US00D867594S

(12) United States Design Patent

Chang et al.

(10) Patent No.: US D867,594 S
(45) Date of Patent: ** Nov. 19, 2019

(54) **PROSTHETIC HEART VALVE**

(71) Applicant: **Edwards Lifesciences Corporation**, Irvine, CA (US)

(72) Inventors: **Da-Yu Chang**, Irvine, CA (US); **Brian S. Conklin**, Orange, CA (US)

(73) Assignee: **Edwards Lifesciences Corporation**, Irvine, CA (US)

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

(21) Appl. No.: **29/579,402**

(22) Filed: **Sep. 29, 2016**

Related U.S. Application Data

(63) Continuation-in-part of application No. 14/745,287, filed on Jun. 19, 2015, now Pat. No. 9,504,566.

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

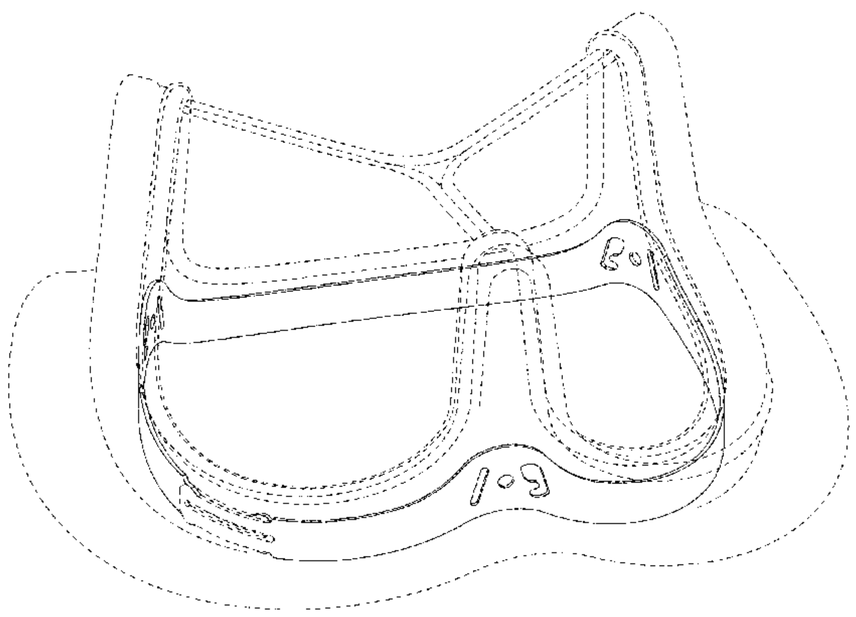
(52) **U.S. Cl.**
USPC **D24/155**

(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

3,143,742	A	8/1964	Cromie	
3,320,972	A	5/1967	High et al.	
3,371,352	A	3/1968	Siposs et al.	
3,546,710	A	12/1970	Shumakov et al.	
3,574,865	A	4/1971	Hamaker	
3,755,823	A	9/1973	Hancock	
3,839,741	A	10/1974	Haller	
3,997,923	A	12/1976	Possis	
4,035,849	A	7/1977	Angell et al.	
4,078,468	A	3/1978	Civitello	
4,079,468	A	3/1978	Liotta et al.	
4,084,268	A	4/1978	Ionescu et al.	
4,106,129	A	8/1978	Carpentier et al.	
4,172,295	A	10/1979	Batten	
4,217,665	A	8/1980	Bex et al.	
4,218,782	A	8/1980	Rygg	
4,259,753	A	4/1981	Liotta et al.	
RE30,912	E	4/1982	Hancock	
4,340,091	A *	7/1982	Skelton	A61F 2/06 139/383 R
4,343,048	A	8/1982	Ross et al.	
4,364,126	A	12/1982	Rosen et al.	
4,388,735	A	6/1983	Ionescu et al.	
4,441,216	A	4/1984	Ionescu et al.	
4,451,936	A	6/1984	Carpentier et al.	
4,470,157	A	9/1984	Love	
4,490,859	A	1/1985	Black et al.	
4,501,030	A	2/1985	Lane	
4,506,394	A	3/1985	Bedard	
4,535,483	A	8/1985	Klawitter et al.	
4,566,465	A	1/1986	Arhan et al.	
4,605,407	A	8/1986	Black et al.	
4,626,255	A	12/1986	Reichart et al.	
4,629,459	A	12/1986	Ionescu et al.	
4,680,031	A	7/1987	Alonso	
4,687,483	A	8/1987	Fisher et al.	
4,705,516	A	11/1987	Barone et al.	
4,725,274	A	2/1988	Lane et al.	
4,731,074	A	3/1988	Rousseau et al.	
4,778,461	A	10/1988	Pietsch et al.	
4,790,843	A	12/1988	Carpentier et al.	
4,851,000	A	7/1989	Gupta	
4,863,470	A	9/1989	Carter	
4,888,009	A	12/1989	Lederman et al.	
4,914,097	A	4/1990	Oda et al.	
4,960,424	A	10/1990	Grooters	
4,993,428	A	2/1991	Arms	
5,010,892	A	4/1991	Colvin et al.	
5,032,128	A	7/1991	Alonso	
5,037,434	A	8/1991	Lane	
5,147,391	A	9/1992	Lane	
5,163,955	A	11/1992	Love et al.	
5,258,023	A	11/1993	Reger	
5,316,016	A	5/1994	Adams et al.	
5,326,370	A	7/1994	Love et al.	
5,326,371	A	7/1994	Love et al.	
5,332,402	A	7/1994	Teitelbaum	
5,360,014	A	11/1994	Sauter et al.	
5,360,444	A	11/1994	Kusuhara	
5,376,112	A	12/1994	Duran	
5,396,887	A	3/1995	Imran	
5,397,351	A	3/1995	Pavcnik et al.	
5,423,887	A	6/1995	Love et al.	
5,425,741	A	6/1995	Lemp et al.	



5,431,676	A	7/1995	Dubrul et al.	
5,449,384	A	9/1995	Johnson	
5,449,385	A	9/1995	Religa et al.	
5,469,868	A	11/1995	Reger	
5,488,789	A	2/1996	Religa et al.	
5,489,296	A	2/1996	Love et al.	
5,489,297	A	2/1996	Duran	
5,489,298	A	2/1996	Love et al.	
5,500,016	A	3/1996	Fisher	
5,533,515	A	7/1996	Coller et al.	
5,549,665	A	8/1996	Vesely et al.	
5,562,729	A	10/1996	Purdy et al.	
5,571,215	A	11/1996	Sterman et al.	
5,573,007	A	11/1996	Bobo, Sr.	
5,578,076	A	11/1996	Krueger et al.	
5,584,803	A	12/1996	Stevens et al.	
5,618,307	A	4/1997	Donlon et al.	
5,626,607	A	5/1997	Malecki et al.	
5,628,789	A	5/1997	Vanney et al.	
5,693,090	A	12/1997	Unsworth et al.	
5,695,503	A	12/1997	Krueger et al.	
5,713,952	A	2/1998	Vanney et al.	
5,716,370	A	2/1998	Williamson, IV et al.	
5,728,064	A	3/1998	Burns et al.	
5,728,151	A	3/1998	Garrison et al.	
5,735,894	A	4/1998	Krueger et al.	
5,752,522	A	5/1998	Murphy	
5,755,782	A	5/1998	Love et al.	
5,766,240	A	6/1998	Johnson	
5,800,527	A	9/1998	Jansen et al.	
5,814,097	A	9/1998	Sterman et al.	
5,814,098	A	9/1998	Hinnenkamp et al.	
5,824,064	A	10/1998	Taheri	
5,824,068	A	10/1998	Bugge	
5,840,081	A	11/1998	Andersen et al.	
5,848,969	A	12/1998	Panescu et al.	
5,855,563	A	1/1999	Kaplan et al.	
5,855,601	A	1/1999	Bessler et al.	
5,855,801	A	1/1999	Lin et al.	
5,861,028	A	1/1999	Angell	
5,891,160	A	4/1999	Williamson, IV et al.	
5,895,420	A	4/1999	Mirsch, II et al.	
5,902,308	A	5/1999	Murphy	
5,908,450	A	6/1999	Gross et al.	
5,919,147	A	7/1999	Jain	
5,921,934	A	7/1999	Teo	
5,921,935	A	7/1999	Hickey	
5,924,984	A	7/1999	Rao	
5,935,163	A *	8/1999	Gabbay	A61F 2/2409 623/2.14
5,957,949	A	9/1999	Leonhardt et al.	
5,972,004	A	10/1999	Williamson, IV et al.	
5,984,959	A	11/1999	Robertson et al.	
5,984,973	A	11/1999	Girard et al.	
6,010,531	A	1/2000	Donlon et al.	
6,042,554	A	3/2000	Rosenman et al.	
6,042,607	A	3/2000	Williamson, IV et al.	
6,048,362	A	4/2000	Berg	
6,066,160	A	5/2000	Colvin et al.	
6,074,418	A	6/2000	Buchanan et al.	
6,081,737	A	6/2000	Shah	
6,099,475	A	8/2000	Seward et al.	
6,106,550	A	8/2000	Magovern et al.	
6,110,200	A	8/2000	Hinnenkamp	
6,117,091	A	9/2000	Young et al.	
6,126,007	A	10/2000	Kari et al.	
6,162,233	A	12/2000	Williamson, IV et al.	
6,168,614	B1	1/2001	Andersen et al.	
6,176,877	B1	1/2001	Buchanan et al.	
6,197,054	B1	3/2001	Hamblin, Jr. et al.	
6,217,611	B1	4/2001	Klostermeyer	
6,231,561	B1	5/2001	Frazier et al.	
6,241,765	B1	6/2001	Griffin et al.	
6,245,102	B1	6/2001	Jayaraman	
6,264,611	B1	7/2001	Ishikawa et al.	
6,283,127	B1	9/2001	Sterman et al.	
6,287,339	B1	9/2001	Vazquez et al.	
6,290,674	B1	9/2001	Roue et al.	
6,312,447	B1	11/2001	Grimes	
6,312,465	B1	11/2001	Griffin et al.	
6,328,727	B1	12/2001	Frazier et al.	
6,350,282	B1	2/2002	Eberhardt	
6,371,983	B1	4/2002	Lane	
6,375,620	B1	4/2002	Oser et al.	
6,402,780	B2	6/2002	Williamson, IV et al.	
6,425,916	B1	7/2002	Garrison et al.	
6,440,164	B1	8/2002	Di Matteo et al.	
6,454,799	B1	9/2002	Schreck	
6,458,153	B1	10/2002	Bailey et al.	
6,468,305	B1	10/2002	Otte	
6,491,624	B1	12/2002	Lotfi	
6,582,462	B1	6/2003	Andersen et al.	
6,582,464	B2 *	6/2003	Gabbay	A61F 2/2412 623/2.38
6,585,766	B1	7/2003	Huynh et al.	
6,613,087	B1	9/2003	Healy et al.	
6,652,578	B2	11/2003	Bailey et al.	
6,682,559	B2	1/2004	Myers et al.	
6,685,739	B2	2/2004	DiMatteo et al.	
6,730,118	B2	5/2004	Spenser et al.	
6,733,525	B2	5/2004	Yang et al.	
6,764,508	B1	7/2004	Roehe et al.	
6,767,362	B2	7/2004	Schreck	
6,773,457	B2	8/2004	Ivancev et al.	
6,786,925	B1	9/2004	Schoon et al.	
6,790,229	B1	9/2004	Berreklouw	
6,790,230	B2	9/2004	Beyersdorf et al.	
6,805,711	B2	10/2004	Quijano et al.	
6,893,459	B1	5/2005	Macoviak	
6,893,460	B2	5/2005	Spenser et al.	
6,908,481	B2	6/2005	Cribier	
6,939,365	B1	9/2005	Fogarty et al.	
7,011,681	B2	3/2006	Vesely	
7,025,780	B2	4/2006	Gabbay	
7,070,616	B2	7/2006	Majercak et al.	
7,097,659	B2	8/2006	Woolfson et al.	
7,101,396	B2	9/2006	Artof et al.	
7,137,184	B2 *	11/2006	Schreck	A61F 2/2412 29/447
7,147,663	B1	12/2006	Berg et al.	
7,153,324	B2	12/2006	Case et al.	
7,195,641	B2	3/2007	Palmaz et al.	
7,201,771	B2	4/2007	Lane	
7,201,772	B2	4/2007	Schwammenthal et al.	
7,238,200	B2	7/2007	Lee et al.	
7,247,167	B2 *	7/2007	Gabbay	A61F 2/2412 623/2.14
7,252,682	B2	8/2007	Seguin	
7,261,732	B2	8/2007	Justino	
7,333,013	B2	2/2008	Berger	
RE40,377	E	6/2008	Williamson, IV et al.	
7,422,603	B2	9/2008	Lane	
7,474,223	B2	1/2009	Nycz et al.	
7,513,909	B2	4/2009	Lane et al.	
7,556,647	B2	7/2009	Drews et al.	
7,569,072	B2	8/2009	Berg et al.	
7,998,151	B2	8/2011	St. Goar et al.	
8,075,536	B2	12/2011	Gray et al.	
8,784,481	B2 *	7/2014	Alkhatib	A61F 2/2418 623/2.18
8,845,720	B2	9/2014	Conklin	
8,998,981	B2	4/2015	Tuval et al.	
9,089,422	B2	7/2015	Ryan et al.	
2001/0039435	A1	11/2001	Roue et al.	
2001/0039436	A1	11/2001	Frazier et al.	
2001/0041914	A1	11/2001	Frazier et al.	
2001/0041915	A1	11/2001	Roue et al.	
2001/0049492	A1	12/2001	Frazier et al.	
2002/0020074	A1	2/2002	Love et al.	
2002/0026238	A1	2/2002	Lane et al.	
2002/0032481	A1	3/2002	Gabbay	
2002/0058995	A1	5/2002	Stevens	
2002/0123802	A1	9/2002	Snyders	
2002/0138138	A1	9/2002	Yang	
2002/0151970	A1	10/2002	Garrison et al.	
2002/0188348	A1	12/2002	DiMatteo et al.	
2002/0198594	A1	12/2002	Schreck	
2003/0014104	A1	1/2003	Cribier	

2003/0023300	A1	1/2003	Bailey et al.	
2003/0023303	A1	1/2003	Palmaz et al.	
2003/0036795	A1	2/2003	Andersen et al.	
2003/0040792	A1	2/2003	Gabbay	
2003/0055495	A1	3/2003	Pease et al.	
2003/0055496	A1*	3/2003	Cai	A61F 2/2412 623/2.19
2003/0105519	A1	6/2003	Fasol et al.	
2003/0109924	A1	6/2003	Cribier	
2003/0114913	A1	6/2003	Spenser et al.	
2003/0130729	A1	7/2003	Paniagua et al.	
2003/0149478	A1	8/2003	Figulla et al.	
2003/0167089	A1	9/2003	Lane	
2003/0236568	A1	12/2003	Hojeibane et al.	
2004/0019374	A1	1/2004	Hojeibane et al.	
2004/0034411	A1	2/2004	Quijano et al.	
2004/0044406	A1	3/2004	Woolfson et al.	
2004/0106976	A1	6/2004	Bailey et al.	
2004/0122514	A1	6/2004	Fogarty et al.	
2004/0122516	A1	6/2004	Fogarty et al.	
2004/0167573	A1	8/2004	Williamson et al.	
2004/0167619	A1	8/2004	Case et al.	
2004/0186563	A1	9/2004	Lobbi	
2004/0186565	A1	9/2004	Schreck	
2004/0193261	A1	9/2004	Berreklouw	
2004/0206363	A1	10/2004	McCarthy et al.	
2004/0210304	A1	10/2004	Seguin et al.	
2004/0210307	A1	10/2004	Khairkhahan	
2004/0225355	A1	11/2004	Stevens	
2004/0236411	A1	11/2004	Sarac et al.	
2004/0260389	A1	12/2004	Case et al.	
2004/0260390	A1	12/2004	Sarac et al.	
2005/0010285	A1	1/2005	Lambrecht et al.	
2005/0027348	A1	2/2005	Case et al.	
2005/0033398	A1	2/2005	Seguin	
2005/0043760	A1	2/2005	Fogarty et al.	
2005/0043790	A1	2/2005	Seguin	
2005/0060029	A1	3/2005	Le et al.	
2005/0065594	A1	3/2005	DiMatteo et al.	
2005/0065614	A1	3/2005	Stinson	
2005/0075584	A1	4/2005	Cali	
2005/0075713	A1	4/2005	Biancucci et al.	
2005/0075717	A1	4/2005	Nguyen et al.	
2005/0075718	A1	4/2005	Nguyen et al.	
2005/0075719	A1	4/2005	Bergheim	
2005/0075720	A1	4/2005	Nguyen et al.	
2005/0075724	A1	4/2005	Svanidze et al.	
2005/0080454	A1	4/2005	Drews et al.	
2005/0096738	A1	5/2005	Cali et al.	
2005/0137682	A1	6/2005	Justino	
2005/0137686	A1	6/2005	Salahieh et al.	
2005/0137687	A1	6/2005	Salahieh et al.	
2005/0137688	A1	6/2005	Salahieh et al.	
2005/0137690	A1	6/2005	Salahieh et al.	
2005/0137692	A1	6/2005	Haug et al.	
2005/0137695	A1	6/2005	Salahieh et al.	
2005/0159811	A1	7/2005	Lane	
2005/0165479	A1	7/2005	Drews et al.	
2005/0182486	A1	8/2005	Gabbay	
2005/0192665	A1	9/2005	Spenser et al.	
2005/0203616	A1	9/2005	Cribier	
2005/0203617	A1	9/2005	Forster et al.	
2005/0203618	A1	9/2005	Sharkawy et al.	
2005/0216079	A1	9/2005	MaCoviak	
2005/0222674	A1	10/2005	Paine	
2005/0234546	A1	10/2005	Nugent et al.	
2005/0240263	A1	10/2005	Fogarty et al.	
2005/0251252	A1	11/2005	Stobie	
2005/0261765	A1	11/2005	Liddicoat	
2005/0283231	A1	12/2005	Haug et al.	
2006/0008497	A1*	1/2006	Gabbay	A61F 2/0077 424/422
2006/0025857	A1	2/2006	Bergheim et al.	
2006/0052867	A1	3/2006	Revuelta et al.	
2006/0058871	A1	3/2006	Zakay et al.	
2006/0058872	A1	3/2006	Salahieh et al.	
2006/0074484	A1	4/2006	Huber	
2006/0085060	A1	4/2006	Campbell	
2006/0095125	A1	5/2006	Chinn et al.	
2006/0122634	A1	6/2006	Ino et al.	
2006/0149360	A1	7/2006	Schwammenthal et al.	
2006/0154230	A1	7/2006	Cunanan et al.	
2006/0167543	A1	7/2006	Bailey et al.	
2006/0195184	A1	8/2006	Lane et al.	
2006/0195185	A1	8/2006	Lane et al.	
2006/0195186	A1	8/2006	Drews et al.	
2006/0207031	A1	9/2006	Cunanan et al.	
2006/0259136	A1	11/2006	Nguyen et al.	
2006/0271172	A1	11/2006	Tehrani	
2006/0271175	A1	11/2006	Woolfson et al.	
2006/0276813	A1*	12/2006	Greenberg	A61F 2/2418 606/158
2006/0287717	A1	12/2006	Rowe et al.	
2006/0287719	A1	12/2006	Rowe et al.	
2007/0010876	A1	1/2007	Salahieh et al.	
2007/0016285	A1	1/2007	Lane et al.	
2007/0016286	A1	1/2007	Herrmann et al.	
2007/0016288	A1	1/2007	Gurskis et al.	
2007/0043435	A1	2/2007	Seguin et al.	
2007/0078509	A1	4/2007	Lotfy	
2007/0078510	A1	4/2007	Ryan	
2007/0100440	A1	5/2007	Figulla et al.	
2007/0129794	A1	6/2007	Realyvasquez	
2007/0142906	A1	6/2007	Figulla et al.	
2007/0142907	A1	6/2007	Moaddeb et al.	
2007/0150053	A1	6/2007	Gurskis et al.	
2007/0156233	A1	7/2007	Kapadia et al.	
2007/0162103	A1	7/2007	Case et al.	
2007/0162107	A1	7/2007	Haug et al.	
2007/0162111	A1	7/2007	Fukamachi et al.	
2007/0179604	A1	8/2007	Lane	
2007/0185565	A1	8/2007	Schwammenthal et al.	
2007/0198097	A1	8/2007	Zegdi	
2007/0203575	A1	8/2007	Forster et al.	
2007/0203576	A1	8/2007	Lee et al.	
2007/0213813	A1	9/2007	Von Segesser et al.	
2007/0225801	A1	9/2007	Drews et al.	
2007/0233237	A1	10/2007	Krivoruchko	
2007/0238979	A1	10/2007	Huynh et al.	
2007/0239266	A1	10/2007	Birdsall	
2007/0239269	A1	10/2007	Dolan et al.	
2007/0239273	A1	10/2007	Allen	
2007/0255398	A1	11/2007	Yang et al.	
2007/0260305	A1	11/2007	Drews et al.	
2007/0265701	A1	11/2007	Gurskis et al.	
2007/0270944	A1	11/2007	Bergheim et al.	
2007/0282436	A1	12/2007	Pinchuk	
2007/0288089	A1	12/2007	Gurskis et al.	
2008/0033543	A1	2/2008	Gurskis et al.	
2008/0039934	A1*	2/2008	Styrc	A61F 2/2409 623/2.17
2008/0071369	A1*	3/2008	Tuval	A61F 2/2418 623/2.38
2008/0119875	A1	5/2008	Ino et al.	
2008/0154356	A1	6/2008	Obermiller et al.	
2008/0228263	A1*	9/2008	Ryan	A61F 2/2418 623/2.11
2008/0319543	A1	12/2008	Lane	
2009/0036903	A1	2/2009	Ino et al.	
2009/0138079	A1*	5/2009	Tuval	A61F 2/2418 623/2.11
2009/0156928	A1	6/2009	Evans et al.	
2009/0192591	A1	7/2009	Ryan et al.	
2009/0192599	A1	7/2009	Lane et al.	
2009/0264989	A1	10/2009	Bonhoeffer et al.	
2010/0049313	A1	2/2010	Alon et al.	
2010/0168839	A1*	7/2010	Braido	A61F 2/2418 623/1.26
2010/0185277	A1*	7/2010	Braido	A61F 2/2412 623/2.18
2010/0249923	A1*	9/2010	Alkhatib	A61F 2/2418 623/2.18
2010/0298931	A1*	11/2010	Quadri	A61F 2/2418 623/2.11
2011/0034802	A1	2/2011	Shrivastava et al.	
2012/0065503	A1	3/2012	Rogers et al.	
2014/0163673	A1	6/2014	Bruchman et al.	

2014/0343670	A1*	11/2014	Bakis	A61F 2/2436 623/2.11
2015/0018944	A1*	1/2015	O'Connell	A61F 2/2427 623/2.42
2016/0296324	A1	10/2016	Bapat et al.	
2018/0021554	A1	1/2018	Nebosky et al.	

FOREIGN PATENT DOCUMENTS

EP	0125393	A1	11/1984
EP	0143246	A2	6/1985
EP	1239795	B1	12/2006
JP	H11-89940	A	4/1999
SU	1116573	A1	7/1985
SU	1697790	A1	12/1991
WO	9213502	A1	8/1992
WO	9742871	A1	11/1997
WO	2009/106545	A1	9/2009
WO	2010/019781	A1	2/2010
WO	2012018779	A2	2/2012

OTHER PUBLICATIONS

International Search Report from corresponding PCT case No. PCT/US2015/036806 dated Oct. 1, 2015.
Japanese Office Action for Appl No. 2016-533519 dated Dec. 19, 2016.
Bapat, et al., "Fluoroscopic Guide to an Ideal implant Position for Sapien XT and CoreValve During a Valve-in-Valve Procedure", Cardiovascular Interventions, vol. 6, No. 11, 2013, Published by Elsevier Inc., London, United Kindgom, 9 pages.

* cited by examiner

Primary Examiner — Charles D Hanson
(74) *Attorney, Agent, or Firm* — Guy Cumberbatch

(57) **CLAIM**

The ornamental design for a prosthetic heart valve, as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of an embodiment of a prosthetic heart valve.
FIG. **2** is a front view of the embodiment of the prosthetic heart valve shown in FIG. **1**.
FIG. **3** is a back view of the embodiment of the prosthetic heart valve shown in FIG. **1**.
FIG. **4** is a left view of the embodiment of the prosthetic heart valve shown in FIG. **1**.
FIG. **5** is a right view of the embodiment of the prosthetic heart valve shown in FIG. **1**.
FIG. **6** is a top view of the embodiment of the prosthetic heart valve shown in FIG. **1**.
FIG. **7** is a bottom view of the embodiment of the prosthetic heart valve shown in FIG. **1**.
FIG. **8** is a perspective view of another embodiment of a prosthetic heart valve.
FIG. **9** is a front view of the embodiment of the prosthetic heart valve shown in FIG. **8**.
FIG. **10** is a back view of the embodiment of the prosthetic heart valve shown in FIG. **8**.
FIG. **11** is a left view of the embodiment of the prosthetic heart valve shown in FIG. **8**.
FIG. **12** is a right view of the embodiment of the prosthetic heart valve shown in FIG. **8**.
FIG. **13** is a top view of the embodiment of the prosthetic heart valve shown in FIG. **8**.
FIG. **14** is a bottom view of the embodiment of the prosthetic heart valve shown in FIG. **8**.
FIG. **15** is a perspective view of another embodiment of a prosthetic heart valve.
FIG. **16** is a front view of the embodiment of the prosthetic heart valve shown in FIG. **15**.
FIG. **17** is a back view of the embodiment of the prosthetic heart valve shown in FIG. **15**.
FIG. **18** is a left view of the embodiment of the prosthetic heart valve shown in FIG. **15**.
FIG. **19** is a right view of the embodiment of the prosthetic heart valve shown in FIG. **15**.
FIG. **20** is a top view of the embodiment of the prosthetic heart valve shown in FIG. **15**.
FIG. **21** is a bottom view of the embodiment of the prosthetic heart valve shown in FIG. **15**.
FIG. **22** is a perspective view of another embodiment of a prosthetic heart valve.
FIG. **23** is a front view of the embodiment of the prosthetic heart valve shown in FIG. **22**.
FIG. **24** is a back view of the embodiment of the prosthetic heart valve shown in FIG. **22**.
FIG. **25** is a left view of the embodiment of the prosthetic heart valve shown in FIG. **22**.
FIG. **26** is a right view of the embodiment of the prosthetic heart valve shown in FIG. **22**.
FIG. **27** is a top view of the embodiment of the prosthetic heart valve shown in FIG. **22**.
FIG. **28** is a bottom view of the embodiment of the prosthetic heart valve shown in FIG. **22**.
FIG. **29** is a perspective view of another embodiment of a prosthetic heart valve.
FIG. **30** is a front view of the embodiment of the prosthetic heart valve shown in FIG. **29**.
FIG. **31** is a back view of the embodiment of the prosthetic heart valve shown in FIG. **29**.
FIG. **32** is a left view of the embodiment of the prosthetic heart valve shown in FIG. **29**.
FIG. **33** is a right view of the embodiment of the prosthetic heart valve shown in FIG. **29**.
FIG. **34** is a top view of the embodiment of the prosthetic heart valve shown in FIG. **29**.
FIG. **35** is a bottom view of the embodiment of the prosthetic heart valve shown in FIG. **29**.
FIG. **36** is a perspective view of another embodiment of a prosthetic heart valve.
FIG. **37** is a front view of the embodiment of the prosthetic heart valve shown in FIG. **36**.
FIG. **38** is a back view of the embodiment of the prosthetic heart valve shown in FIG. **36**.
FIG. **39** is a left view of the embodiment of the prosthetic heart valve shown in FIG. **36**.
FIG. **40** is a right view of the embodiment of the prosthetic heart valve shown in FIG. **36**.
FIG. **41** is a top view of the embodiment of the prosthetic heart valve shown in FIG. **36**.
FIG. **42** is a bottom view of the embodiment of the prosthetic heart valve shown in FIG. **36**.
FIG. **43** is a perspective view of another embodiment of a prosthetic heart valve.
FIG. **44** is a front view of the embodiment of the prosthetic heart valve shown in FIG. **43**.
FIG. **45** is a back view of the embodiment of the prosthetic heart valve shown in FIG. **43**.

FIG. **46** is a left view of the embodiment of the prosthetic heart valve shown in FIG. **43**.
FIG. **47** is a right view of the embodiment of the prosthetic heart valve shown in FIG. **43**.
FIG. **48** is a top view of the embodiment of the prosthetic heart valve shown in FIG. **43**.
FIG. **49** is a bottom view of the embodiment of the prosthetic heart valve shown in FIG. **43**.
FIG. **50** is a perspective view of another embodiment of a prosthetic heart valve.
FIG. **51** is a front view of the embodiment of the prosthetic heart valve shown in FIG. **50**.
FIG. **52** is a back view of the embodiment of the prosthetic heart valve shown in FIG. **50**.
FIG. **53** is a left view of the embodiment of the prosthetic heart valve shown in FIG. **50**.
FIG. **54** is a right view of the embodiment of the prosthetic heart valve shown in FIG. **50**.
FIG. **55** is a top view of the embodiment of the prosthetic heart valve shown in FIG. **50**.
FIG. **56** is a bottom view of the embodiment of the prosthetic heart valve shown in FIG. **50**.
FIG. **57** is a perspective view of another embodiment of a prosthetic heart valve.
FIG. **58** is a front view of the embodiment of the prosthetic heart valve shown in FIG. **57**.
FIG. **59** is a back view of the embodiment of the prosthetic heart valve shown in FIG. **57**.
FIG. **60** is a left view of the embodiment of the prosthetic heart valve shown in FIG. **57**.
FIG. **61** is a right view of the embodiment of the prosthetic heart valve shown in FIG. **57**.
FIG. **62** is a top view of the embodiment of the prosthetic heart valve shown in FIG. **57**.
FIG. **63** is a bottom view of the embodiment of the prosthetic heart valve shown in FIG. **57**.
FIG. **64** is a perspective view of another embodiment of a prosthetic heart valve.
FIG. **65** is a front view of the embodiment of the prosthetic heart valve shown in FIG. **64**.
FIG. **66** is a back view of the embodiment of the prosthetic heart valve shown in FIG. **64**.
FIG. **67** is a left view of the embodiment of the prosthetic heart valve shown in FIG. **64**.
FIG. **68** is a right view of the embodiment of the prosthetic heart valve shown in FIG. **64**.
FIG. **69** is a top view of the embodiment of the prosthetic heart valve shown in FIG. **64**.
FIG. **70** is a bottom view of the embodiment of the prosthetic heart valve shown in FIG. **64**.
FIG. **71** is a perspective view of another embodiment of a prosthetic heart valve.
FIG. **72** is a front view of the embodiment of the prosthetic heart valve shown in FIG. **71**.
FIG. **73** is a back view of the embodiment of the prosthetic heart valve shown in FIG. **71**.
FIG. **74** is a left view of the embodiment of the prosthetic heart valve shown in FIG. **71**.
FIG. **75** is a right view of the embodiment of the prosthetic heart valve shown in FIG. **71**.
FIG. **76** is a top view of the embodiment of the prosthetic heart valve shown in FIG. **71**.
FIG. **77** is a bottom view of the embodiment of the prosthetic heart valve shown in FIG. **71**.
FIG. **78** is a perspective view of another embodiment of a prosthetic heart valve.
FIG. **79** is a front view of the embodiment of the prosthetic heart valve shown in FIG. **78**.
FIG. **80** is a back view of the embodiment of the prosthetic heart valve shown in FIG. **78**.
FIG. **81** is a left view of the embodiment of the prosthetic heart valve shown in FIG. **78**.
FIG. **82** is a right view of the embodiment of the prosthetic heart valve shown in FIG. **78**.
FIG. **83** is a top view of the embodiment of the prosthetic heart valve shown in FIG. **78**; and,
FIG. **84** is a bottom view of the embodiment of the prosthetic heart valve shown in FIG. **78**.
Broken lines are used to illustrate features of the prosthetic heart valve that form no part of the claimed design.

1 Claim, 60 Drawing Sheets

Fig. 1

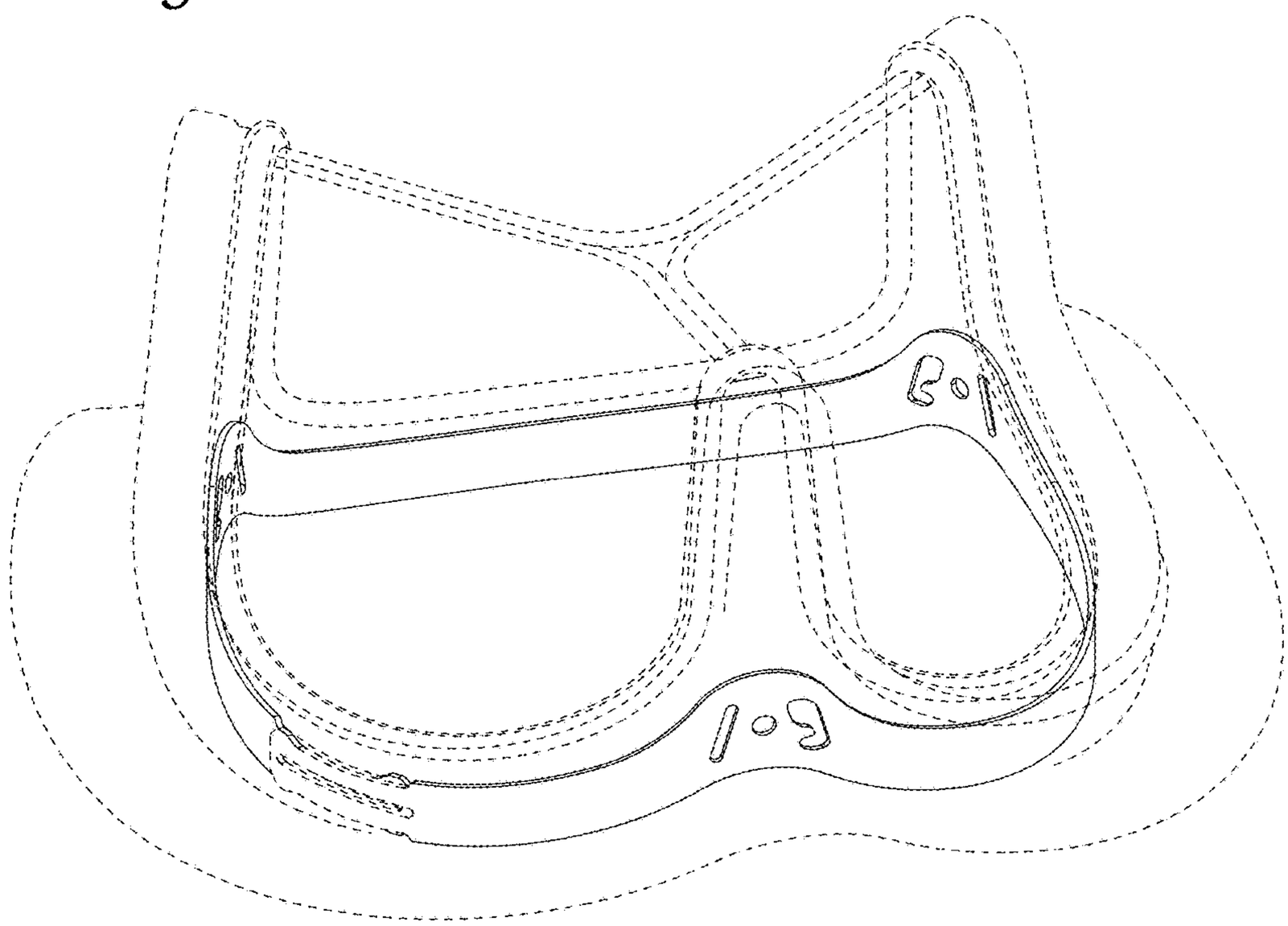


Fig. 2

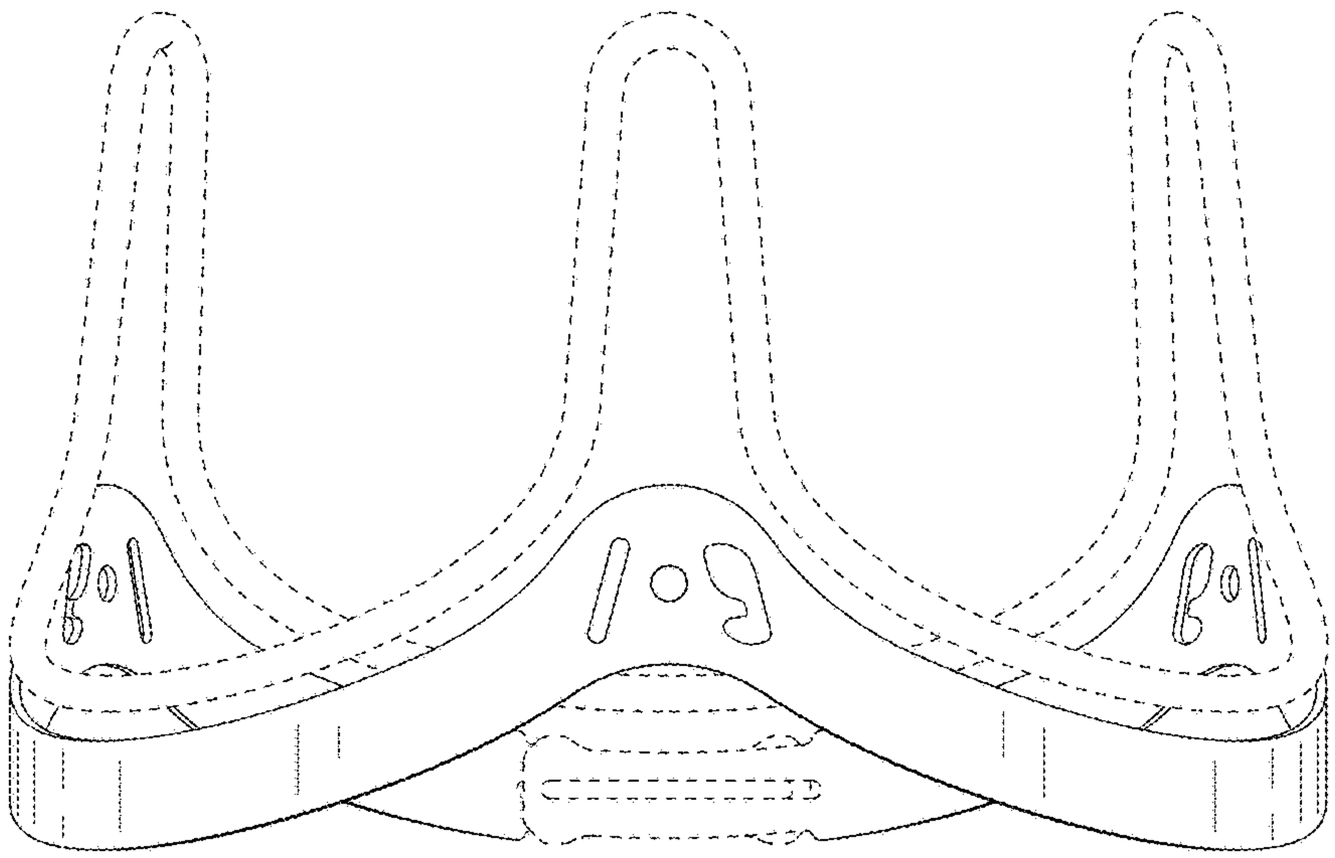


Fig. 3

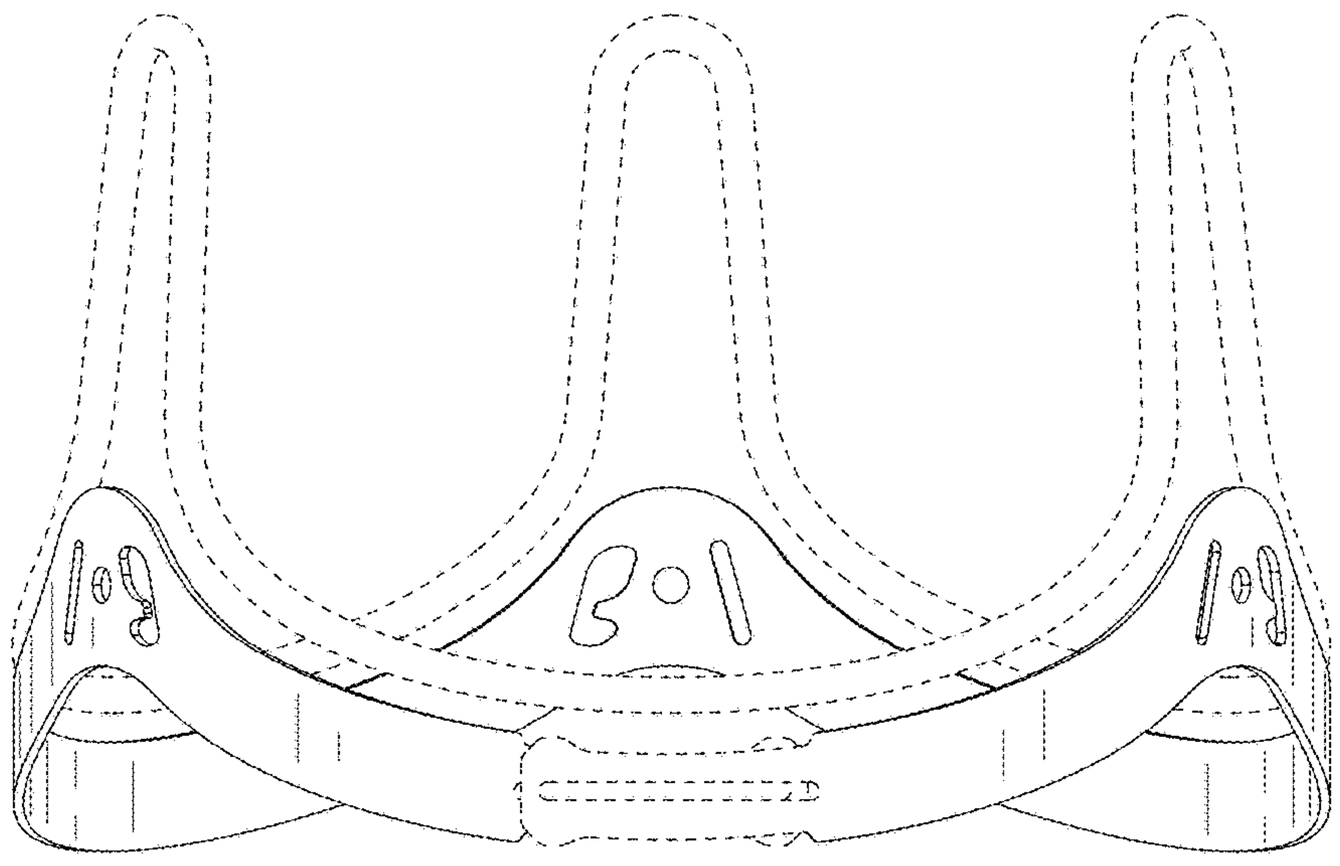


Fig. 4

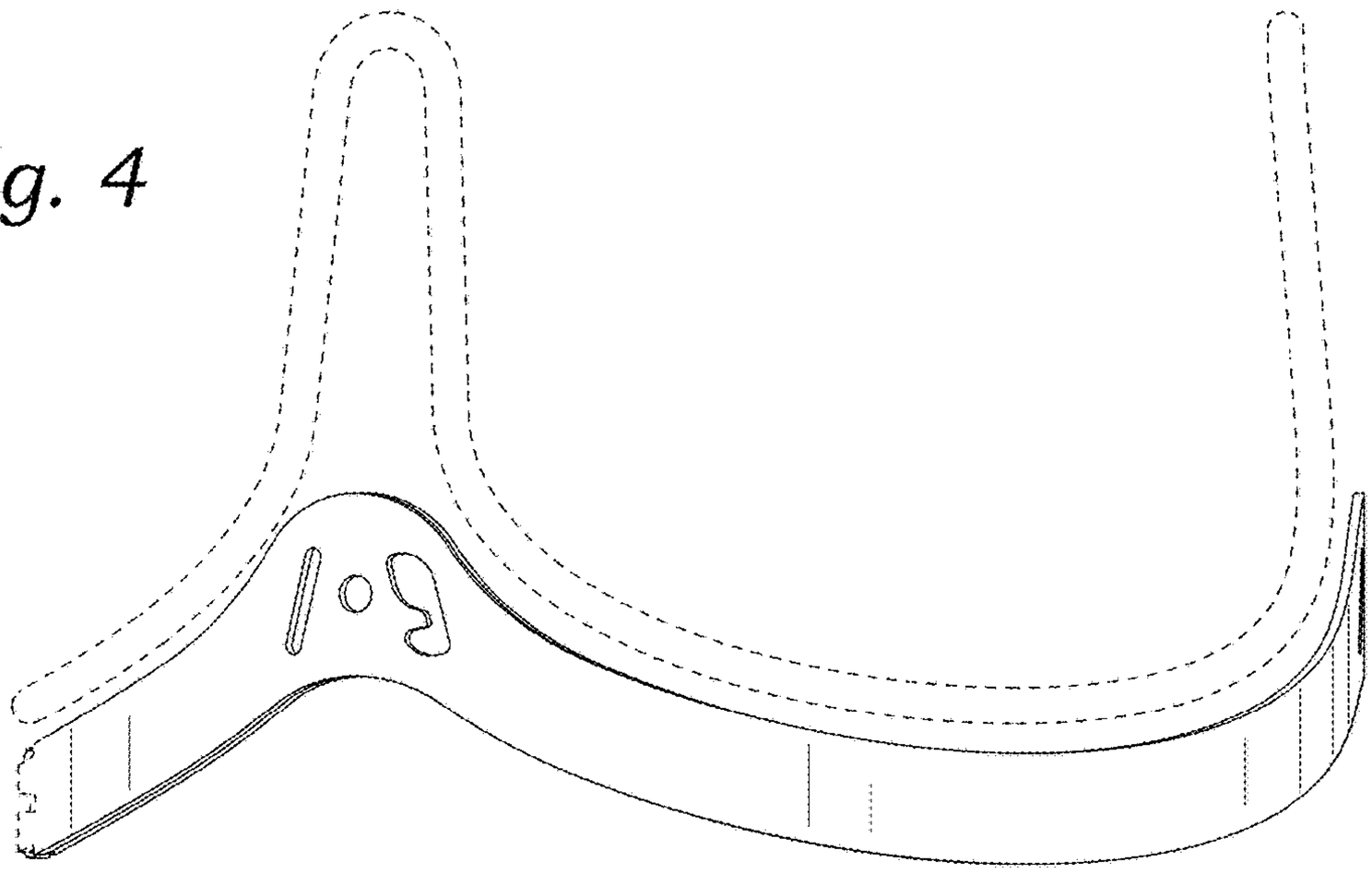


Fig. 5

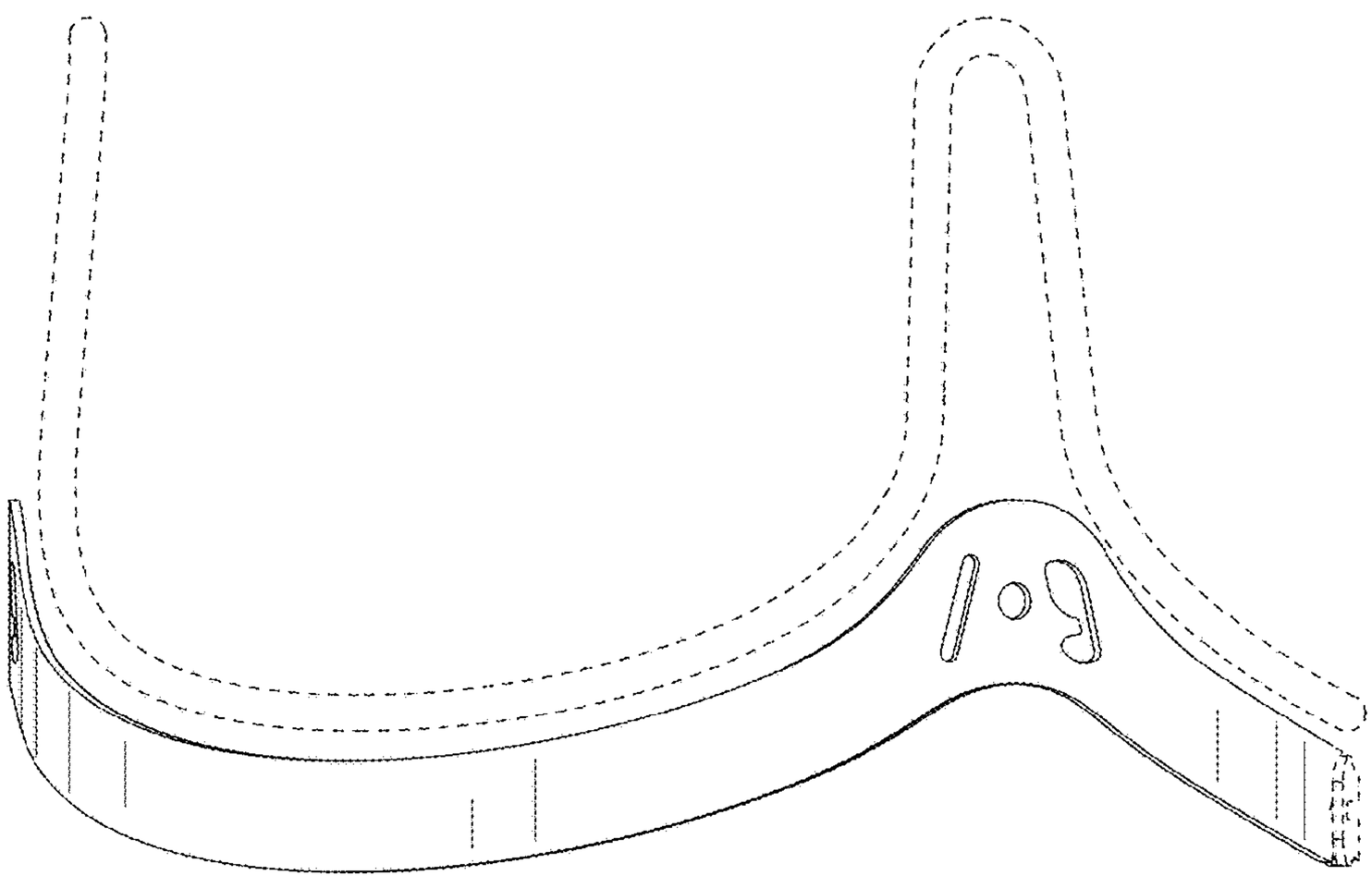


Fig. 6

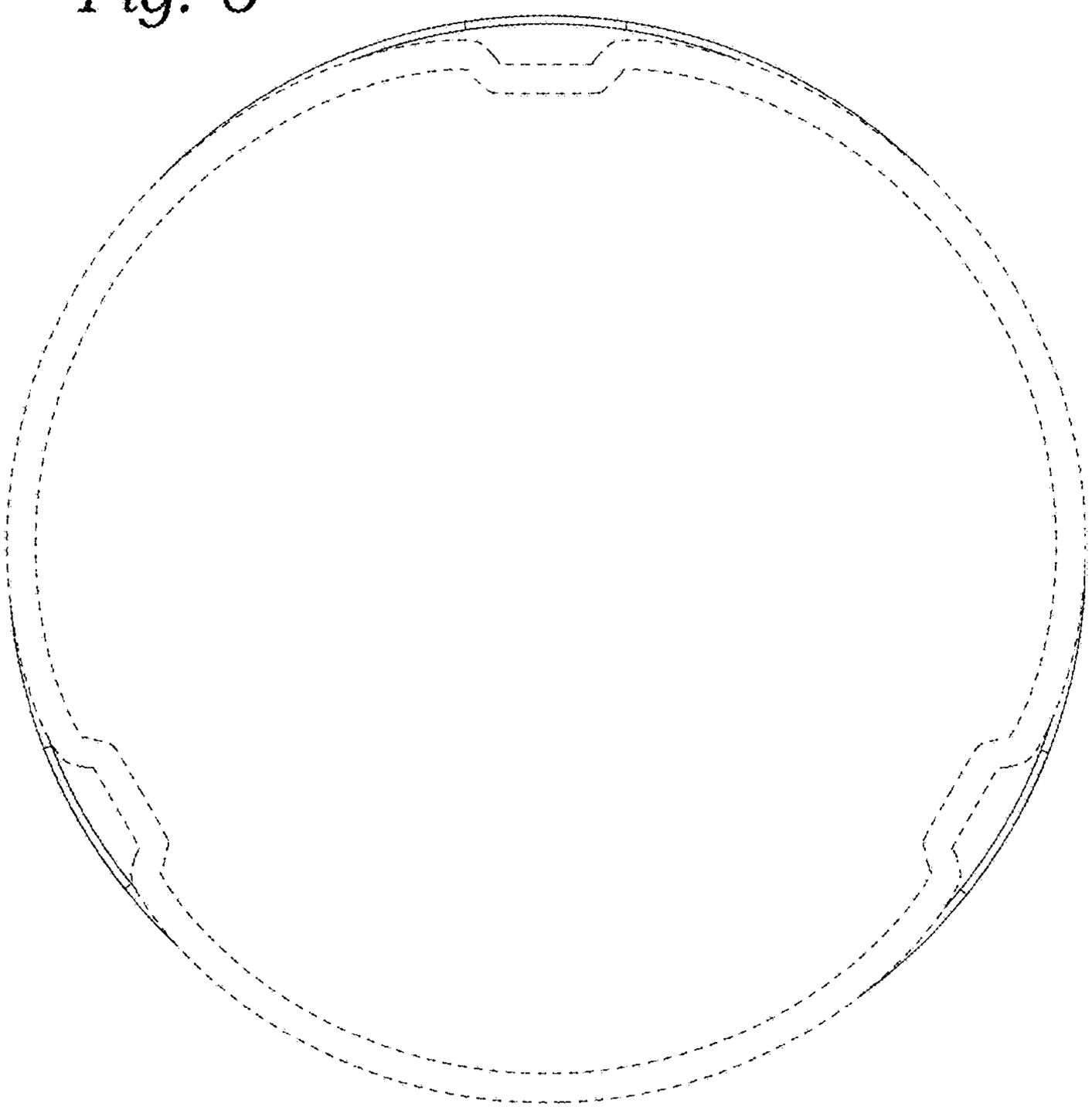


Fig. 7

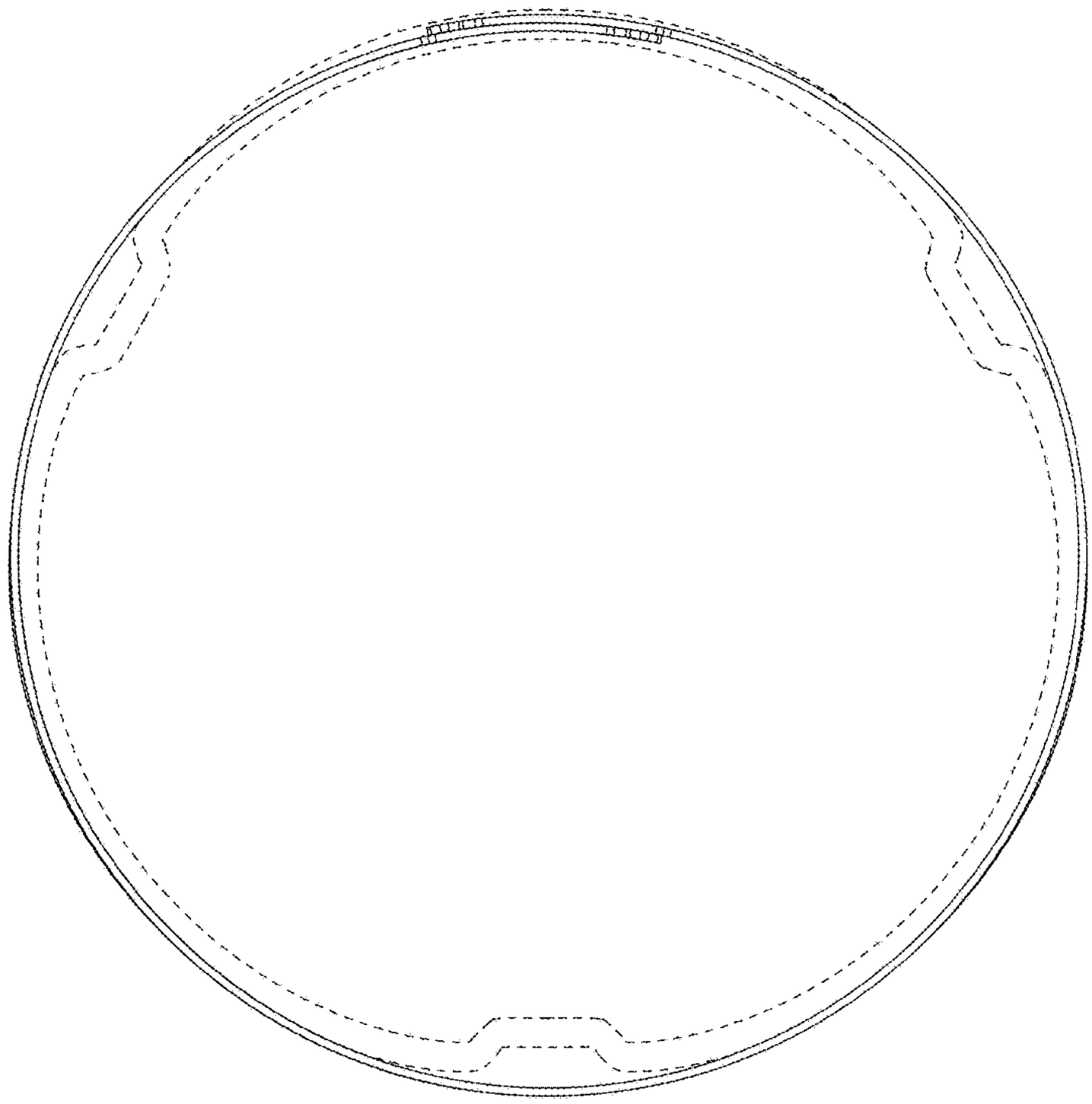


Fig. 8

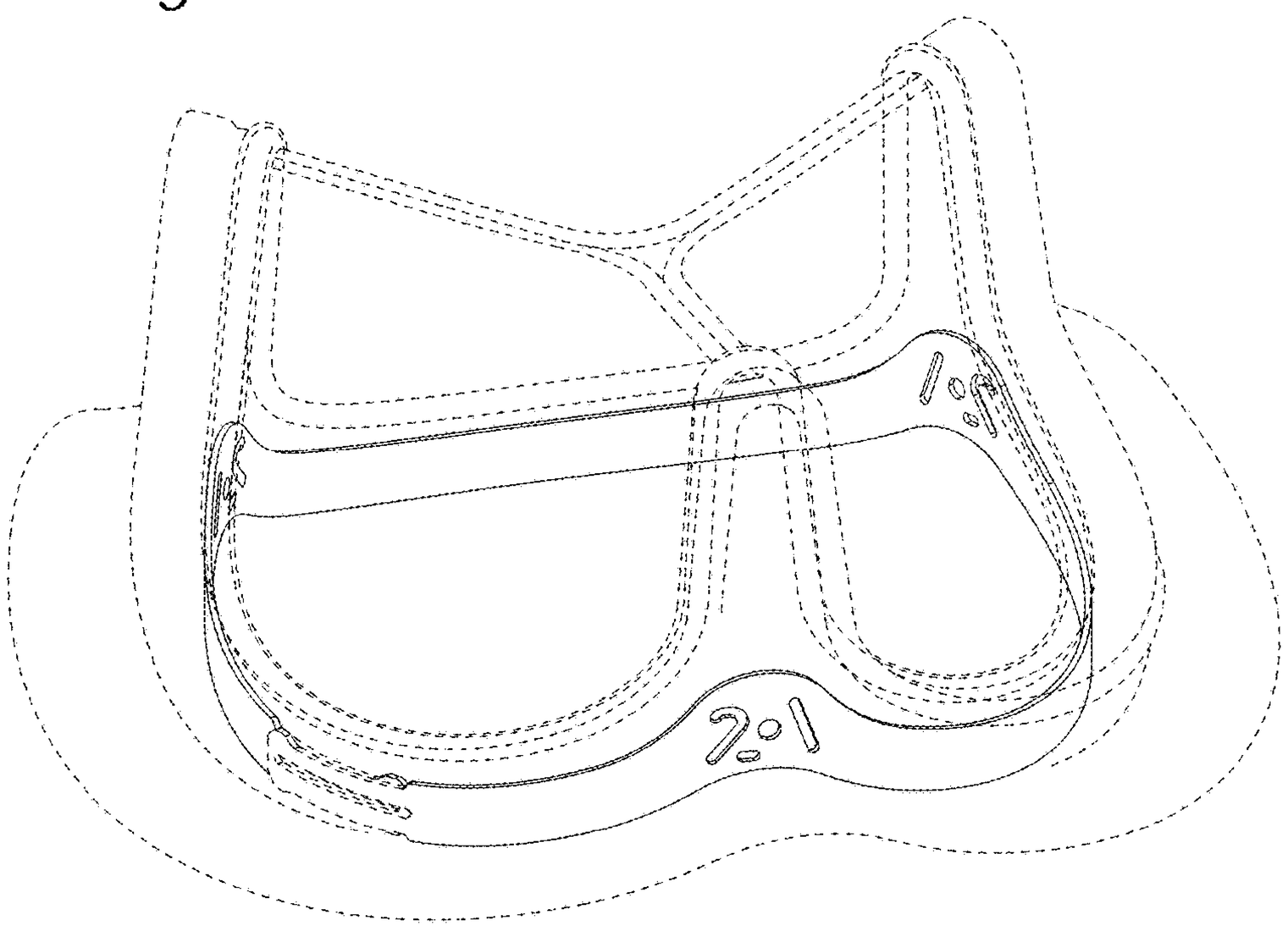


Fig. 9

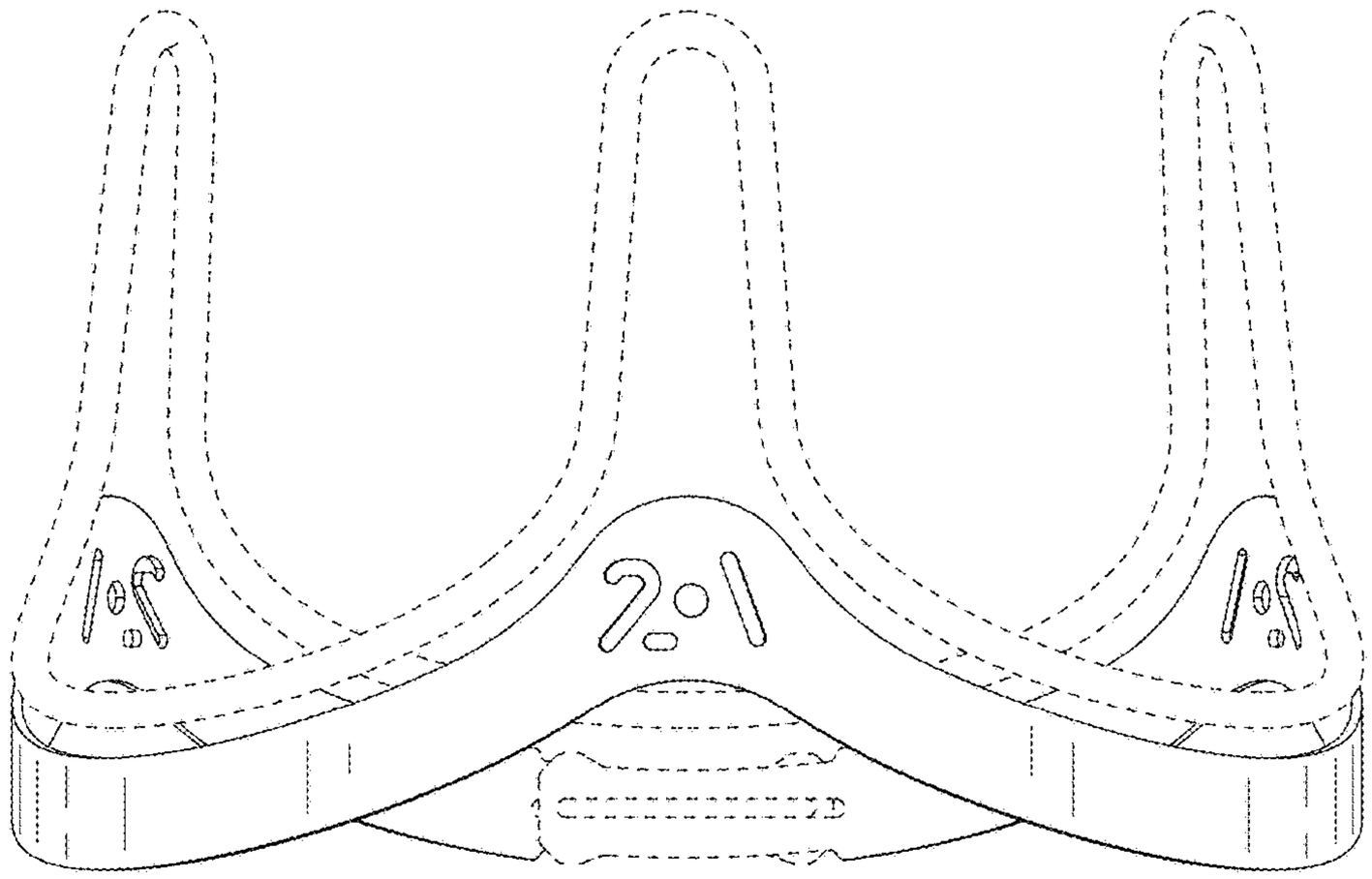


Fig. 10

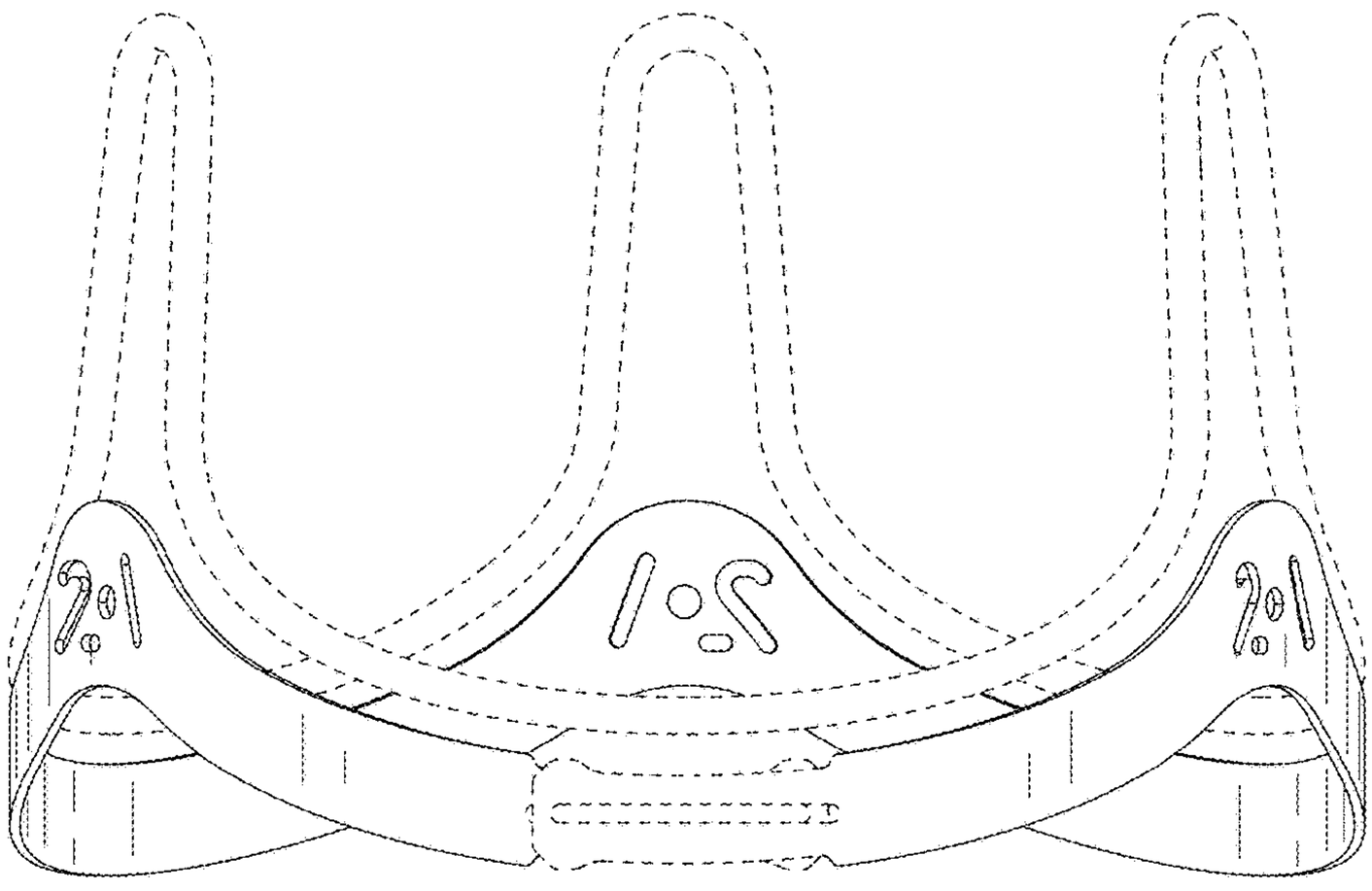


Fig. 11

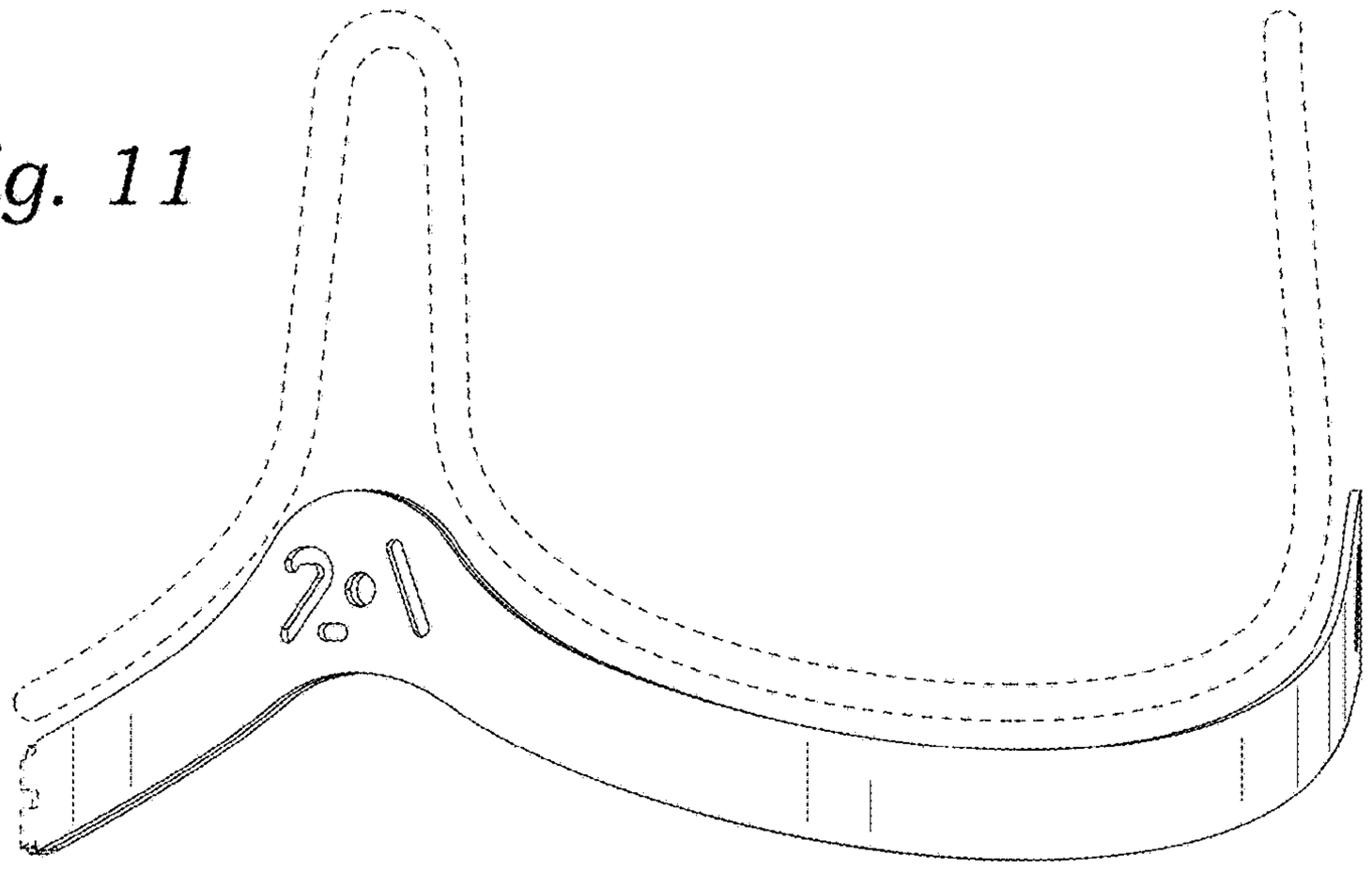


Fig. 12

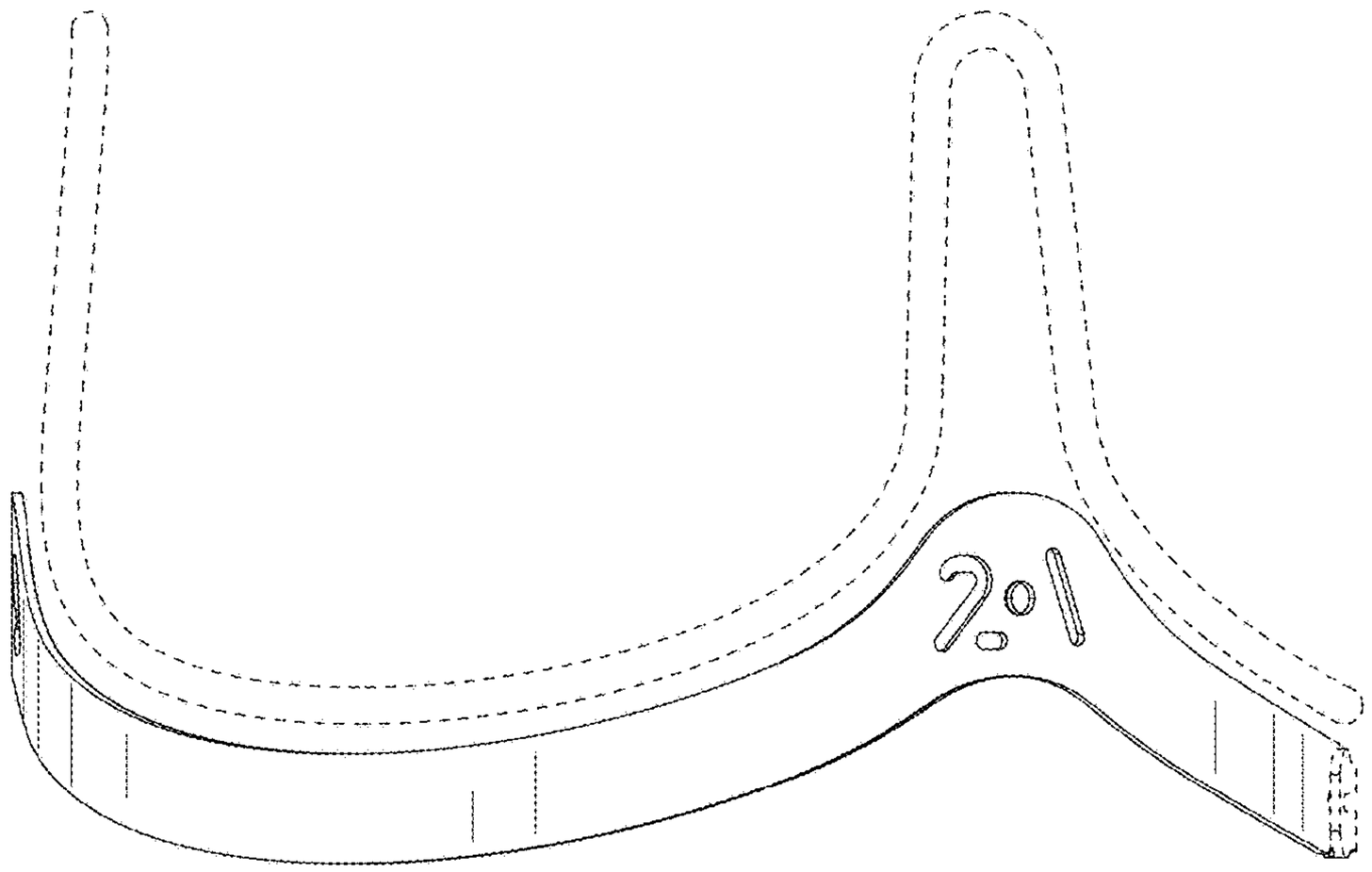


Fig. 13

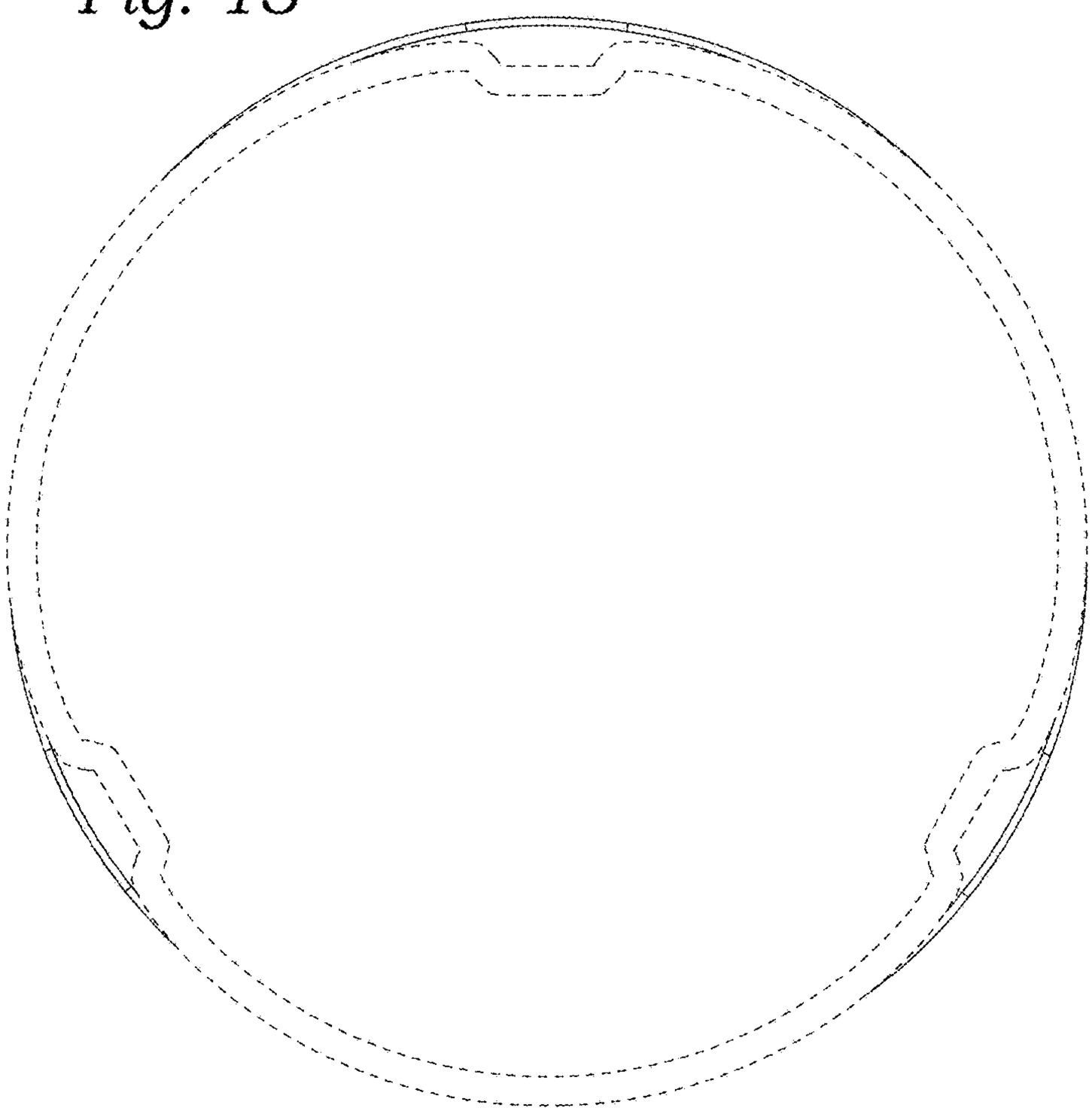


Fig. 14

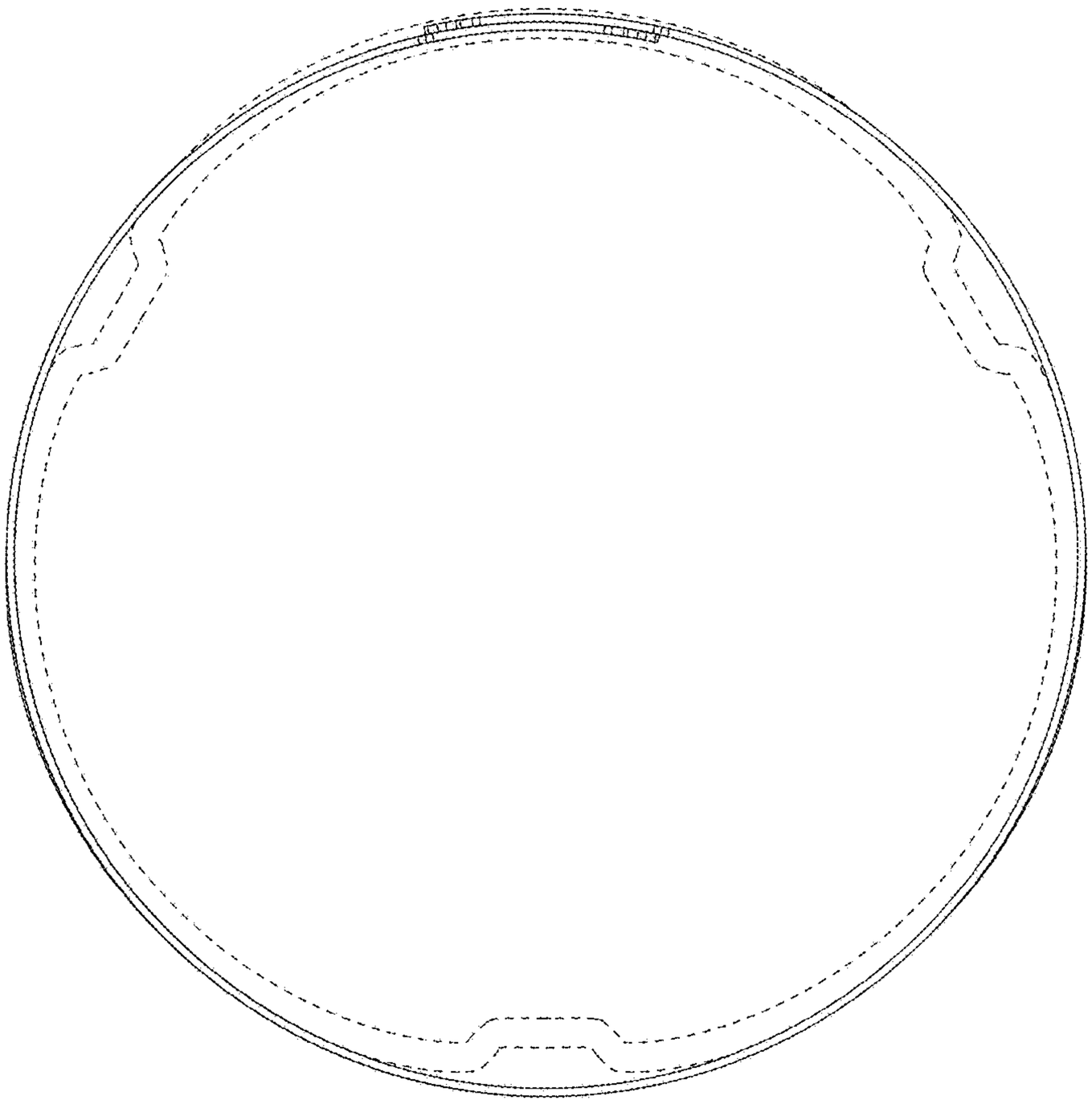


Fig. 15

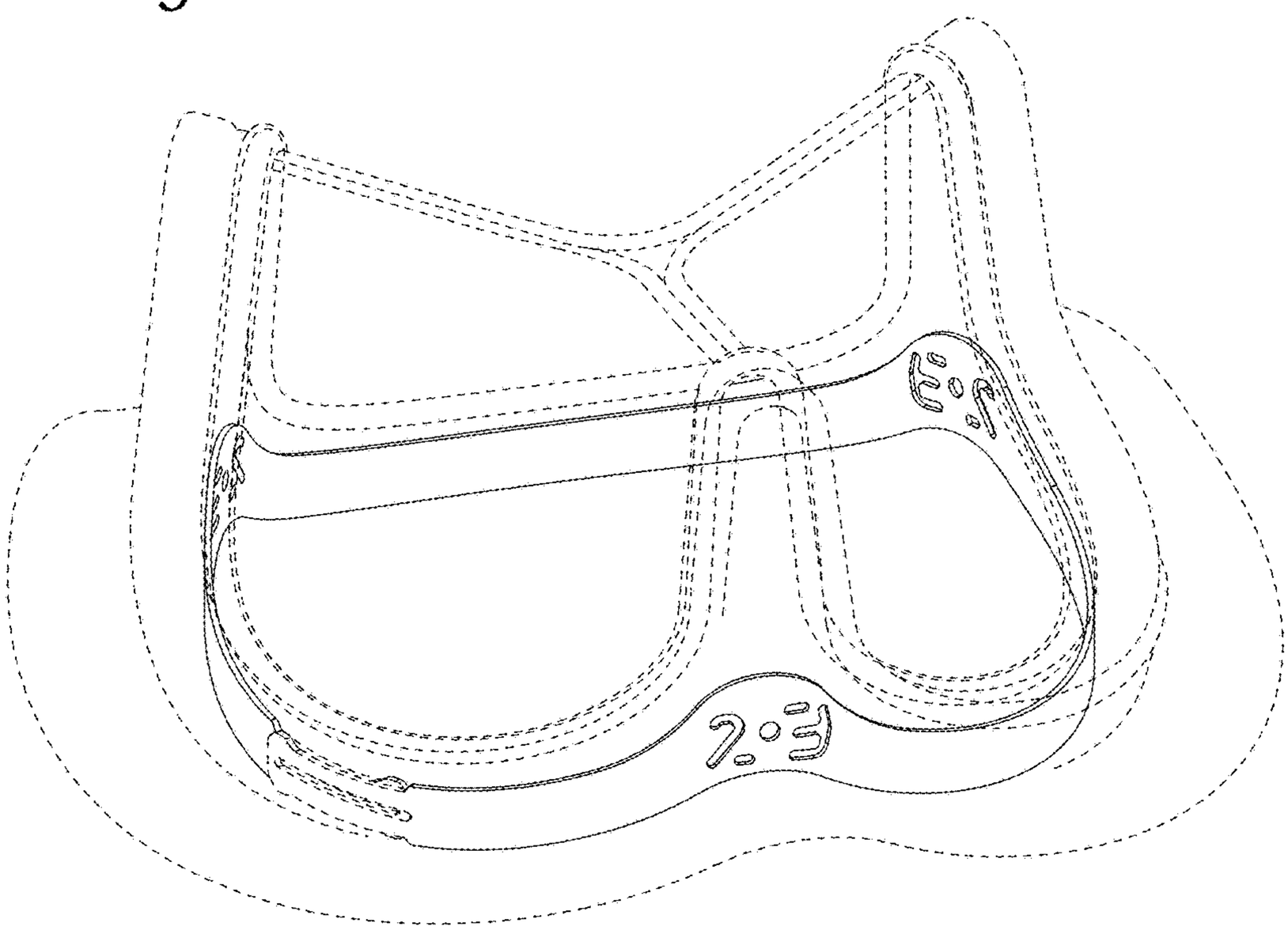


Fig. 16

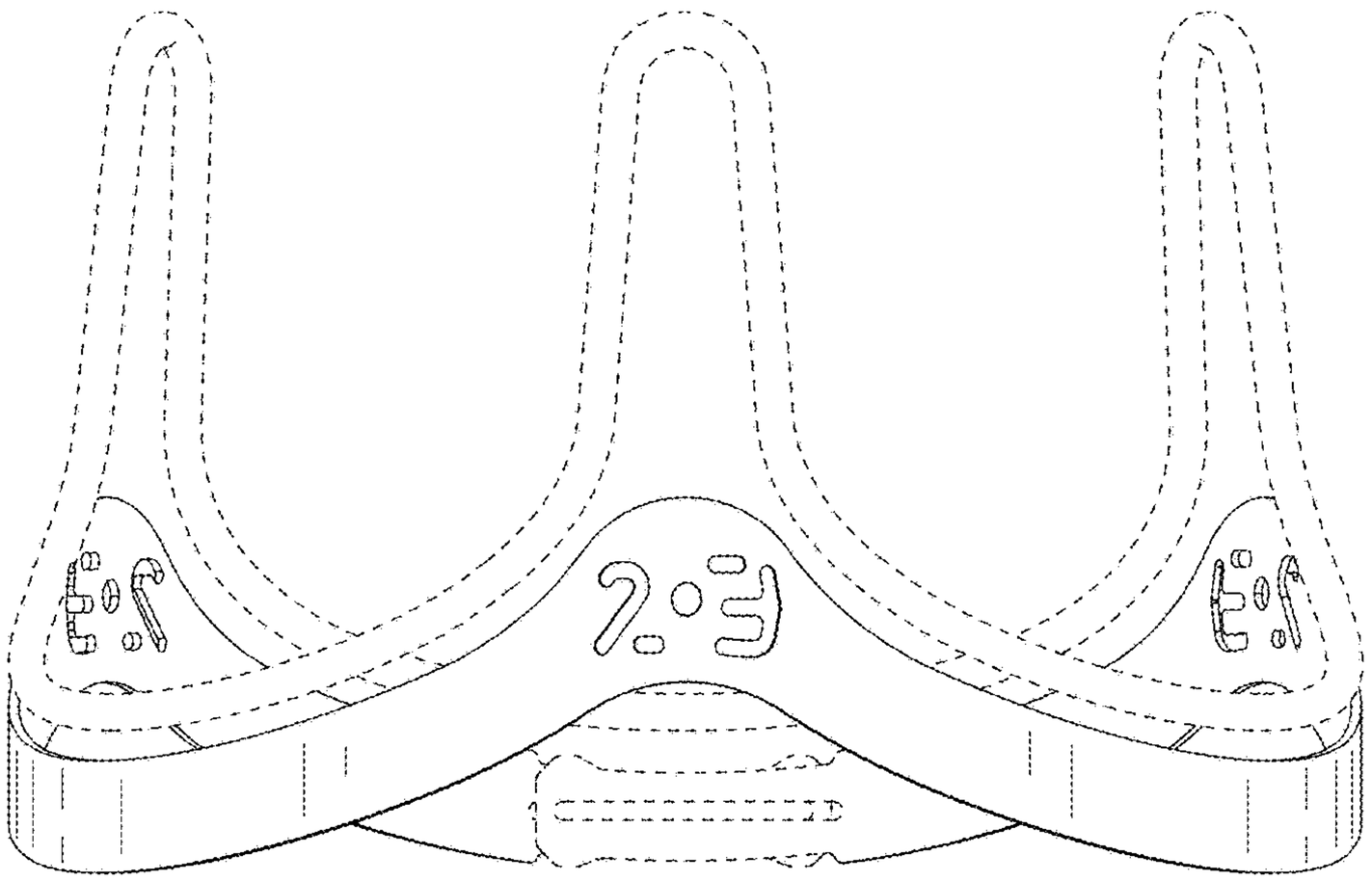


Fig. 17

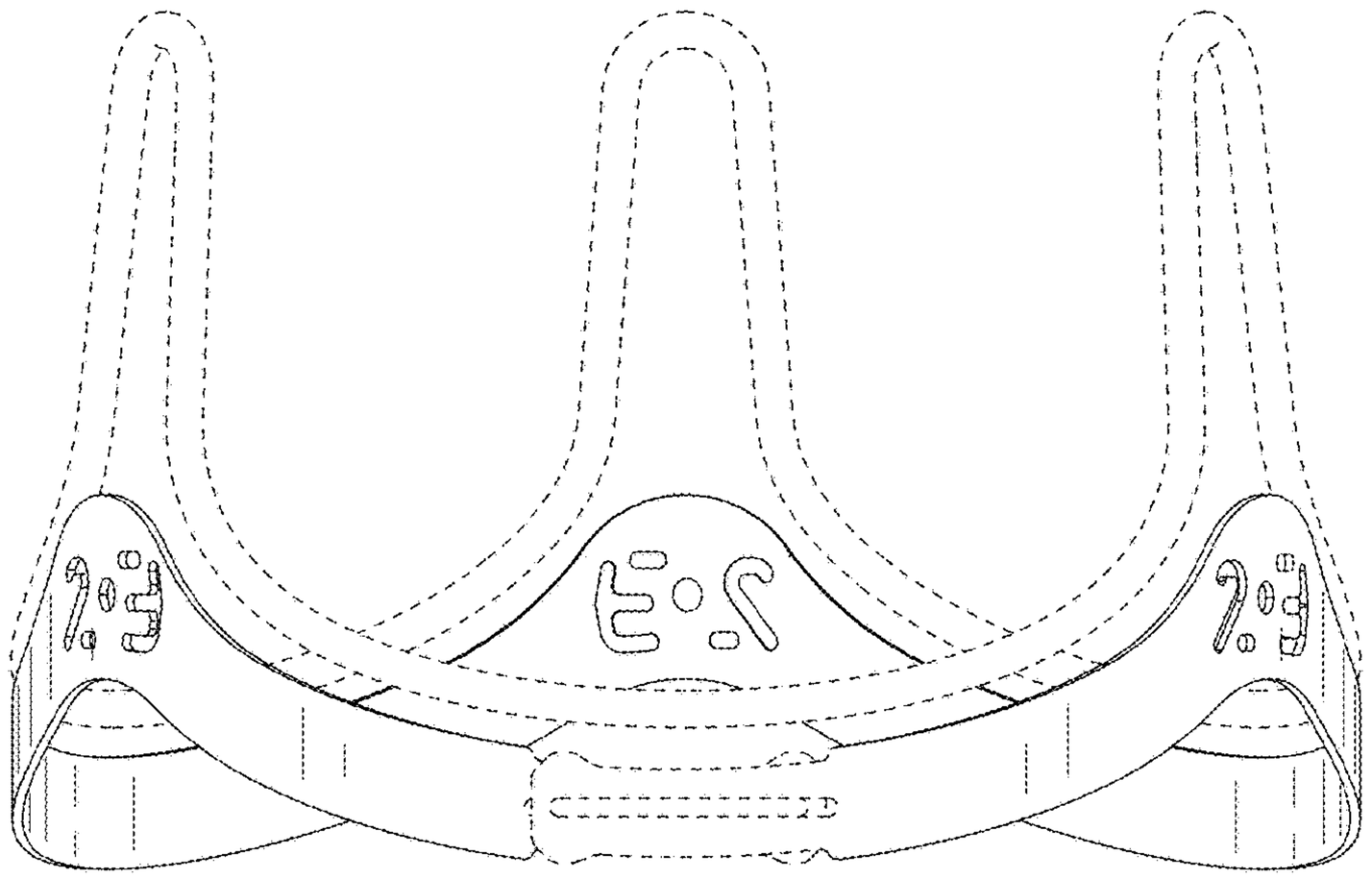


Fig. 18

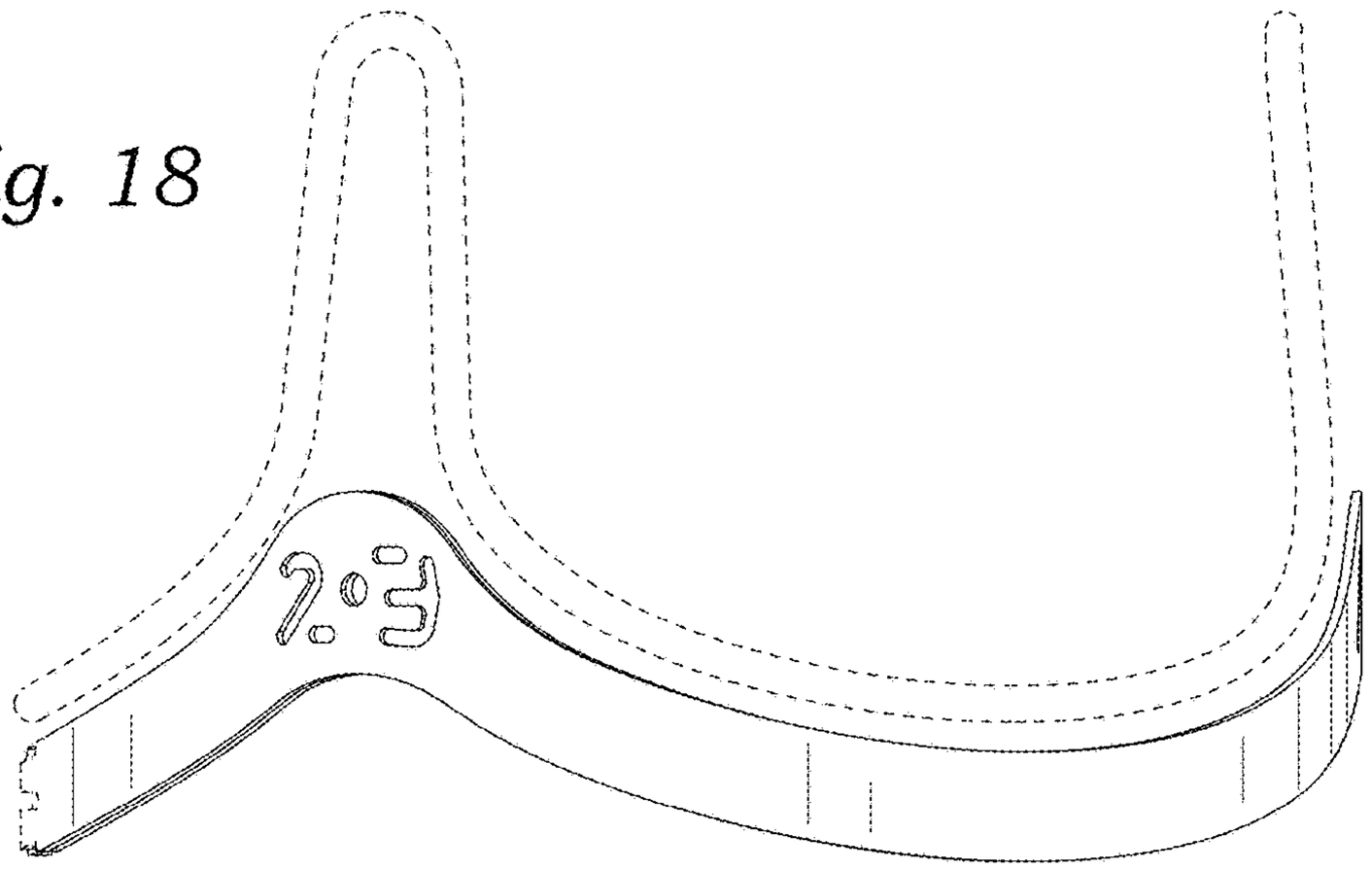


Fig. 19

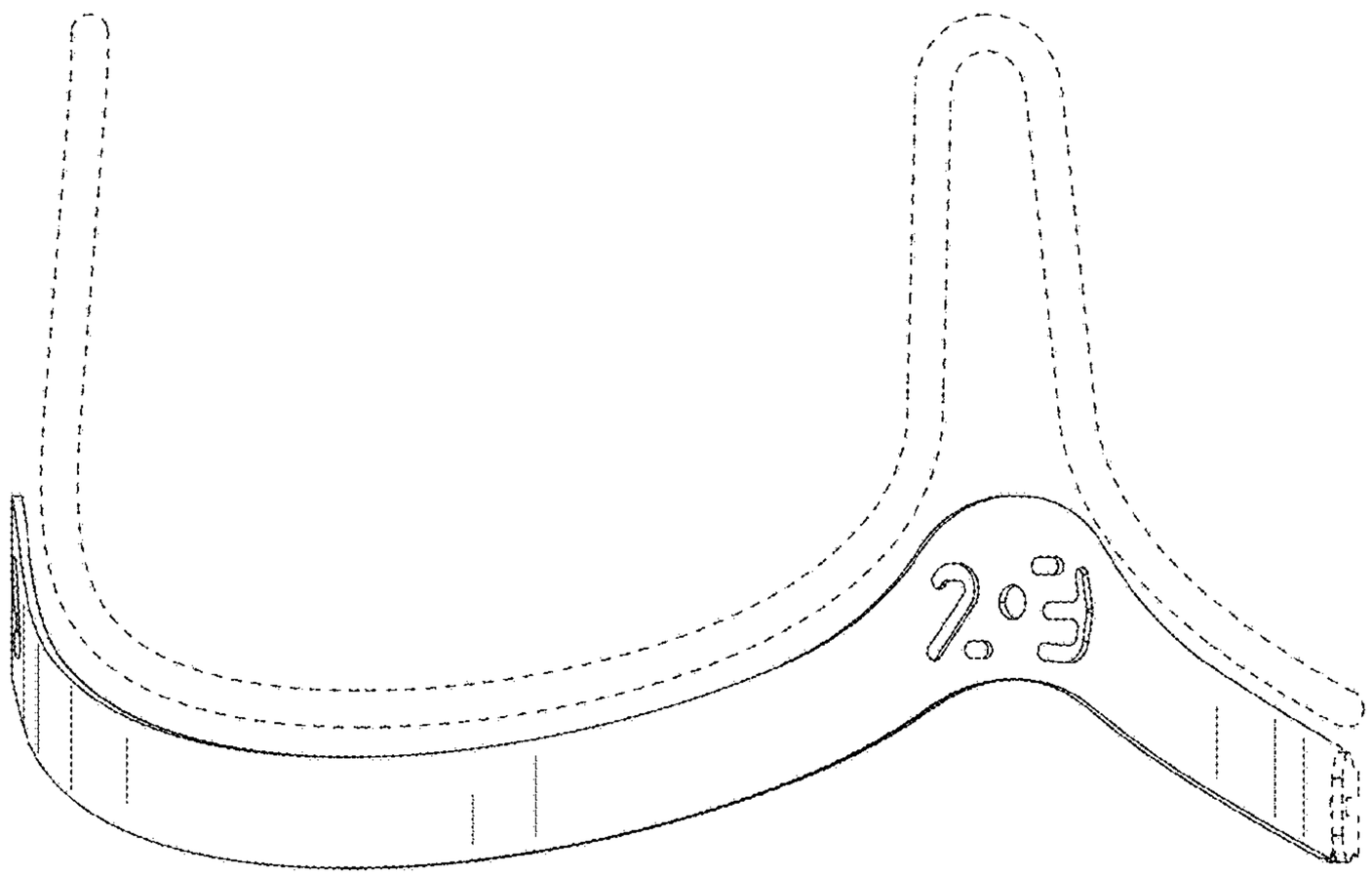


Fig. 20

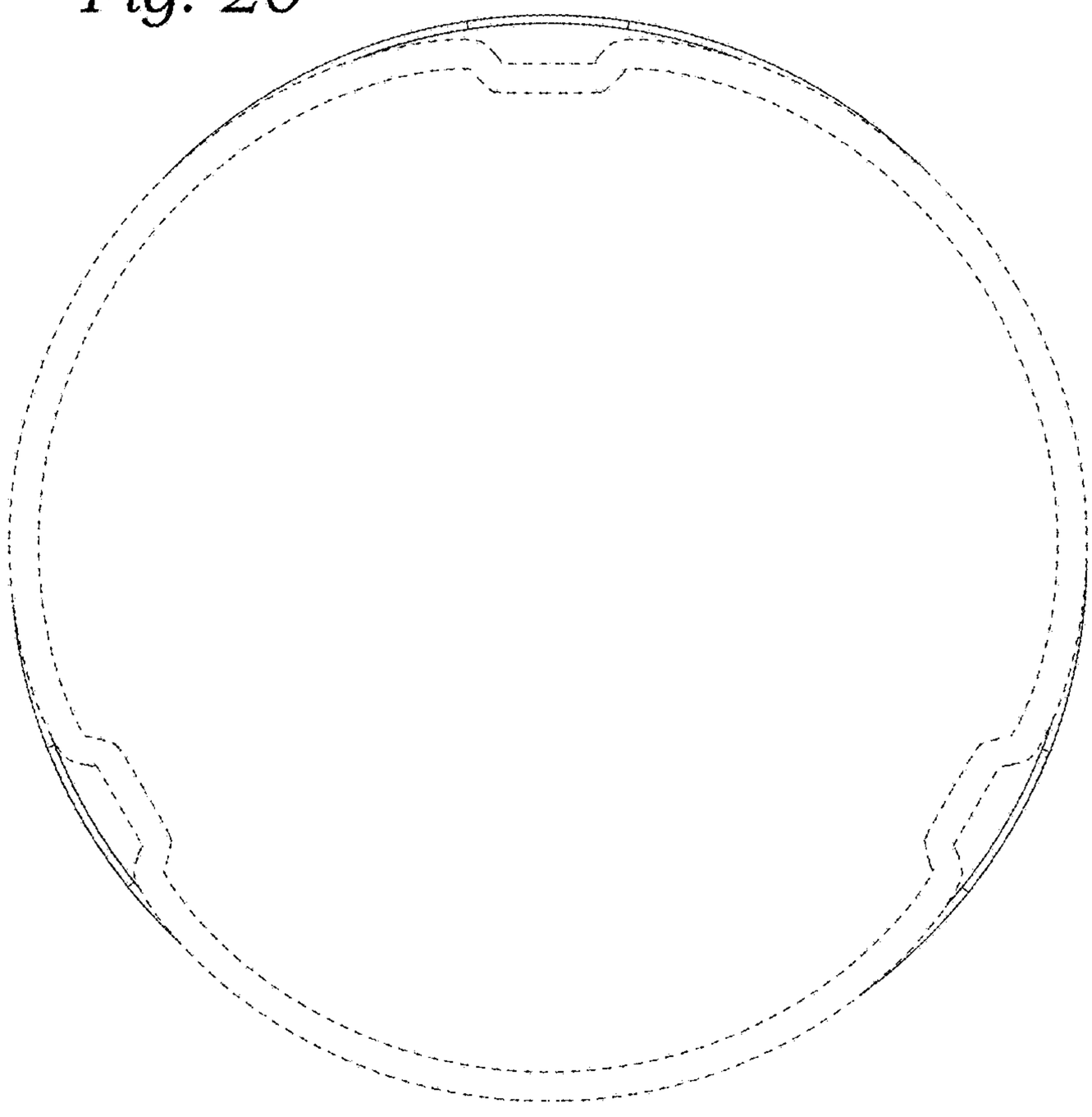


Fig. 21

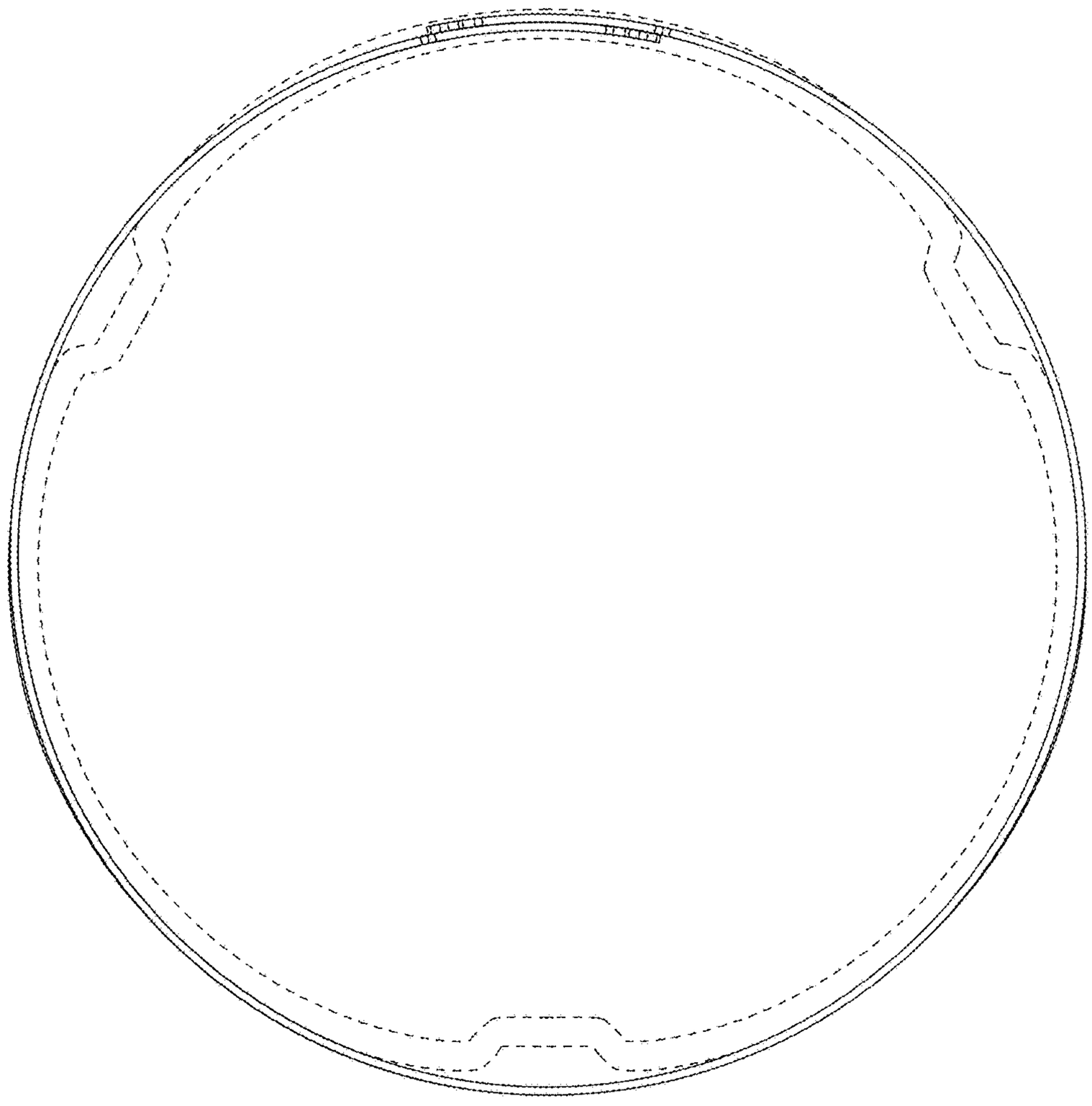


Fig. 22

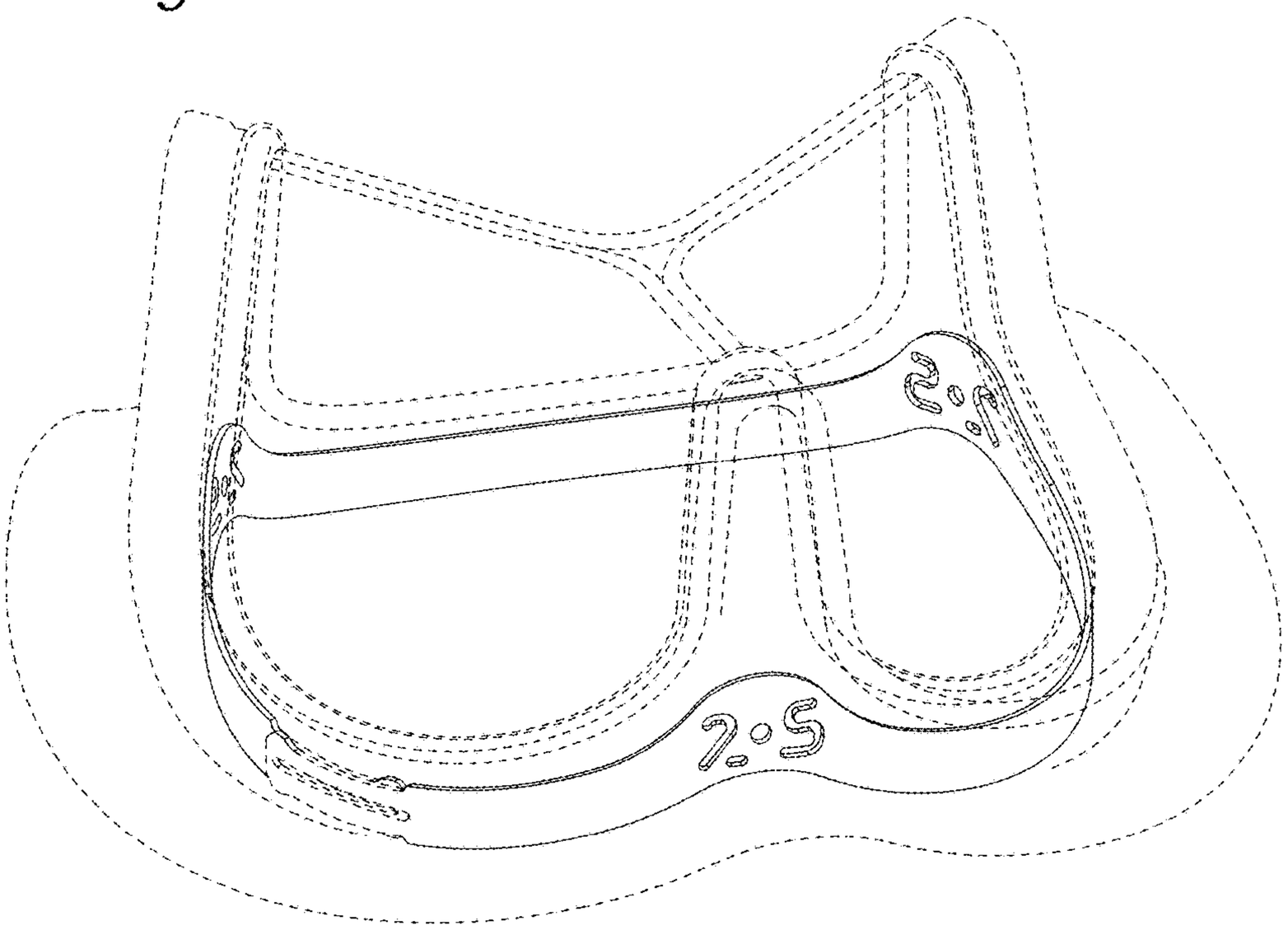


Fig. 23

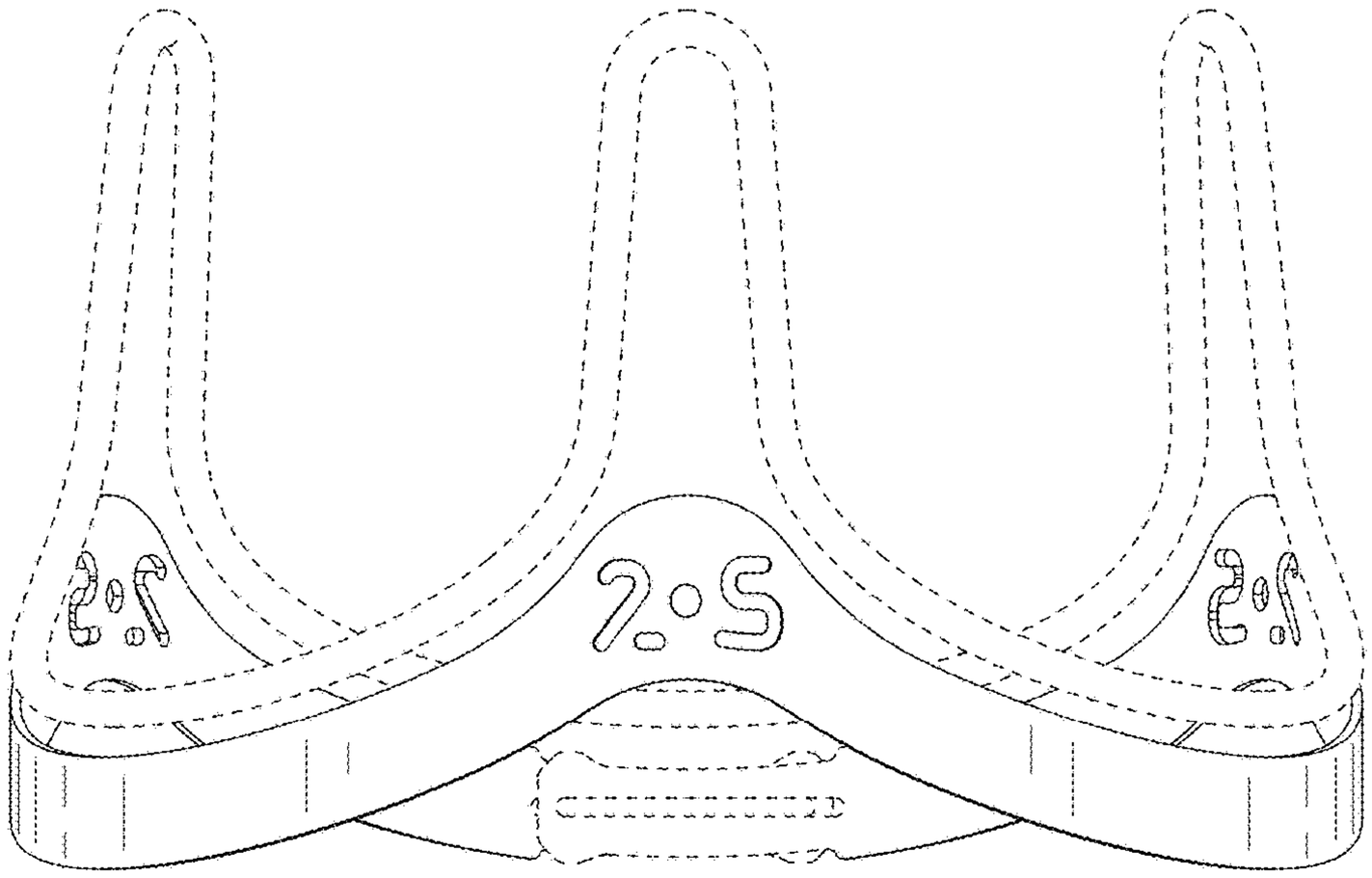


Fig. 24

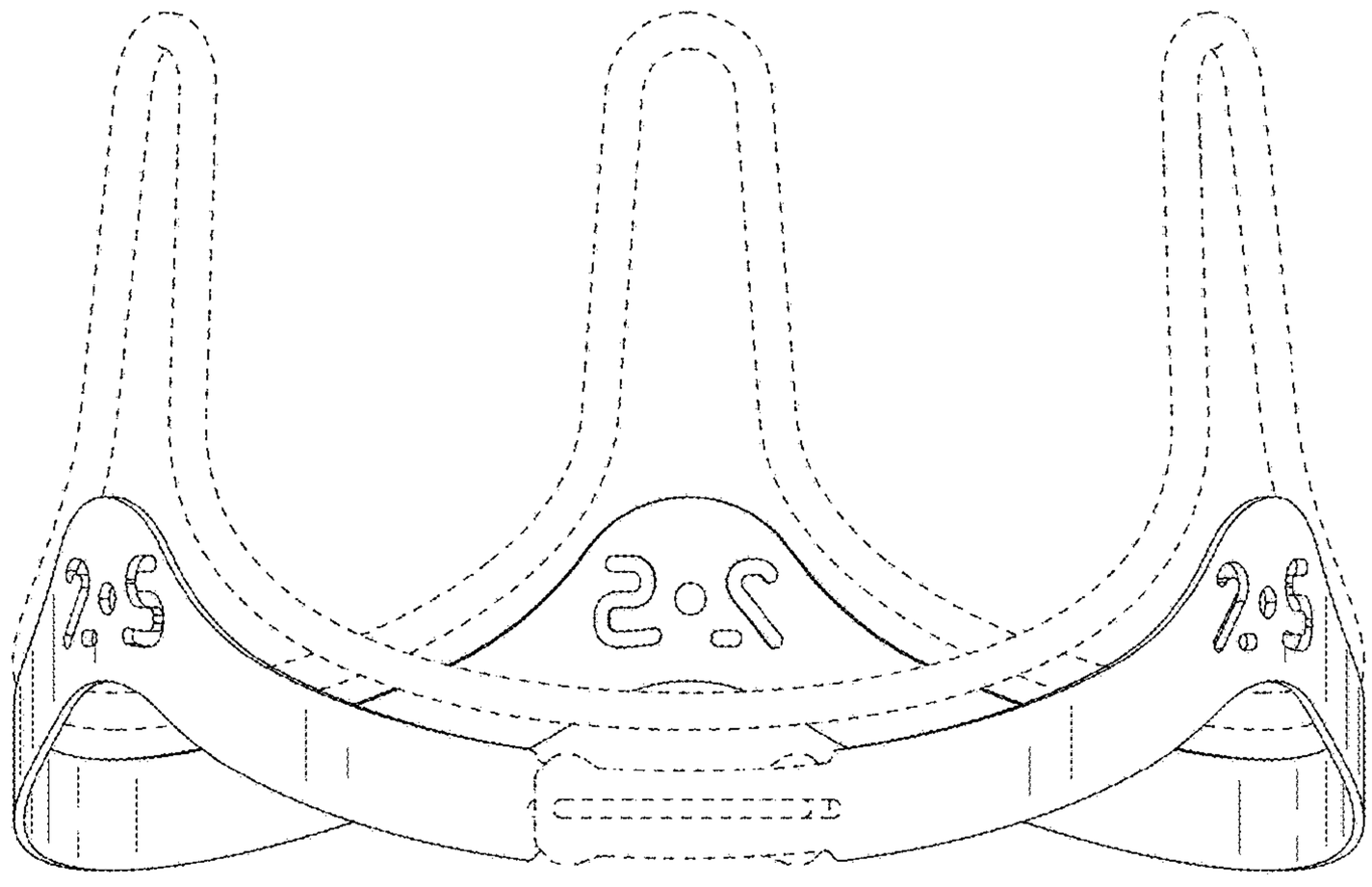


Fig. 25

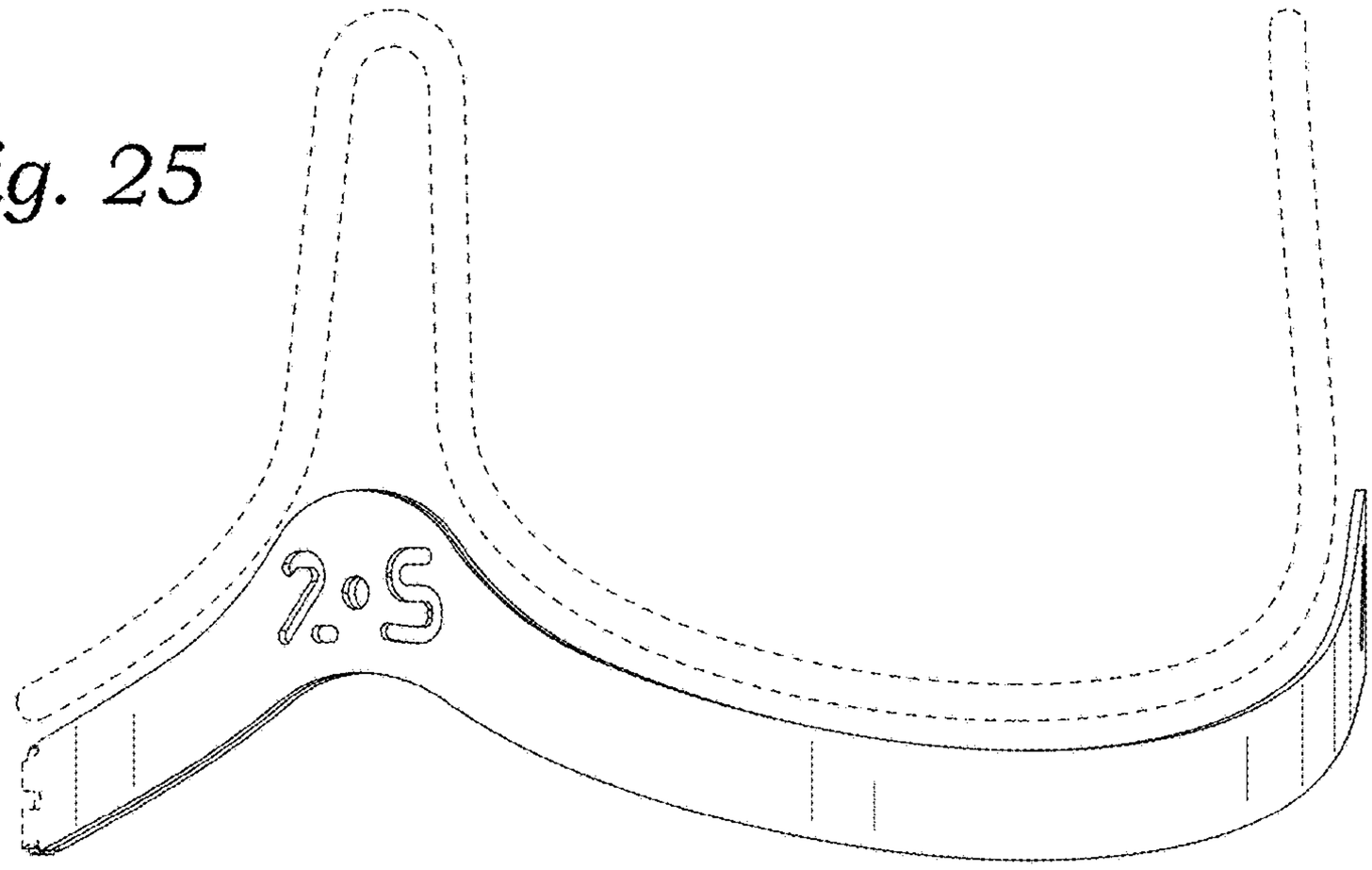


Fig. 26

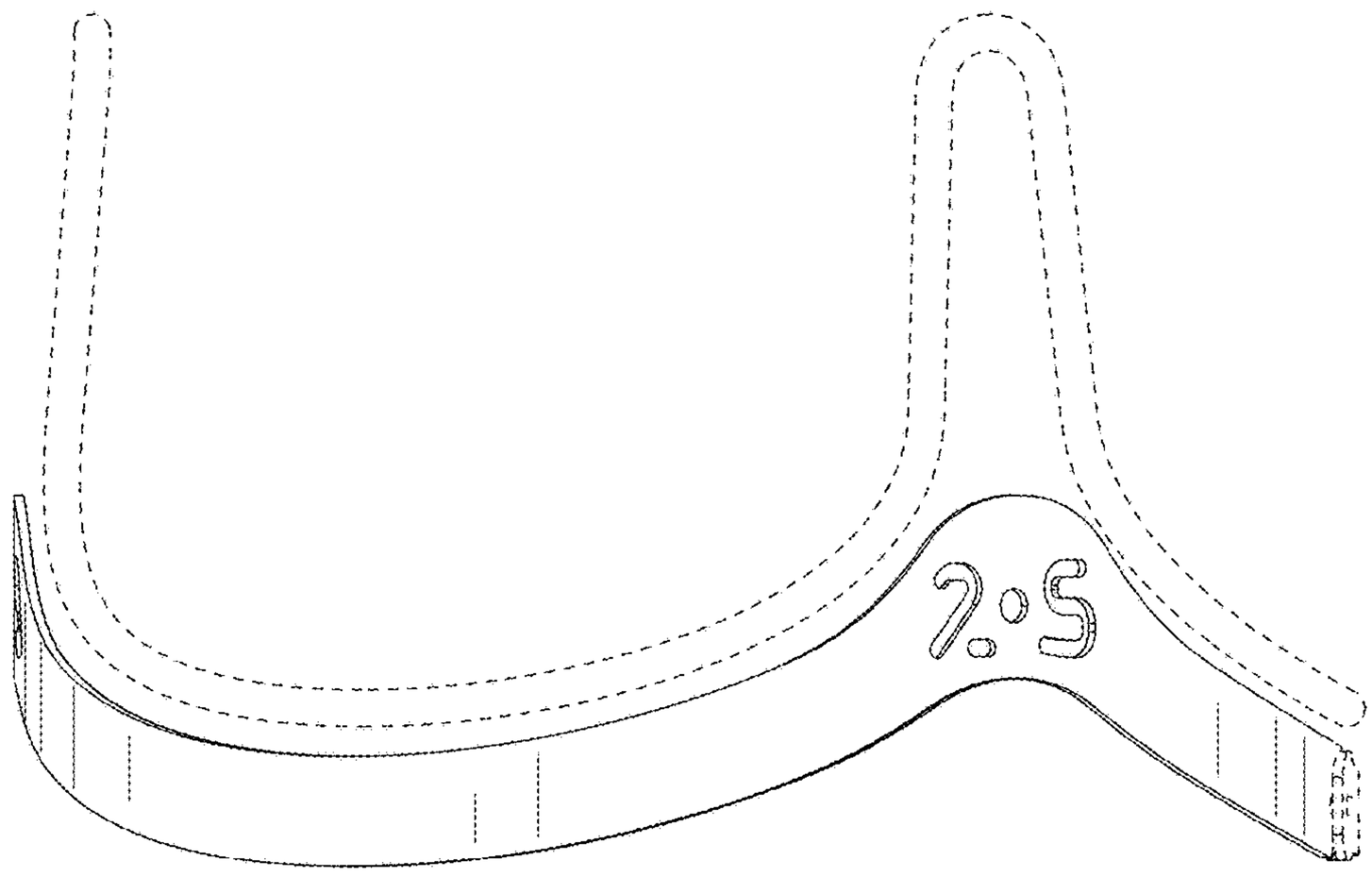


Fig. 27

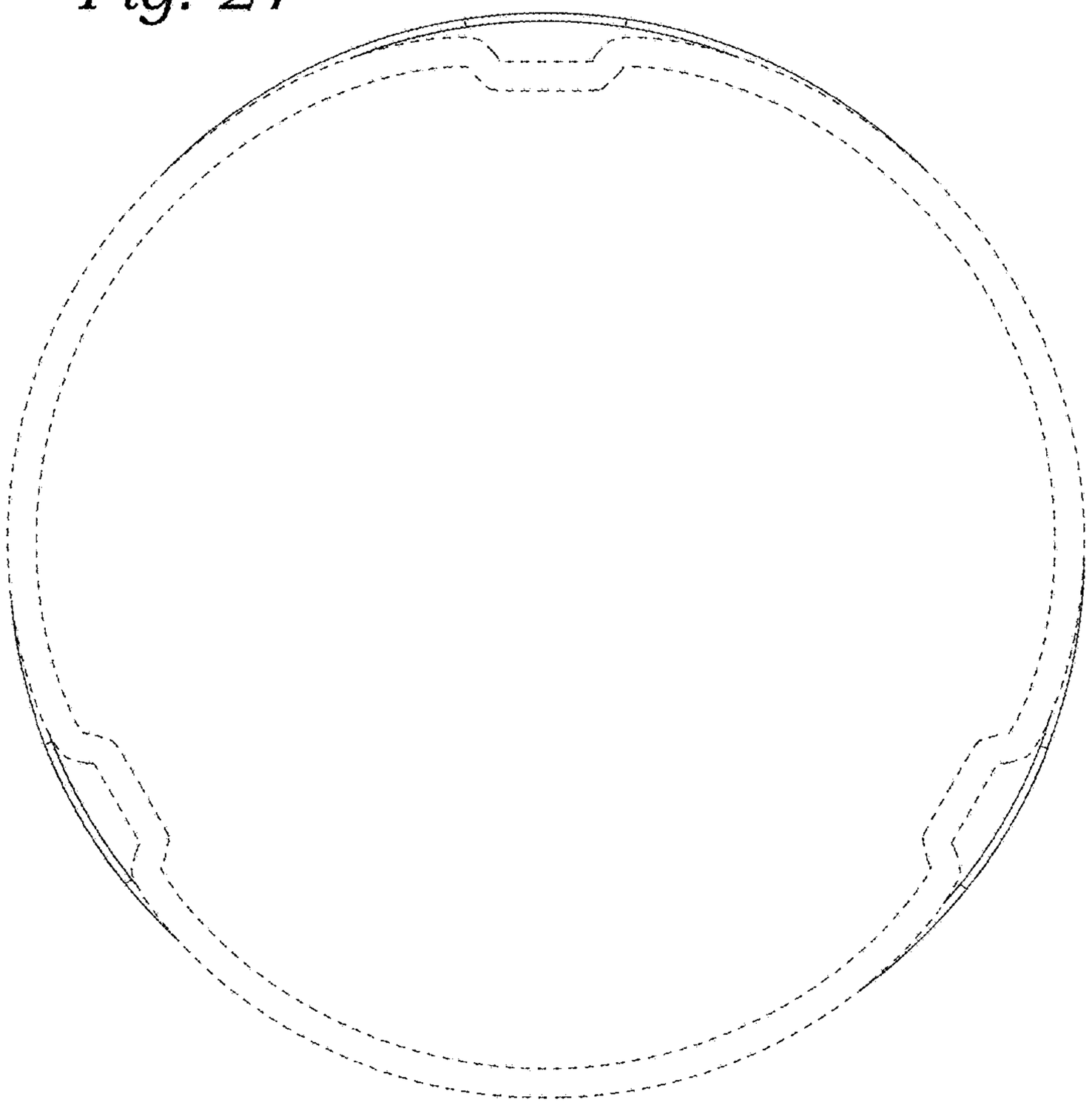


Fig. 28

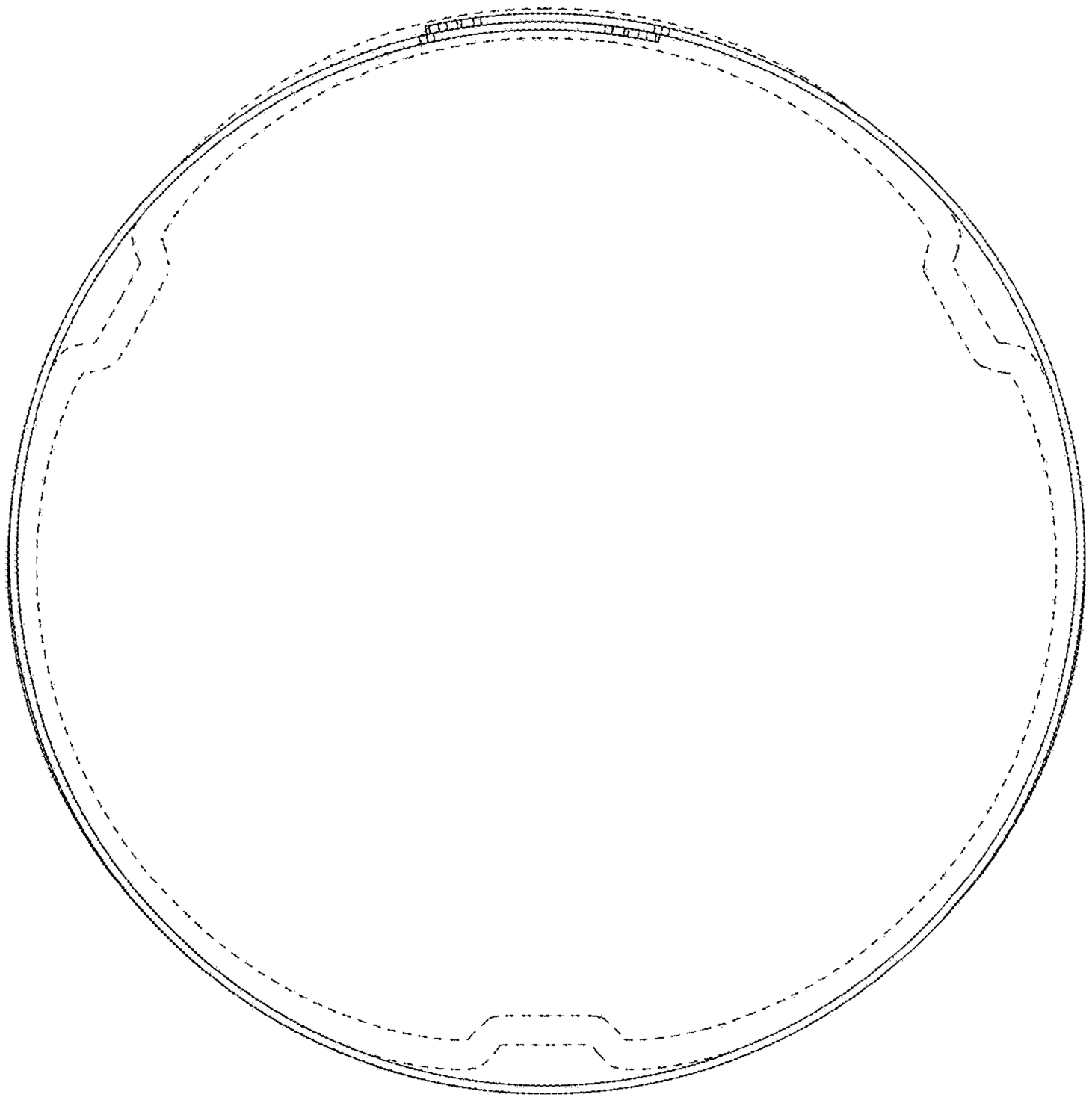


Fig. 29

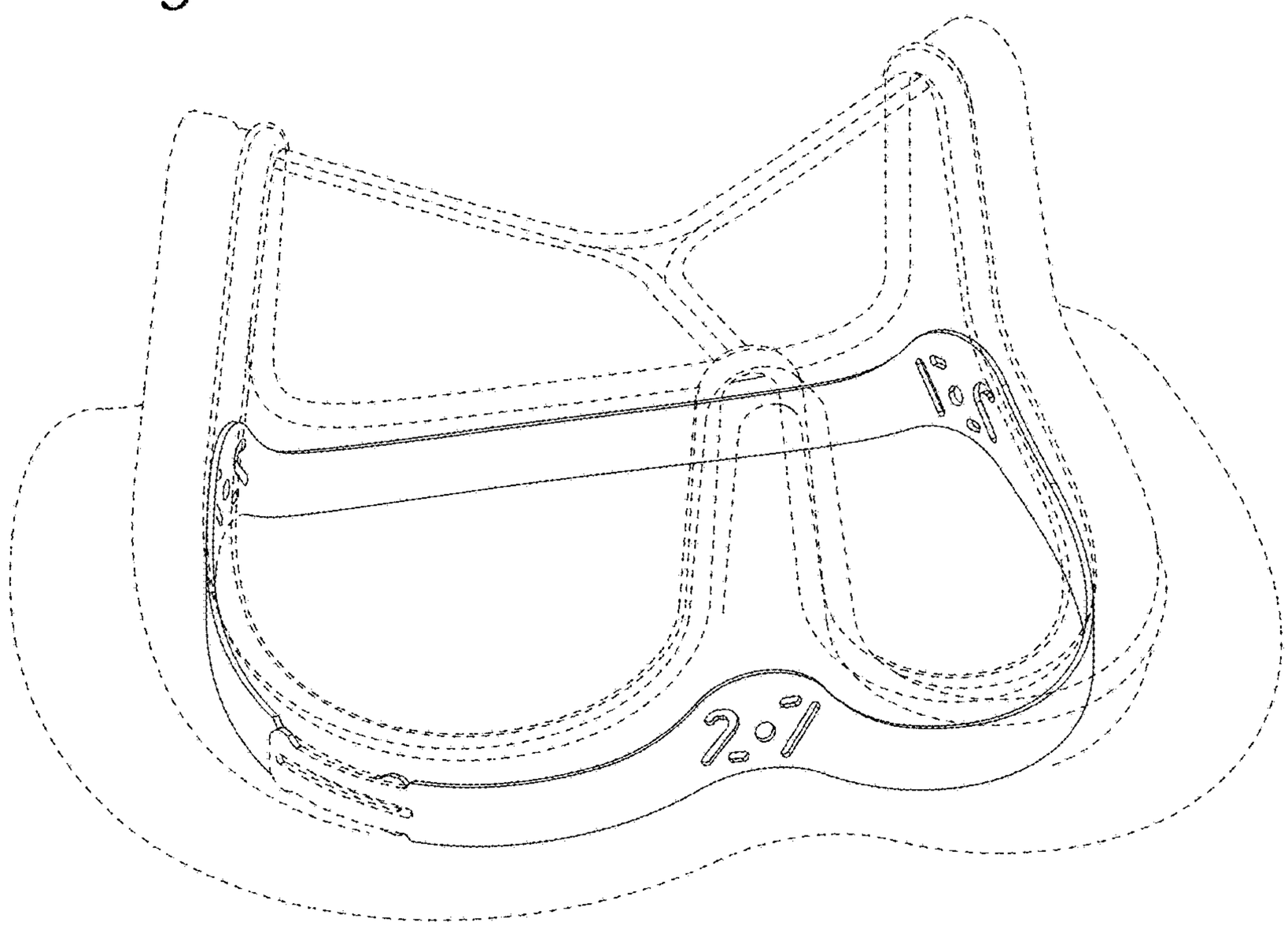


Fig. 30

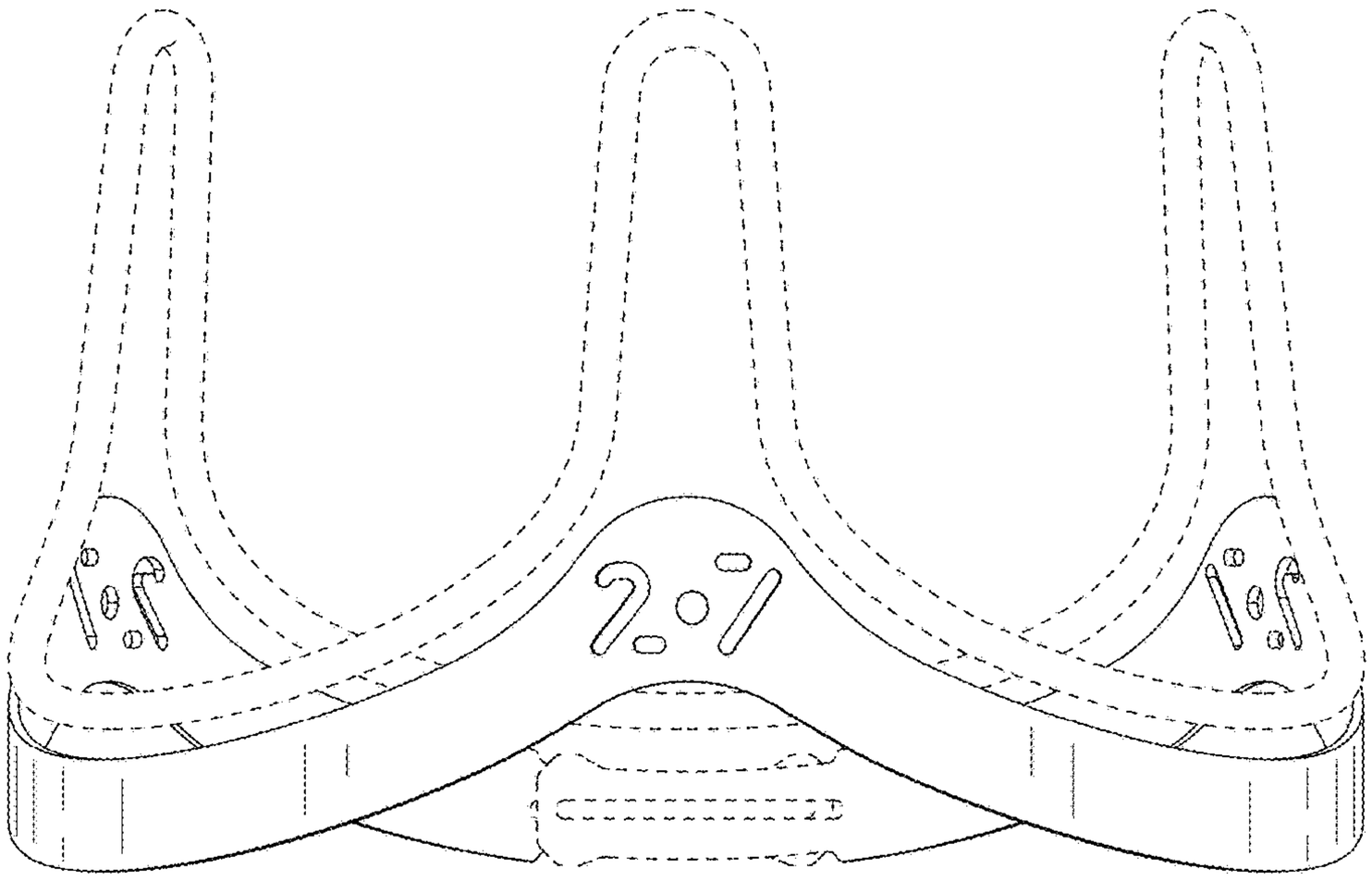


Fig. 31

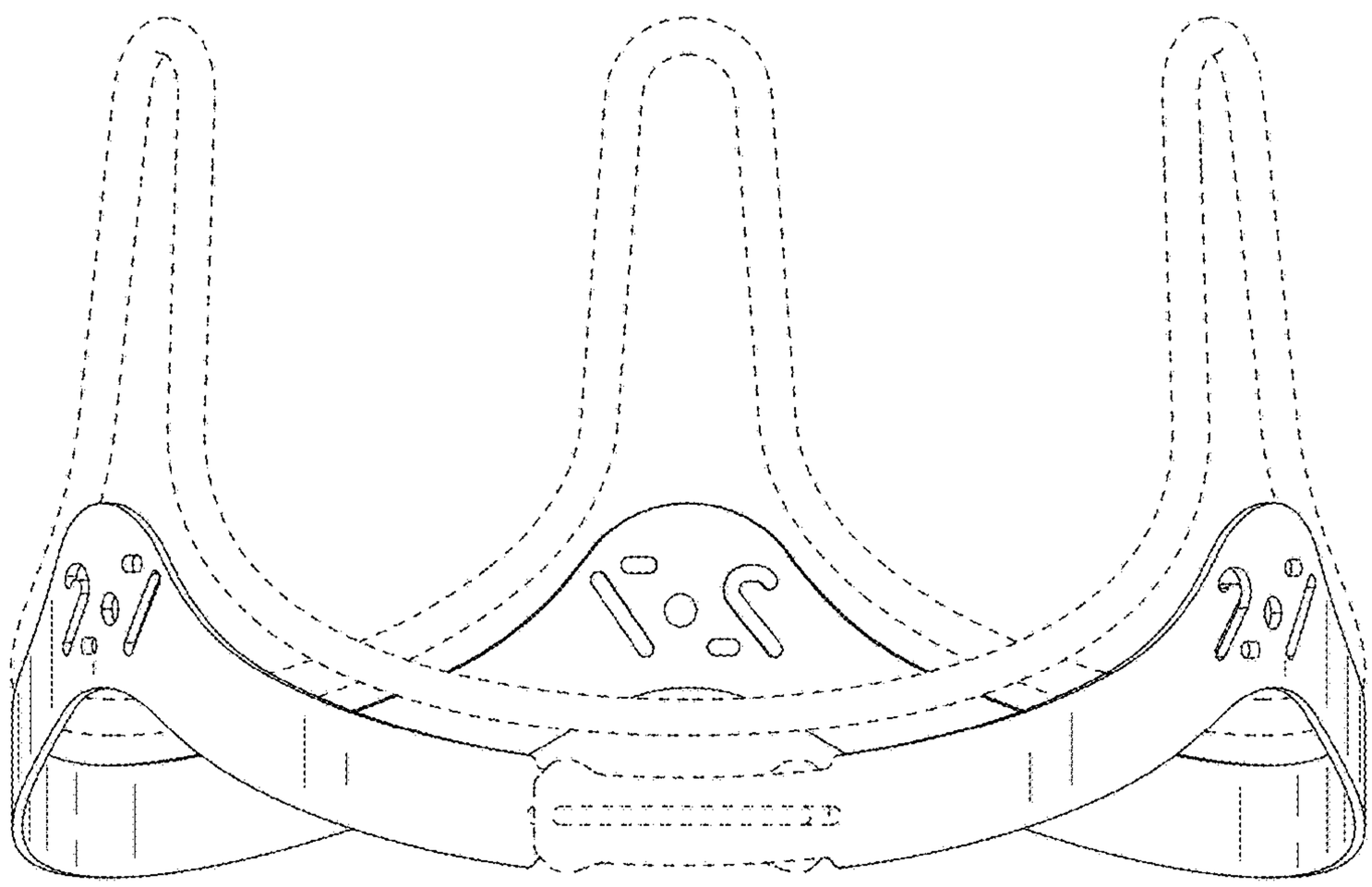


Fig. 32

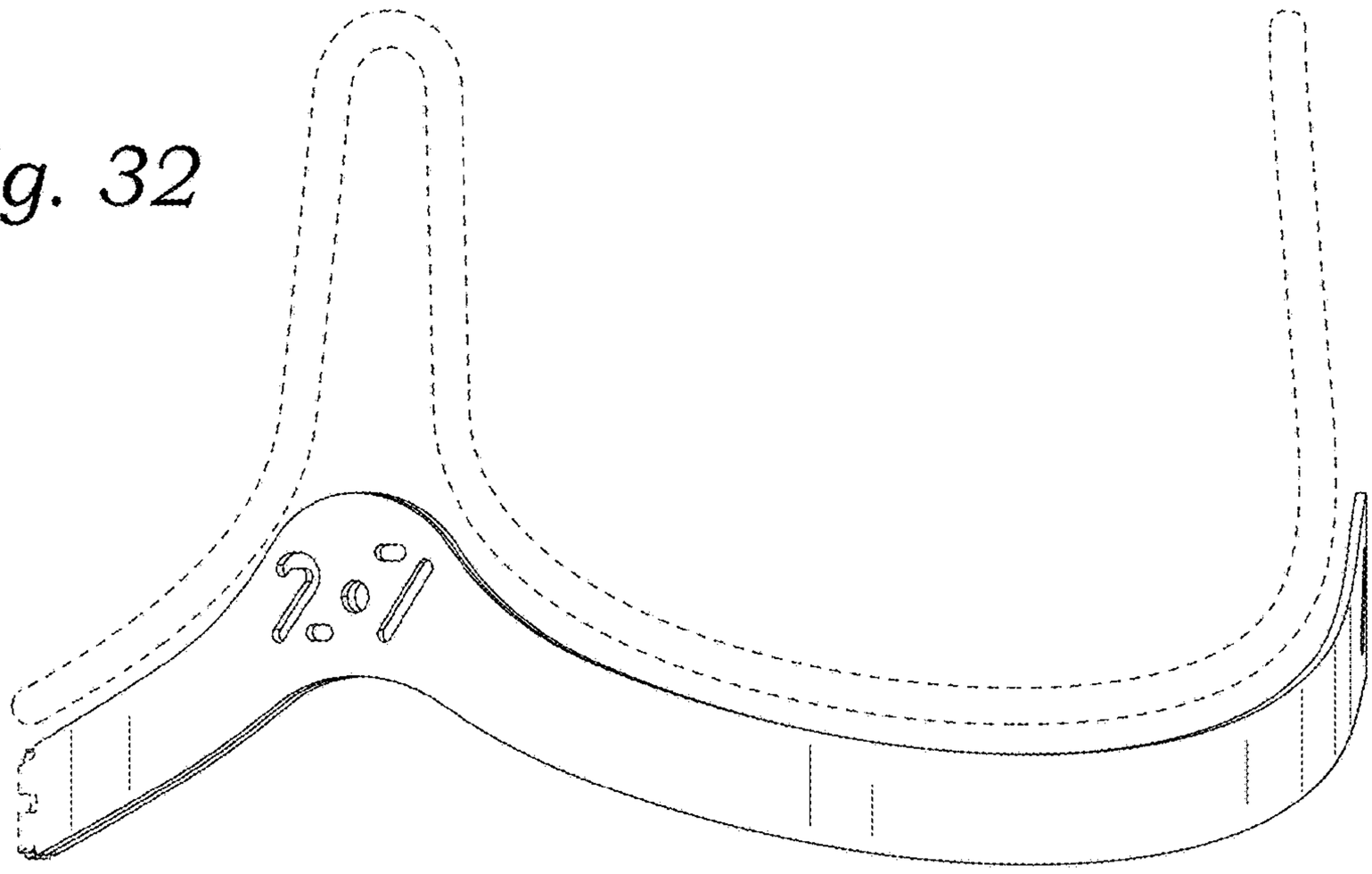


Fig. 33

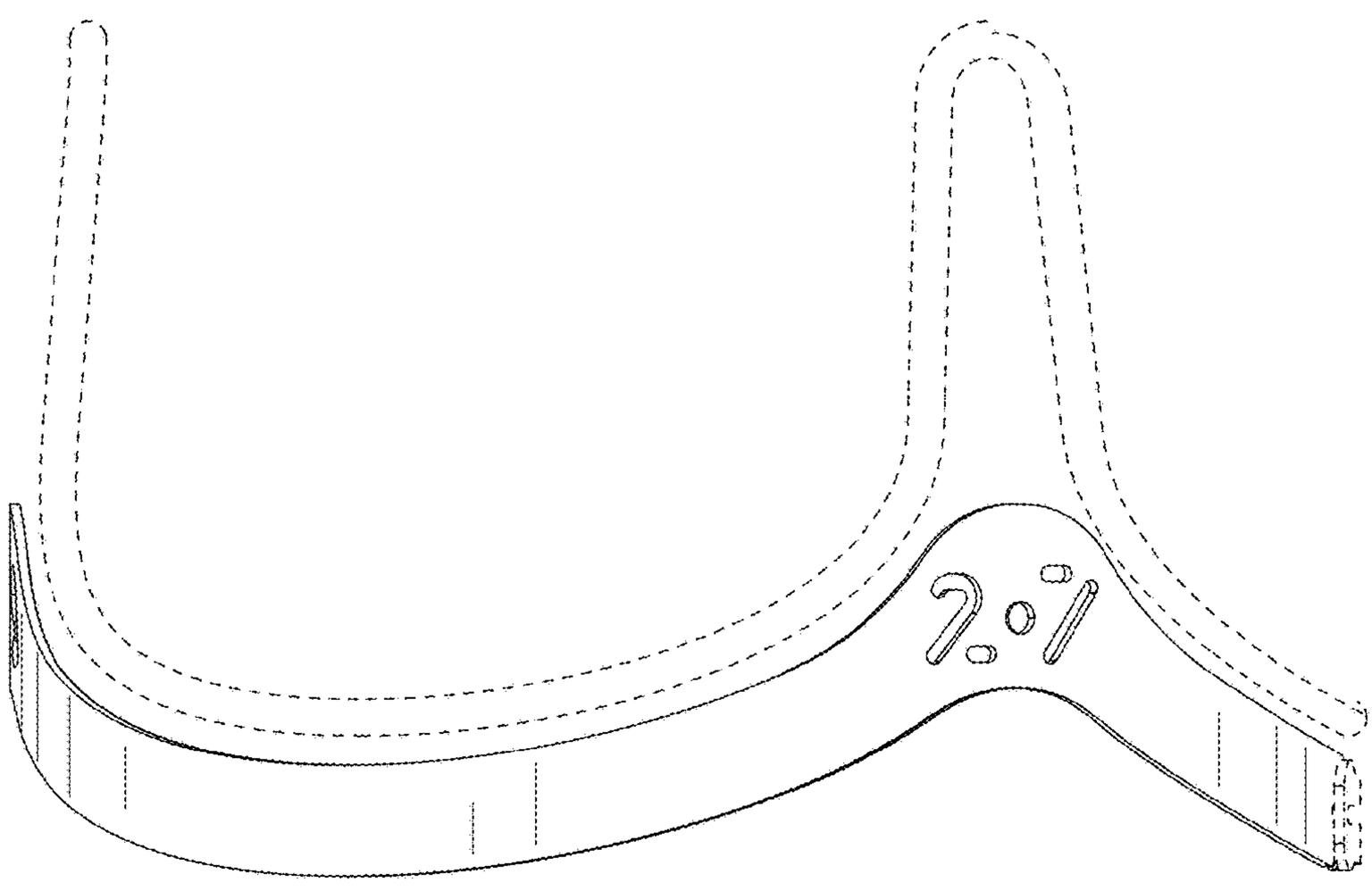


Fig. 34

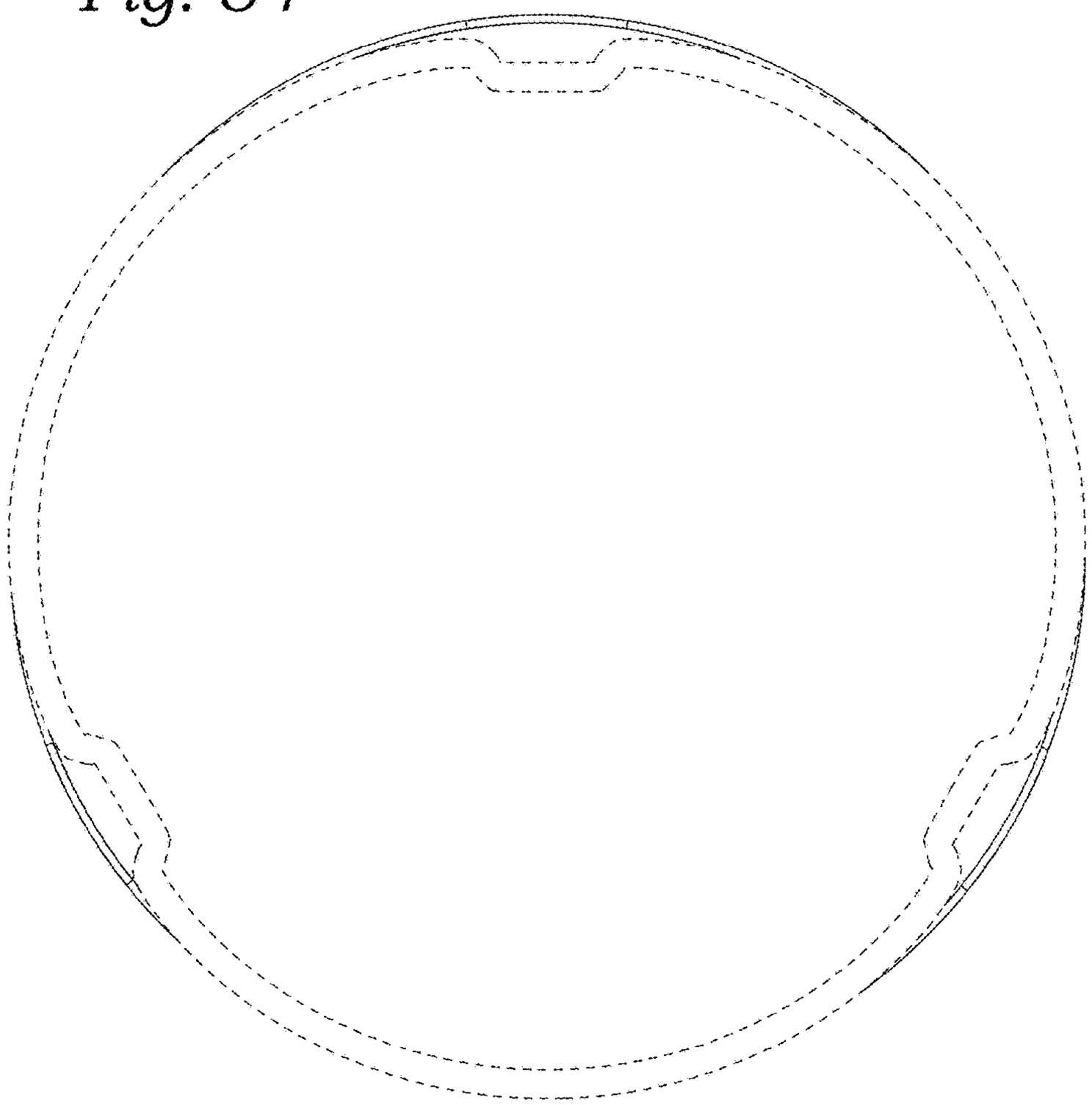


Fig. 35

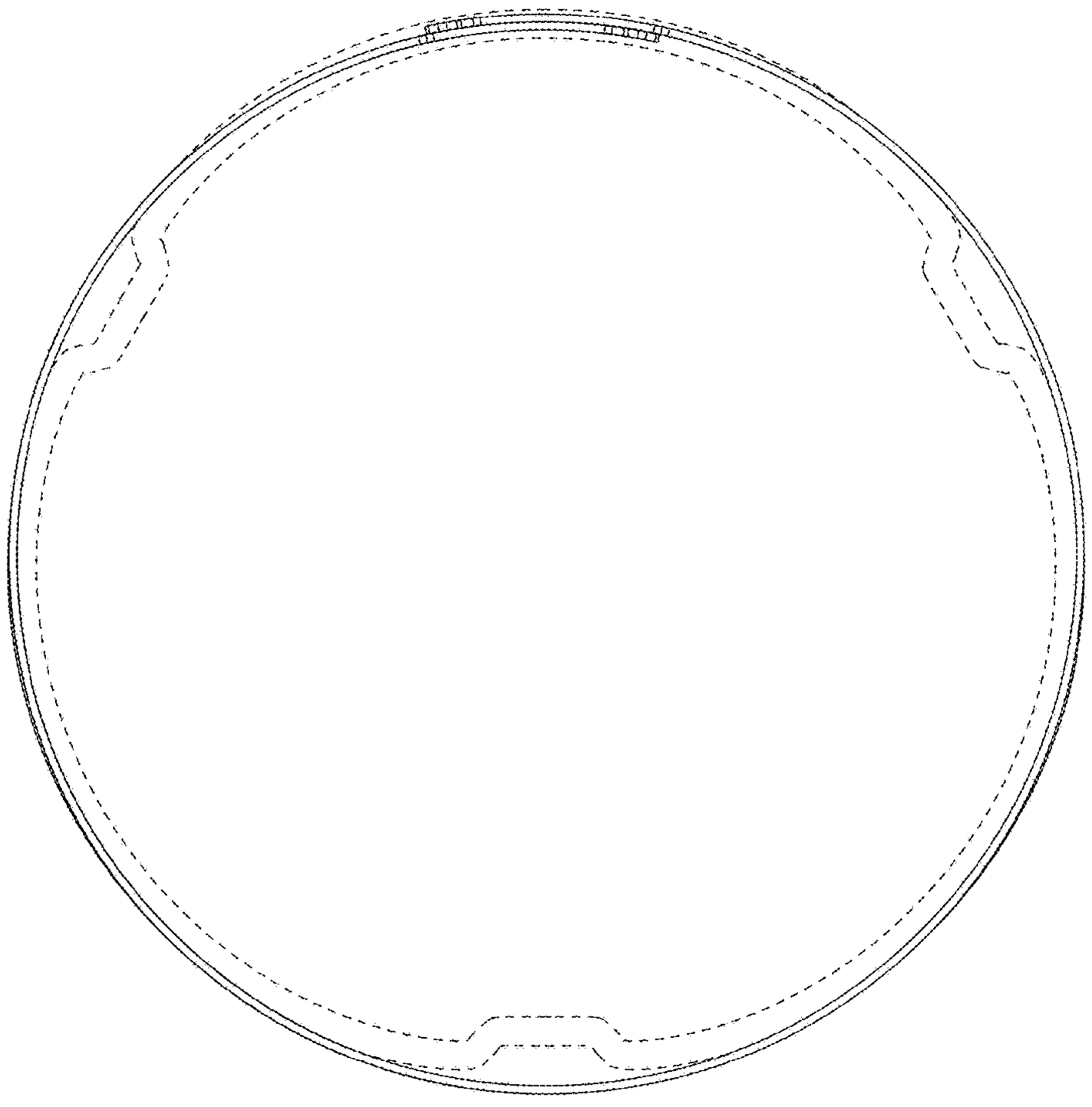


Fig. 36

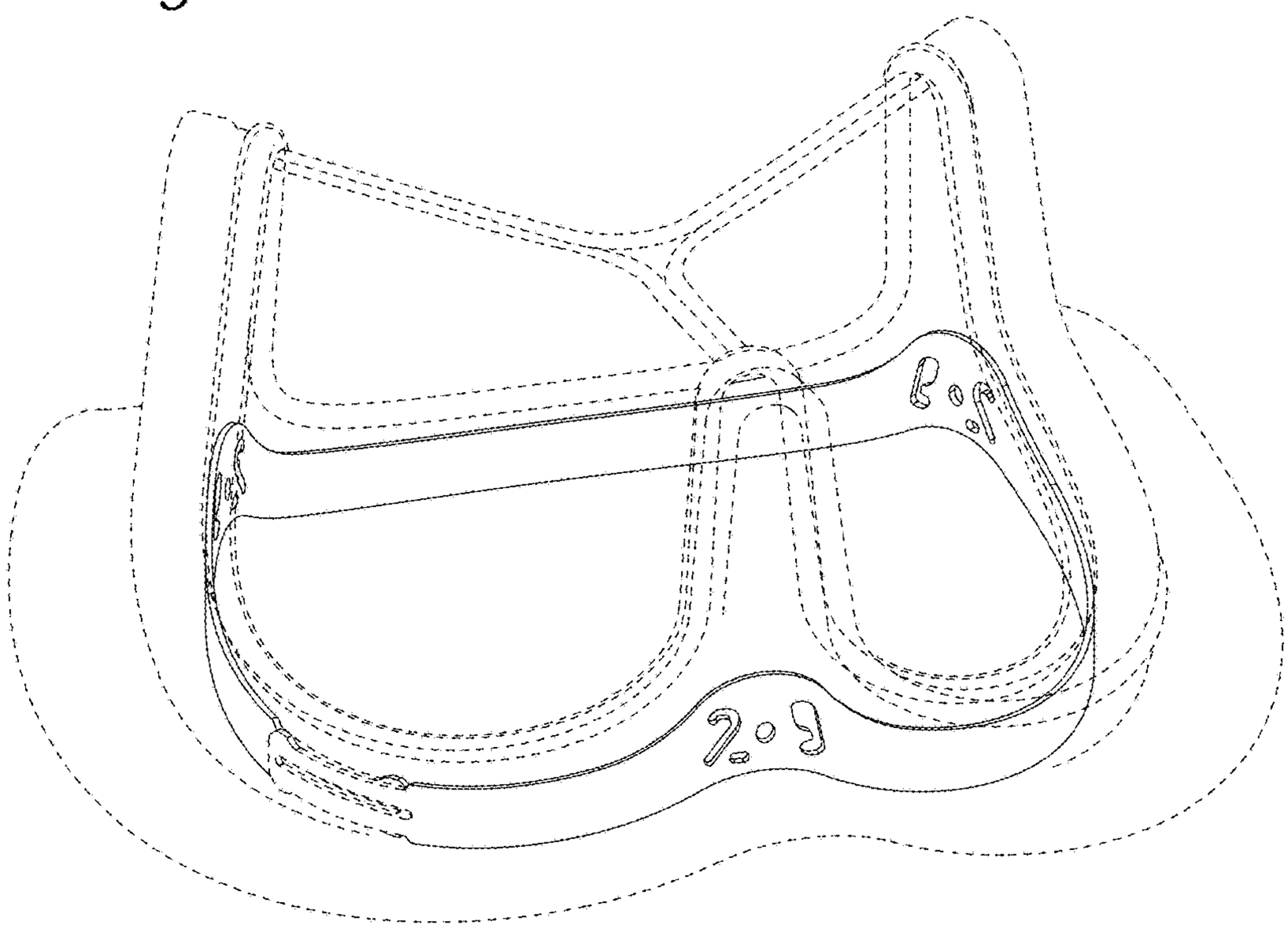


Fig. 37

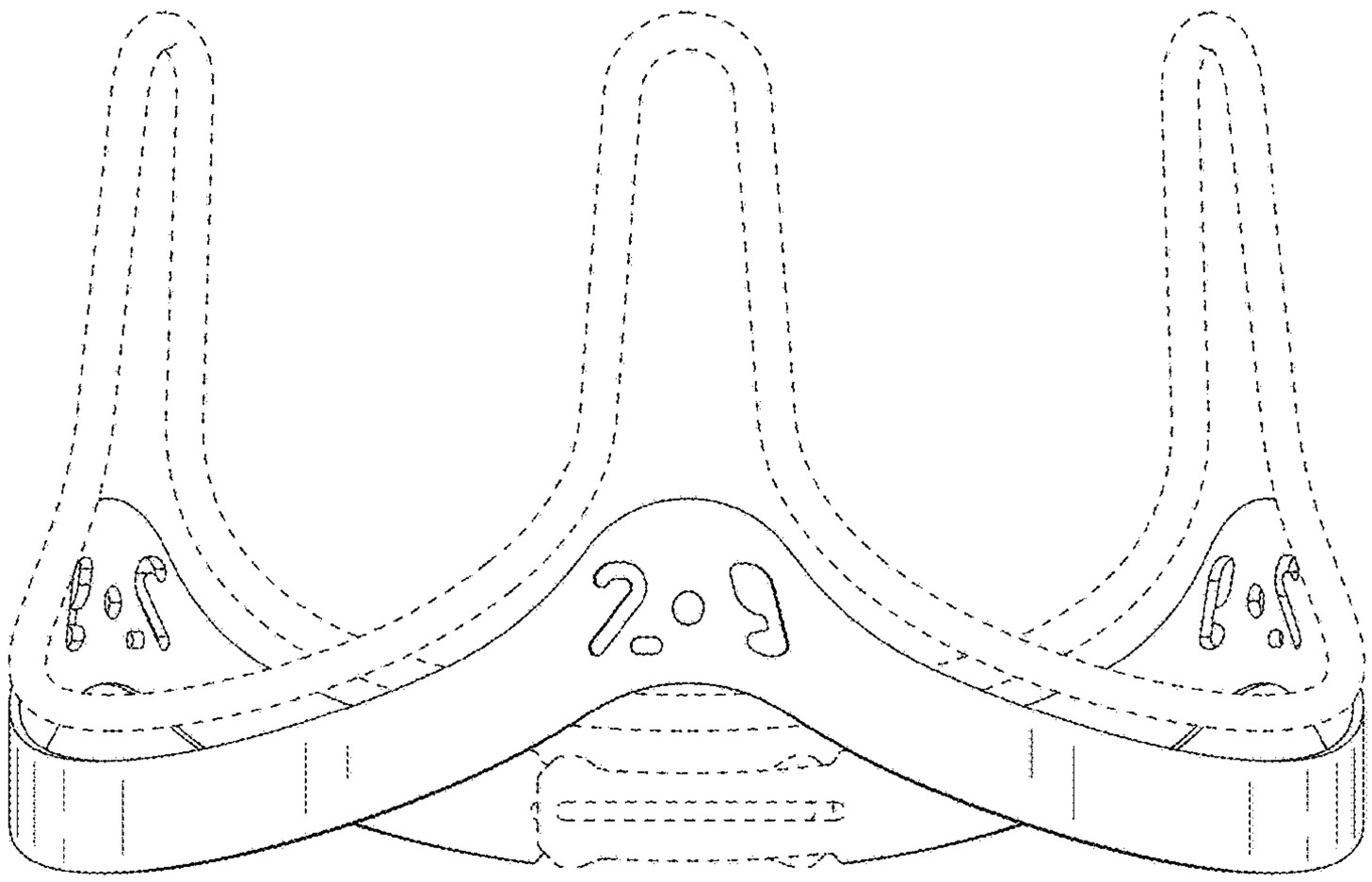


Fig. 38

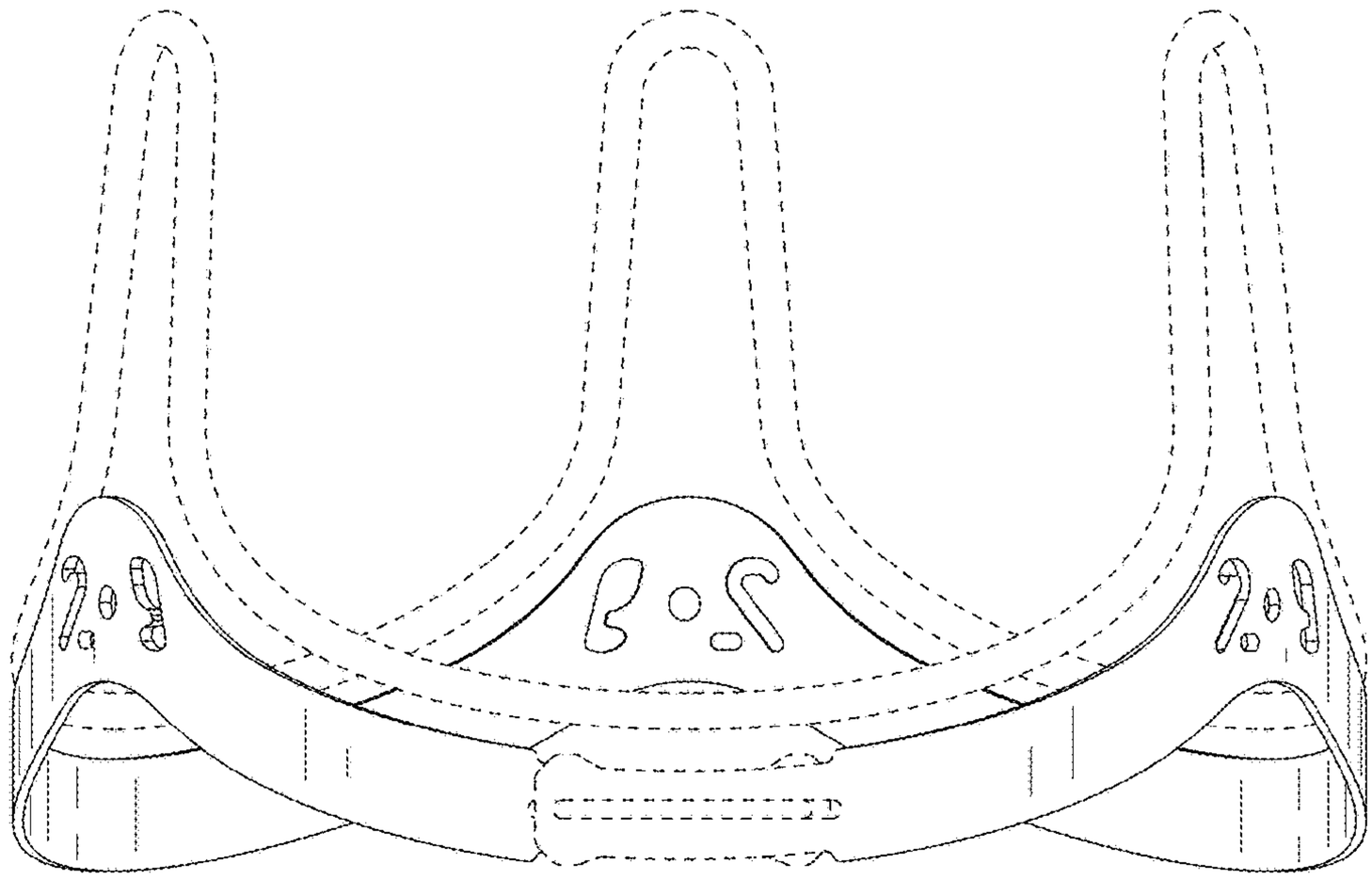


Fig. 39

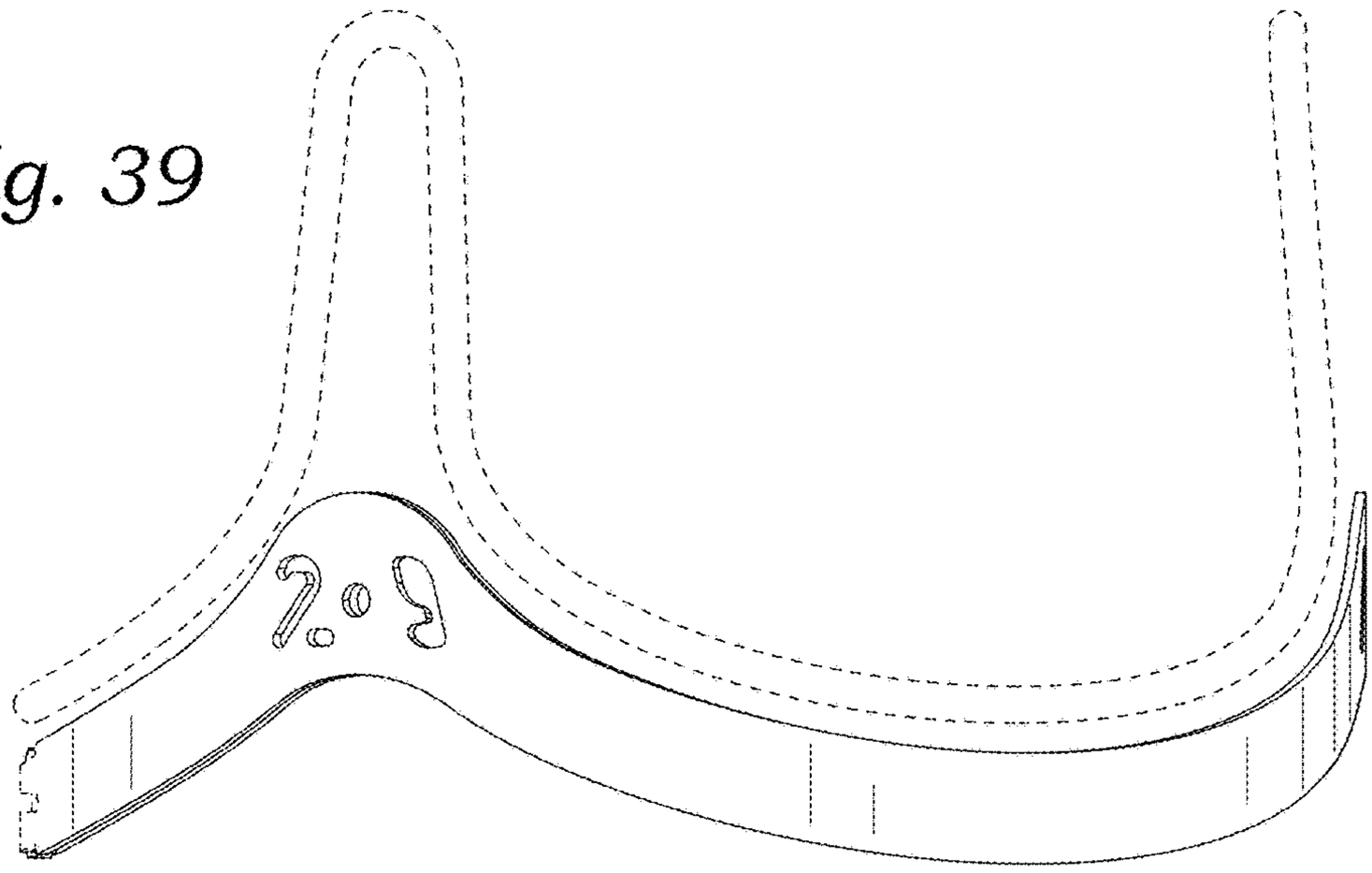


Fig. 40

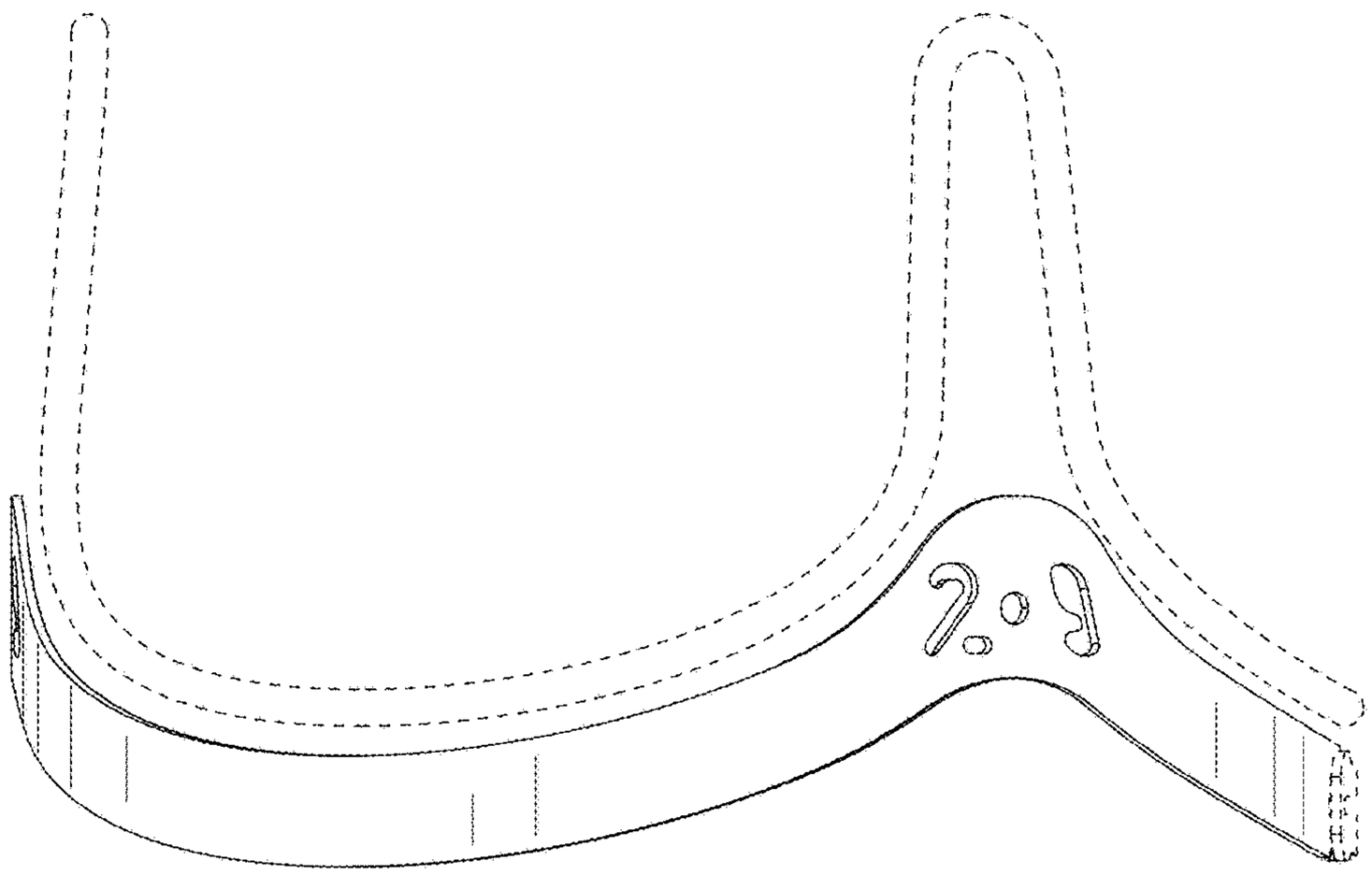


Fig. 41

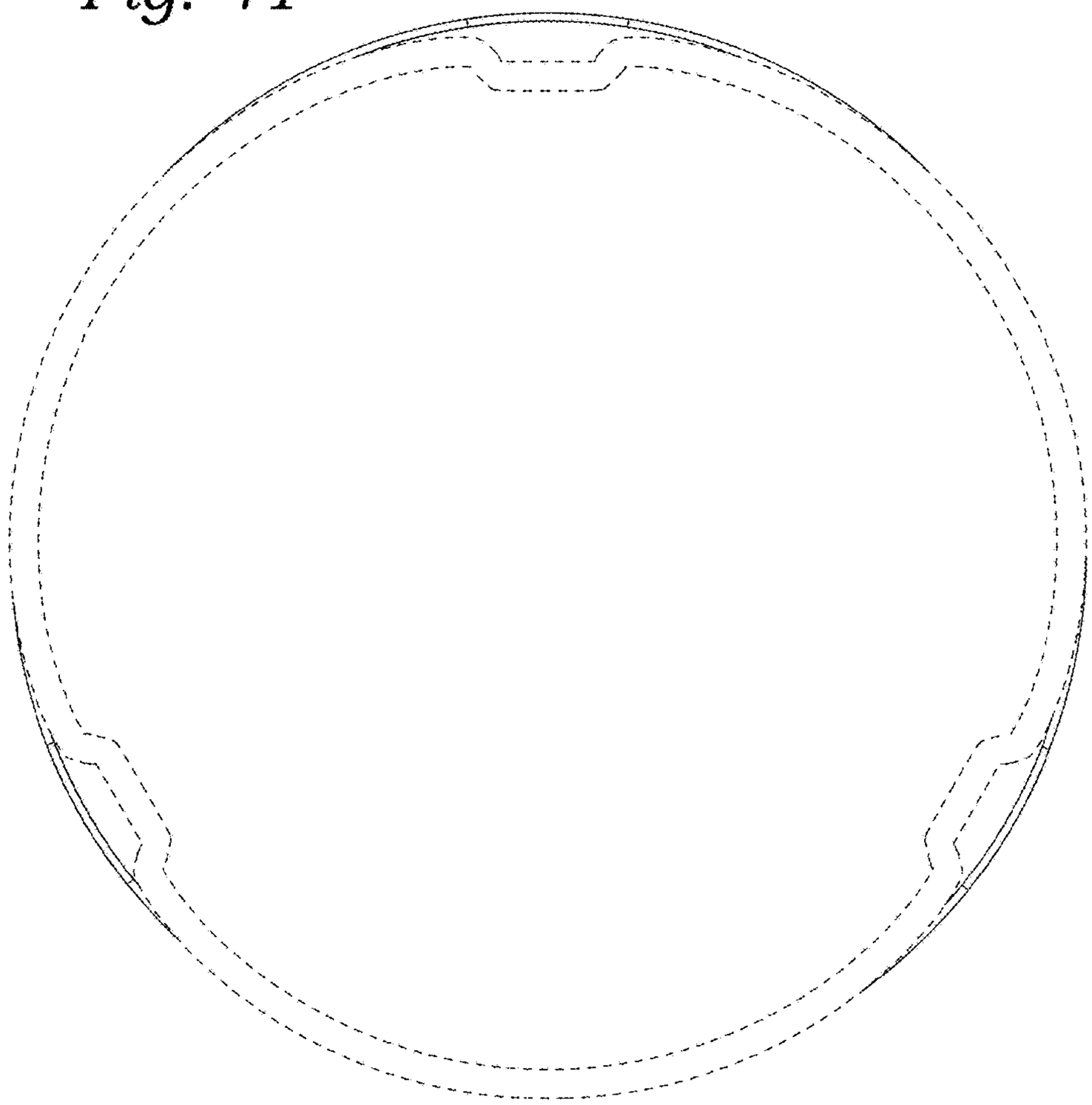


Fig. 42

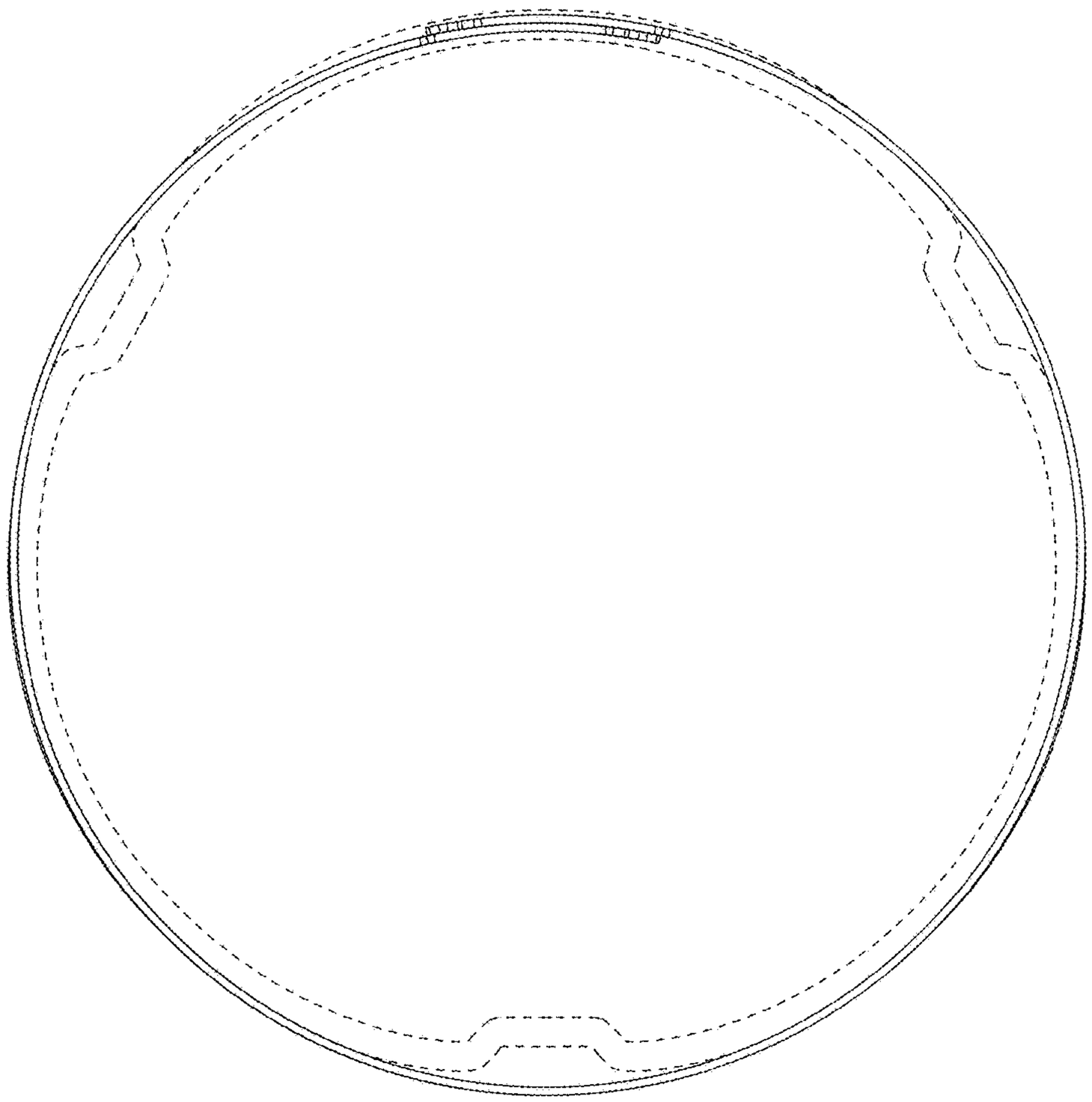


Fig. 43

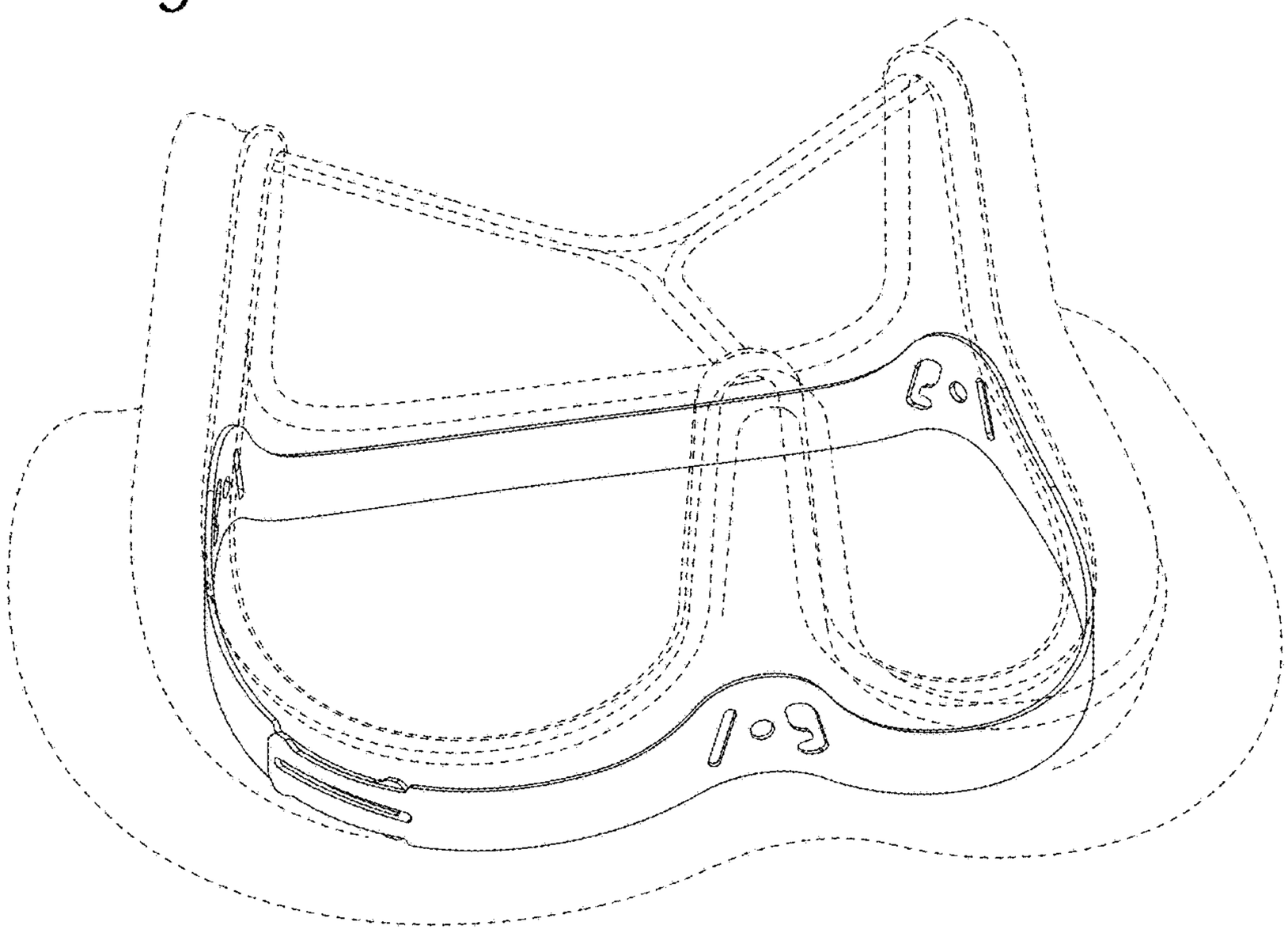


Fig. 44

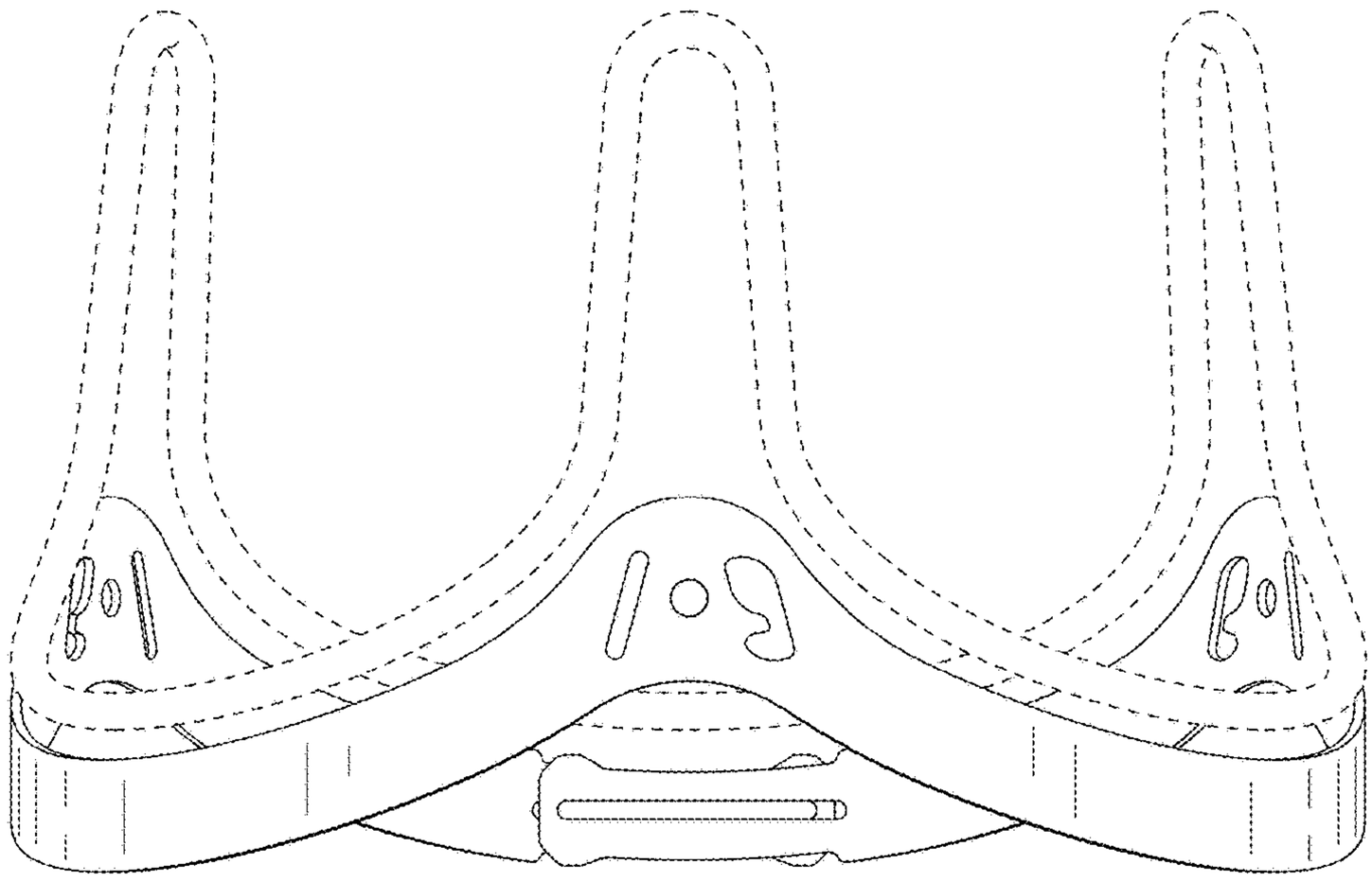


Fig. 45

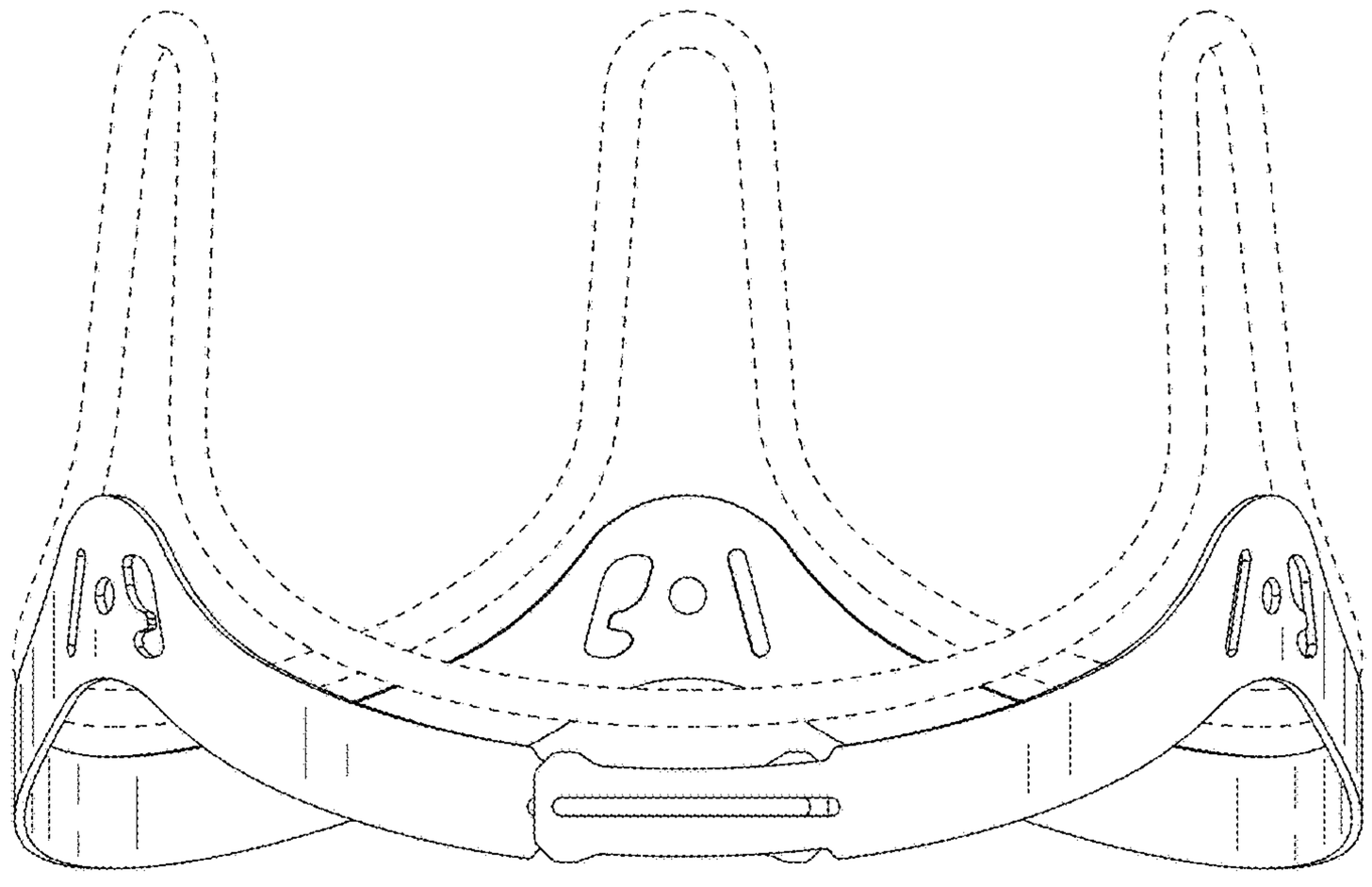


Fig. 46

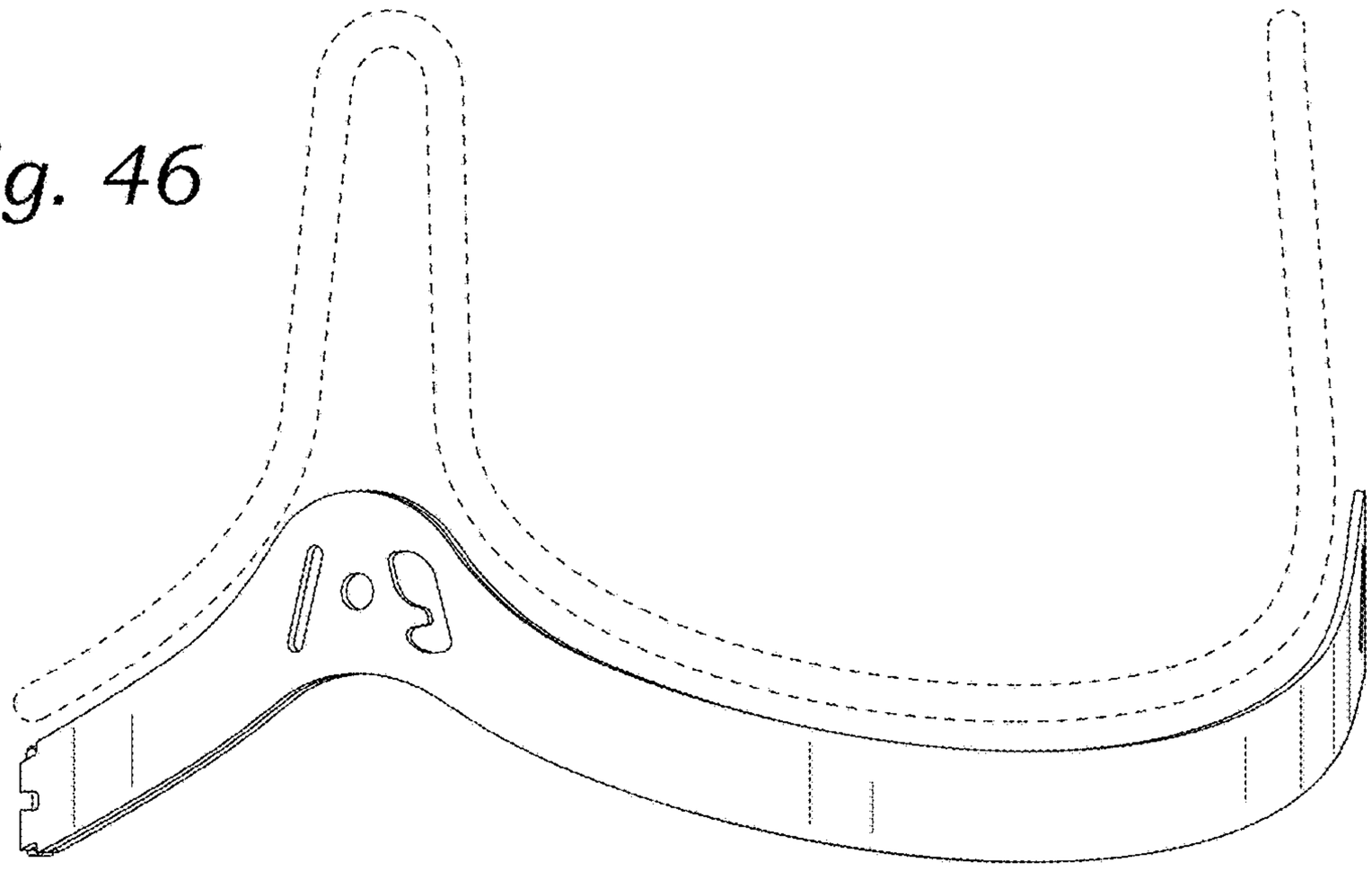


Fig. 47

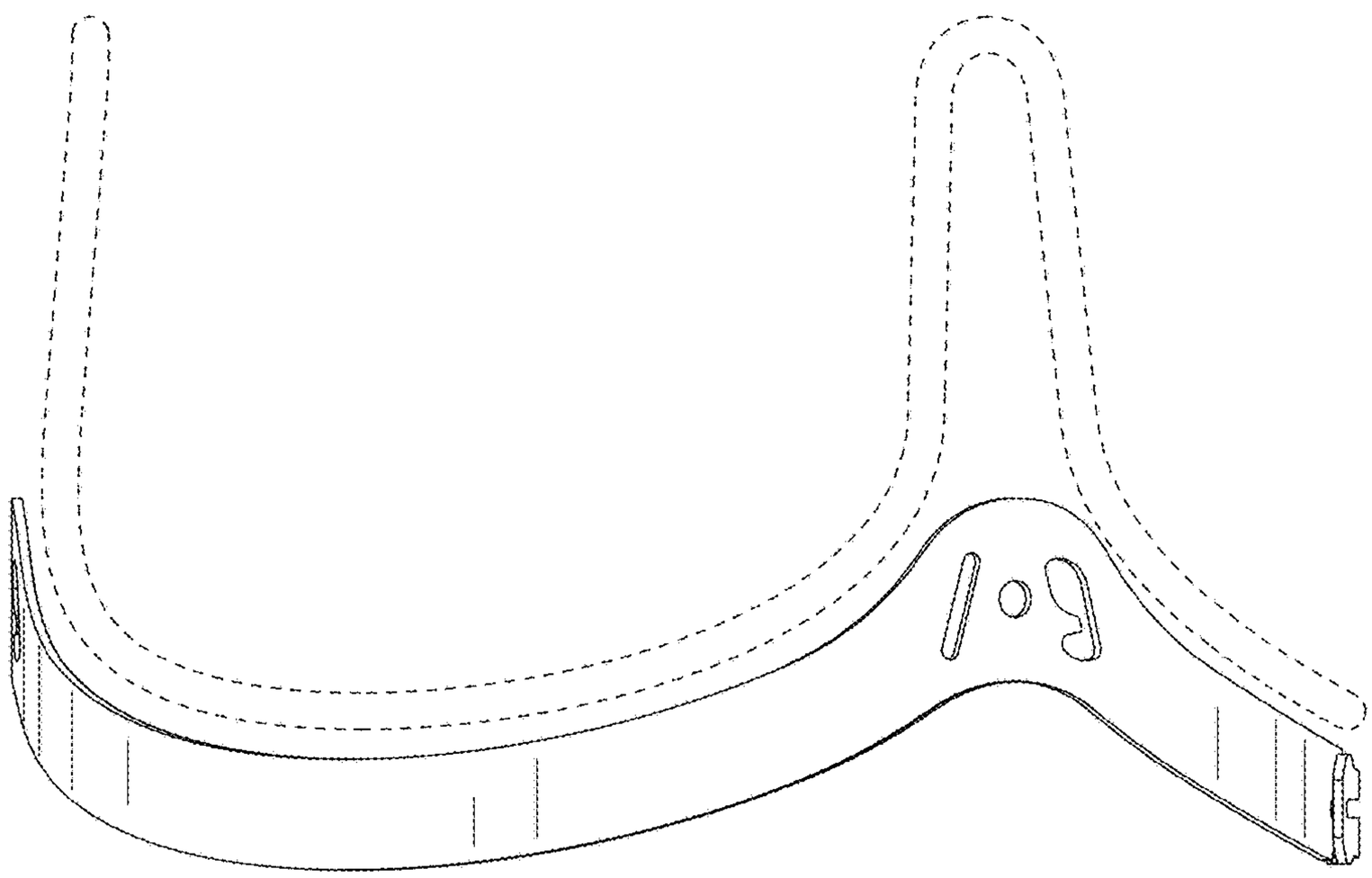


Fig. 48

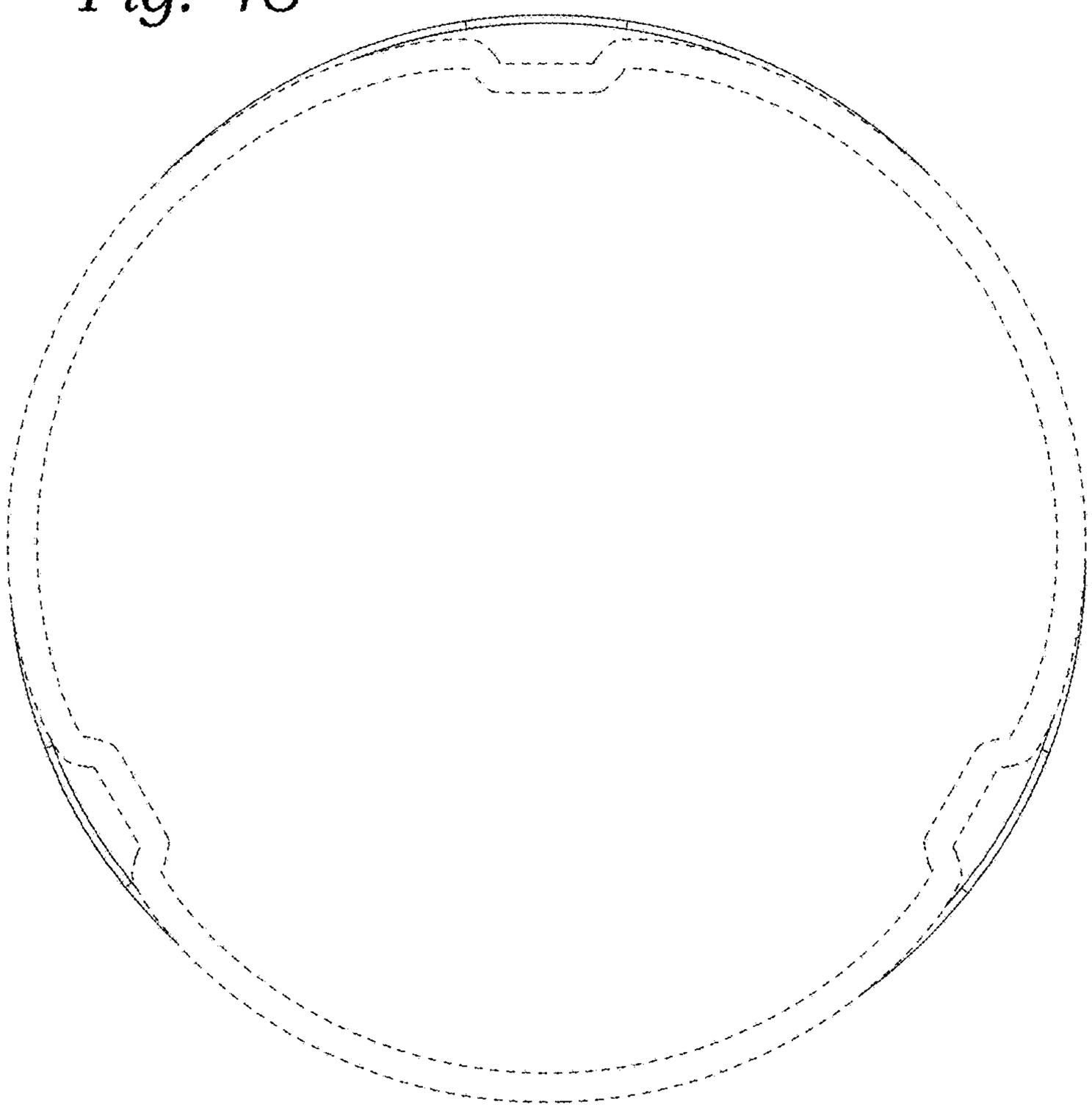


Fig. 49

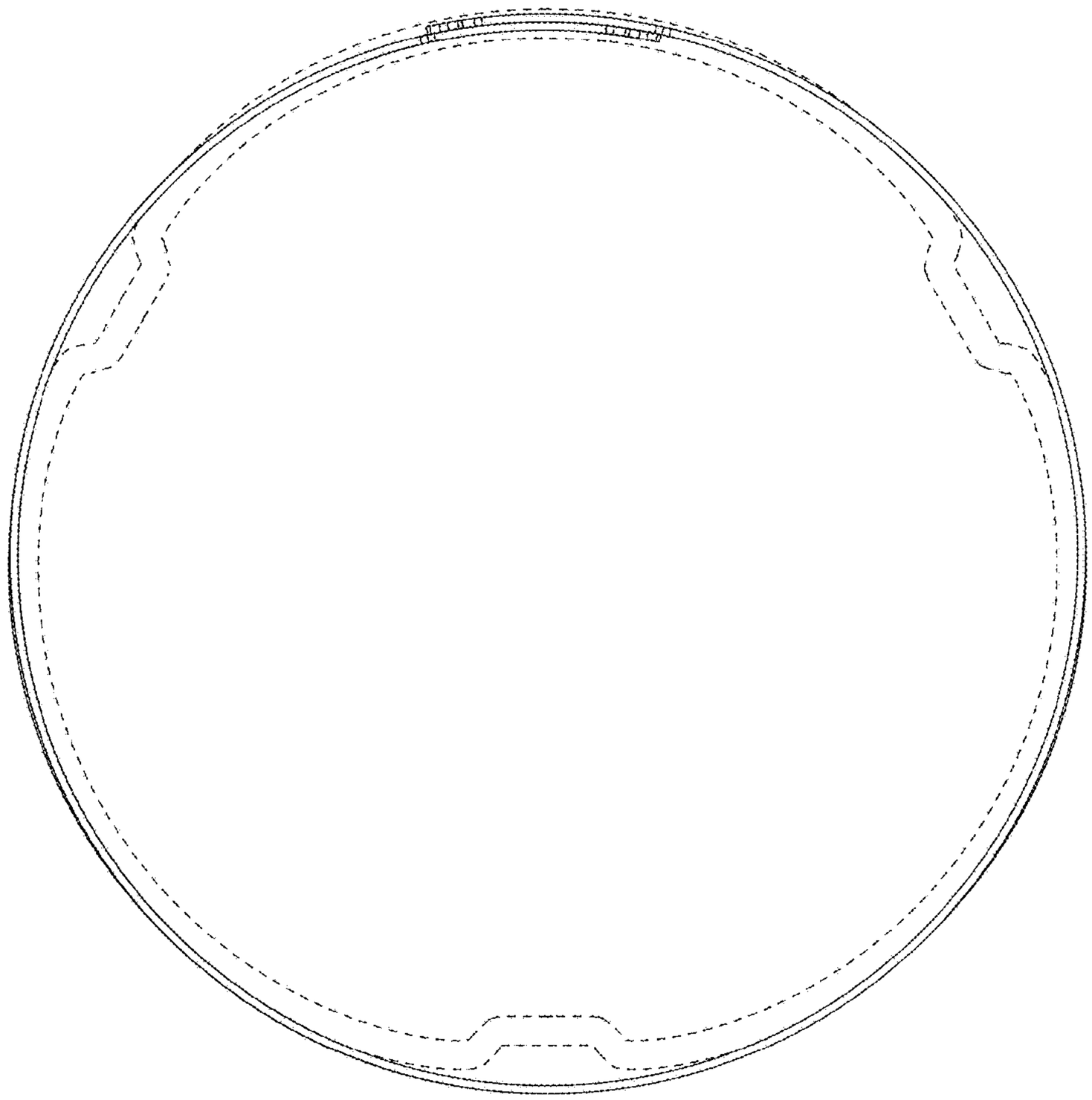


Fig. 50

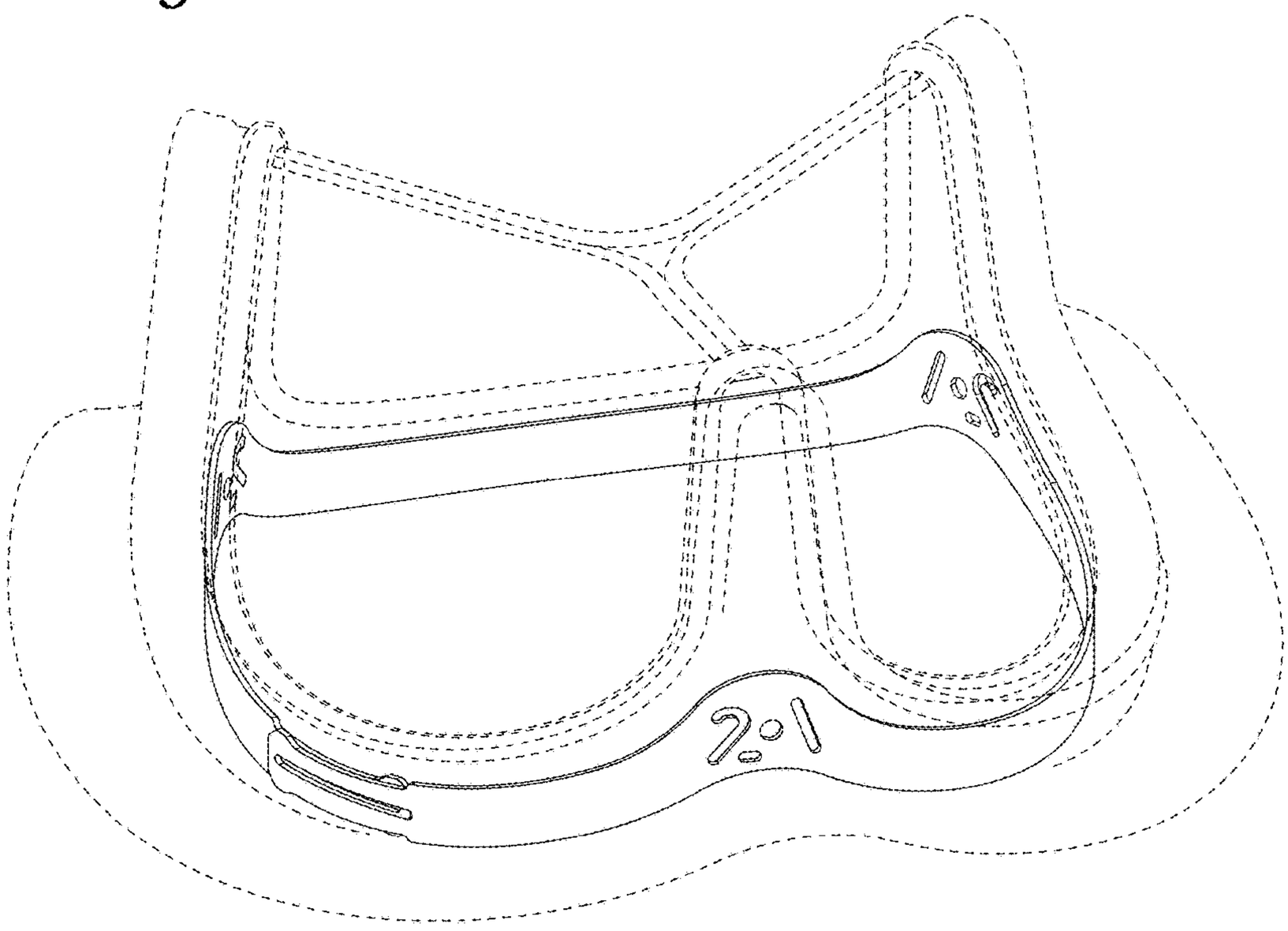


Fig. 51

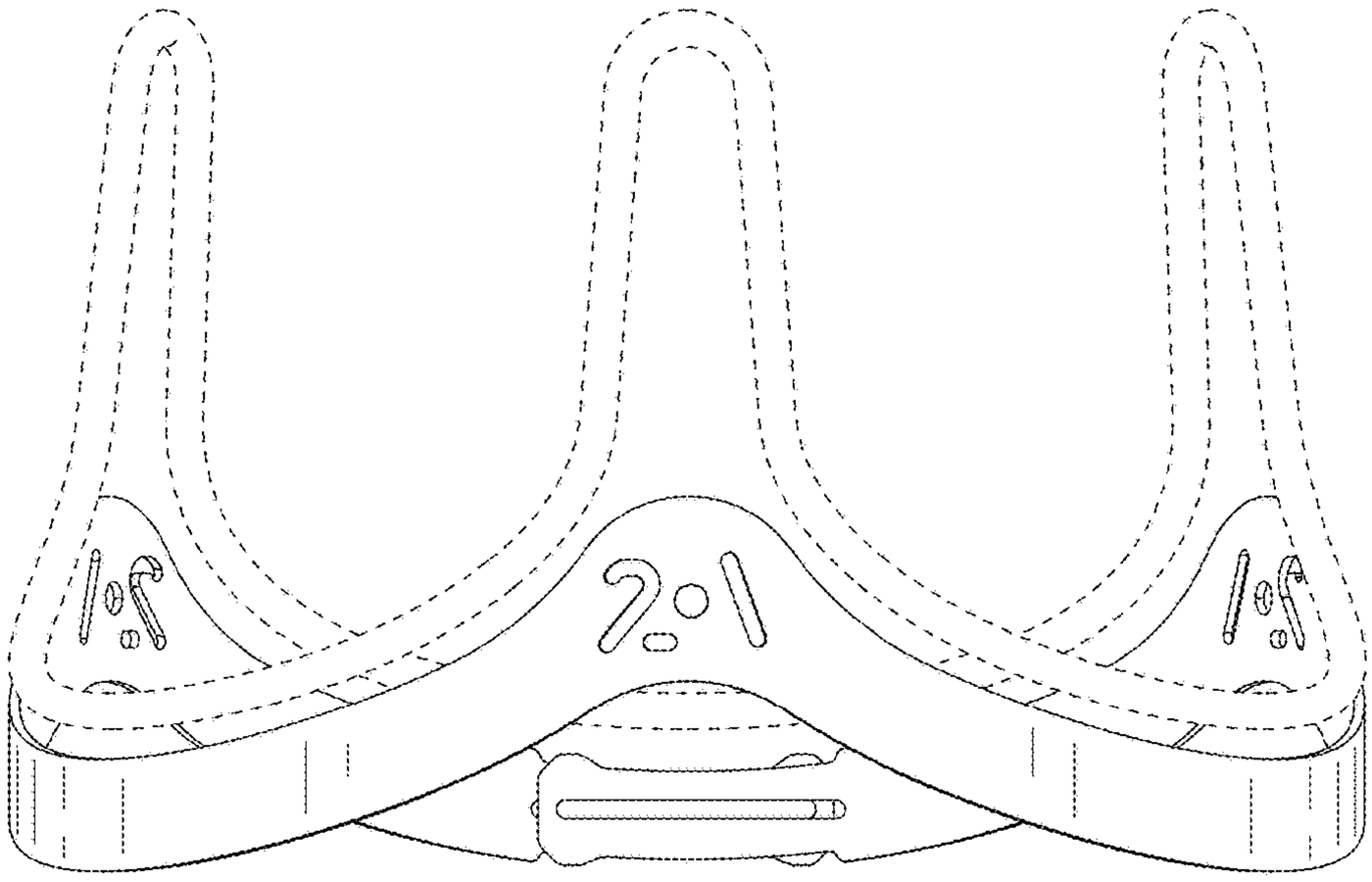


Fig. 52

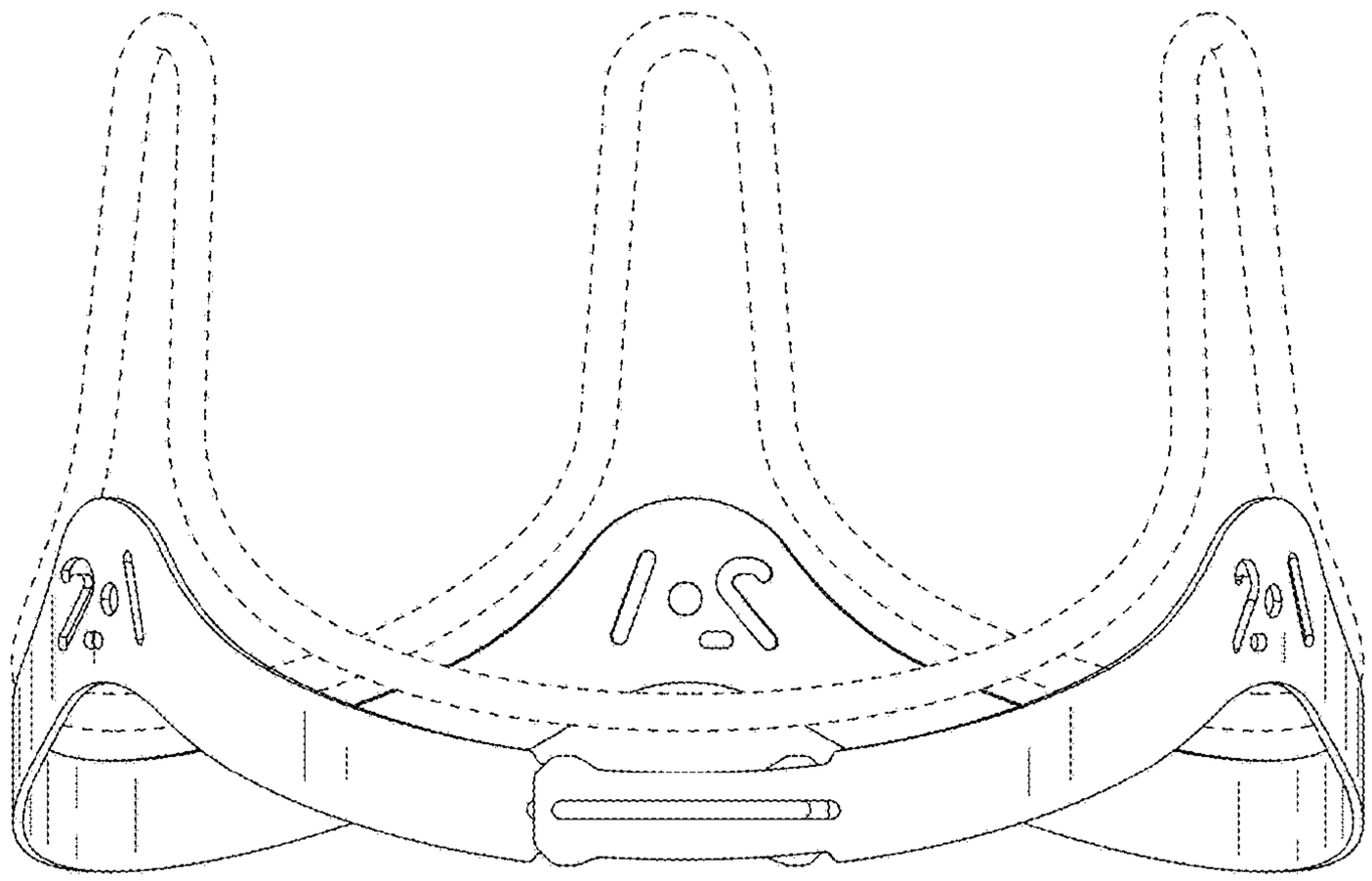


Fig. 53

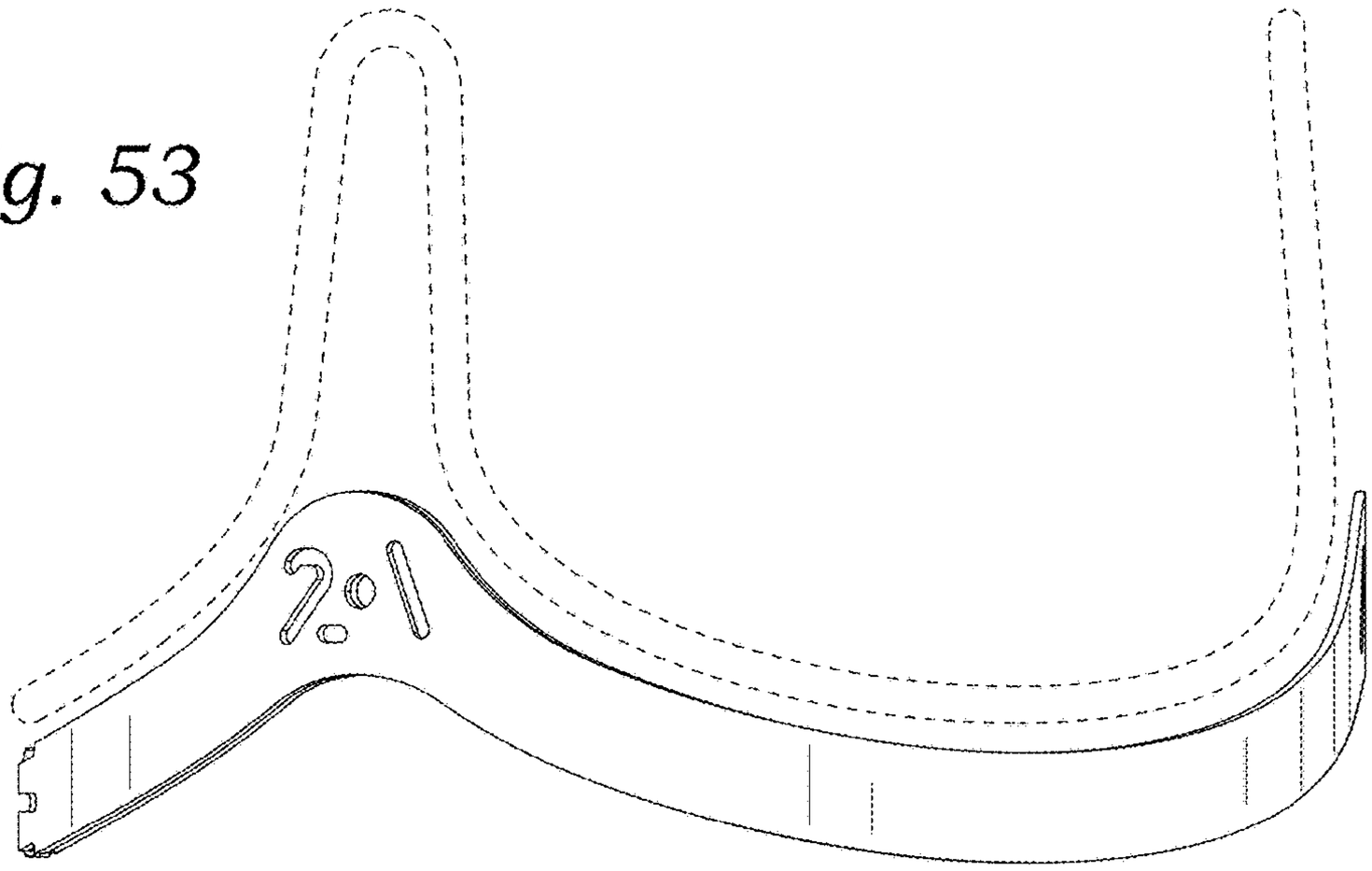


Fig. 54

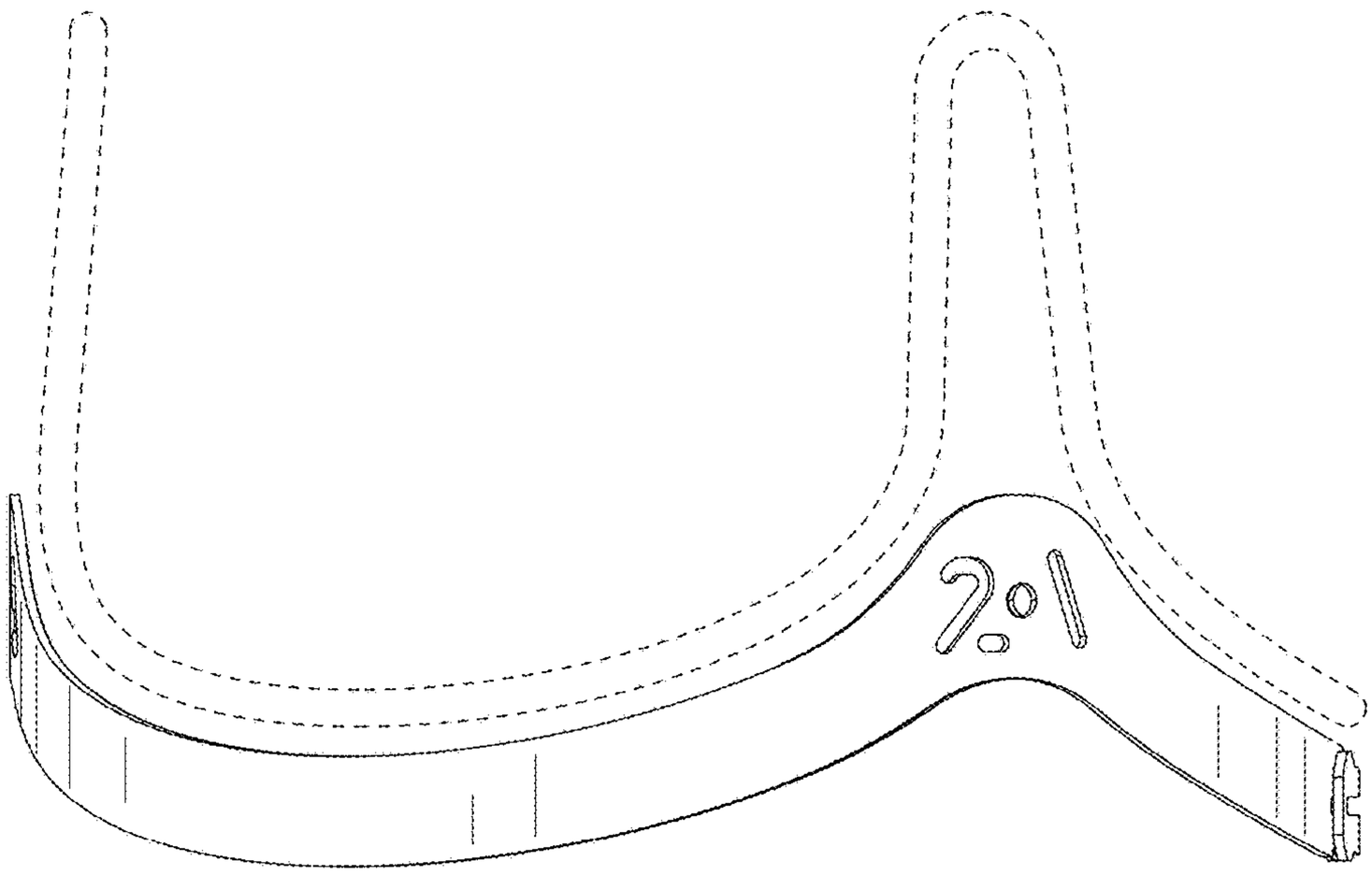


Fig. 55

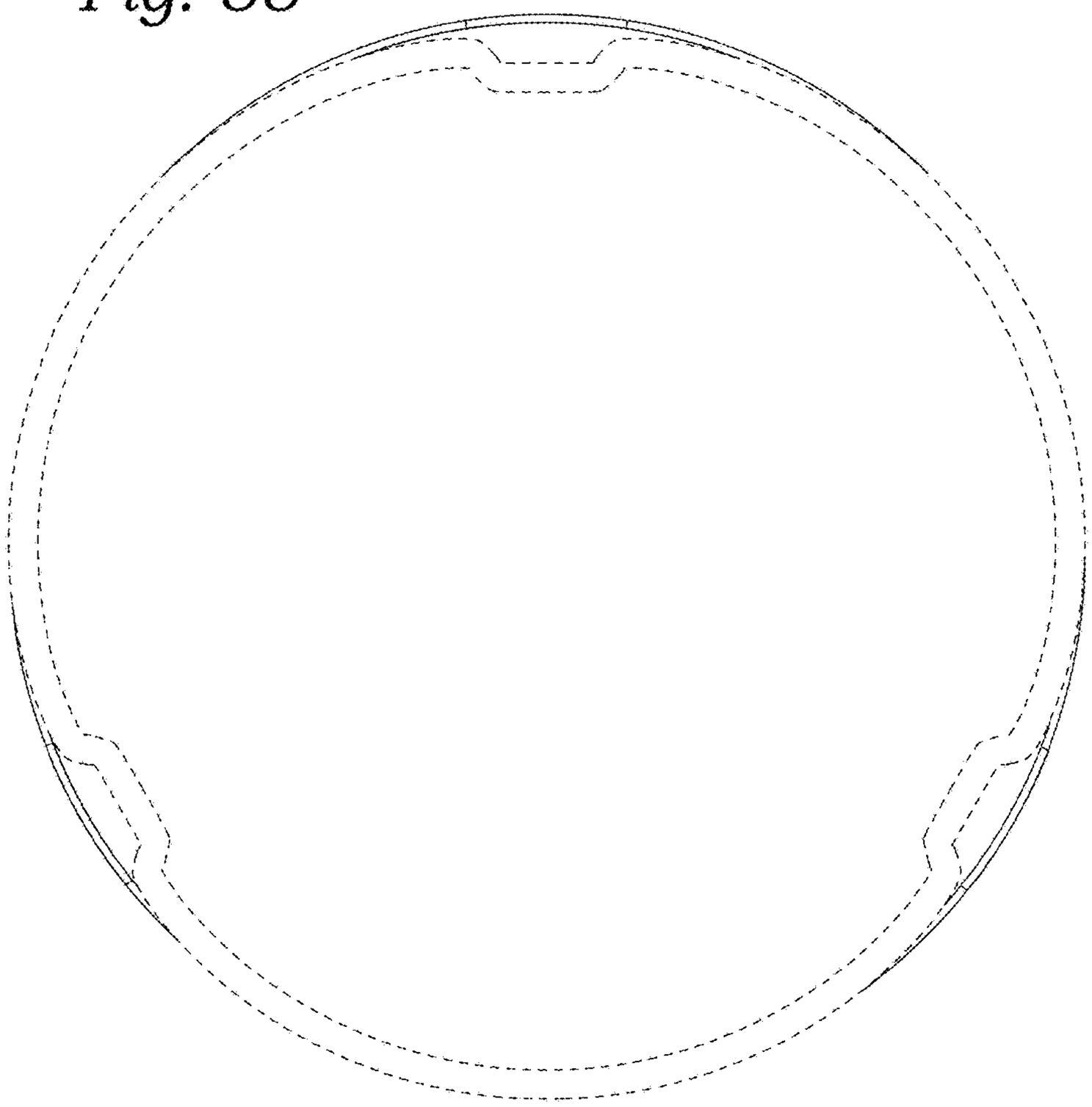


Fig. 56

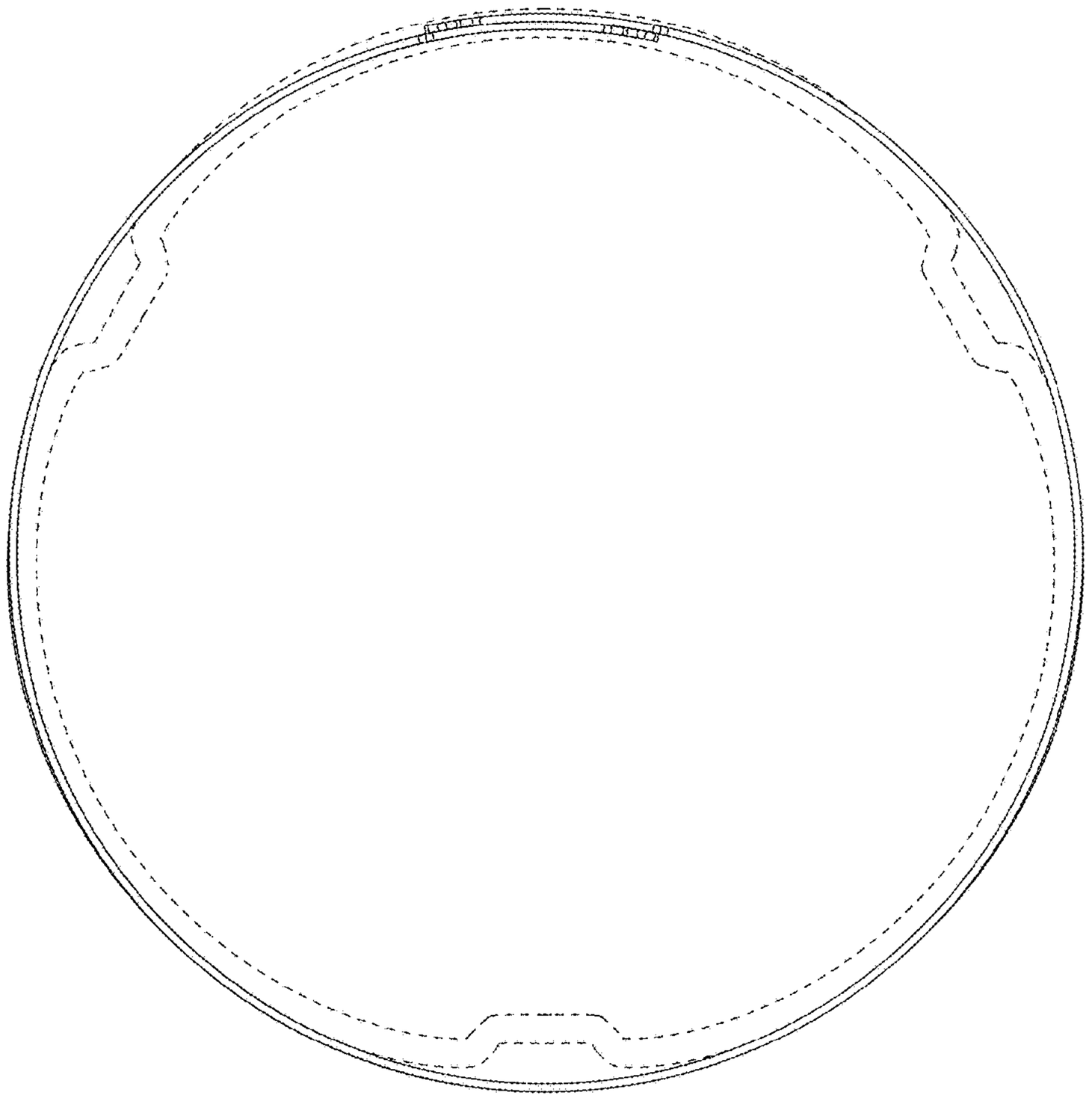


Fig. 57

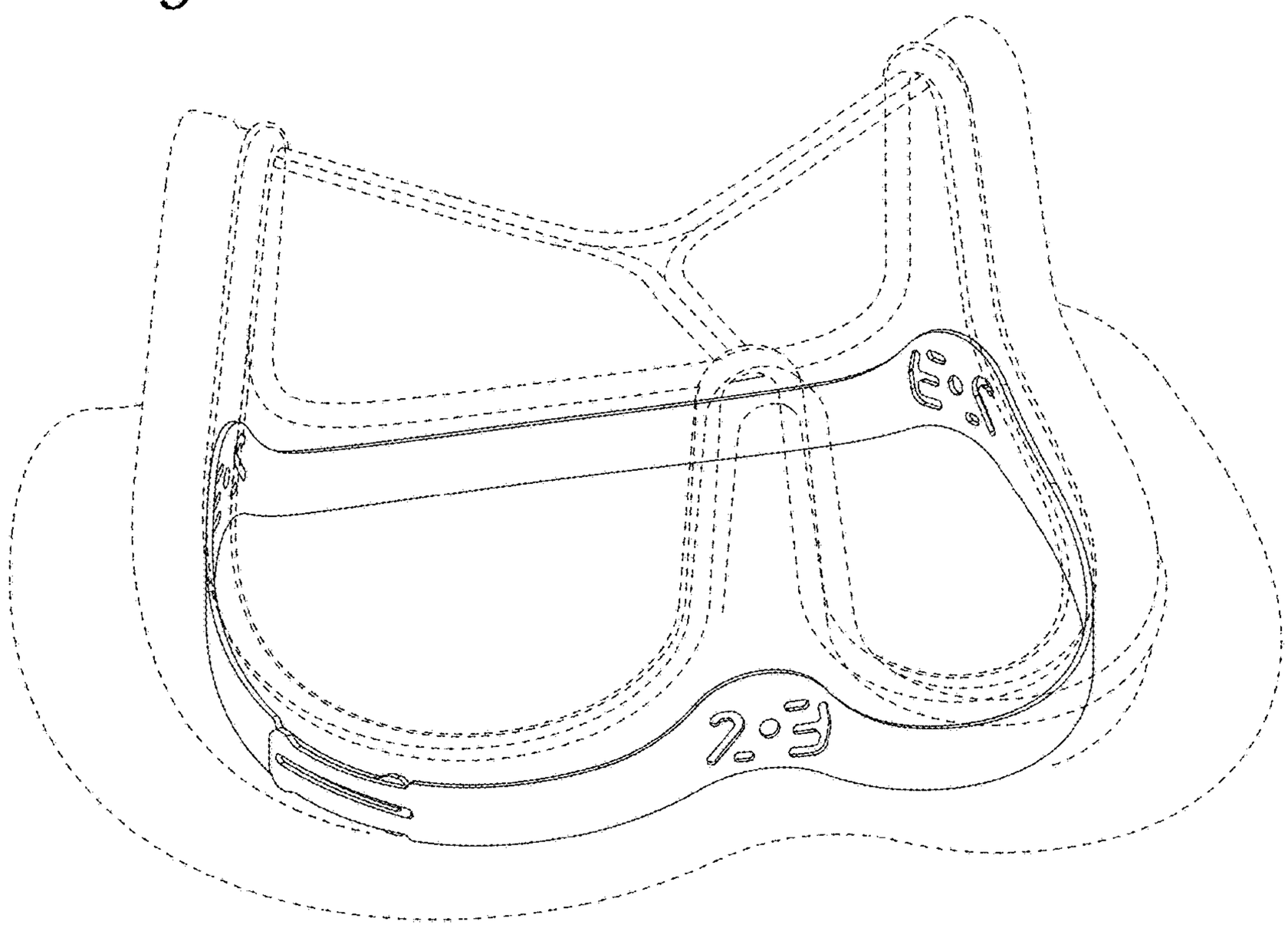


Fig. 58

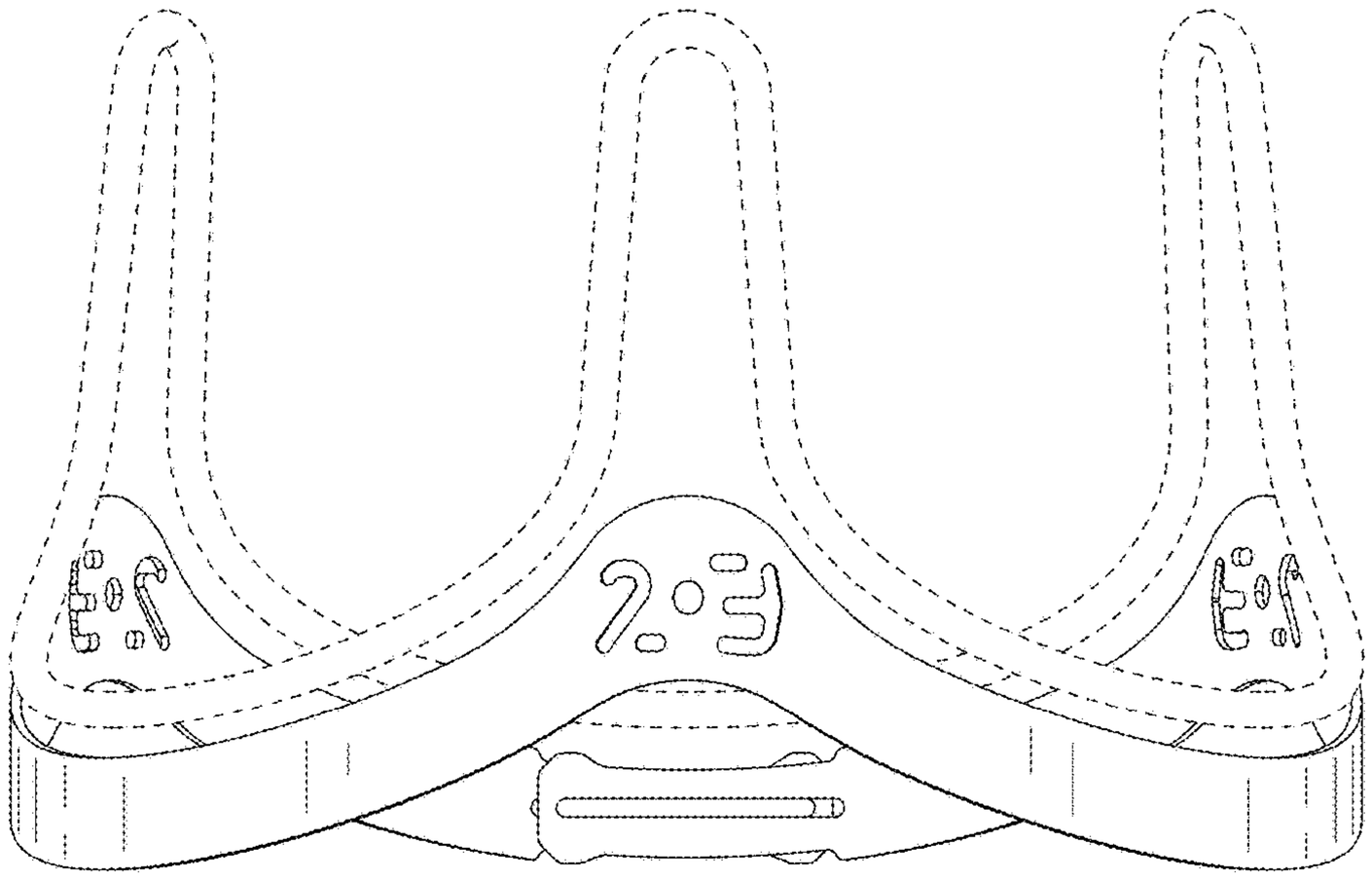


Fig. 59

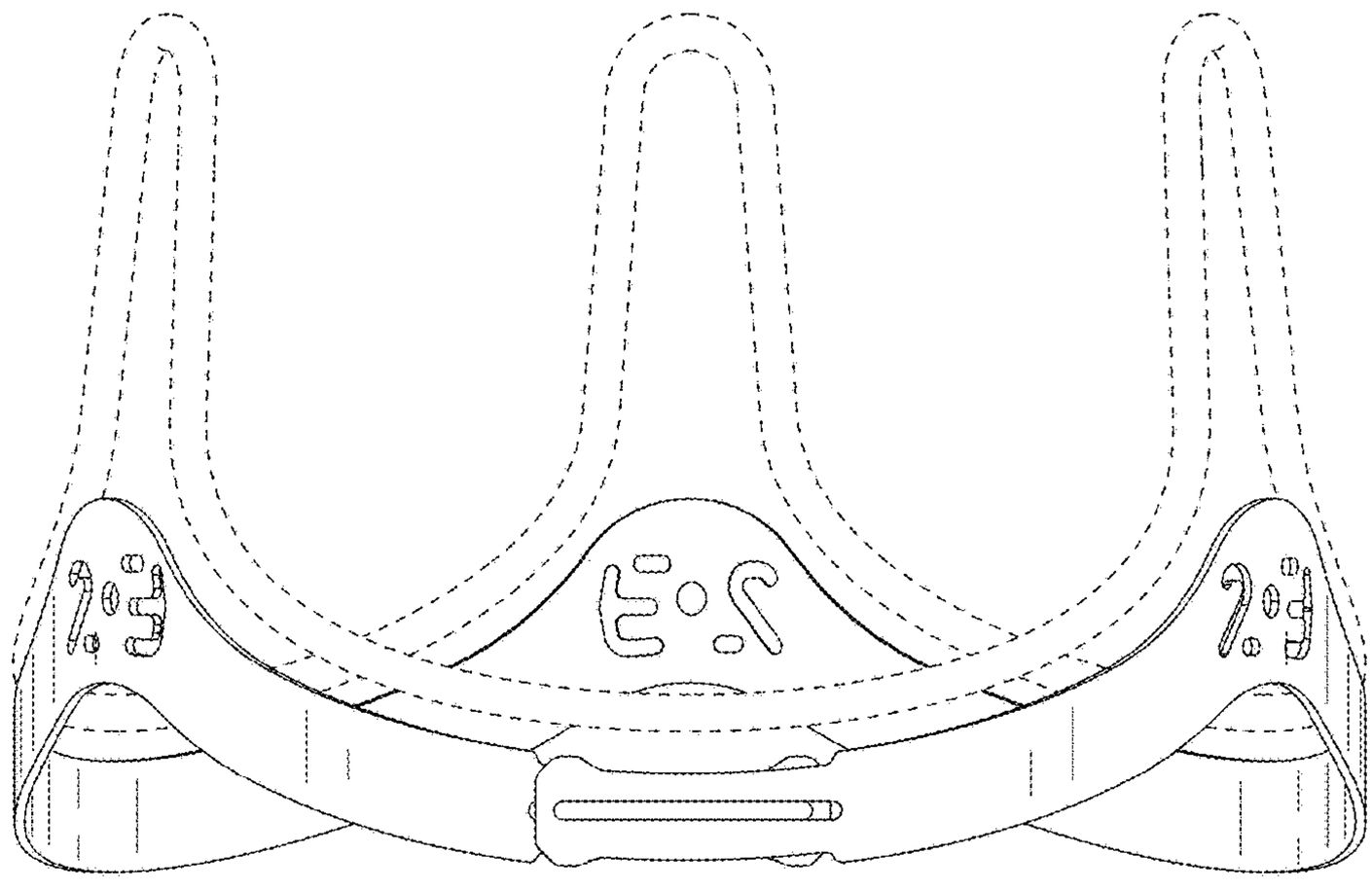


Fig. 60

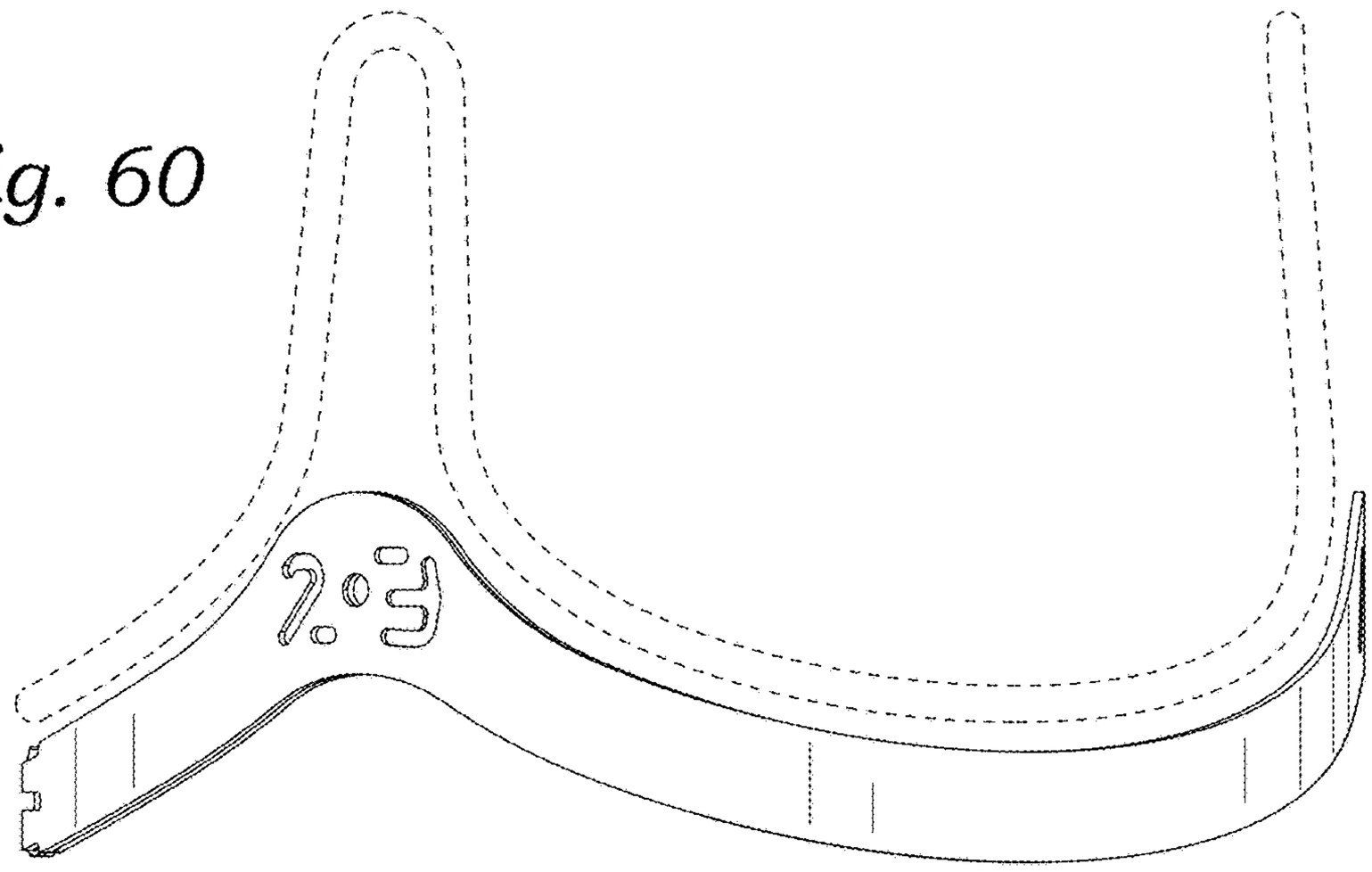


Fig. 61

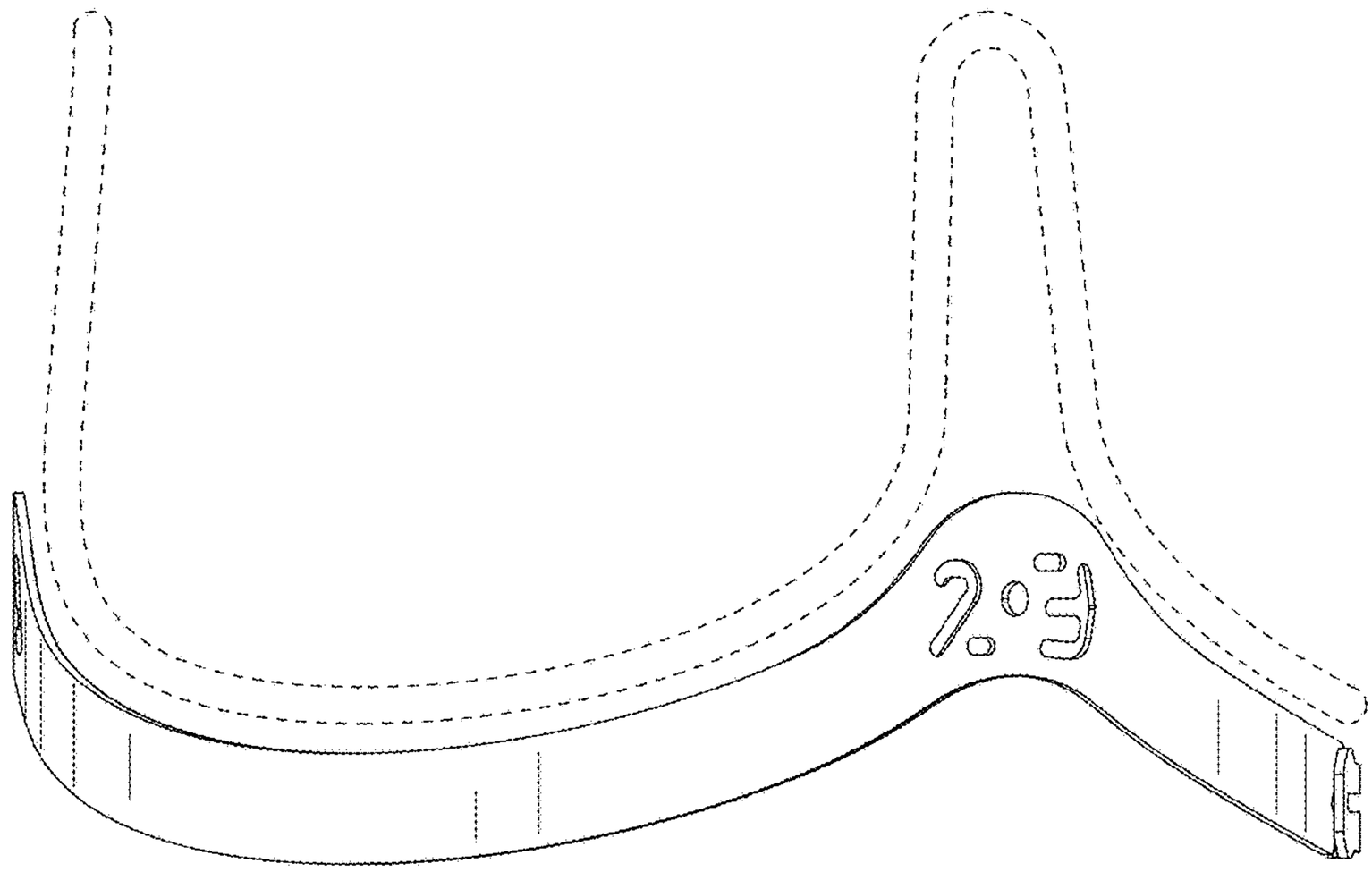


Fig. 62

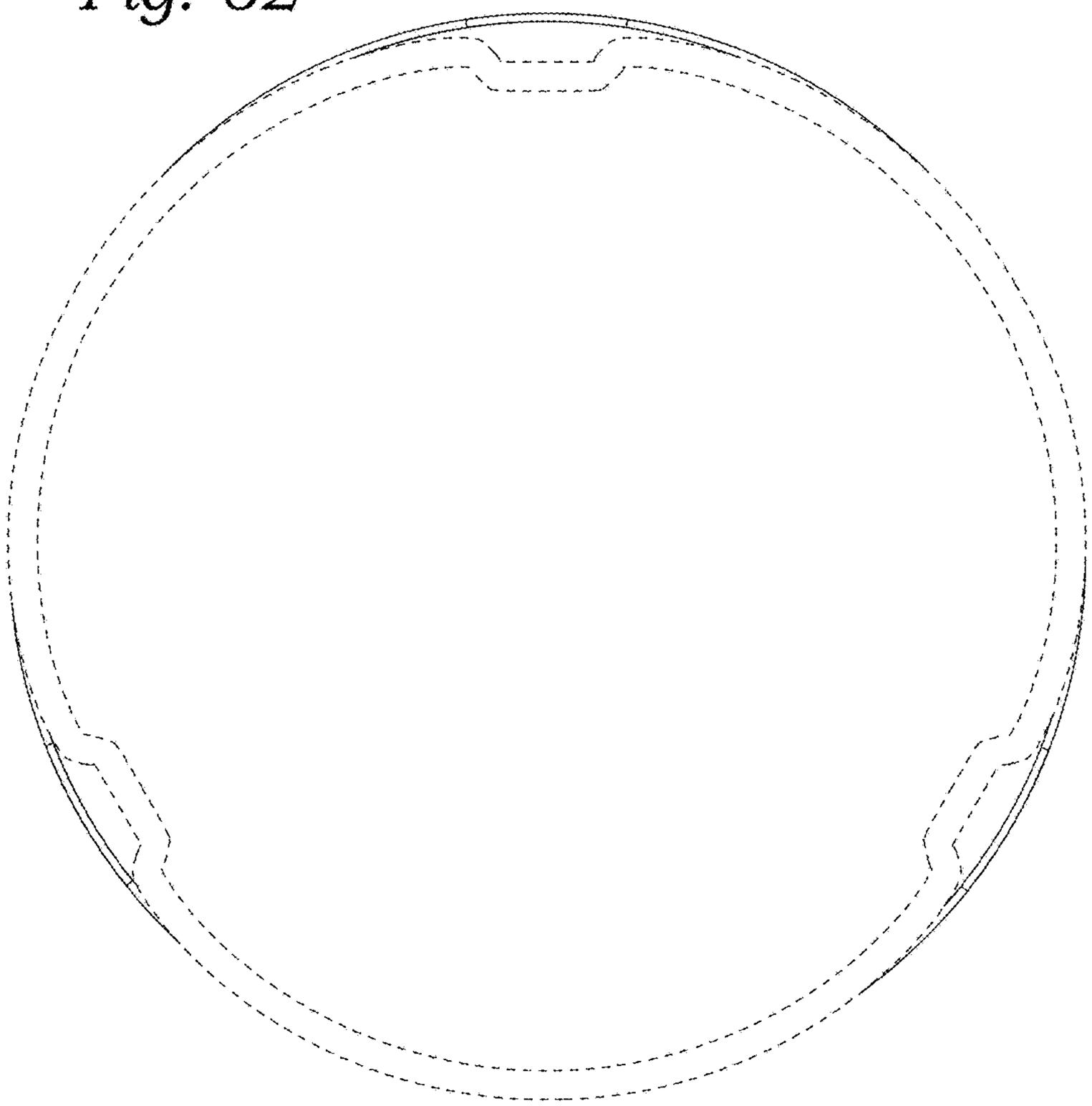


Fig. 63

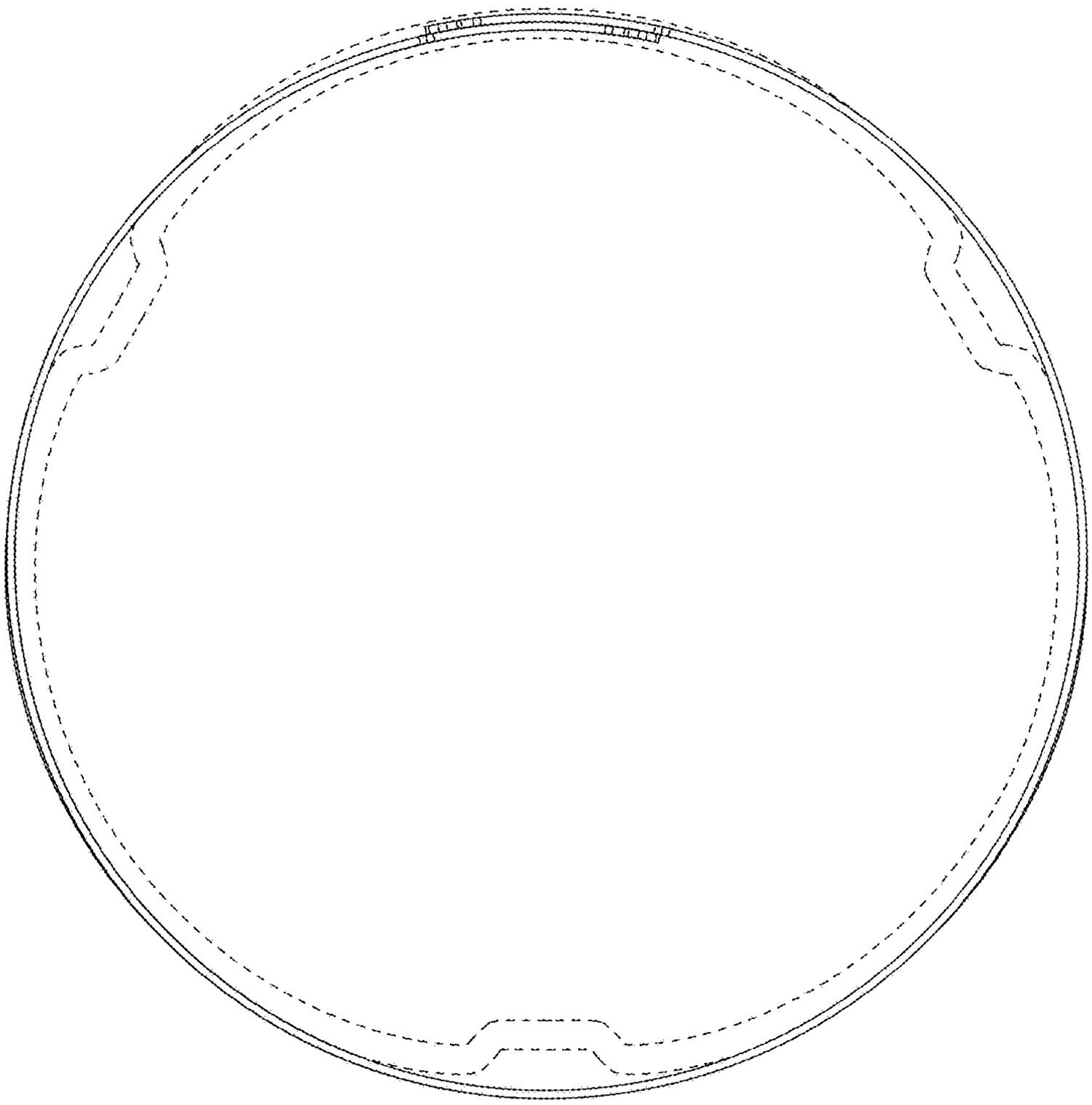


Fig. 64

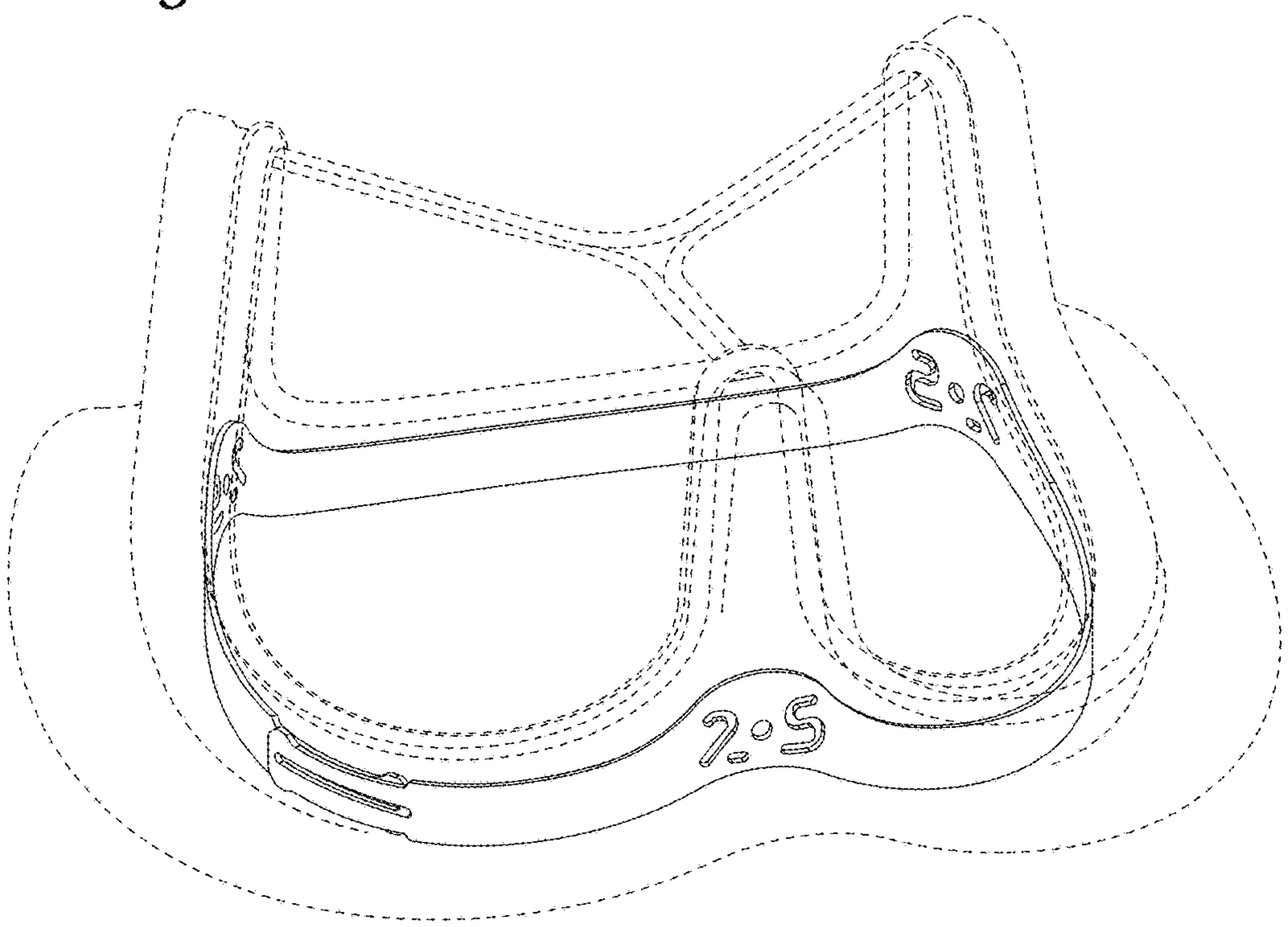


Fig. 65

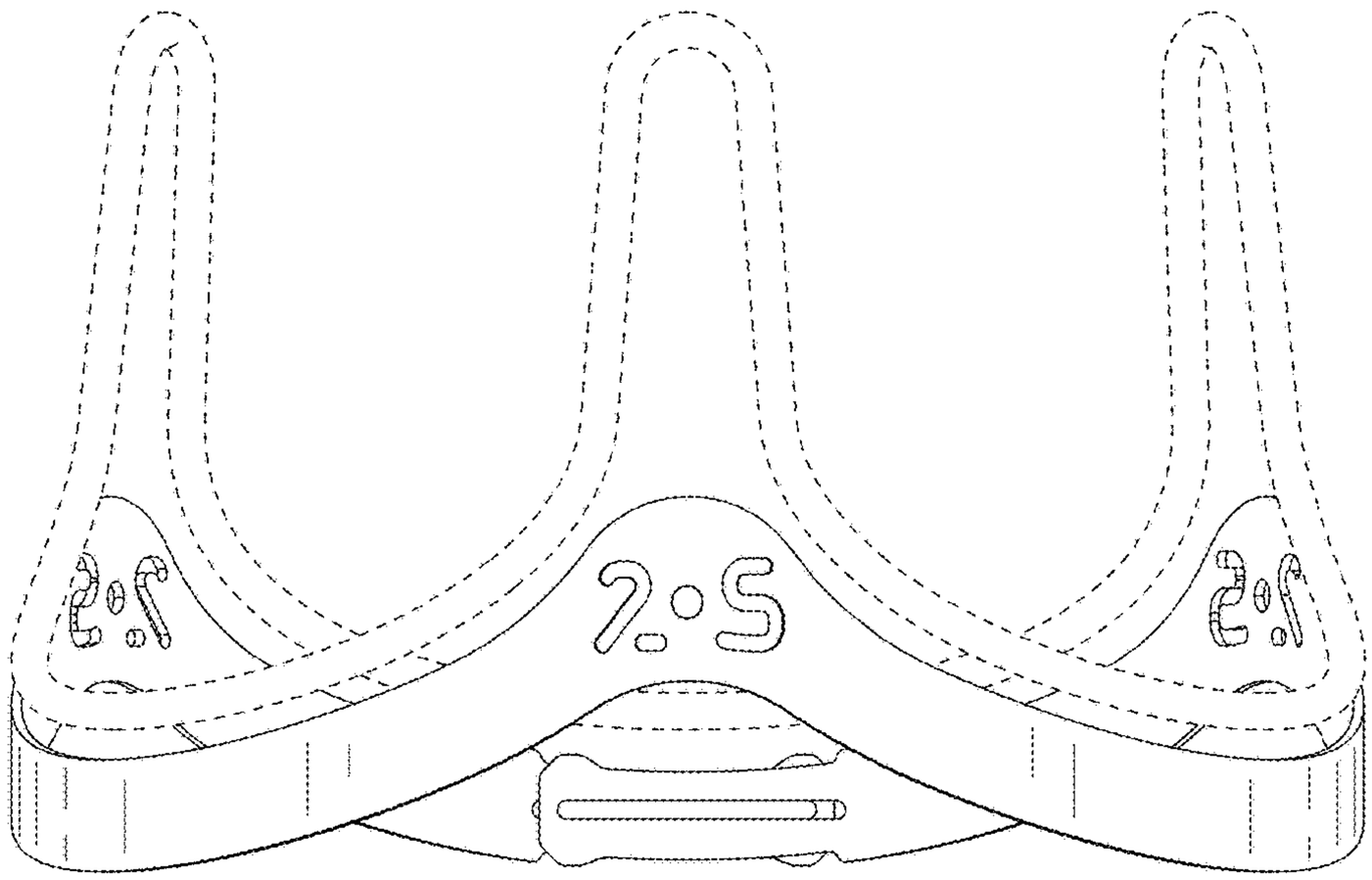


Fig. 66

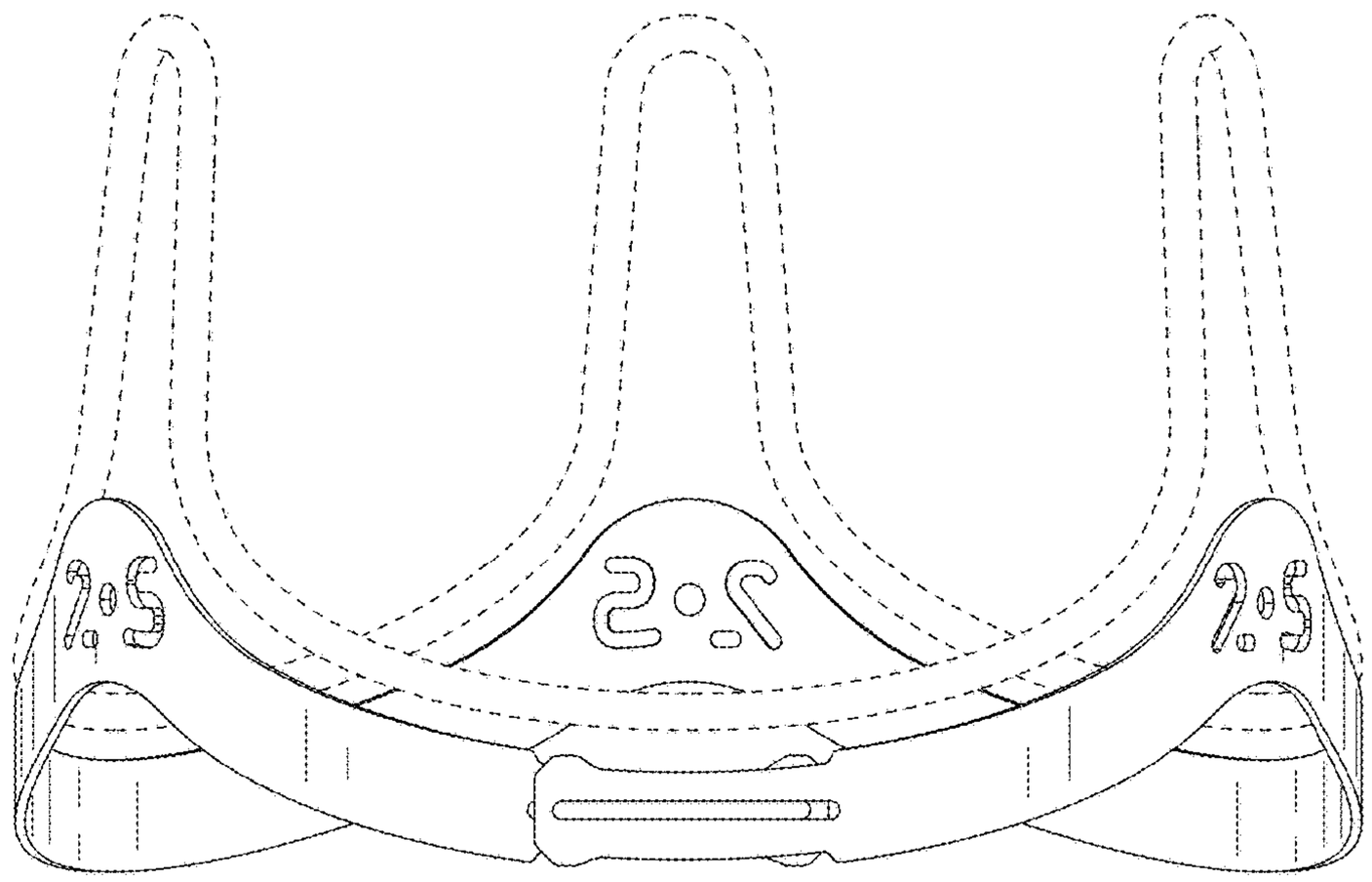


Fig. 67

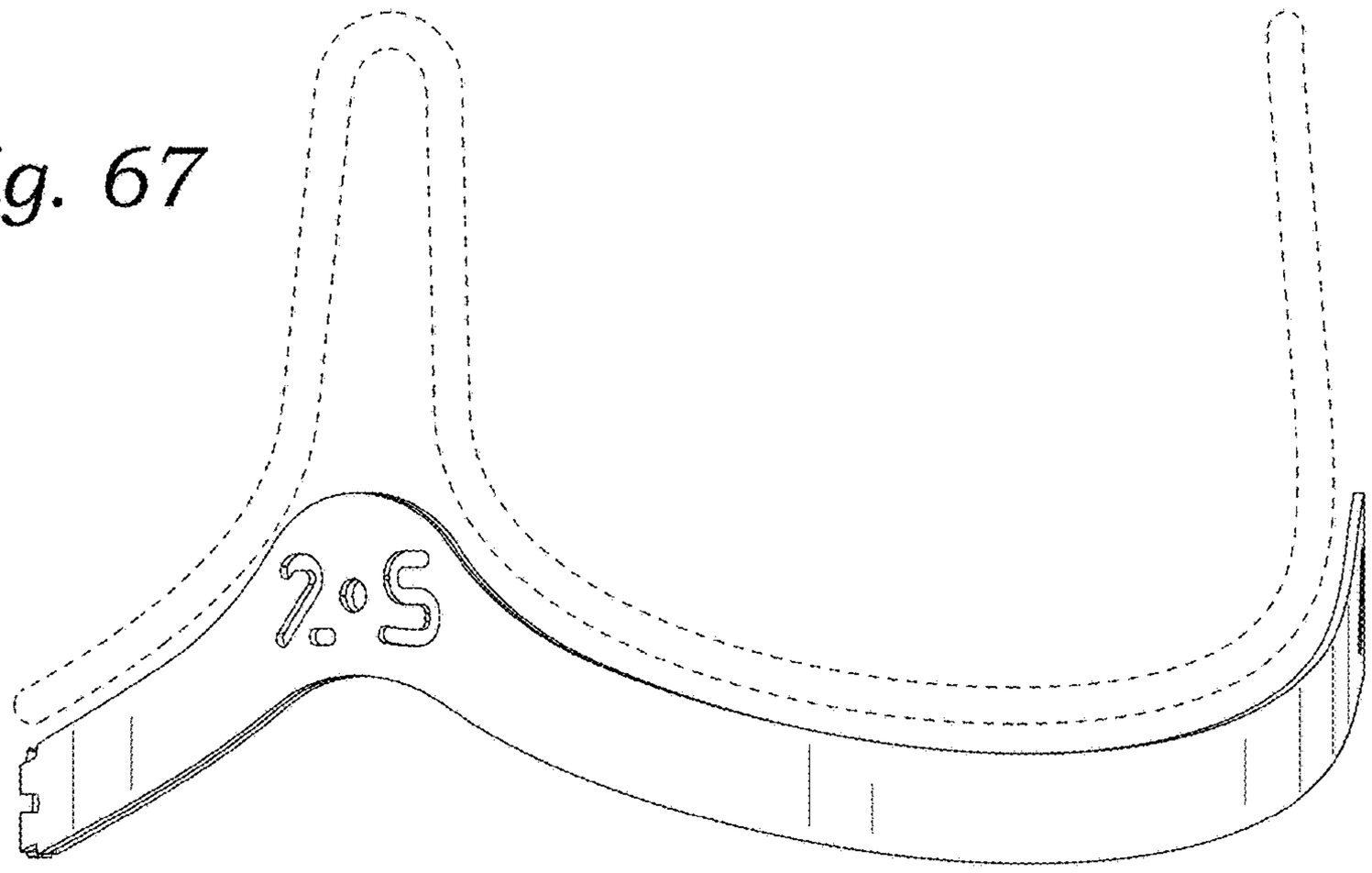


Fig. 68

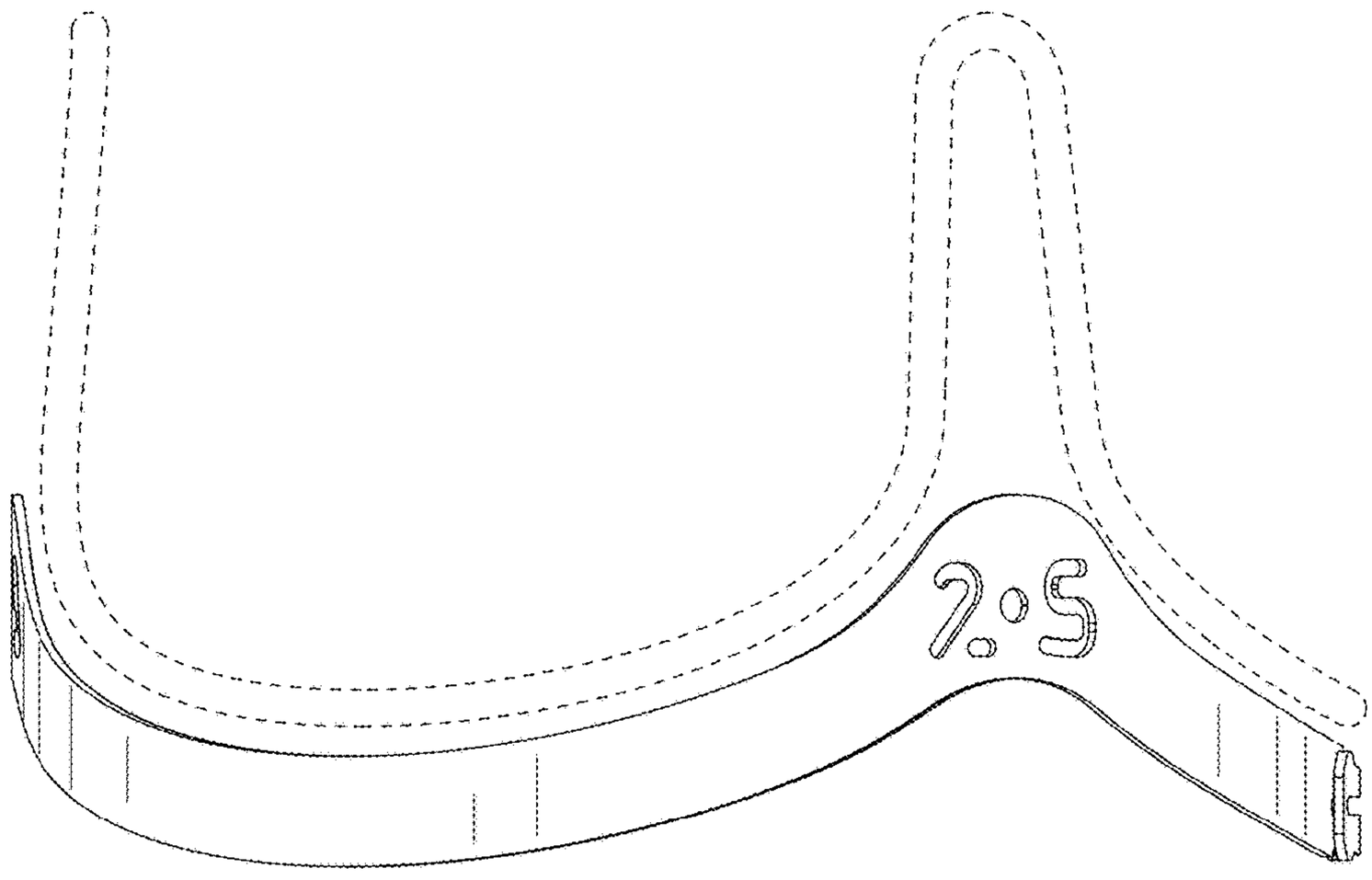


Fig. 69

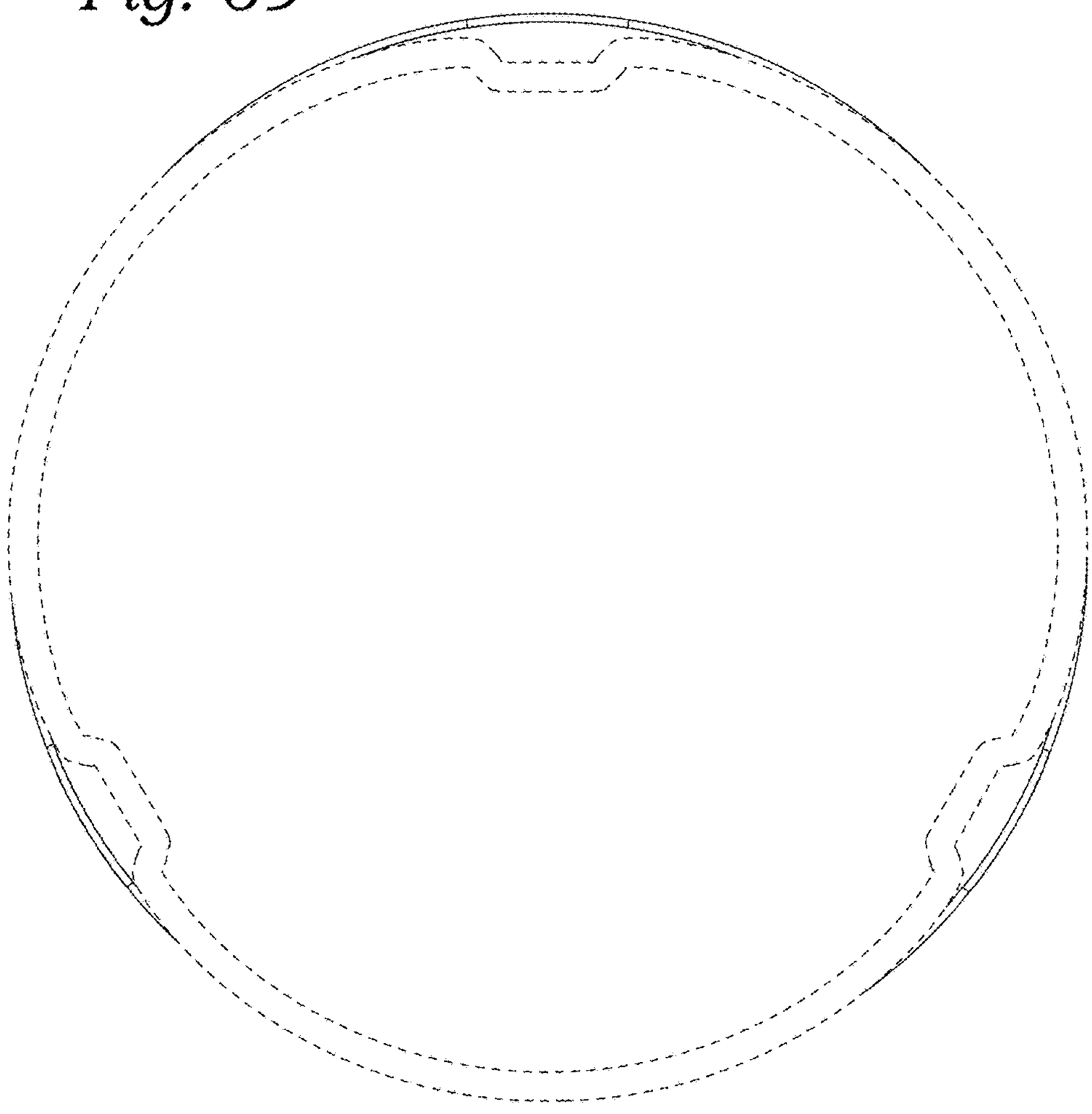


Fig. 70

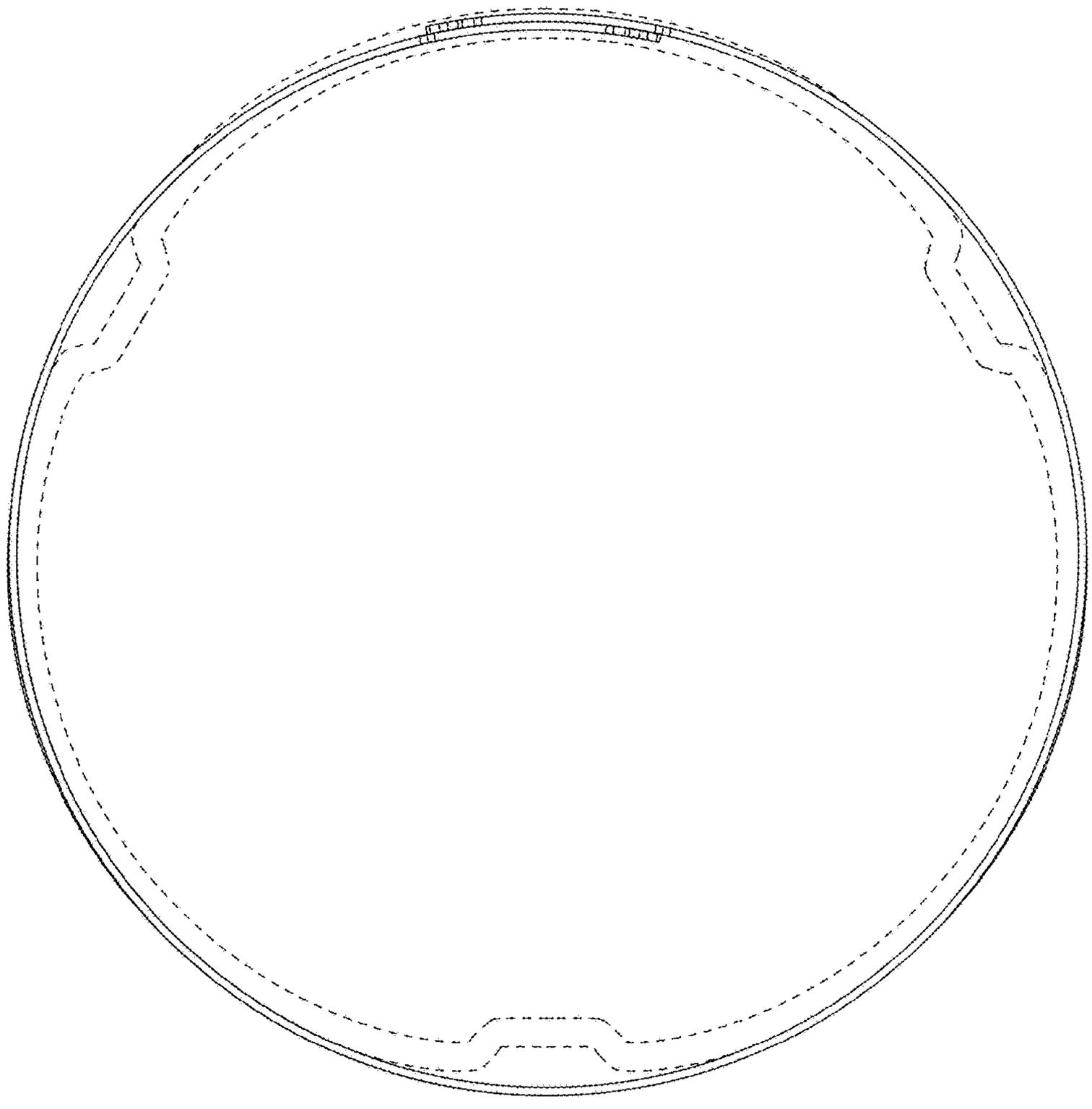


Fig. 71

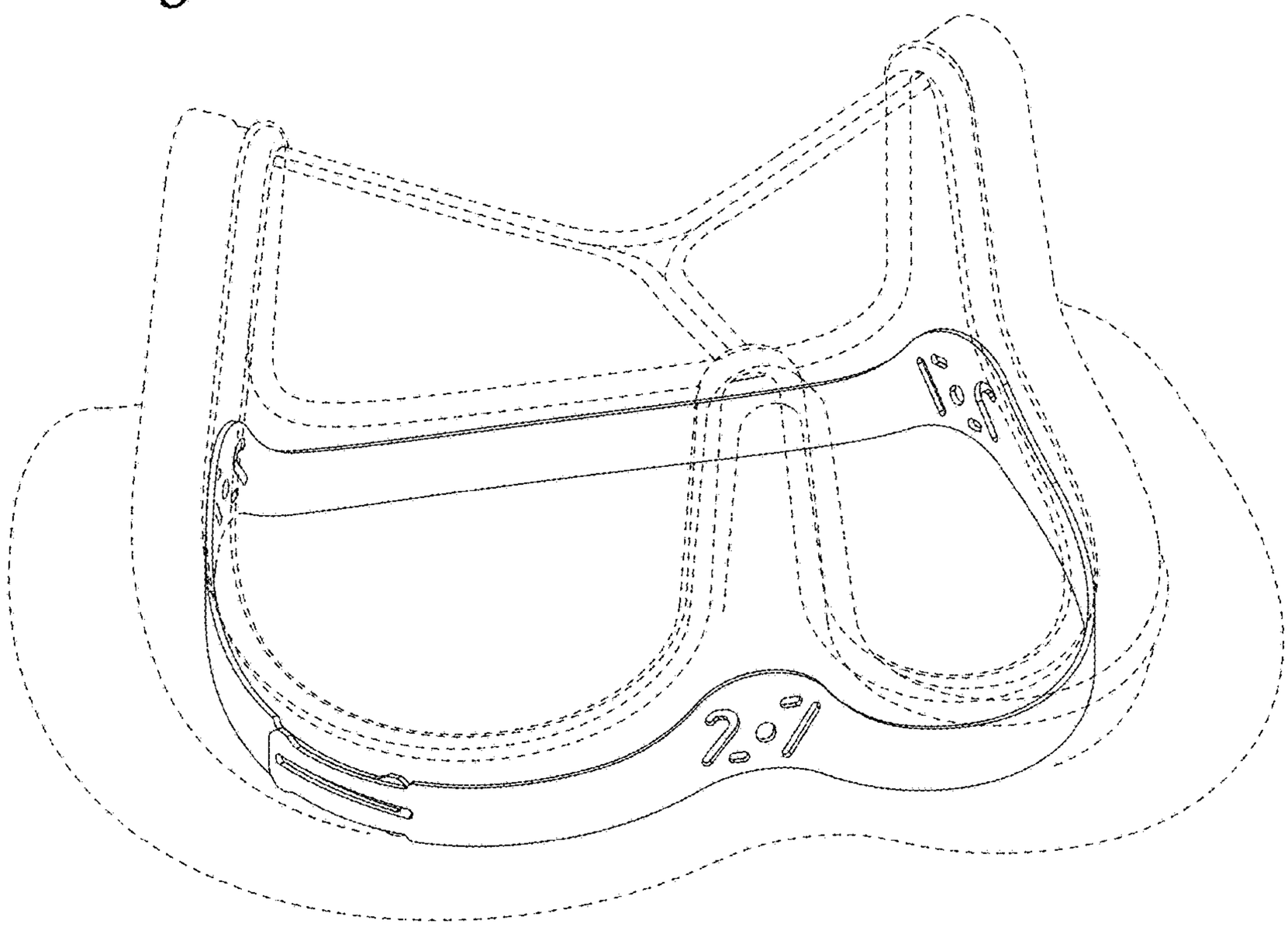


Fig. 72

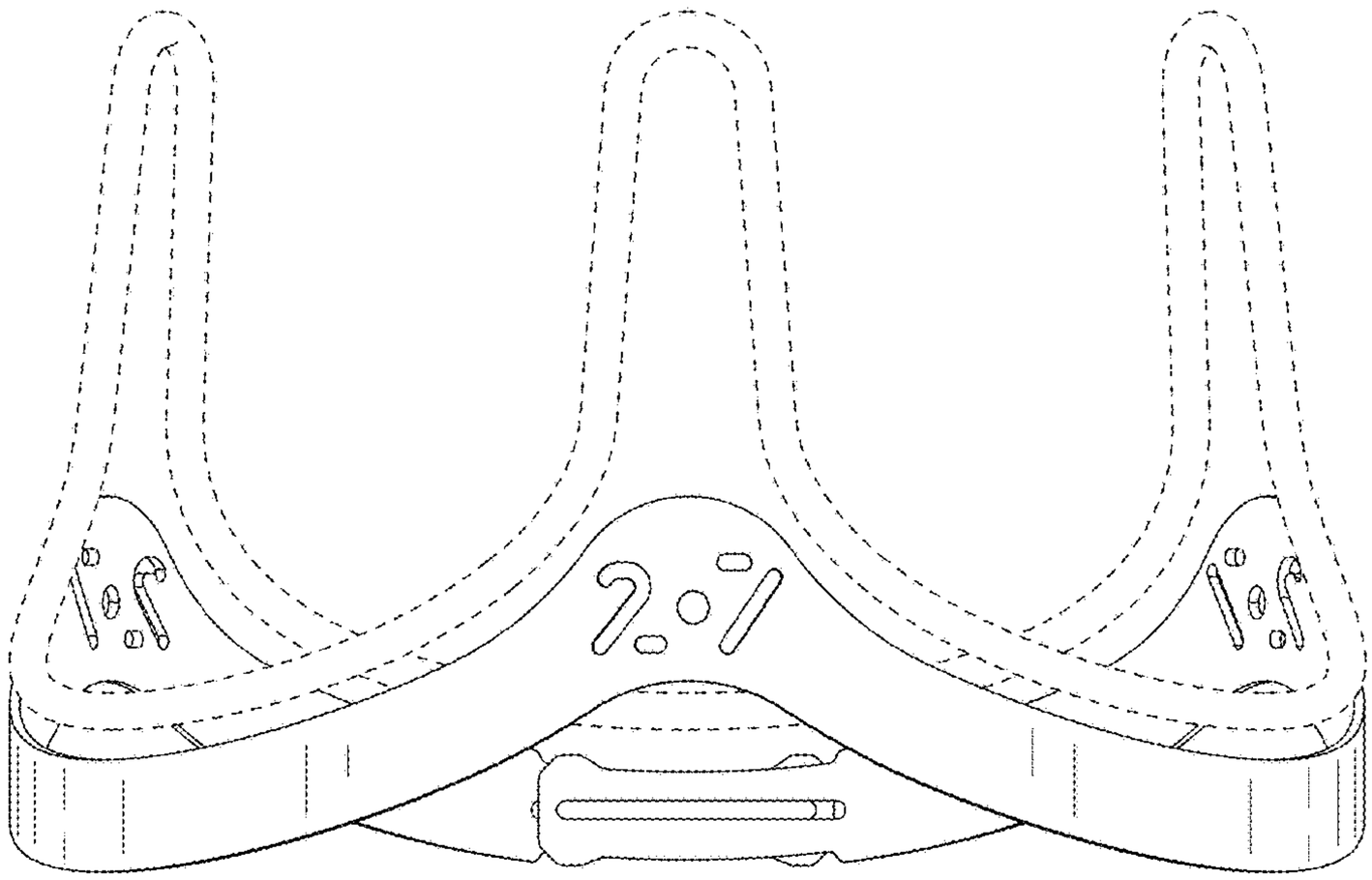


Fig. 73

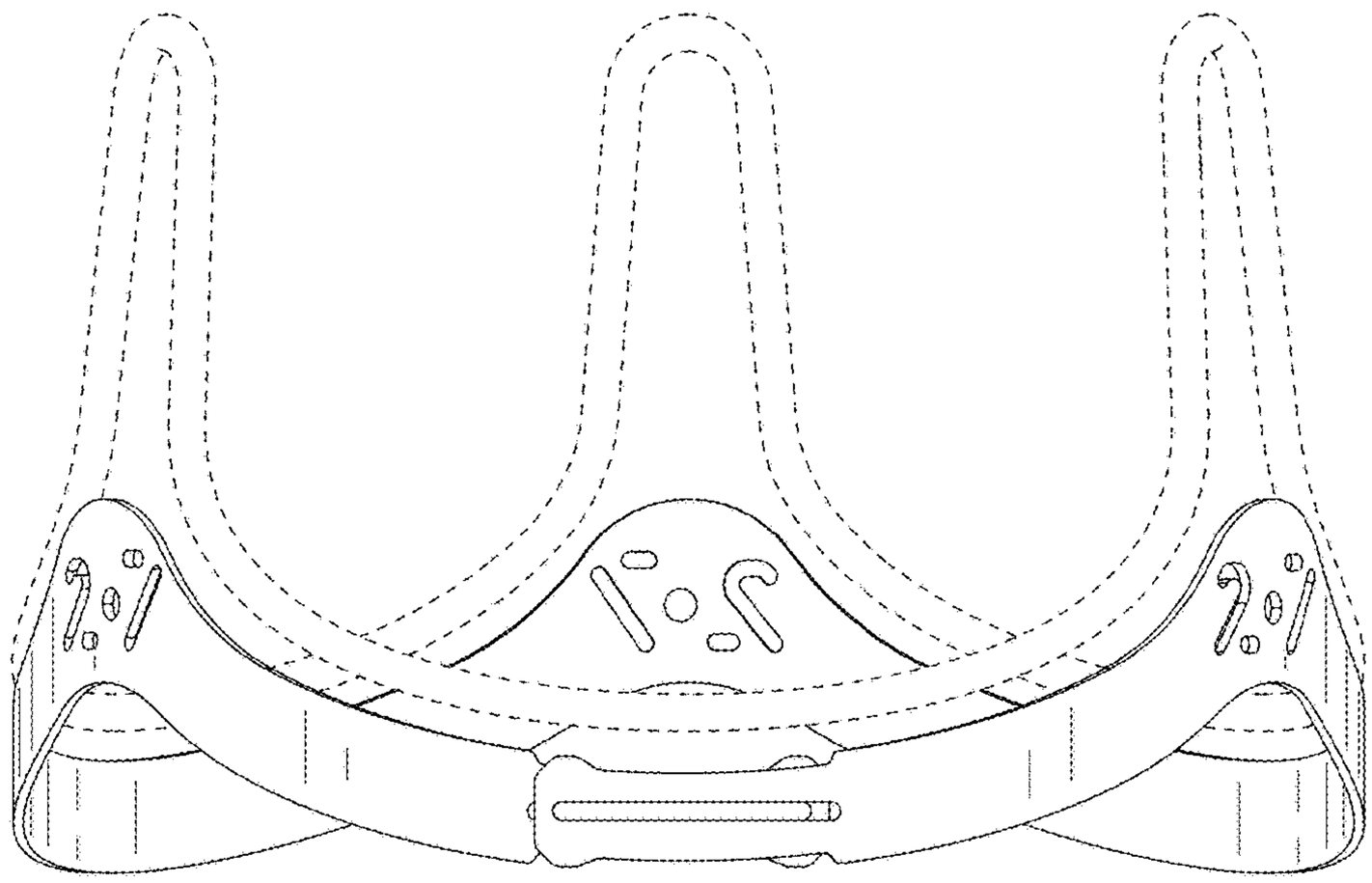


Fig. 74

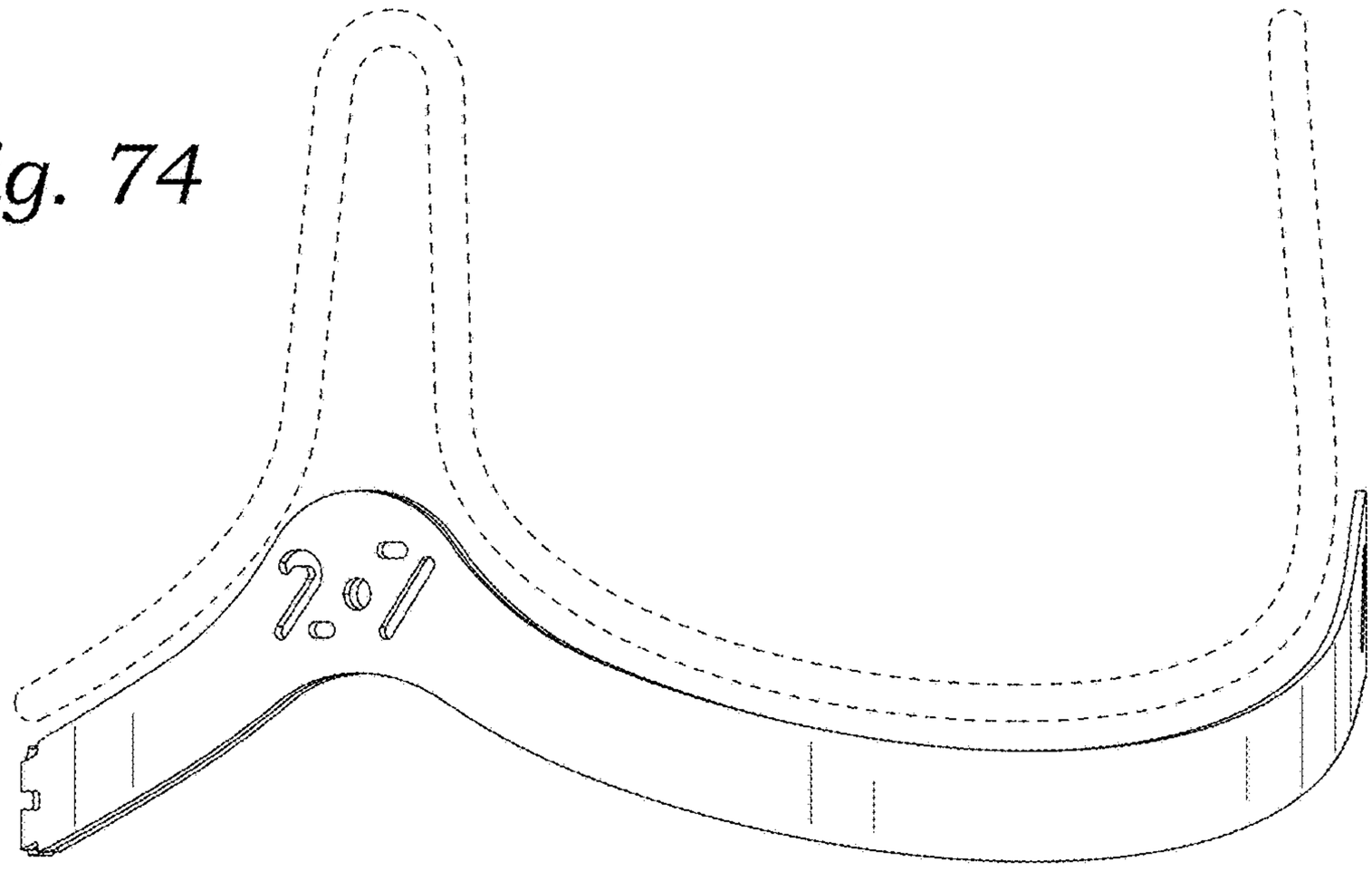


Fig. 75

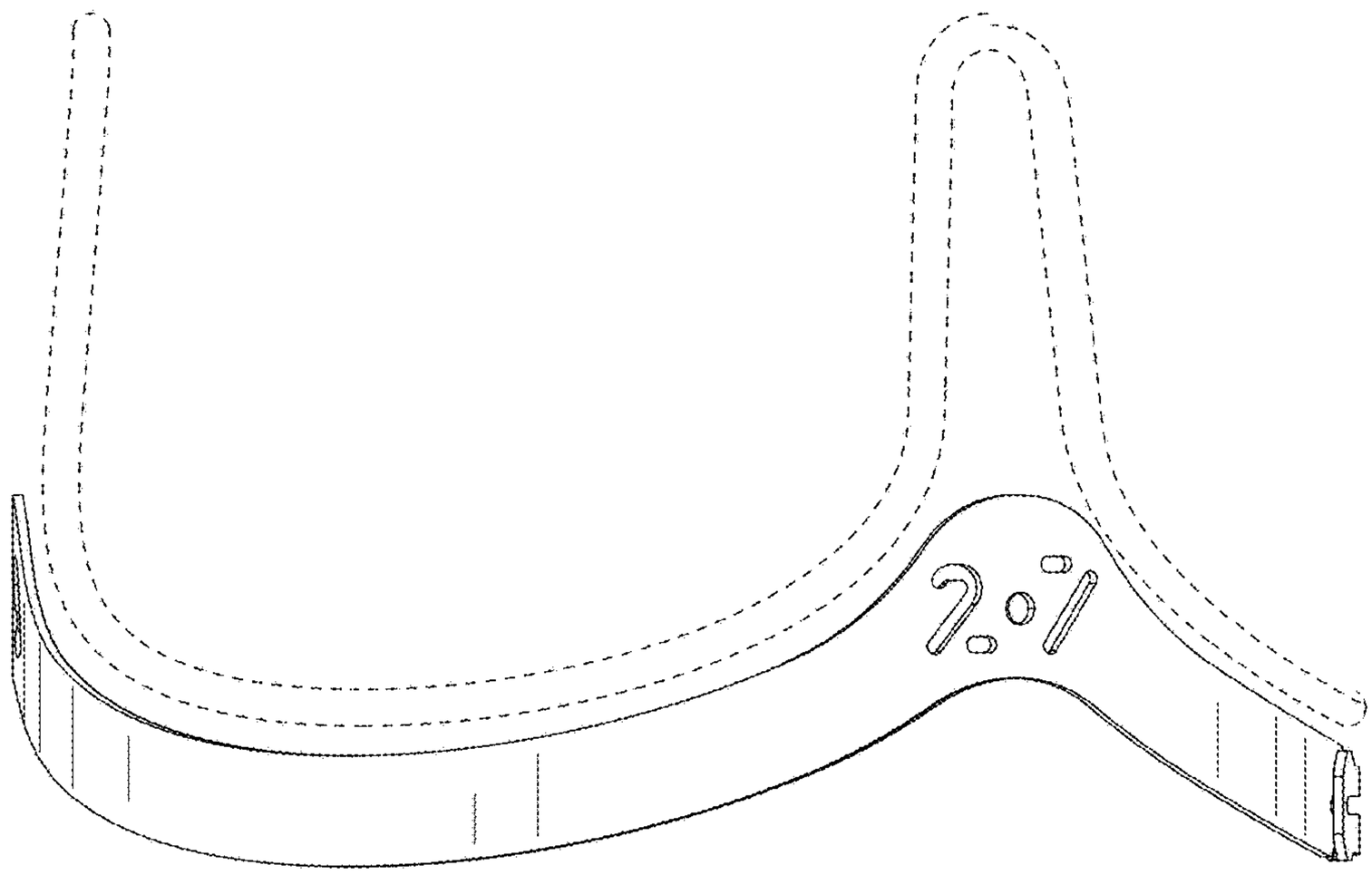


Fig. 76

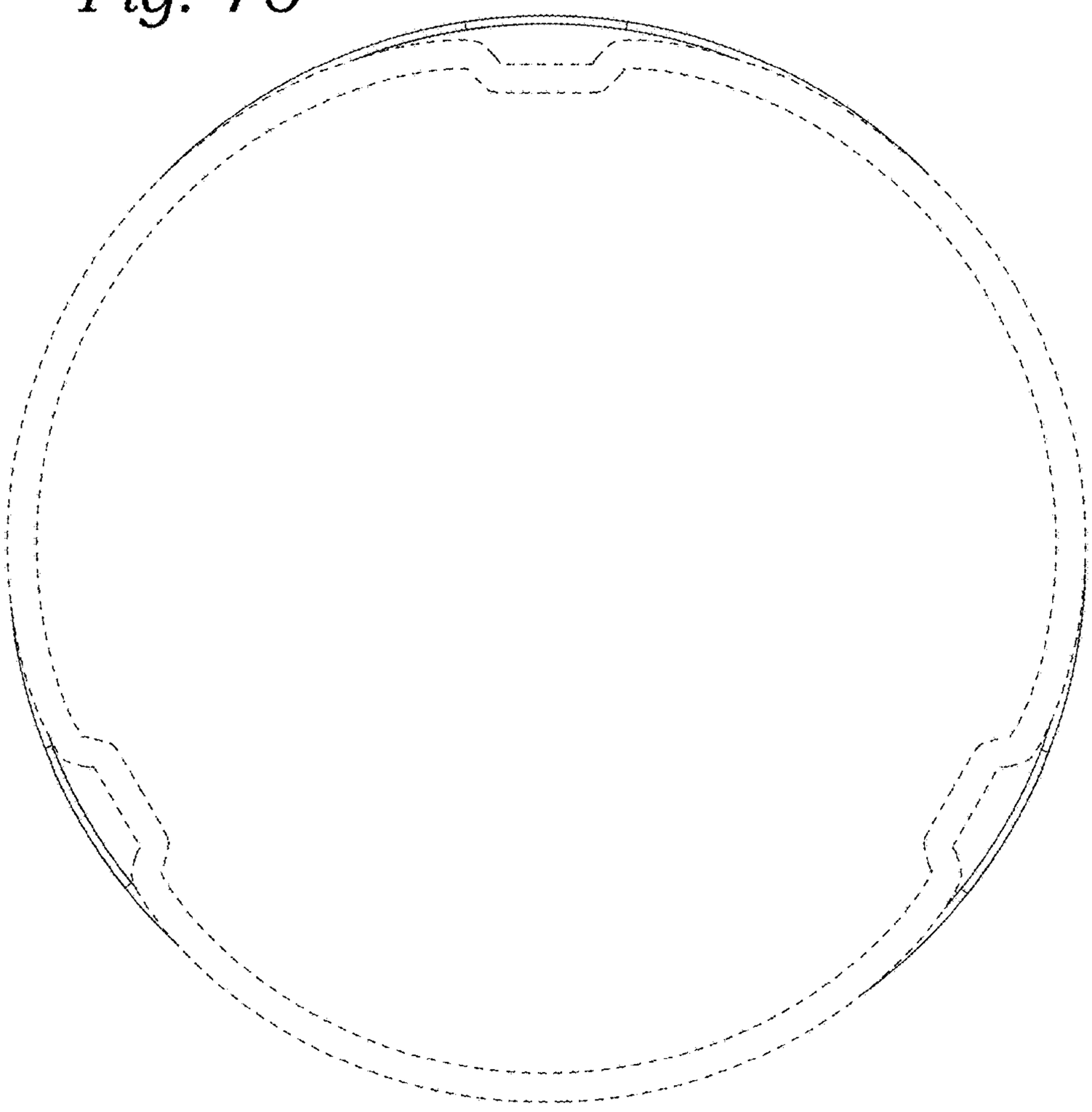


Fig. 77

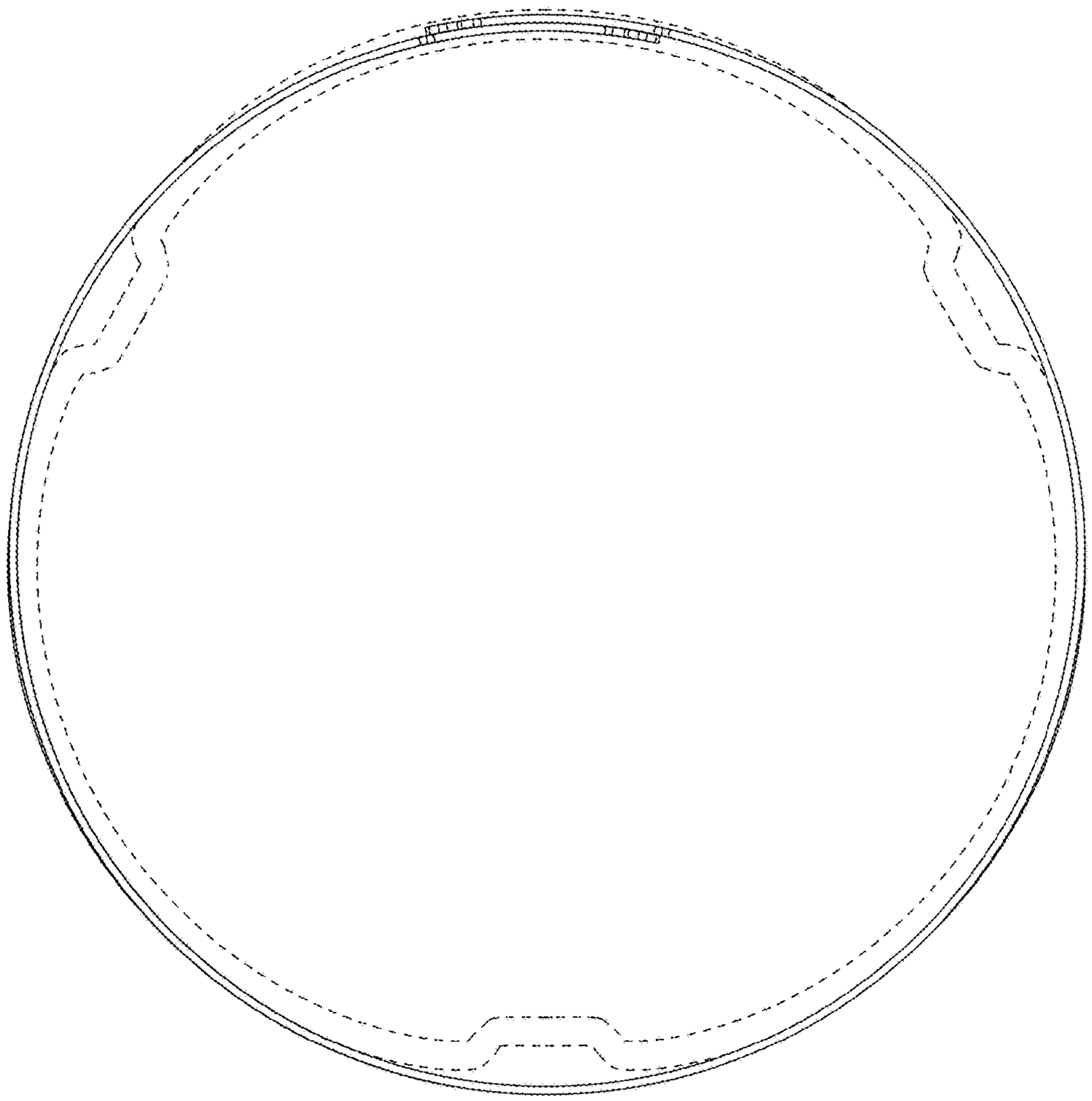


Fig. 78

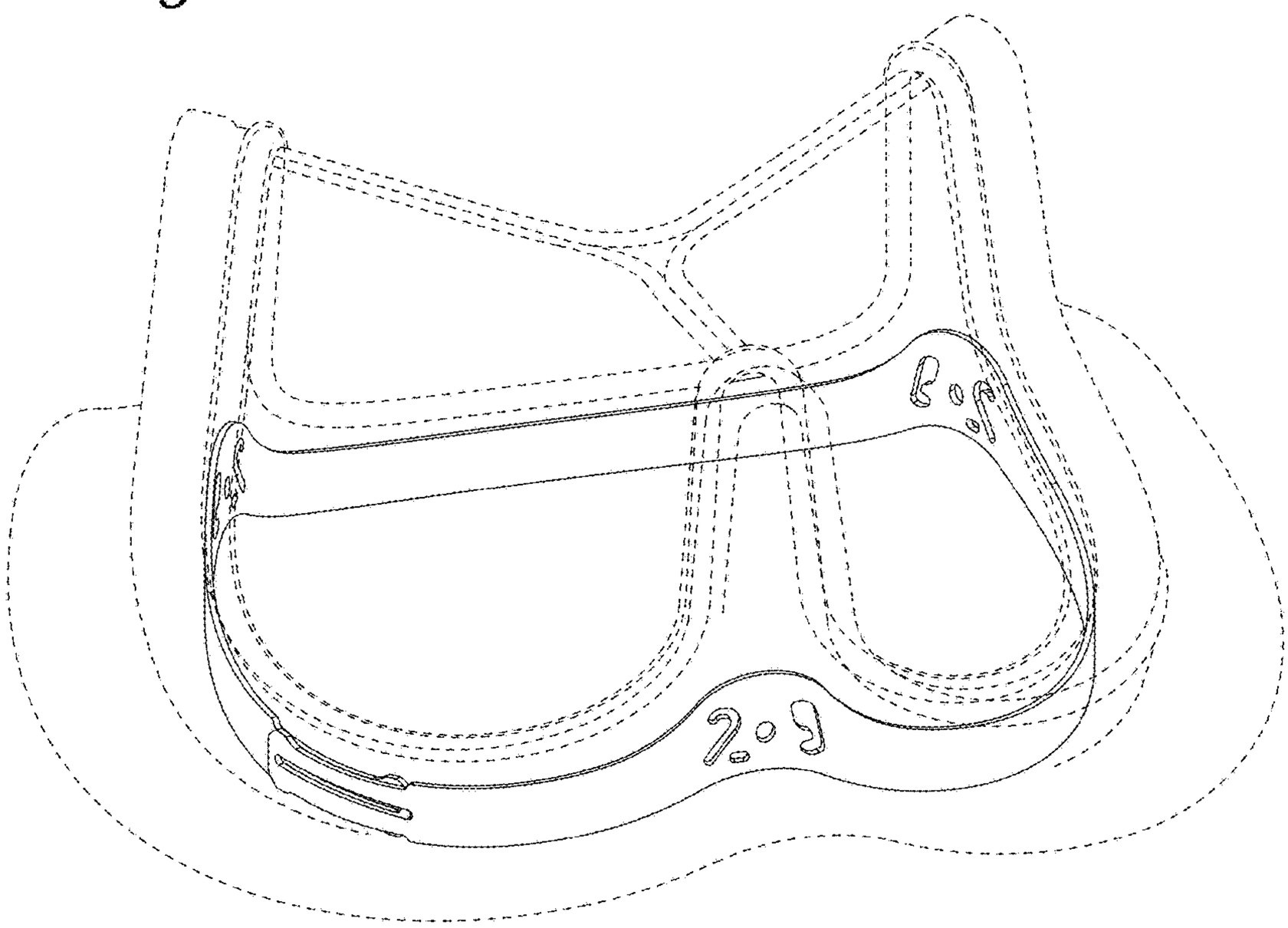


Fig. 79

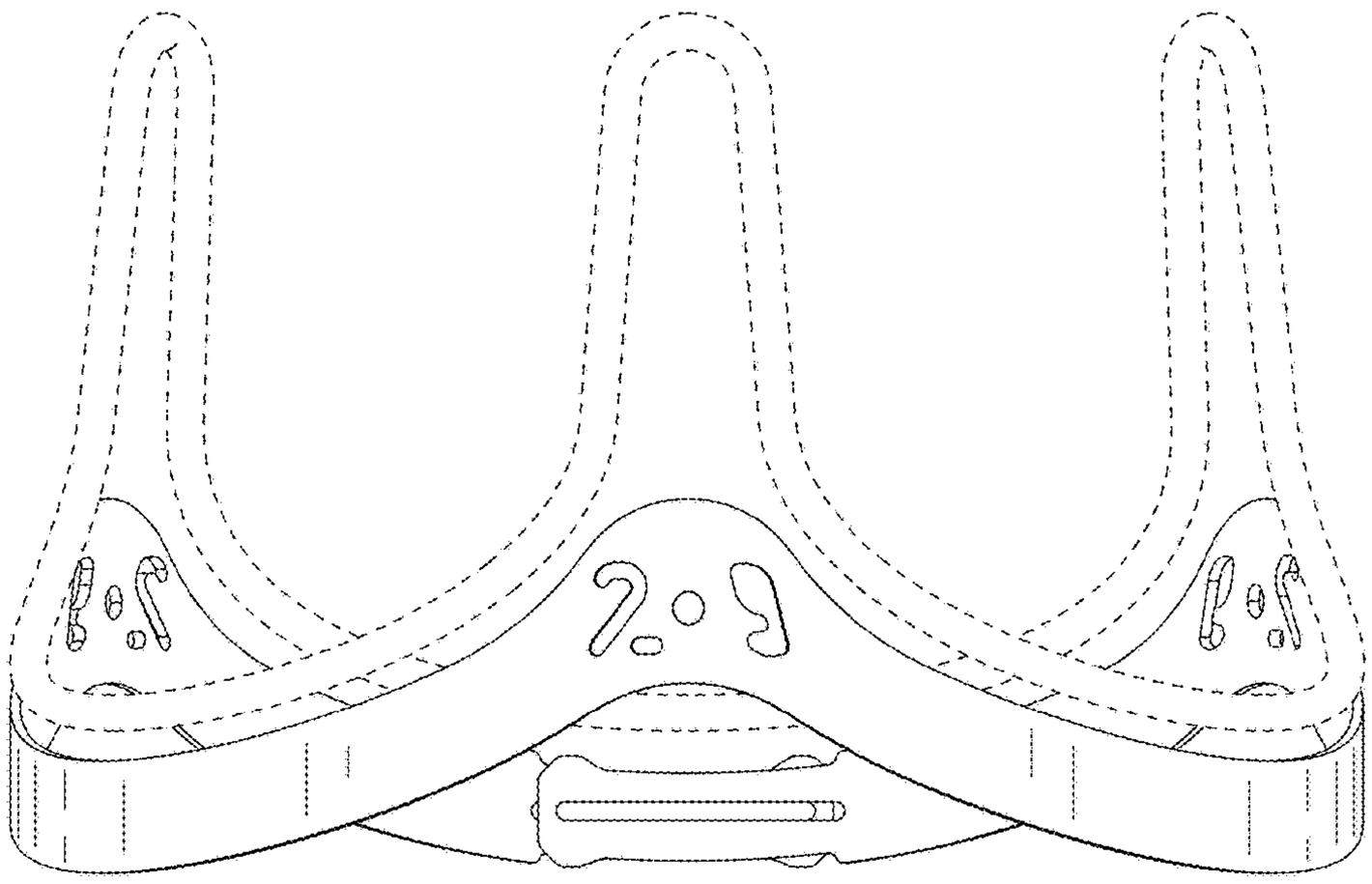


Fig. 80

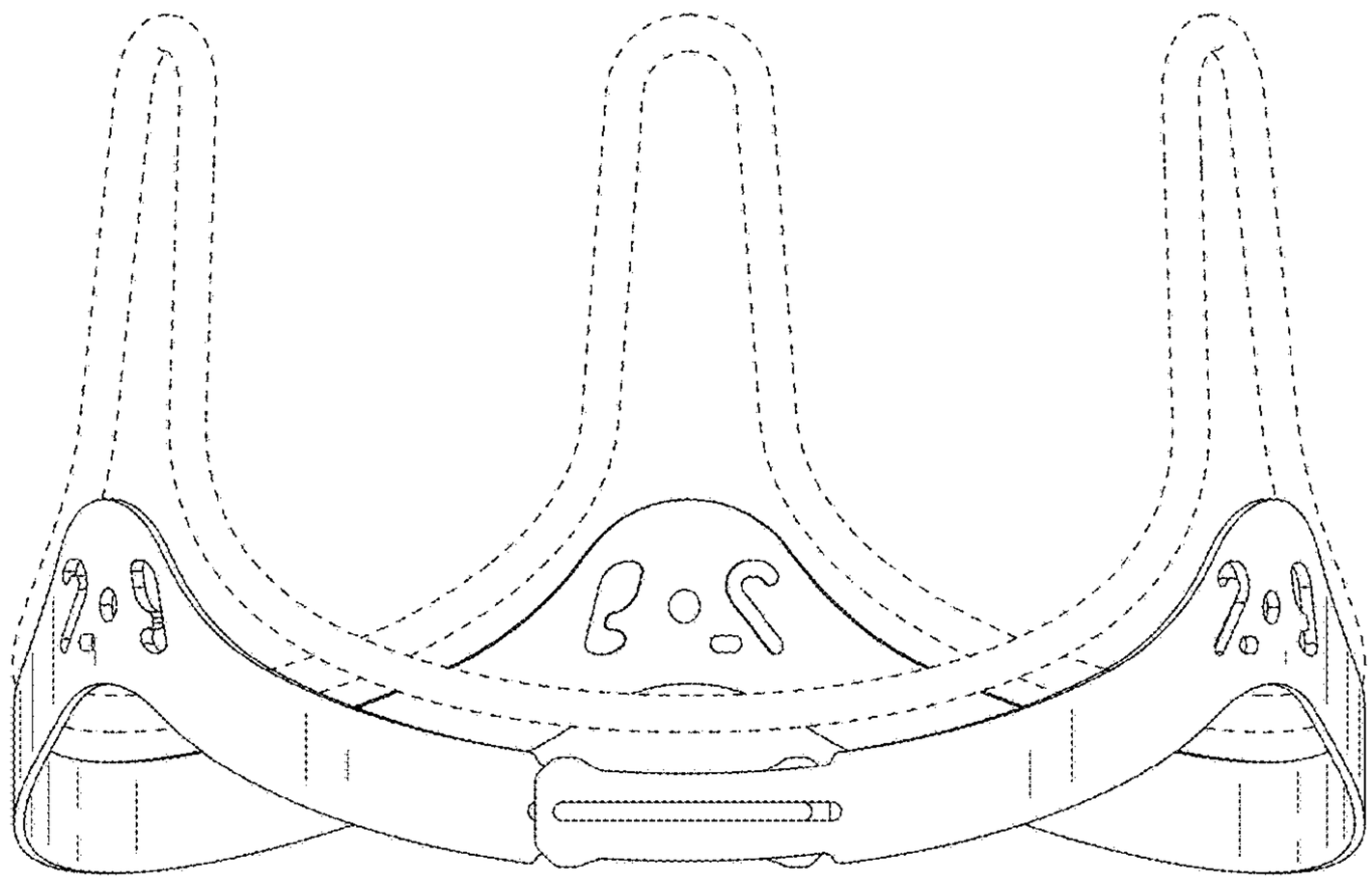


Fig. 81

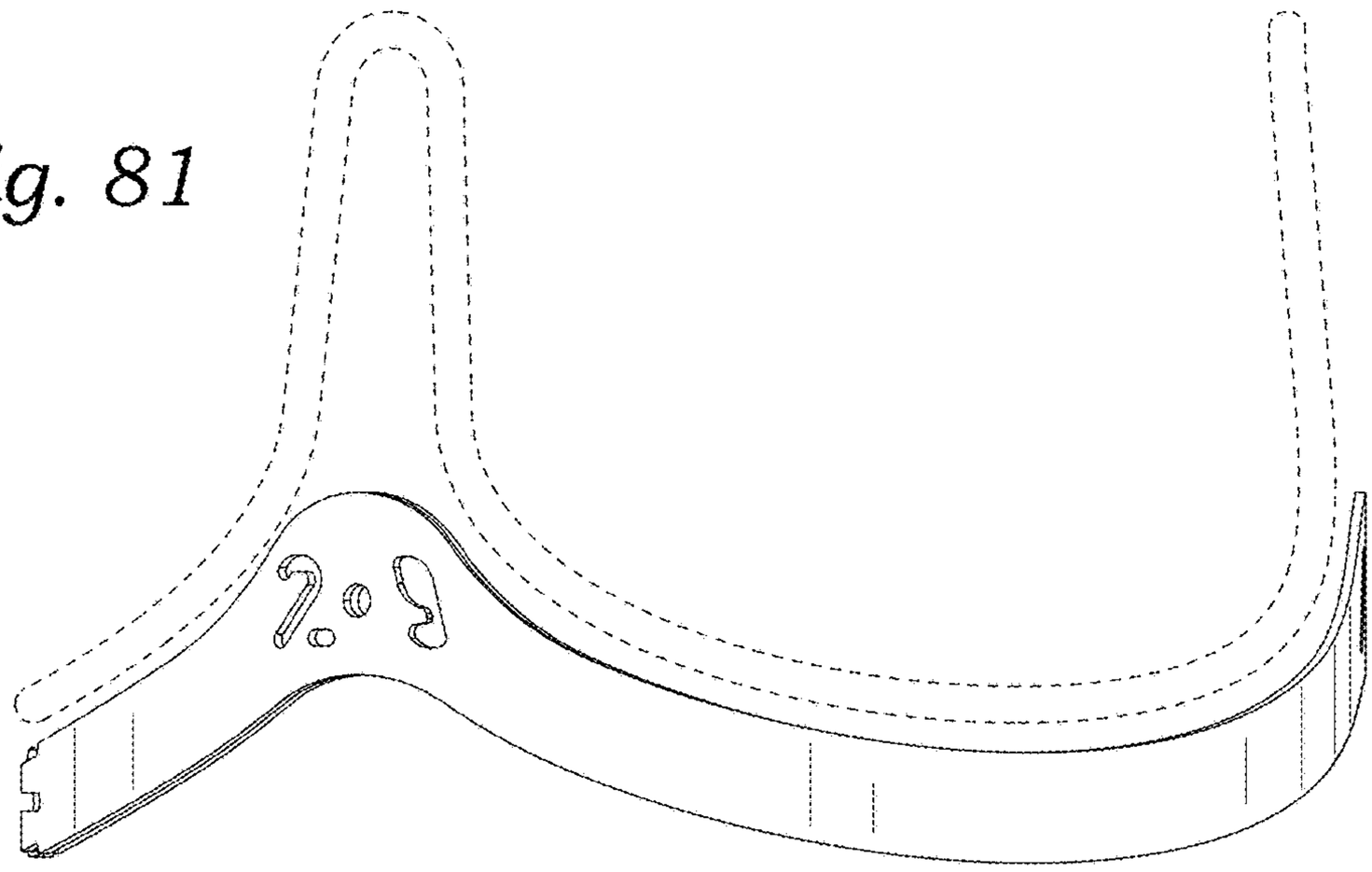


Fig. 82

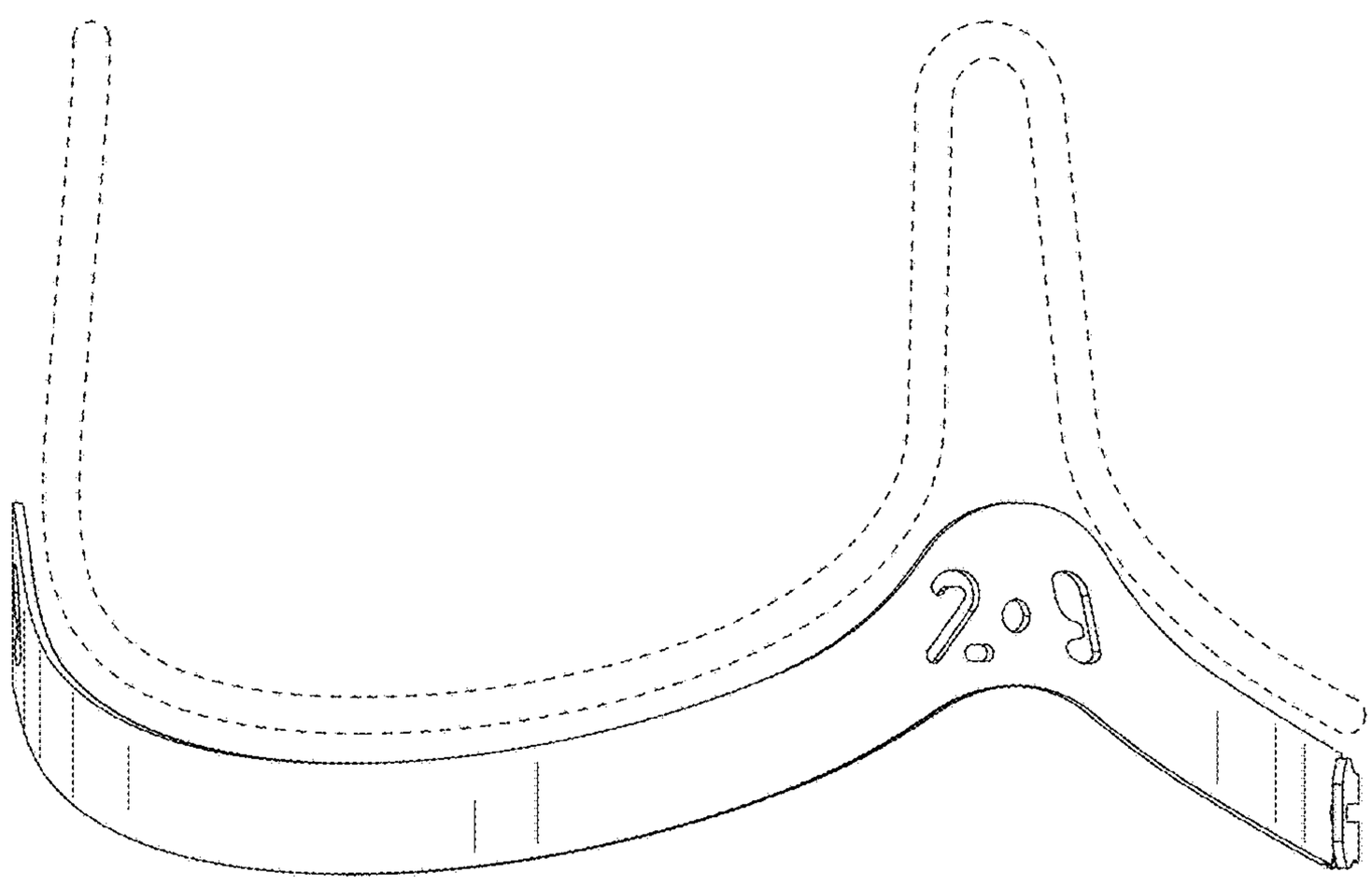


Fig. 83

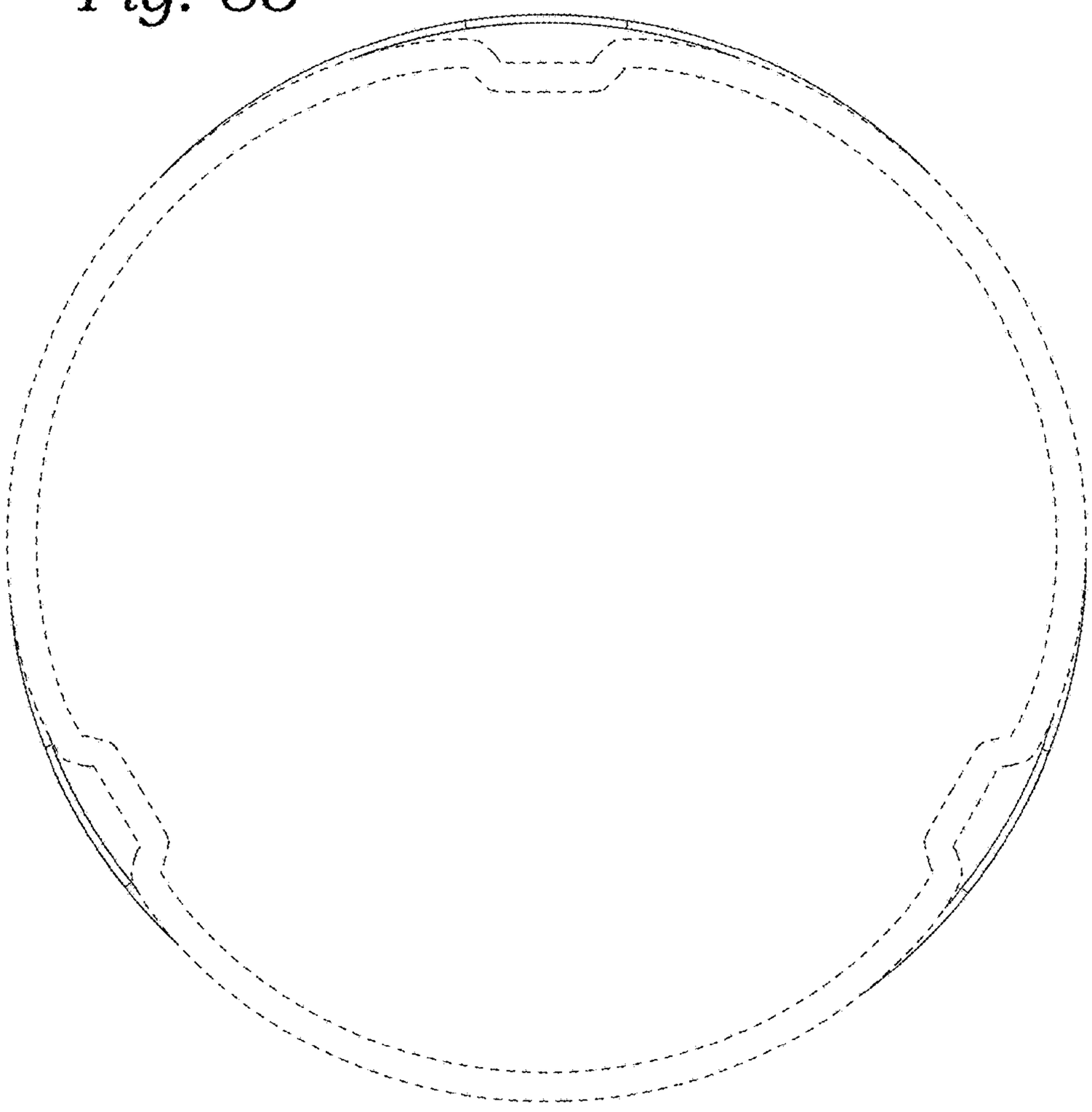


Fig. 84