US00D985773S

(12) United States Design Patent

Limem et al.

(10) Patent No.: US D985,773 S
(45) Date of Patent: ** May 9, 2023

(54) **THREE DIMENSIONAL MASTOPEXY IMPLANT**

(71) Applicant: **Tepha, Inc.**, Lexington, MA (US)

(72) Inventors: **Skander Limem**, Melrose, MA (US); **Emily Stires**, Boston, MA (US); **Rebecca Marciante**, North Reading, MA (US); **Said Rizk**, Windham, NH (US); **Arikha Moses**, Summit, NJ (US); **Fabio Felix**, Foxborough, MA (US); **Bruce Van Natta**, Westfield, IN (US)

(73) Assignee: **Tepha, Inc.**, Lexington, MA (US)

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

(21) Appl. No.: **29/798,824**

(22) Filed: **Jul. 10, 2021**

Related U.S. Application Data

(62) Division of application No. 29/735,098, filed on May 18, 2020, now Pat. No. Des. 927,689, which is a division of application No. 29/668,175, filed on Oct. 29, 2018, now Pat. No. Des. 888,244, which is a division of application No. 29/542,048, filed on Oct. 9, 2015, now Pat. No. Des. 836,778.

(51) **LOC (14) Cl.** **24-03**

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

(58) **Field of Classification Search**
USPC D24/155
CPC A61F 2/12
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,701,879 A 2/1955 Bennett
3,280,818 A 10/1966 Pankey et al.
(Continued)

FOREIGN PATENT DOCUMENTS

WO WO 2004/096098 A1 11/2004
WO WO 2006/117622 A1 11/2006
(Continued)

OTHER PUBLICATIONS

European Search Report and Written Opinion dated Jul. 3, 2017 for European Application No. 12754773.5.
(Continued)

Primary Examiner — Charles D Hanson
(74) *Attorney, Agent, or Firm* — Wolf, Greenfield & Sacks, P.C.

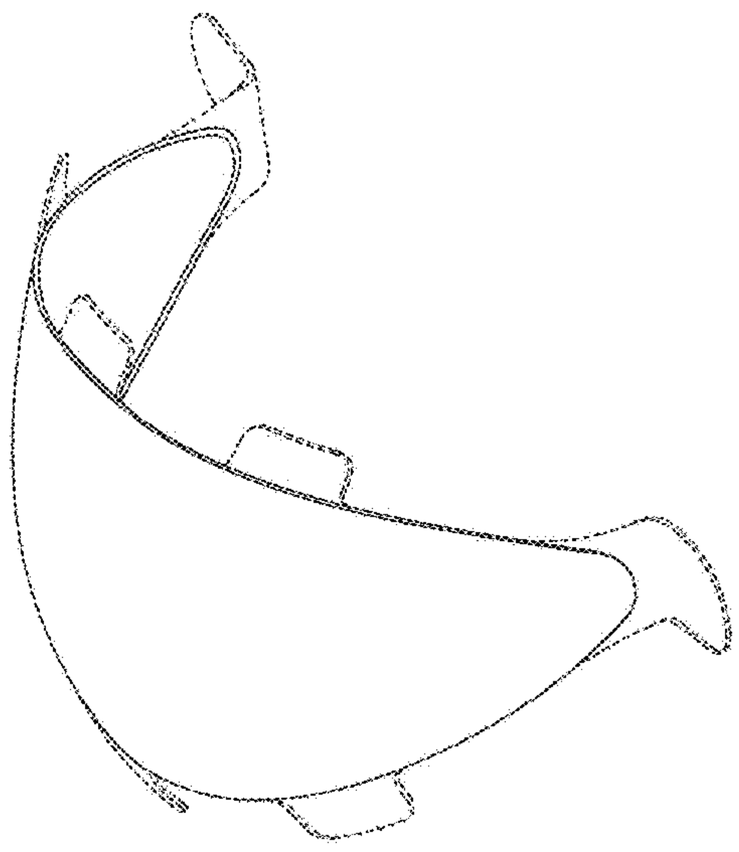
(57) **CLAIM**

The ornamental design for a three dimensional mastopexy implant, as shown and described.

DESCRIPTION

FIG. **1** is a front view of a three dimensional mastopexy implant showing our new design;
FIG. **2** is a top view of the three dimensional mastopexy implant shown in FIG. **1**;
FIG. **3** is a side view of the three dimensional mastopexy implant shown in FIG. **1**;
FIG. **4** is a bottom view of the three dimensional mastopexy implant shown in FIG. **1**;
FIG. **5** is another side view of the three dimensional mastopexy implant shown in FIG. **1**;
FIG. **6** is a rear view of the three dimensional mastopexy implant shown in FIG. **1**; and,
FIG. **7** is a top, front, side perspective view of the three dimensional mastopexy implant shown in FIG. **1**.
The broken lines shown in the figures form no part of the claimed design.

1 Claim, 7 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

3,934,593	A *	1/1976	Mellinger	A41C 3/065 428/355 R
4,372,293	A	2/1983	Vijil-Rosales	
4,388,735	A	6/1983	Ionescu et al.	
4,936,858	A	6/1990	O'Keeffe	
5,217,494	A	6/1993	Coggins et al.	
5,356,429	A	10/1994	Seare	
5,383,929	A	1/1995	Ledergerber	
5,500,019	A	3/1996	Johnson et al.	
5,545,221	A	8/1996	Hang-Fu	
5,584,884	A	12/1996	Pignataro	
5,658,328	A	8/1997	Johnson	
5,676,161	A	10/1997	Breiner	
5,716,404	A	2/1998	Vacant et al.	
5,755,611	A	5/1998	Noble et al.	
5,759,204	A	6/1998	Seare, Jr.	
5,990,378	A	11/1999	Ellis	
6,210,439	B1	4/2001	Firmin et al.	
6,328,765	B1	12/2001	Hardwick et al.	
6,368,541	B1	4/2002	Pajotin et al.	
6,371,831	B1	4/2002	Dodge	
6,544,287	B1	4/2003	Johnson et al.	
6,599,323	B2	7/2003	Melican et al.	
6,682,559	B2	1/2004	Myers et al.	
6,723,133	B1	4/2004	Pajotin	
6,740,122	B1	5/2004	Pajotin	
6,913,626	B2	7/2005	McGhan	
7,081,135	B2	7/2006	Smith et al.	
D539,506	S	4/2007	Valentin	
7,476,249	B2	1/2009	Frank	
7,520,896	B2	4/2009	Benslimane	
7,670,372	B2	3/2010	Shfaram et al.	
D616,096	S	5/2010	Lauryssen	
7,875,074	B2	1/2011	Chen et al.	
8,007,531	B2	8/2011	Frank	
8,034,270	B2	10/2011	Martin et al.	
8,728,159	B2	5/2014	Kim	
8,778,020	B2	7/2014	Gregg et al.	
8,858,629	B2	10/2014	Moses et al.	
8,911,765	B2	12/2014	Moses et al.	
8,936,504	B2	1/2015	Deal et al.	
8,986,377	B2	3/2015	Richter et al.	
9,277,986	B2	3/2016	Moses et al.	
9,474,598	B2	10/2016	Gregg et al.	
9,532,867	B2	1/2017	Felix et al.	
9,603,698	B2	3/2017	Kerr et al.	
9,655,715	B2	5/2017	Limem et al.	
9,700,411	B2	7/2017	Klima et al.	
9,707,073	B2	7/2017	Al-Jasim	
9,713,350	B1	7/2017	Colburn	
9,713,524	B2	7/2017	Glicksman	
D799,152	S	10/2017	Brownell et al.	
D803,401	S *	11/2017	Limem	D24/155
D816,220	S *	4/2018	Limem	D24/155
D816,221	S *	4/2018	Limem	D24/155
D836,778	S *	12/2018	Limem	D24/155
10,363,127	B2	7/2019	Mlodinow et al.	
D856,517	S	8/2019	Spiegel et al.	
D857,895	S *	8/2019	Limem	D24/155
D870,289	S *	12/2019	Limem	D24/155
10,595,986	B2	3/2020	Rehnke	
D888,244	S *	6/2020	Limem	D24/155
D889,654	S	7/2020	Limem et al.	
D889,655	S	7/2020	Limem et al.	
D894,393	S *	8/2020	Limem	D24/155
D896,383	S	9/2020	Schuessler et al.	
D927,689	S *	8/2021	Limem	D24/155
2002/0165596	A1	11/2002	Wilson	
2003/0195620	A1	10/2003	Huynh et al.	
2003/0207649	A1	11/2003	Reeder	
2004/0225352	A1	11/2004	Osborne et al.	
2005/0027348	A1	2/2005	Case et al.	
2006/0167338	A1	7/2006	Shfaram	
2006/0211334	A1	9/2006	Smith	
2007/0135929	A1	6/2007	Williams et al.	
2007/0198085	A1	8/2007	Benslimane	
2008/0027273	A1	1/2008	Gutterman	
2008/0082113	A1	4/2008	Bishop et al.	
2008/0097601	A1	4/2008	Codori-Hurff et al.	
2009/0082864	A1	3/2009	Chen et al.	
2009/0240342	A1	9/2009	Lindh, Sr. et al.	
2009/0248071	A1	10/2009	Saint et al.	
2010/0023120	A1	1/2010	Holecek et al.	
2010/0042211	A1	2/2010	Van Epps et al.	
2010/0137679	A1	6/2010	Lashinski et al.	
2010/0191330	A1	7/2010	Lauryssen et al.	
2010/0204791	A1	8/2010	Shfaram et al.	
2010/0217388	A1	8/2010	Cohen et al.	
2010/0249924	A1	9/2010	Powell et al.	
2010/0331612	A1	12/2010	Lashinski et al.	
2011/0009960	A1	1/2011	Altman et al.	
2011/0022171	A1	1/2011	Richter et al.	
2011/0257665	A1	10/2011	Mortarino	
2011/0264213	A1	10/2011	DeMiranda	
2011/0276122	A1	11/2011	Schlick et al.	
2012/0004723	A1	1/2012	Mortarino et al.	
2012/0021738	A1	1/2012	Koo et al.	
2012/0022646	A1	1/2012	Mortarino et al.	
2012/0158134	A1	6/2012	Codori-Hurff et al.	
2012/0185041	A1	7/2012	Mortarino et al.	
2012/0221105	A1	8/2012	Altman et al.	
2012/0232653	A1	9/2012	Saint et al.	
2012/0266348	A1	10/2012	Meginnis	
2012/0283826	A1	11/2012	Moses et al.	
2013/0066423	A1	3/2013	Bishop et al.	
2013/0103149	A1	4/2013	Altman et al.	
2013/0116778	A1	5/2013	Gregg et al.	
2013/0178699	A1	7/2013	Saint et al.	
2013/0178875	A1	7/2013	Horton et al.	
2013/0253645	A1	9/2013	Kerr et al.	
2013/0304098	A1	11/2013	Mortarino	
2014/0081398	A1	3/2014	Meija et al.	
2014/0200396	A1	7/2014	Lashinski et al.	
2014/0222146	A1	8/2014	Moses et al.	
2014/0222161	A1	8/2014	Mathisen	
2014/0276997	A1	9/2014	Harrah et al.	
2015/0012089	A1	1/2015	Shetty et al.	
2015/0018946	A1	1/2015	Guterman	
2015/0056131	A1	2/2015	Bernasconi et al.	
2015/0081000	A1	3/2015	Hossainy et al.	
2015/0134043	A1	5/2015	Irwin et al.	
2015/0223928	A1	8/2015	Limem et al.	
2015/0351899	A1	12/2015	Mortarino	
2015/0351900	A1	12/2015	Glicksman	
2016/0022416	A1	1/2016	Felix et al.	
2016/0038269	A1	2/2016	Altman et al.	
2016/0106538	A1	4/2016	Mitra et al.	
2016/0151138	A1	6/2016	Guterman	
2016/0256268	A1	9/2016	Dakin	
2016/0296329	A1	10/2016	Alkhatib et al.	
2016/0310262	A1	10/2016	Doucet et al.	
2017/0196672	A1	7/2017	Guterman	
2019/0216595	A1	7/2019	Moses et al.	
2019/0247180	A1	8/2019	Limem et al.	
2019/0254807	A1	8/2019	Limem et al.	
2020/0100892	A1	4/2020	Limem et al.	
2021/0153997	A1	5/2021	Limem et al.	

FOREIGN PATENT DOCUMENTS

WO	WO 2007/004214 A2	1/2007
WO	WO 2009/001293 A1	12/2008
WO	WO 2009/050706 A2	4/2009
WO	WO 2011/119742 A2	9/2011
WO	WO 2012/122215 A2	9/2012
WO	WO 2015/006737 A1	1/2015
WO	WO 2019/094861 A1	5/2019
WO	WO 2019/119060 A1	6/2019
WO	WO 2020/070694 A1	4/2020

OTHER PUBLICATIONS

Supplementary European Search Report dated Jul. 30, 2014 for European Application No. 12754773.5.

(56) **References Cited**

OTHER PUBLICATIONS

International Search Report and Written Opinion dated Nov. 5, 2012 for International Application No. PCT/US2012/027975.
International Search Report and Written Opinion dated Apr. 23, 2019 for International Application No. PCT/US2019/015849.
International Written Opinion dated Feb. 12, 2015 for International Application No. PCT/US2014/046420.
[No Author Listed], "GalaFLEX Mesh . . . Supporting Your Quest for Timeless Beauty," Tepha, Inc. 400109 Rev.B, Oct. 2012.
[No Author Listed], "GalaFLEX Mesh," Tepha, Inc., Website, P/N 400124, Rev.A, Oct. 2013.
Auclair et al., Repair of mammary ptosis by insertion of an internal absorbale support and periareaolar scar. Ann Chir Plast Esthet. 1993;38(1):107-13.
Debruijn et al., Mastopexy with 3D Preshaped Mesh for Long Term Results: Development of the Internal Bra System. Aesth Plast Surg. 2008;32:757-65. doi: 10.1007/s00266-008-9186-y.
Debruijn et al., Mastopexy with Mesh Reinforcement: the Mechanical Characteristics of Polyester Mesh in the Female Breast. Plast Resconstr Surg. 2009;124:364.
Goes, Periareolar mammaplasty: double skin technique with application of polyglactine or mixed mesh. Plast Reconstr Surg. 1996;97:959-68.
Goes, Periareolar mammaplasty: double-skin technique with application of mesh support. Clin Plastic Surg. 2002;29:349-64.
Goes, Periareolar Mastopexy with FortaPerm. Aesth Plast Surg. 2010;34:350-58.
Johnson, Central core reduction mammoplasties and Marlex suspension of breast tissue. Aesth Plast Surg. 1981;5:77-84.
Malluci, Concepts in aesthetic breast dimensions: Analysis of the ideal breast. J Plast Reconstr Aesth Surg. 2012;65:8-16.
Malluci, Design for Natural Breast Augmentation: The ICE Principle, Plastic and Reconstructive Surgery. Jun. 2016;137(6):1728-37.
Malluci, Population Analysis of the Perfect Breast: A Morphometric Analysis. J Plast Reconstr Surg. 2014;134(3):436-47.
Ray et al., Polydioxanone (PDS), A Novel Monofilament Synthetic Absorbable Suture. Surg Gynecol Obst. Oct. 1981;153:497-507.
Van Deventer, Improving the Longevity and Results of Mastopexy and Breast Reduction Procedures: Reconstructing an Internal Breast Support System with Biocompatible Mesh to Replace the Supporting Function of the Ligamentous Suspension. Aesth Plast Surg. 2012;36:578-89. doi: 10.1007/s00266-011-9845-2.
Williams, Poly-4-hydroputyrate (P4HB): a new generation of resorbable medical devices for tissue repair and regeneration. Biomed Tech. 2013;58(5):439-52. doi: 10.1515/bmt-2013-0009.

* cited by examiner

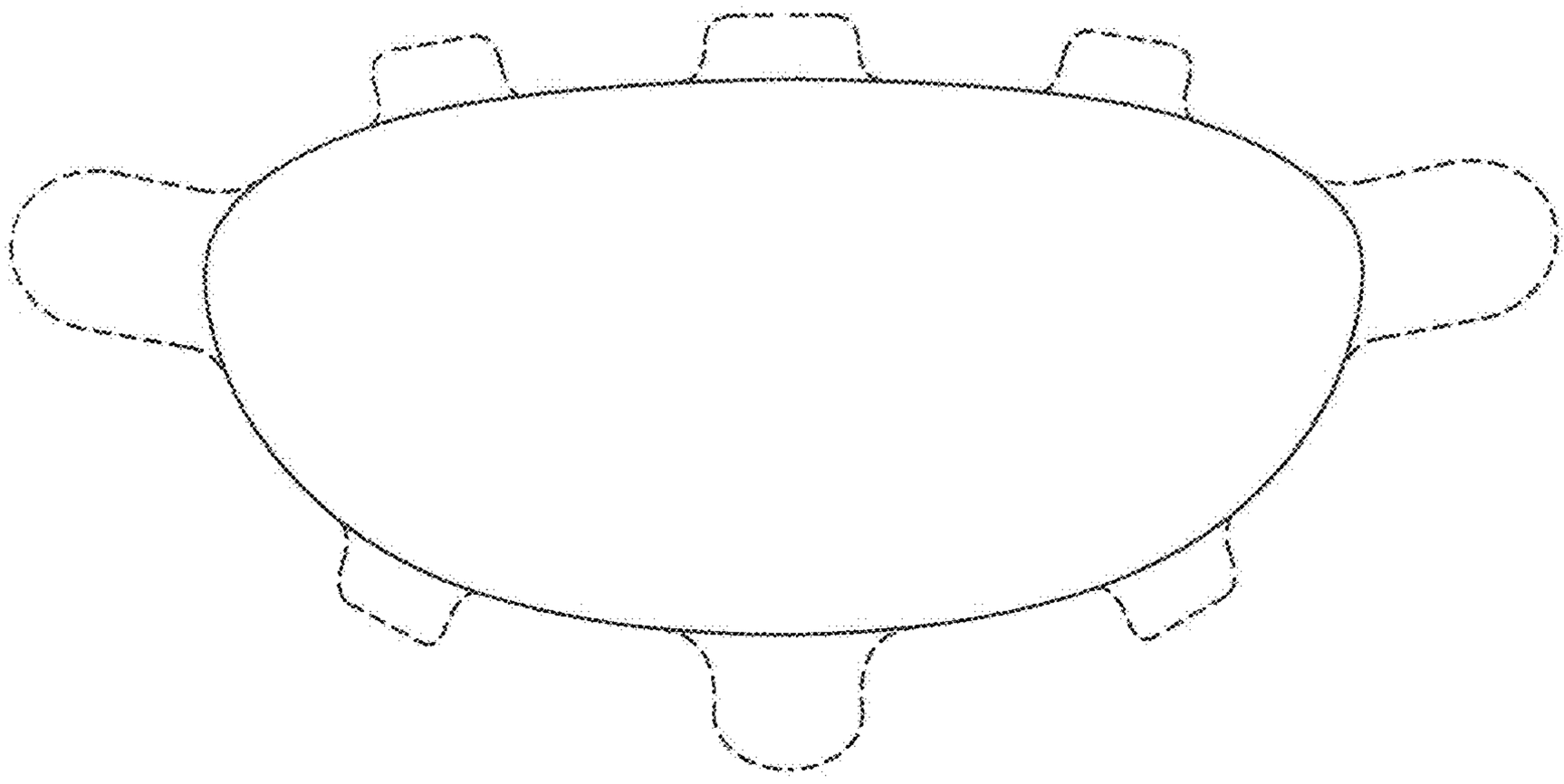


Figure 1

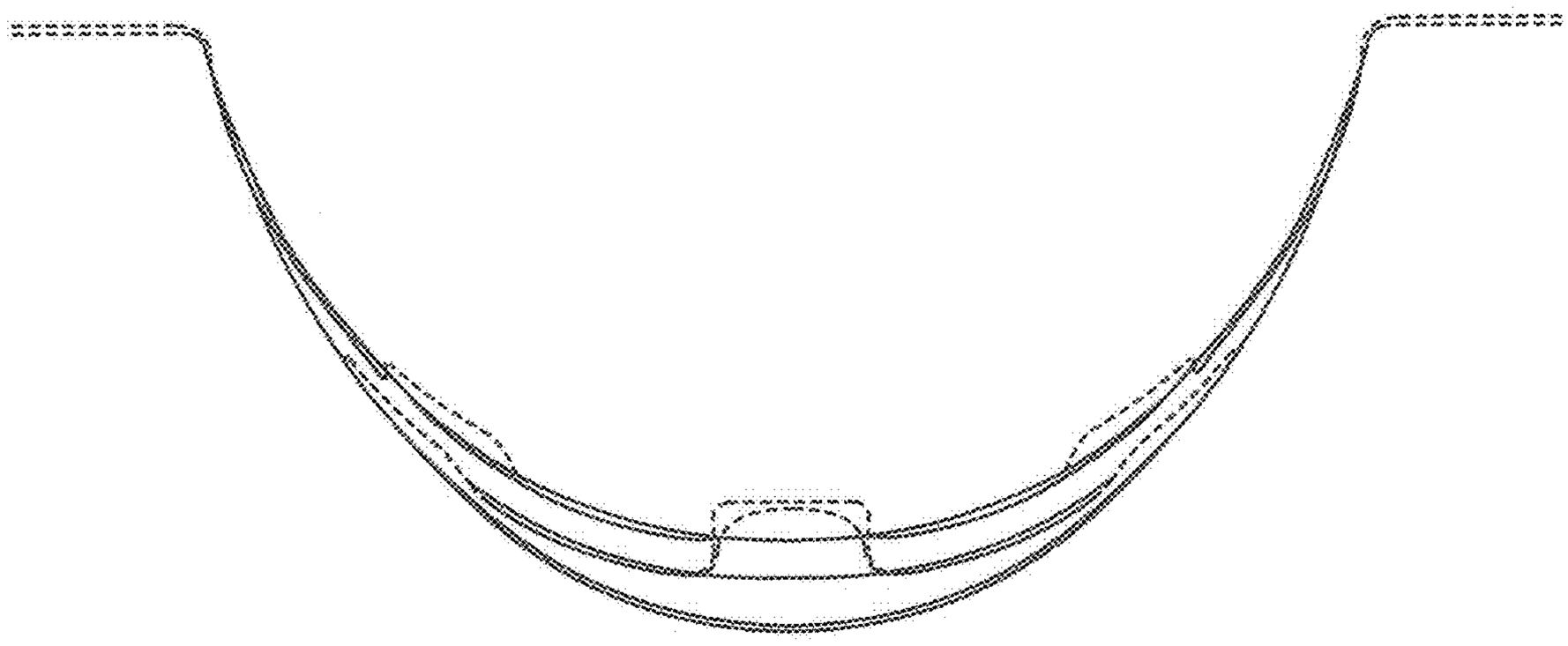


Figure 2

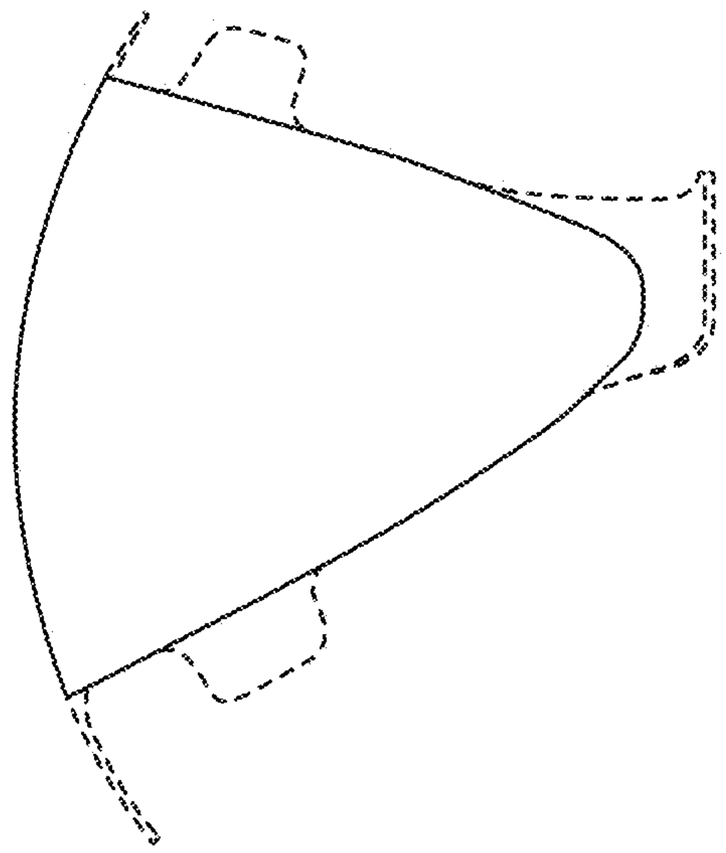


Figure 3

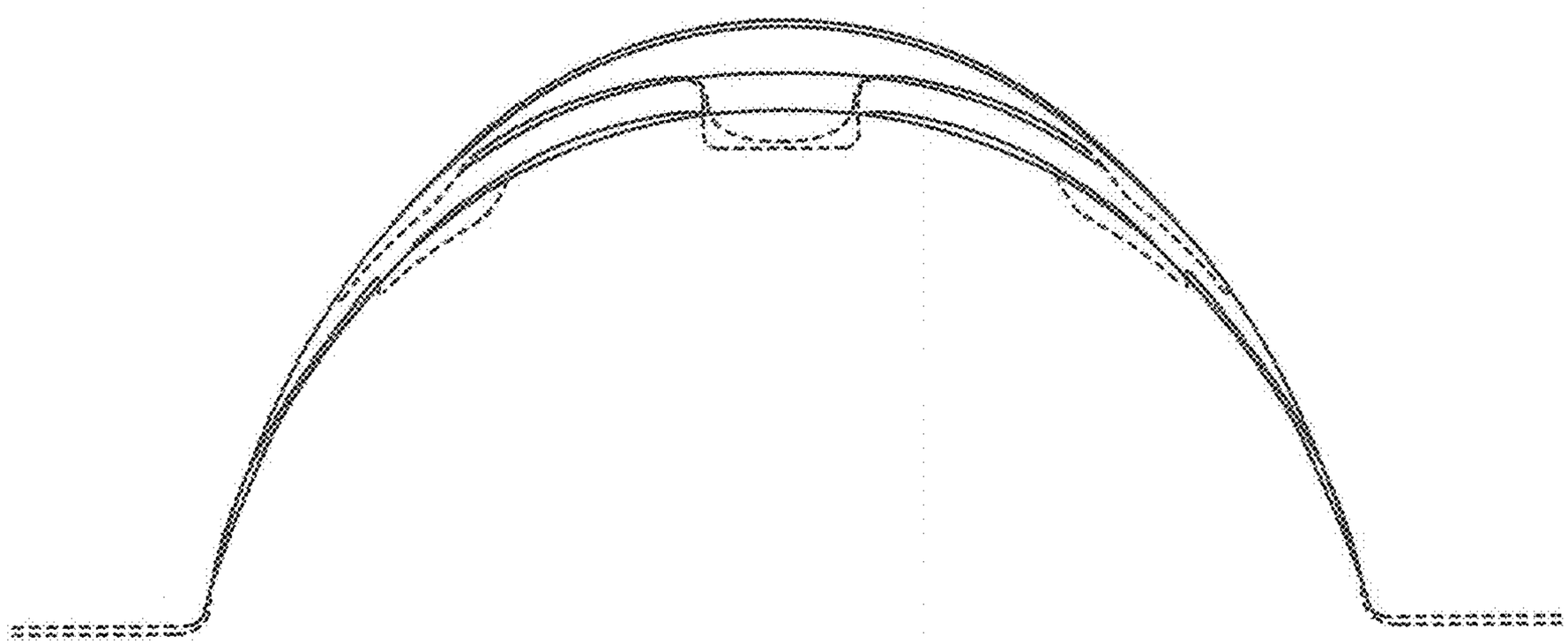


Figure 4

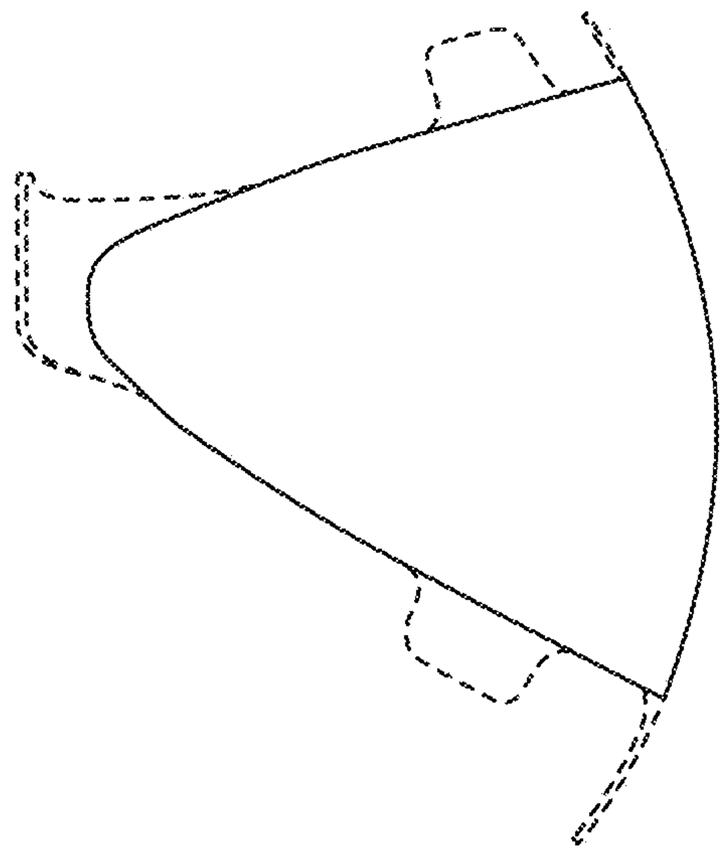


Figure 5

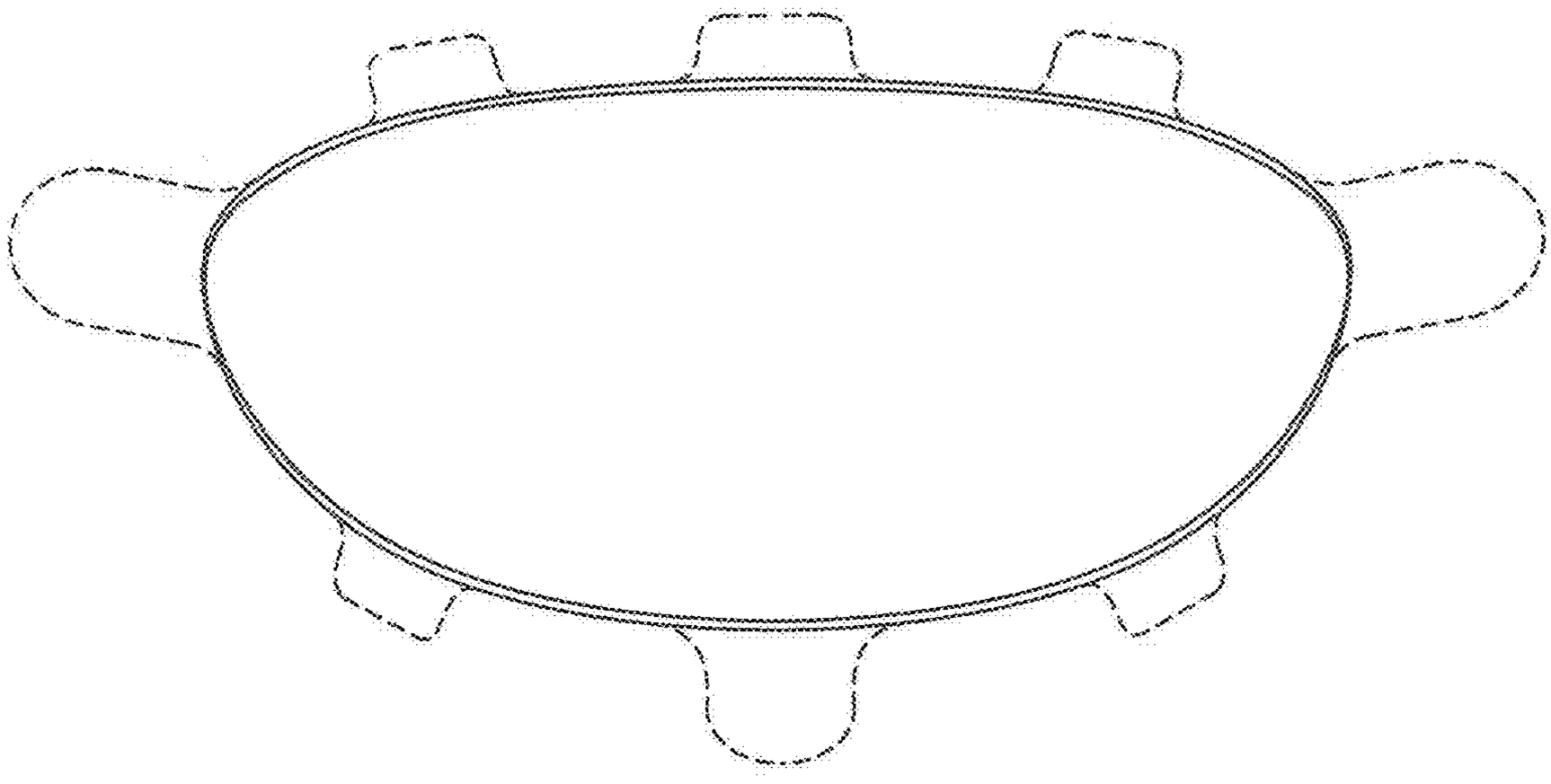


Figure 6

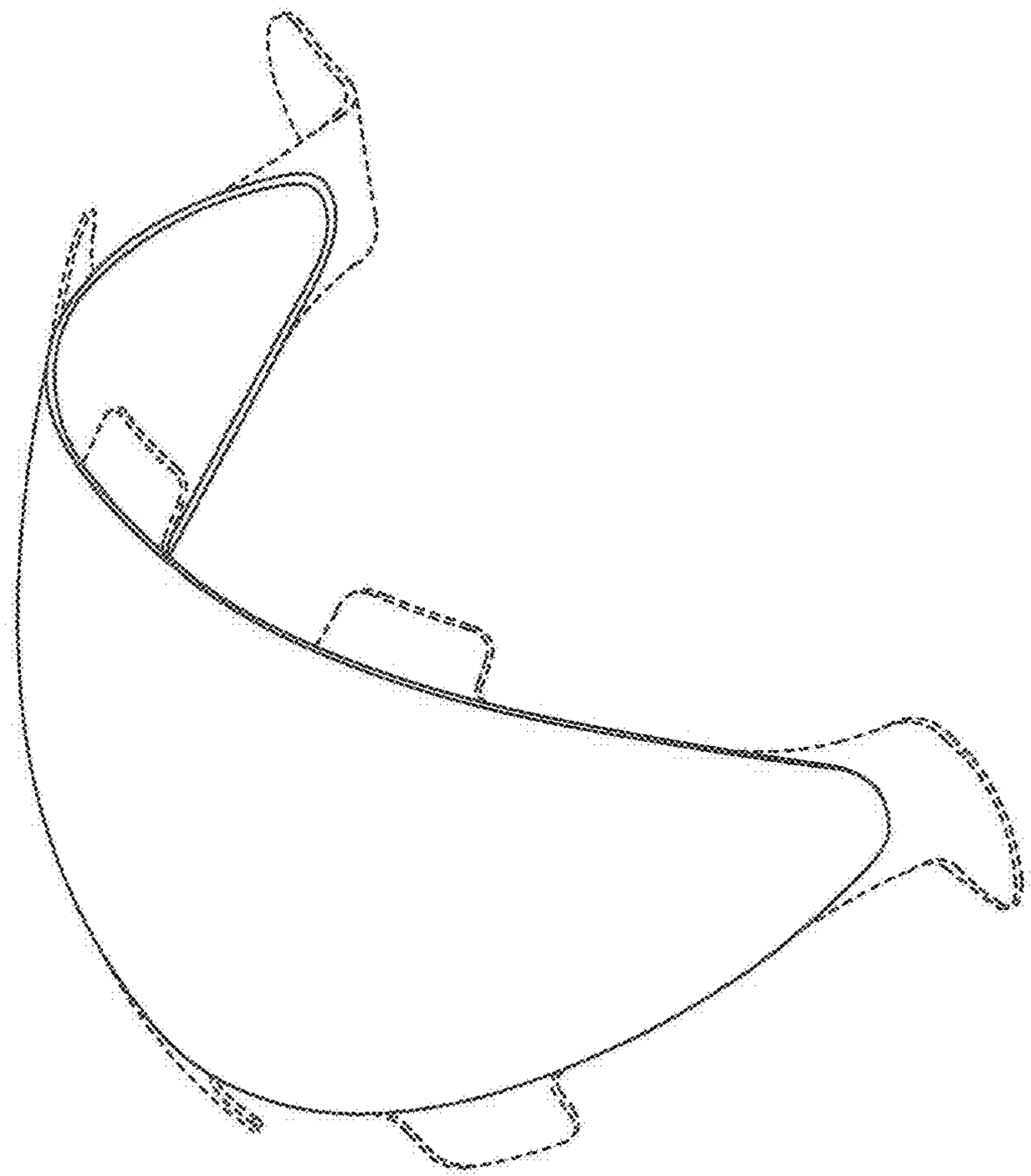


Figure 7