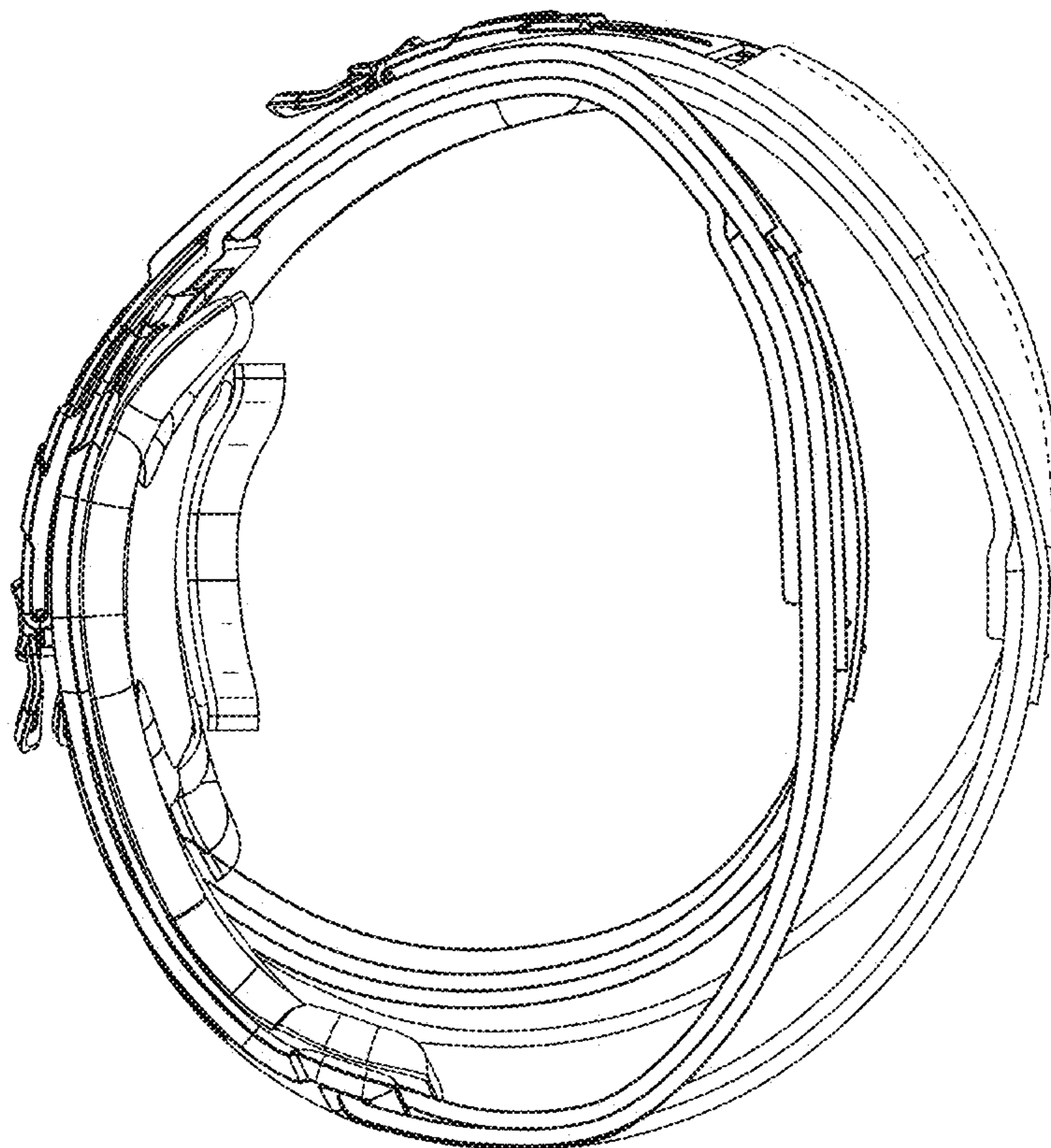


FIG. 6



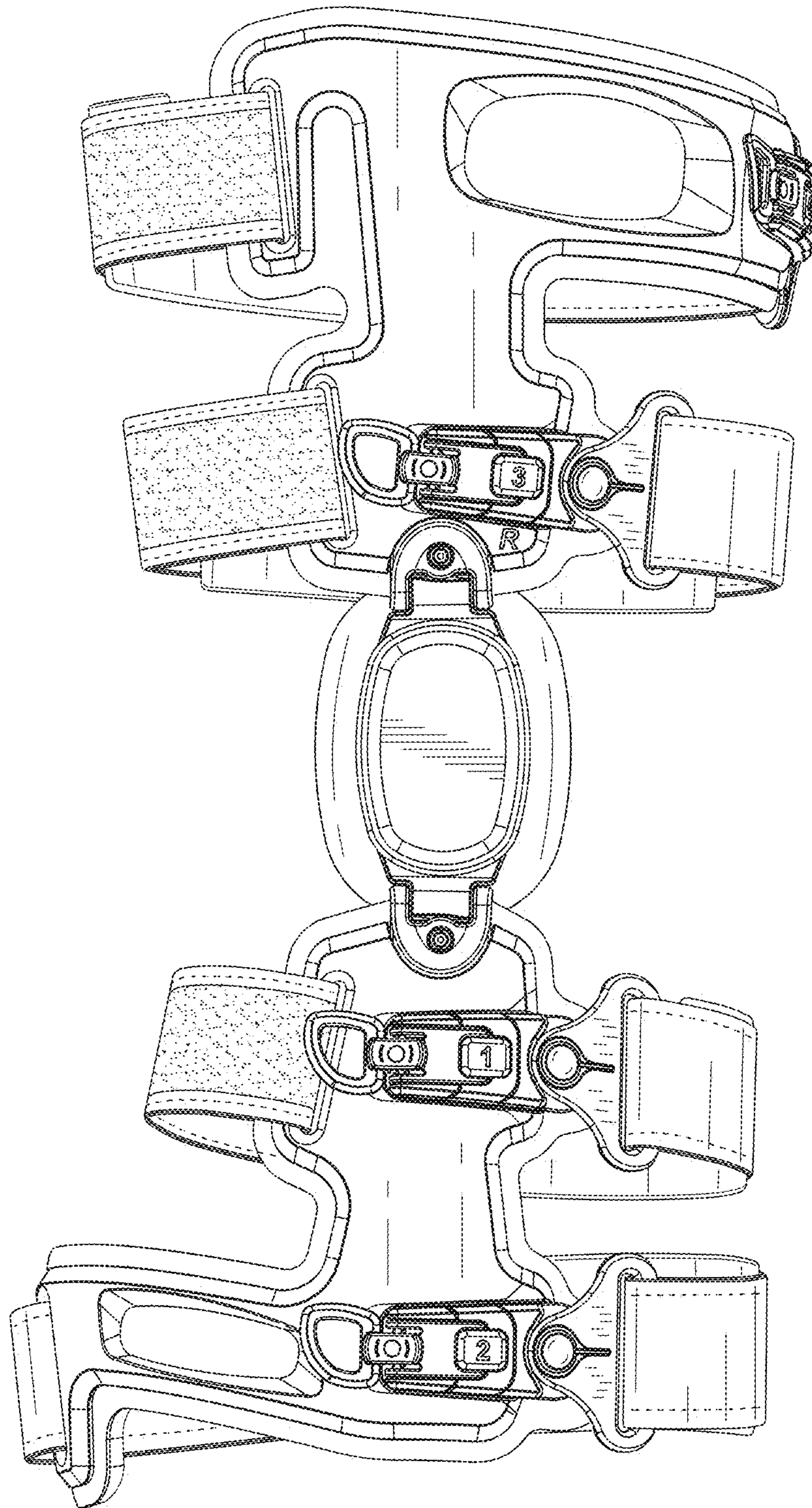


FIG. 7

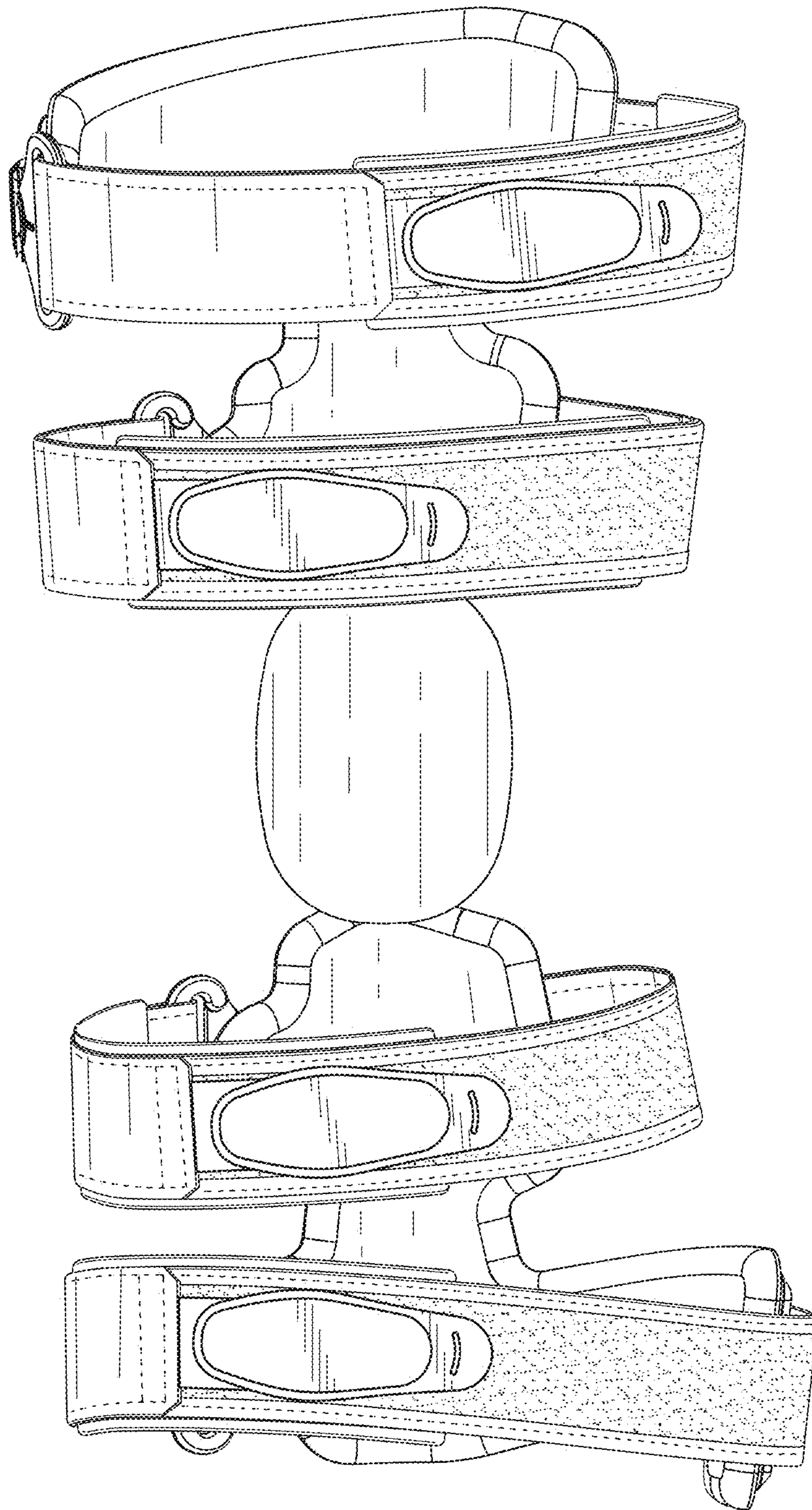


FIG. 8