



US00D927689S

(12) **United States Design Patent** (10) **Patent No.:** **US D927,689 S**
Limem et al. (45) **Date of Patent:** **** Aug. 10, 2021**

(54) **THREE DIMENSIONAL MASTOPEXY IMPLANT**

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

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(Continued)

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FOREIGN PATENT DOCUMENTS

WO 2004096098 A1 11/2004
WO 2006117622 A1 11/2006

(Continued)

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OTHER PUBLICATIONS

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

U.S. Appl. No. 16/587,903, Sep. 30, 2019, Skander Limem.

(Continued)

(21) Appl. No.: **29/735,098**

Primary Examiner — Charles D Hanson

(22) Filed: **May 18, 2020**

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Related U.S. Application Data

(62) 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 (13) 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.

(57) **CLAIM**

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

DESCRIPTION

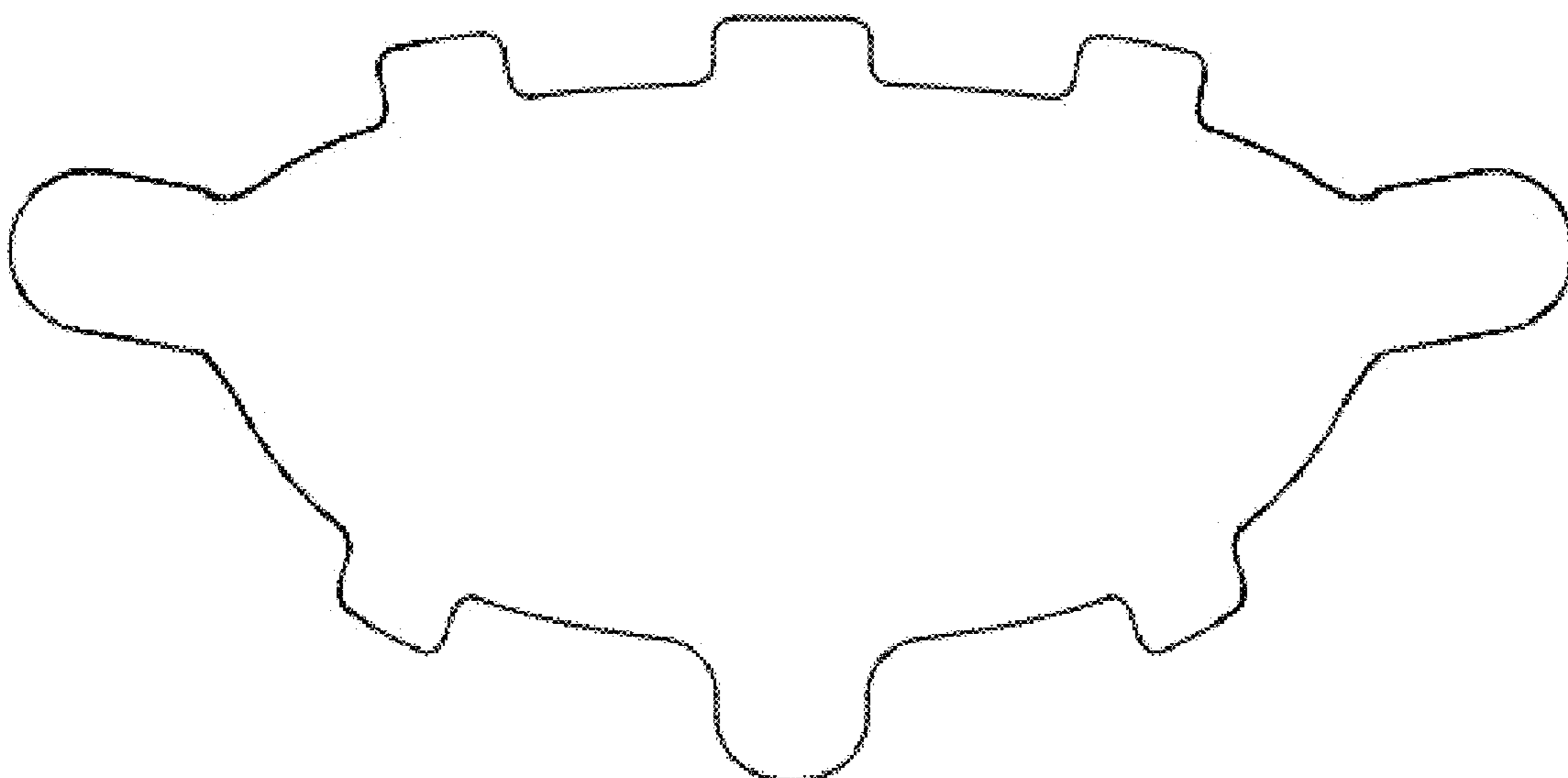
FIG. 1 is a front view of a three dimensional mastopexy implant showing our new design;
FIG. 2 is a top view of the three dimensional mastopexy implant shown in FIG. 1;
FIG. 3 is a side view of the three dimensional mastopexy implant shown in FIG. 1;
FIG. 4 is a bottom view of the three dimensional mastopexy 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.

1 Claim, 4 Drawing Sheets

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,701,879 A 2/1955 Bennett
3,280,818 A 10/1966 Pankey et al.
3,934,593 A 1/1976 Mellinger
4,372,293 A 2/1983 Vijil-Rosales



(56)

References Cited

U.S. PATENT DOCUMENTS

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 Vacanti et al.
 5,755,611 A 5/1998 Noble et al.
 5,759,204 A 6/1998 Seare
 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 Laurysen A61F 2/12
 D24/155
 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 et al.
 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 D24/155
 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 D24/155
 D889,655 S * 7/2020 Limem D24/155
 D894,393 S * 8/2020 Limem D24/155
 D896,383 S * 9/2020 Schuessler 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 et al.
 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 Epps et al.
 2010/0137679 A1 6/2010 Lashinski et al.
 2010/0191330 A1 7/2010 Laurysen 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 Mejia 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 Guterma
 2015/0056131 A1 2/2015 Bemasoni 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 Guterma et al.
 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 Guterma
 2019/0216595 A1 7/2019 Moses et al.
 2019/0247180 A1 8/2019 Limem et al.
 2019/0254807 A1 8/2019 Limem et al.

FOREIGN PATENT DOCUMENTS

WO 2007004214 A3 5/2007
 WO 2009001293 A1 12/2008
 WO 2009050706 A2 4/2009
 WO 2011119742 A2 9/2011
 WO 2012012215 A2 1/2012
 WO 2012122215 A2 9/2012
 WO 2015006737 A1 1/2015
 WO 2019094861 A1 5/2019
 WO 2019119060 A1 6/2019
 WO 2020070694 A1 4/2020

OTHER PUBLICATIONS

U.S. Appl. No. 29/668,175, Oct. 29, 2018, Skander Limem.
 U.S. Appl. No. 62/939,786, Nov. 25, 2019, Skander Limem.
 "GalaFLEX Mesh . . . Supporting Your Quest for Timeless Beauty,"
 Tepha, Inc. 400109 Rev.B, Oct. 2012.
 "GalaFLEX Mesh," Tepha Inc., www.galateasurgical.com, P/N
 400124, Rev.A, Oct. 2013.
 Auclair, et al, "Repair of mammary ptosis by insertion of an internal
 absorbable support and periareolar scar," Ann Chir Plast Esthet,
 1993, 38, No. 1, pp. 107-113.

(56)

References Cited

OTHER PUBLICATIONS

DeBruijn, et al, "Mastopexy with Mesh Reinforcement: The Mechanical Characteristics of Polyester Mesh in the Female Breast," *Plast. Reconstr. Surg.* 124: 364, 2009.

European Search and Opinion dated Jul. 3, 2017, for 12754773.5-1666.

Goes, "Periareolar mammoplasty: double skin technique with application of polyglactine or mixed mesh," *Plast. Reconstr. Surg.* 97-959-68 (1996).

Goes, "Periareolar mammoplasty: double-skin technique with application of mesh support," *Clin Plastic Surg* 29 (2002) 349-364.

Goes, "Periareolar Mastopexy with FortaPerm," *Aesth. Plast. Surg.*, 34-350-8, 2010.

Hans De Bruijn, et al, "Mastopexy with Mesh Reinforcement: The Mechanical Characteristics of Polyester Mesh in the Female Breast," *Plast. Reconstr. Surg.* 124: 364, 2009.

Hans de Bruijn, Siegmund Johannes, "Mastopexy with 3D Preshaped Mesh for Long Term Results: Development of the Internal Bra System," *Aesth Plast Surg.*, 32:757-765, DOI 10.1007/s00266-008-9186-y, 2008.

International Search Report for PCT/US2019/015849, dated Apr. 23, 2019.

Johnson, Gerald W., "Central core reduction mammoplasties and Marlex suspension of breast tissue," *Aesthetic Plastic Surgery* 5:77-84, 1981.

Malluci, Concepts in aesthetic breast dimensions: Analysis of the ideal breast, *Journal of Plastic, Reconstructive & Aesthetic Surgery* (2012) 65, p. 8-16.

Malluci, Design for Natural Breast Augmentation: The Ice Principle, *Plastic and Reconstructive Surgery*, Jun. 2016, vol. 137 No. 6, 1728-1737.

Malluci, Population Analysis of the Perfect Breast: A Morphometric Analysis, (2014), *www.PRSJournal.com*, vol. 134, No. 3 • The Perfect Breast, p. 436- 447.

P. 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) 36:578-589, DOI 10.1007/s00266-011-9845-2.

PCT International Search Report and Written Opinion of the International Searching Authority, dated Nov. 5, 2012 application No. PCT/US2012/027975.

Ray, J.A. et al., "Polydioxanone (PDS), a Novel Monofilament Synthetic Absorbable Suture", *Surgery, Gynecology & Obstetrics*, Oct. 1981, vol. 153, 497-507.

Supplementary European Search Report of the EPO dated Jul. 30, 2014, EP 12754773.5 from PCT/US2012/027075.

Williams "Poly-4-hydroxybutyrate (P4HB): a new generation of resorbable medical devices for tissue repair and regeneration," DOI 10.1515/bmt-2013-0009 *Biomed Tech* 2013; 58(5): 439-452.

Written Opinion of IPEA dated Jun. 15, 2015 for PCT/US2014/046420.

Written Opinion of ISR dated Nov. 5, 2012 for PCT/US2012/027975.

* cited by examiner

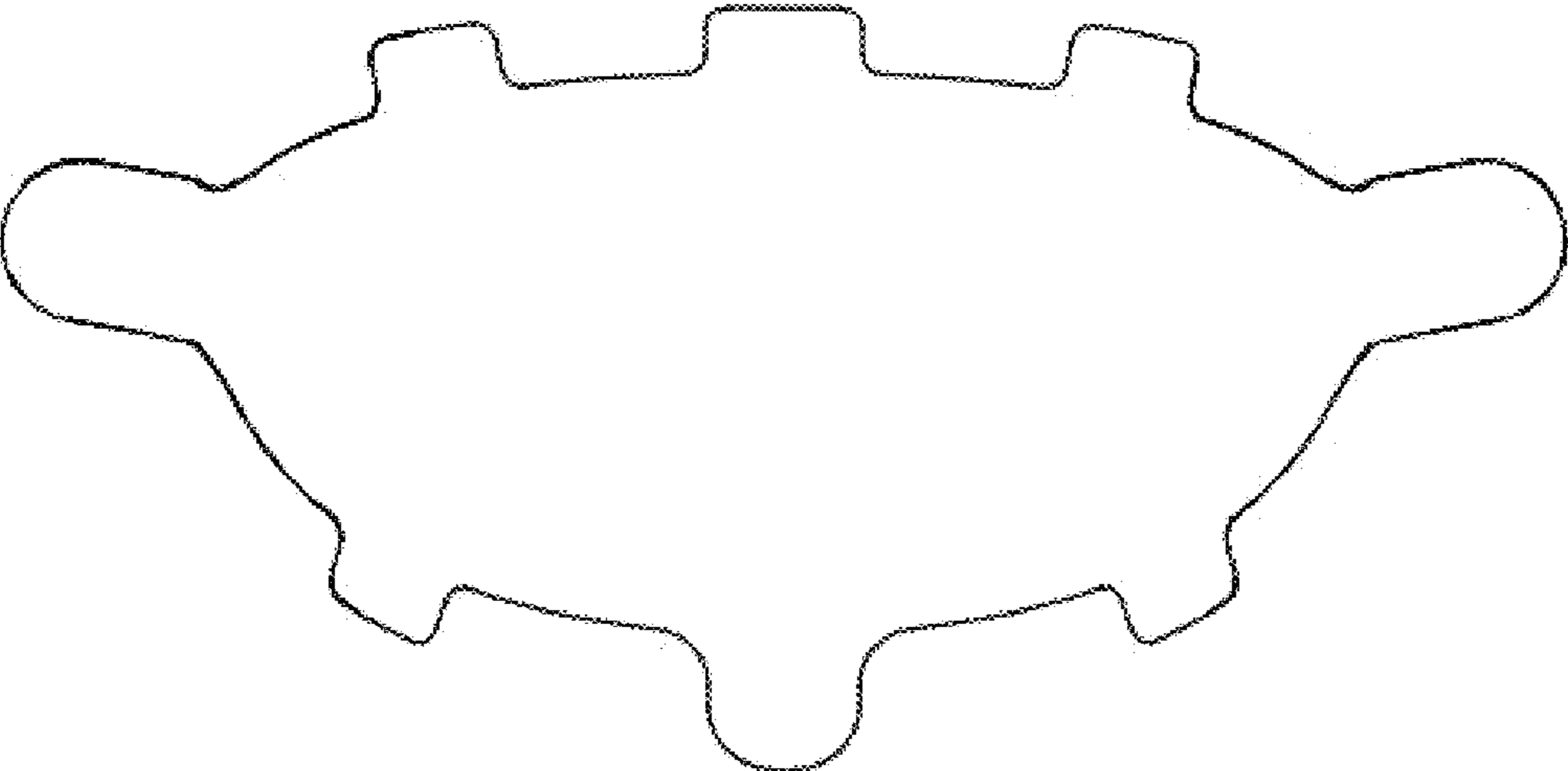


Figure 1

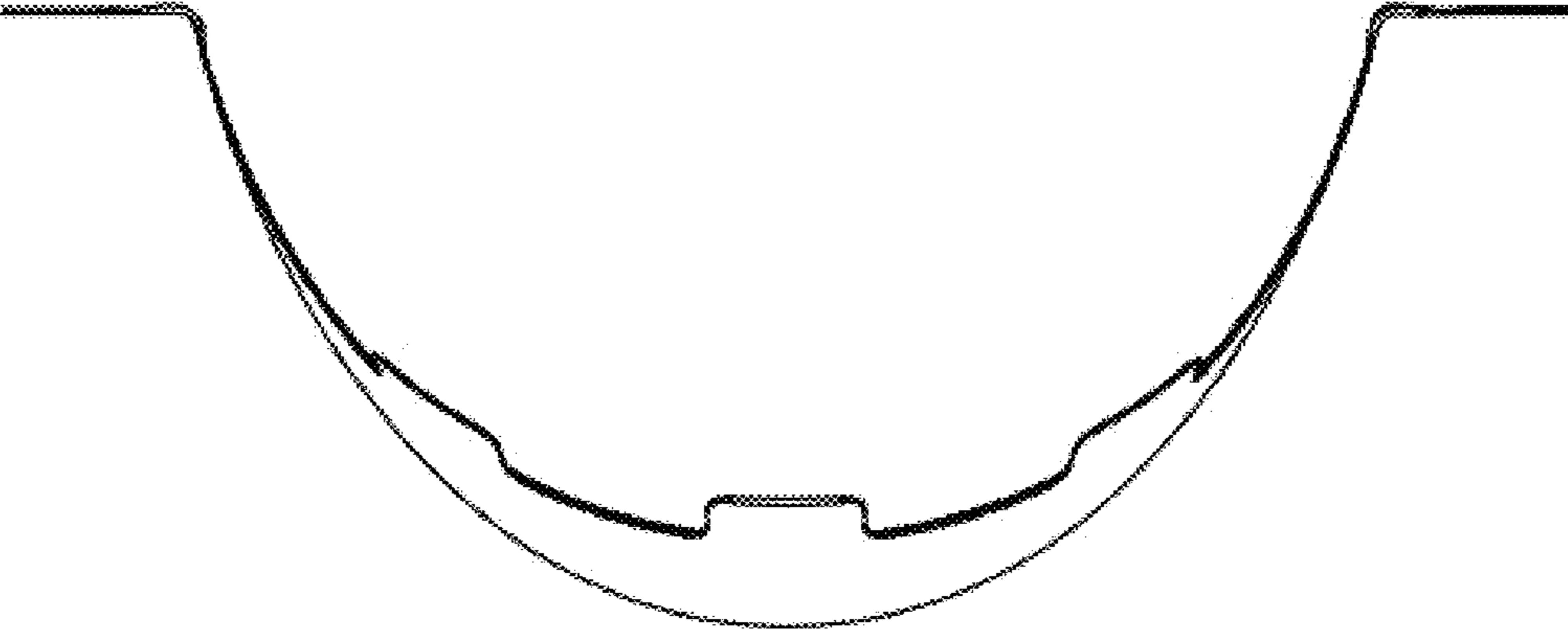


Figure 2

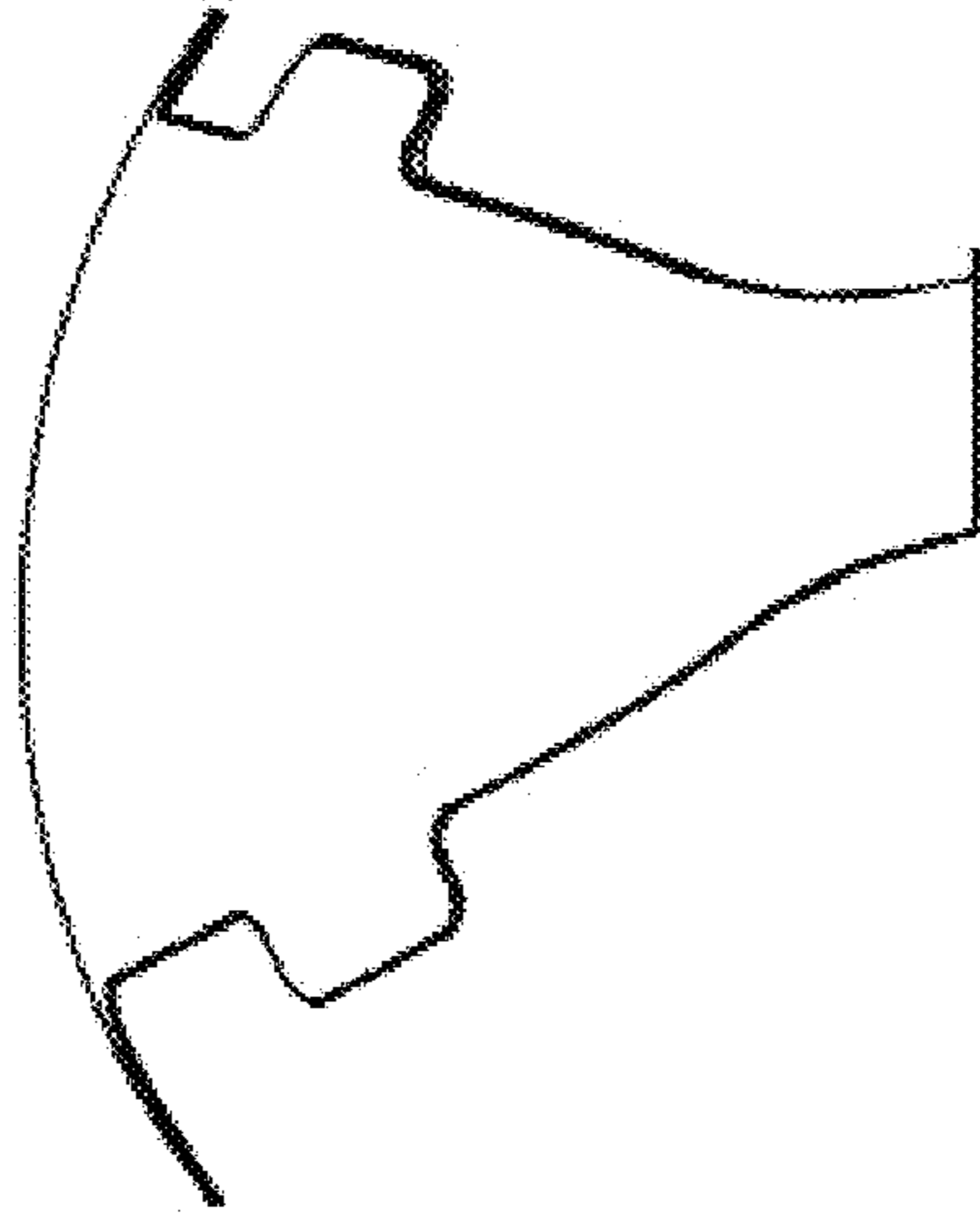


Figure 3

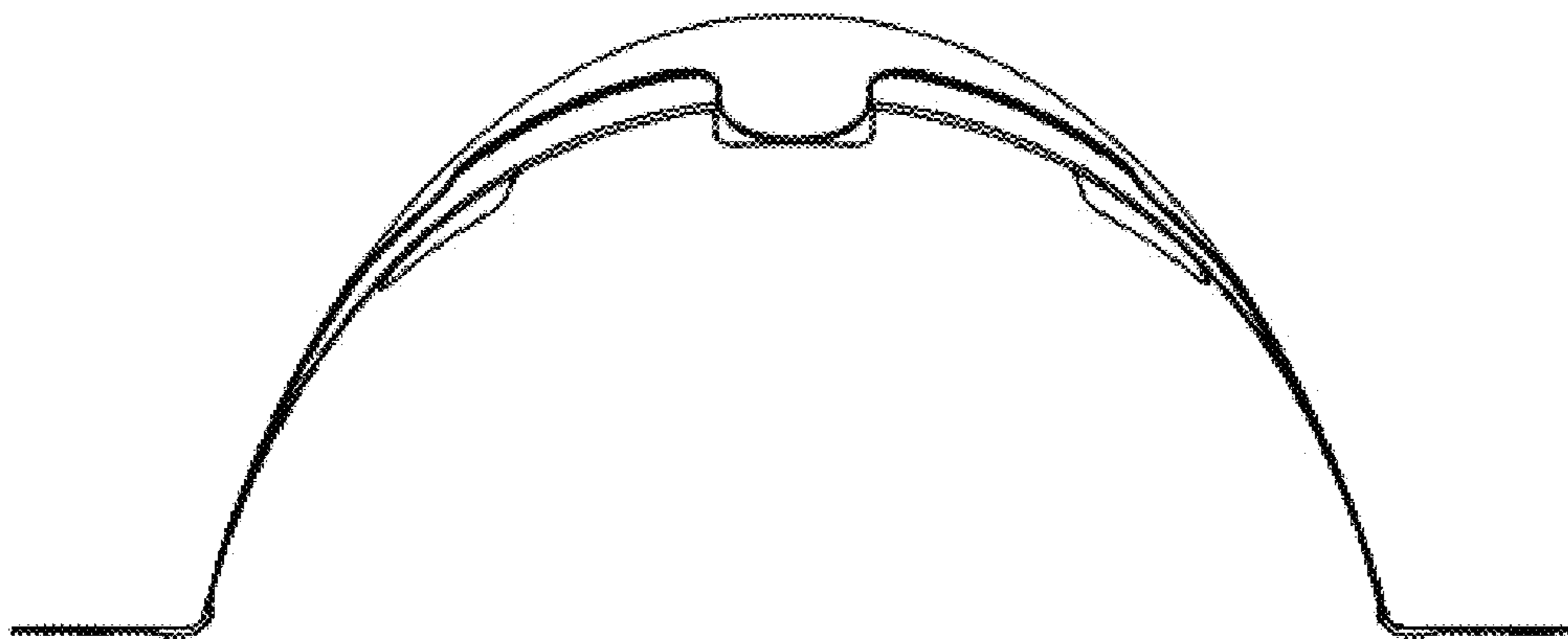


Figure 4

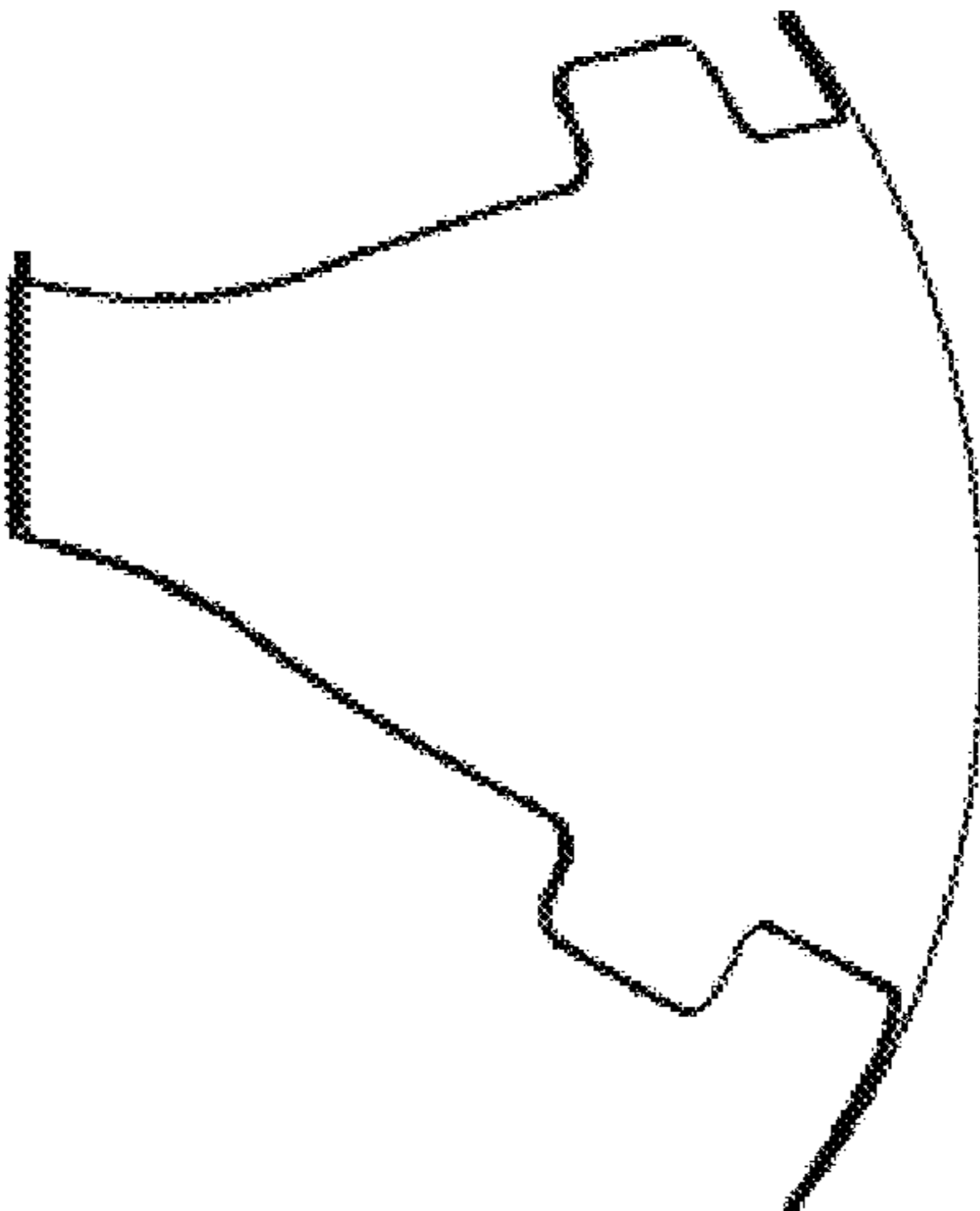


Figure 5

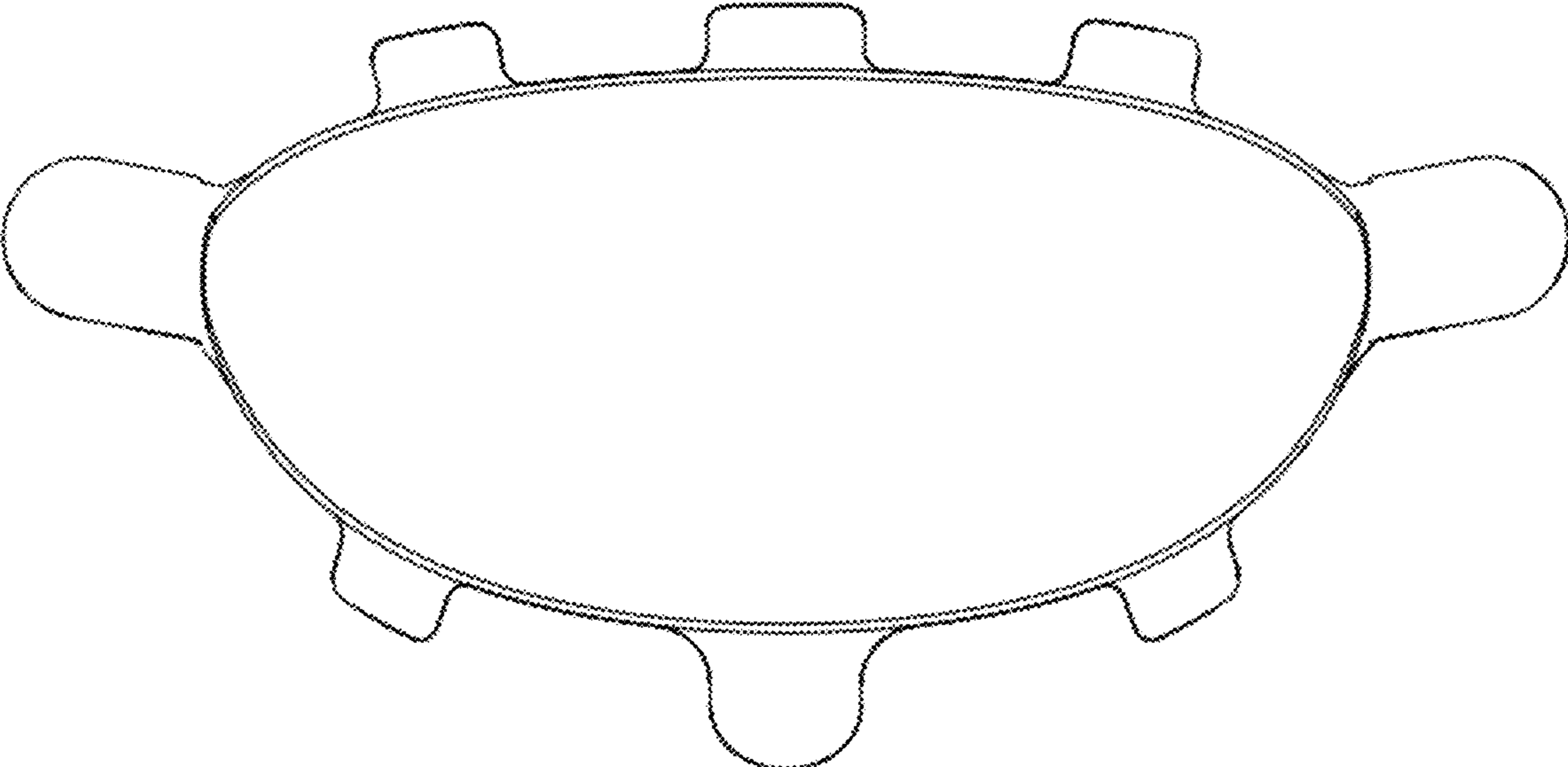


Figure 6

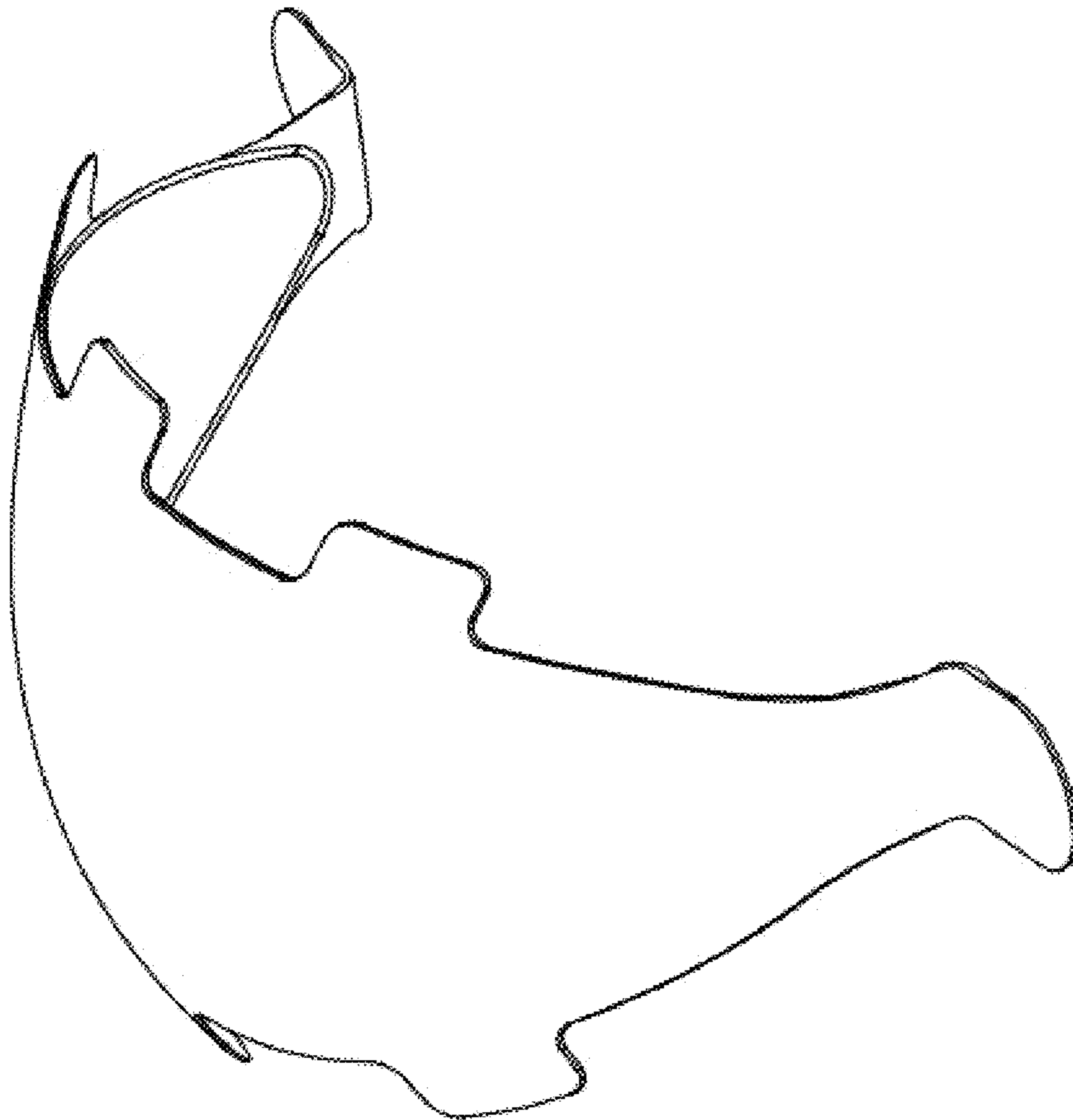


Figure 7