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(12) **United States Design Patent** (10) **Patent No.:** **US D890,280 S**
Doerksen et al. (45) **Date of Patent:** **** Jul. 14, 2020**

(54) **RIDER DETECTION SENSOR FOR ELECTRIC VEHICLE**

FOREIGN PATENT DOCUMENTS

(71) Applicant: **Future Motion, Inc.**, Santa Cruz, CA (US)

TW 450823 B 8/2001
WO 2009071879 A9 6/2009

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OTHER PUBLICATIONS

Kyle Doerksen, CEO of Future Motion, talks Onewheel+ XR—Interview at CES 2018, posted online Jan 10, 2018 [online], [site visited Apr. 12, 2020]. Available from Internet: <URL:https://www.youtube.com/watch?v=2q_vvsAs2lk>.*

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(Continued)

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

Primary Examiner — Cynthia M. Chin

(21) Appl. No.: **29/683,175**

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(51) **LOC (12) Cl.** **21-02**

(52) **U.S. Cl.**
USPC **D21/771**

(58) **Field of Classification Search**
USPC D21/419, 421, 423, 426, 760, 763, 765, D21/766, 769, 771, 776, 803; D12/1
CPC A63C 17/01; A63C 17/12; A63C 2203/00; A63C 2203/011; A63C 2203/012; A63C 2203/013; A63C 2203/40; A63C 2203/52; B62D 51/02; B62K 2202/00; B62K 2207/00; B62K 2207/02; B62K 2207/04
See application file for complete search history.

(57) **CLAIM**

The ornamental design for a rider detection sensor for electric vehicle, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of the new design for a rider detection sensor for electric vehicle, showing an illustration of use on an electric vehicle;
FIG. 2 is another top perspective view thereof, with the exemplary electric vehicle removed for clarity of details;
FIG. 3 is a bottom perspective view thereof;
FIG. 4 is a top view thereof;
FIG. 5 is a bottom view thereof;
FIG. 6 is a front view thereof;
FIG. 7 is a rear view thereof;
FIG. 8 is a left side view thereof; and,
FIG. 9 is a right side view thereof.

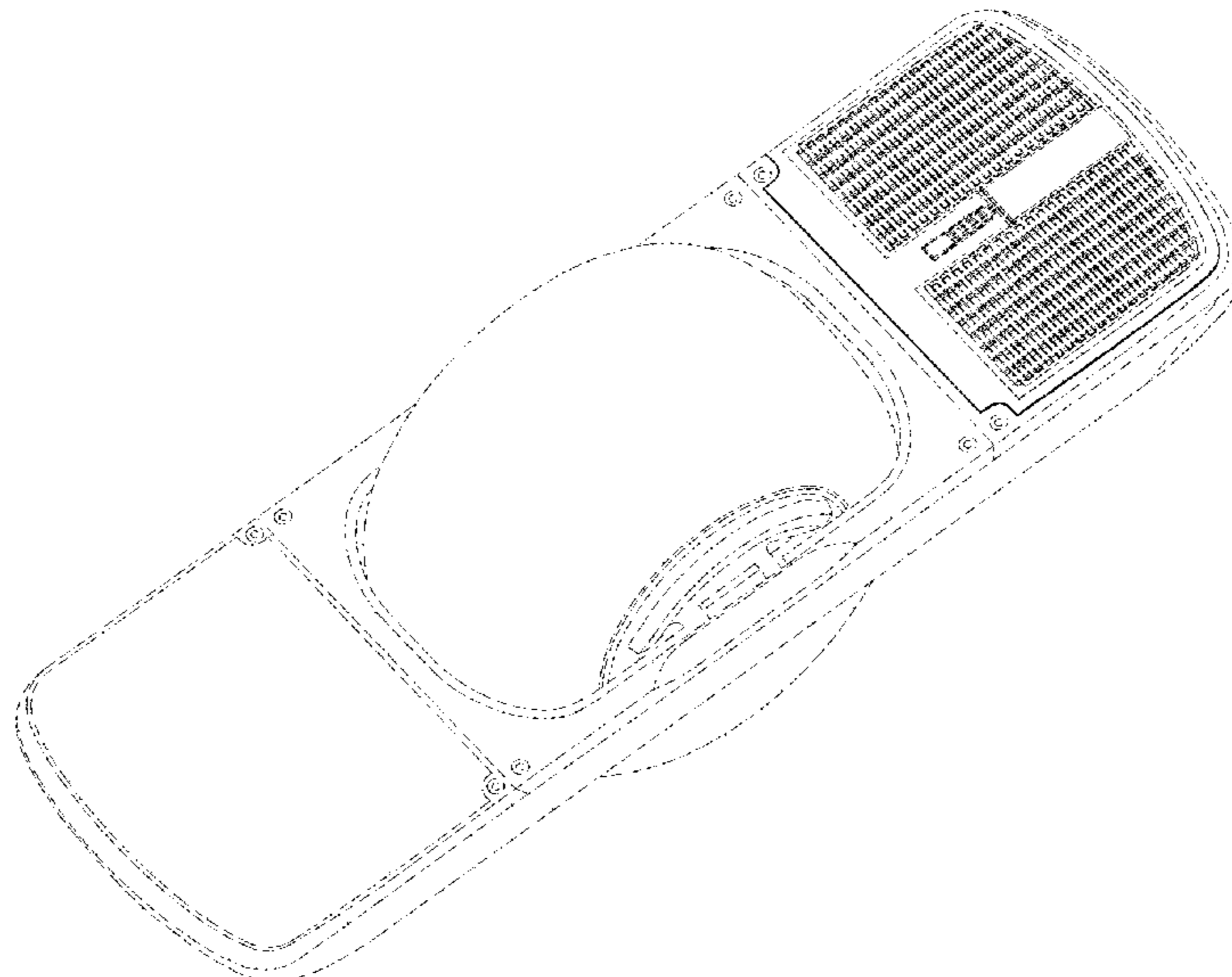
The broken lines shown in the drawings are for the purpose of illustrating environmental subject matter and portions of the article that form no part of the claimed design. The shading lines shown in the drawings represent the approximate three-dimensional contour of the design, and are not intended to indicate surface decoration.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,585,258 A	5/1926	Moore	
4,023,864 A	5/1977	Lang et al.	
4,106,786 A	8/1978	Talbott	
4,109,741 A	8/1978	Gabriel	
4,505,477 A *	3/1985	Wilkinson A63B 22/16 280/87.041
4,997,196 A	3/1991	Wood	

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

5,119,277 A 6/1992 Copley et al.
 5,119,279 A 6/1992 Makowsky
 5,132,883 A 7/1992 La Lumandier
 5,487,441 A 1/1996 Endo et al.
 5,513,080 A 4/1996 Magle et al.
 5,794,730 A 8/1998 Kamen
 6,050,357 A 8/2000 Staelin et al.
 6,223,104 B1 4/2001 Kamen et al.
 6,242,701 B1 6/2001 Breed et al.
 6,288,505 B1 9/2001 Heinzmann et al.
 6,332,103 B1 12/2001 Steenson, Jr. et al.
 6,408,240 B1 6/2002 Morrell et al.
 6,536,788 B1 3/2003 Kuncz et al.
 6,538,411 B1 3/2003 Field et al.
 6,553,271 B1 4/2003 Morrell
 6,561,294 B1 5/2003 Kamen et al.
 6,779,621 B2 8/2004 Kamen et al.
 6,789,640 B1 9/2004 Arling et al.
 6,827,163 B2 12/2004 Amsbury et al.
 6,874,591 B2 4/2005 Morrell et al.
 6,965,206 B2 11/2005 Kamen et al.
 6,992,452 B1 1/2006 Sachs et al.
 7,023,330 B2 4/2006 Kamen et al.
 7,053,289 B2 5/2006 Iwai et al.
 7,090,040 B2 8/2006 Kamen et al.
 7,091,724 B2 8/2006 Heinzmann et al.
 7,130,702 B2 10/2006 Morrell
 7,138,774 B2 11/2006 Negoro et al.
 7,157,875 B2 1/2007 Kamen et al.
 7,172,044 B2 2/2007 Bouvet
 7,198,280 B2 4/2007 Hara
 7,263,453 B1 8/2007 Gansler et al.
 D551,592 S 9/2007 Chang et al.
 7,424,927 B2 9/2008 Hiramatsu
 7,467,681 B2 12/2008 Hiramatsu
 7,479,097 B2 1/2009 Rosborough et al.
 7,740,099 B2 6/2010 Field et al.
 7,757,794 B2 7/2010 Heinzmann et al.
 7,789,174 B2 9/2010 Kamen et al.
 7,811,217 B2 10/2010 Odien
 7,857,088 B2 12/2010 Field et al.
 7,900,725 B2 3/2011 Heinzmann et al.
 7,962,256 B2 6/2011 Stevens et al.
 7,963,352 B2 6/2011 Alexander
 7,979,179 B2 7/2011 Gansler
 8,052,293 B2 11/2011 Hurwitz
 8,083,313 B2 12/2011 Karppinen et al.
 8,146,696 B2 4/2012 Kaufman
 8,170,780 B2 5/2012 Field et al.
 8,467,941 B2 6/2013 Field et al.
 8,490,723 B2 7/2013 Heinzmann et al.
 8,562,386 B2 10/2013 Carlson et al.
 8,682,487 B2 3/2014 Kurth et al.
 9,101,817 B2 8/2015 Doerksen
 D746,928 S 1/2016 Doerksen
 9,376,155 B2 * 6/2016 Ying B62D 51/001
 9,452,345 B2 * 9/2016 Doerksen A63C 17/12
 D768,252 S 10/2016 Bigler
 D769,997 S 10/2016 Doerksen
 9,598,141 B1 * 3/2017 Doerksen B62K 11/007

9,707,470 B2 * 7/2017 Ma G05D 1/0891
 D797,875 S * 9/2017 Ma D21/760
 D802,693 S * 11/2017 Lu D21/765
 9,908,580 B2 * 3/2018 Doerksen B62K 11/007
 D815,228 S * 4/2018 Ma D21/765
 9,962,597 B2 * 5/2018 Doerksen B62K 25/00
 D821,517 S * 6/2018 Doerksen D21/765
 9,999,827 B2 * 6/2018 Wood A63C 17/12
 10,010,784 B1 * 7/2018 Doerksen A63C 17/0046
 10,058,765 B2 * 8/2018 Ma A63C 17/1418
 D827,747 S * 9/2018 Ma D21/765
 10,065,103 B2 * 9/2018 Ma A63C 17/08
 10,112,680 B2 * 10/2018 Doerksen B60K 7/0007
 10,144,478 B2 * 12/2018 Ying G01L 5/225
 D843,532 S * 3/2019 Doerksen D21/765
 D850,552 S * 6/2019 Doerksen D21/765
 10,369,453 B2 * 8/2019 Bigler B60L 50/52
 10,399,457 B2 * 9/2019 Doerksen B62K 11/007
 10,456,658 B1 * 10/2019 Doerksen B60L 3/00
 2005/0241864 A1 11/2005 Hiramatsu
 2006/0038520 A1 2/2006 Negoro et al.
 2006/0049595 A1 3/2006 Crigler et al.
 2006/0170174 A1 8/2006 Hiramatsu
 2006/0213711 A1 9/2006 Hara
 2006/0260862 A1 11/2006 Nishikawa
 2007/0194558 A1 8/2007 Stone et al.
 2007/0254789 A1 11/2007 Odien
 2011/0309772 A1 12/2011 Forgey
 2012/0232734 A1 9/2012 Pelletier
 2013/0081891 A1 4/2013 Ulmen et al.
 2013/0175943 A1 7/2013 Tackett
 2013/0206493 A1 * 8/2013 Larson A63C 17/12
 180/181
 2016/0121198 A1 * 5/2016 Doerksen A63C 17/014
 701/22
 2017/0056756 A1 * 3/2017 Pikulski A63C 17/12
 2017/0120139 A1 * 5/2017 Ma A63C 17/014
 2018/0072367 A1 * 3/2018 Li B62K 11/007

OTHER PUBLICATIONS

Onewheel+ XR hands-on at CES 2018, posted Jan. 10, 2018 [online], [site visited Apr. 12, 2020]. Available from Internet: <URL:https://www.youtube.com/watch?v=NebMVAPVw5c>.*
 OneWheel Factory Tour, posted online Jan. 3, 2015 [online], [site visited Apr. 12, 2020]. Available from Internet: <URL:https://www.youtube.com/watch?v=KrPRvP2H_v0>.*
 Ben Smither, "Balancing Scooter / Skateboard", video, retrieved Sep. 22, 2016 from https://www.youtube.com/watch?v=HGbbag9dkiU, uploaded to YouTube on Mar. 4, 2007.
 www.electrunicycle.com, "Leviskate self-balancing one-wheel skateboard", video, retrieved Sep. 22, 2016 from https://www.youtube.com/watch?v=462JlXSSqc, uploaded to YouTube on Aug. 5, 2007.
 John Xenon, "One wheel self balancing skateboard Ver2 Jan. 2009. #2", video, retrieved Sep. 22, 2016 from https://www.youtube.com/watch?v=8RPFNUsuW78, uploaded to YouTube on Jan. 3, 2009.
 Rodger Cleye, "Leviskate (Balancing Skateboard) in Operation", video, retrieved Sep. 22, 2016 from https://www.youtube.com/watch?v=eN2J8m_E0go, uploaded to YouTube on Apr. 18, 2013.

* cited by examiner

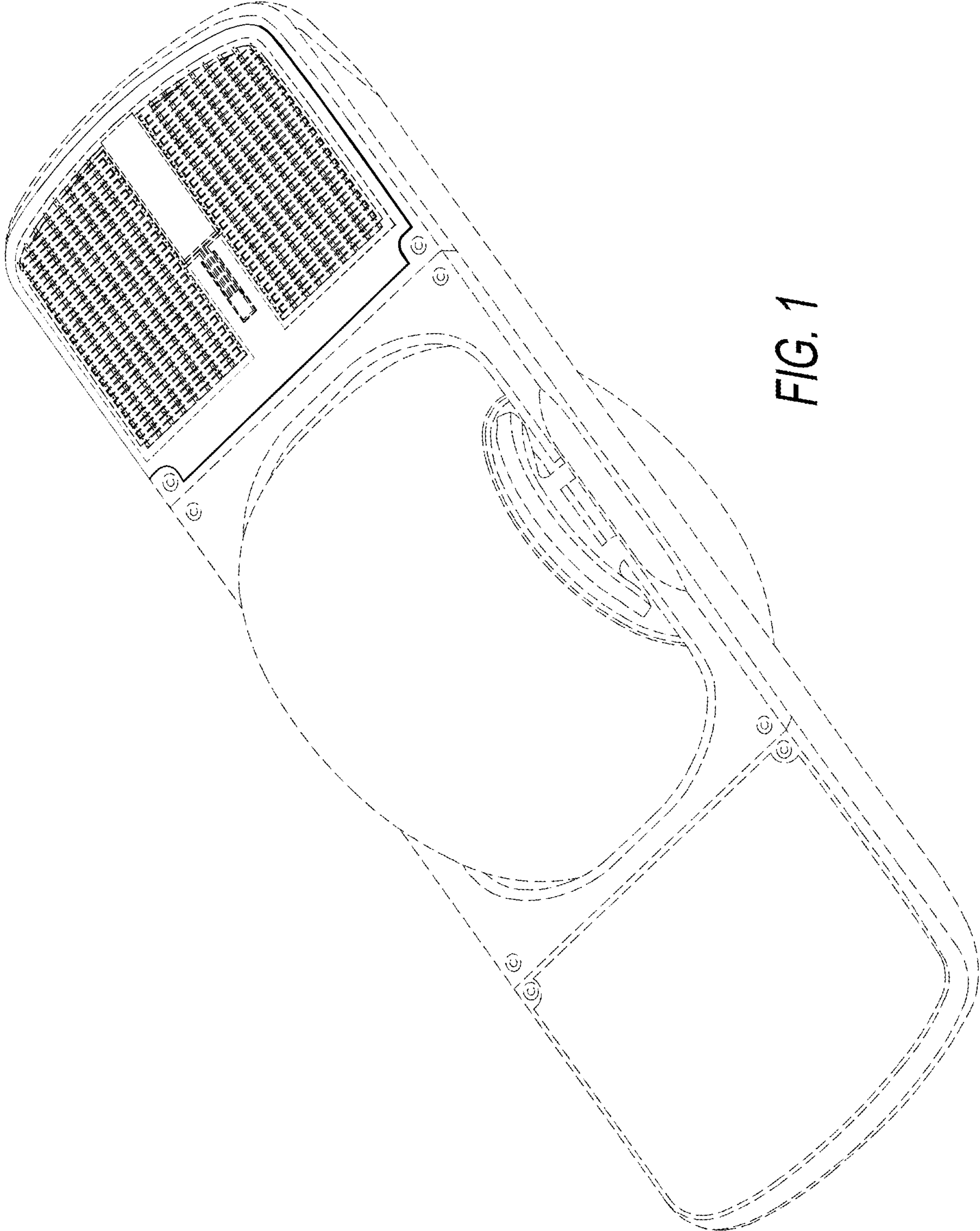


FIG. 1

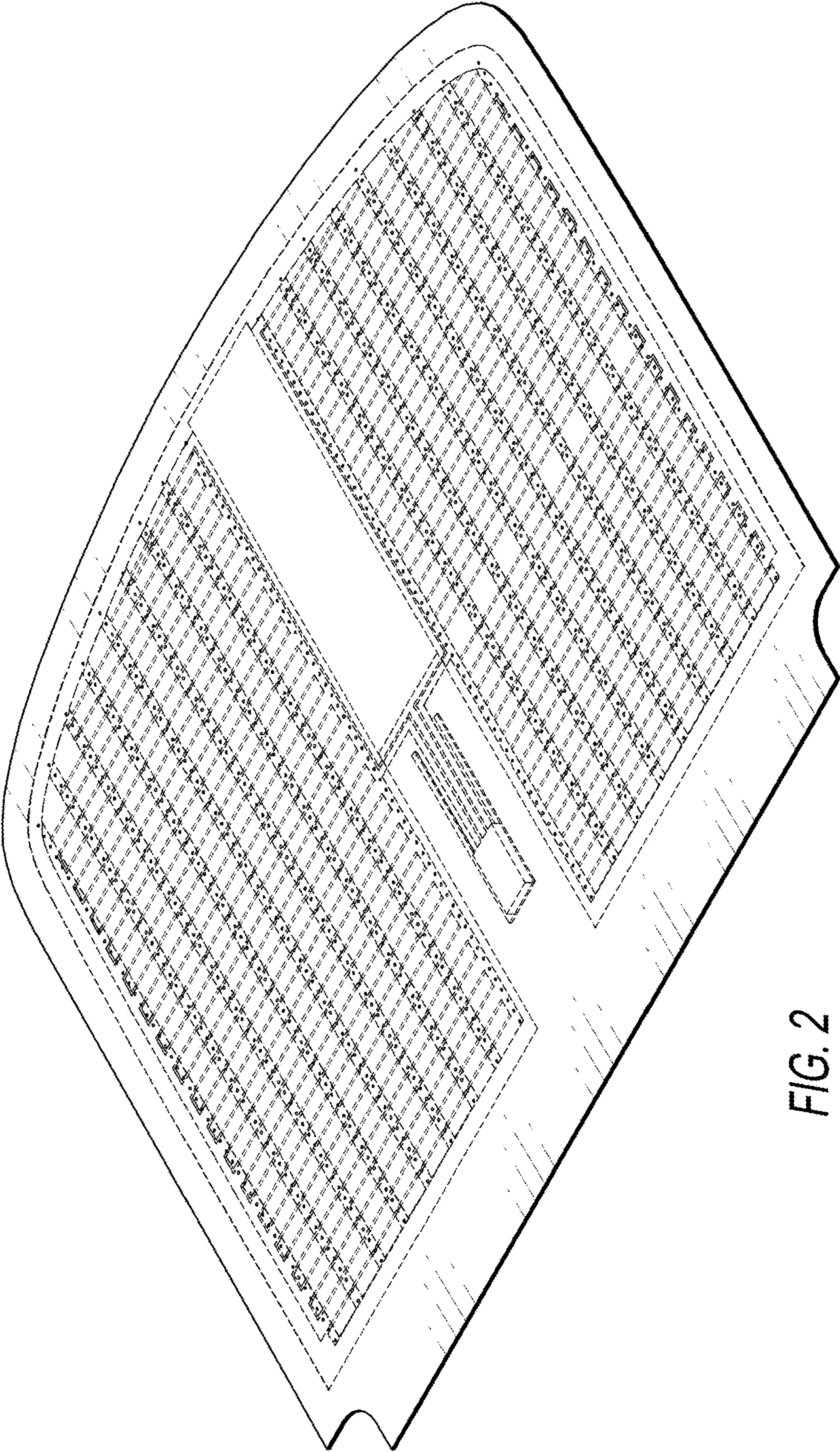


FIG. 2

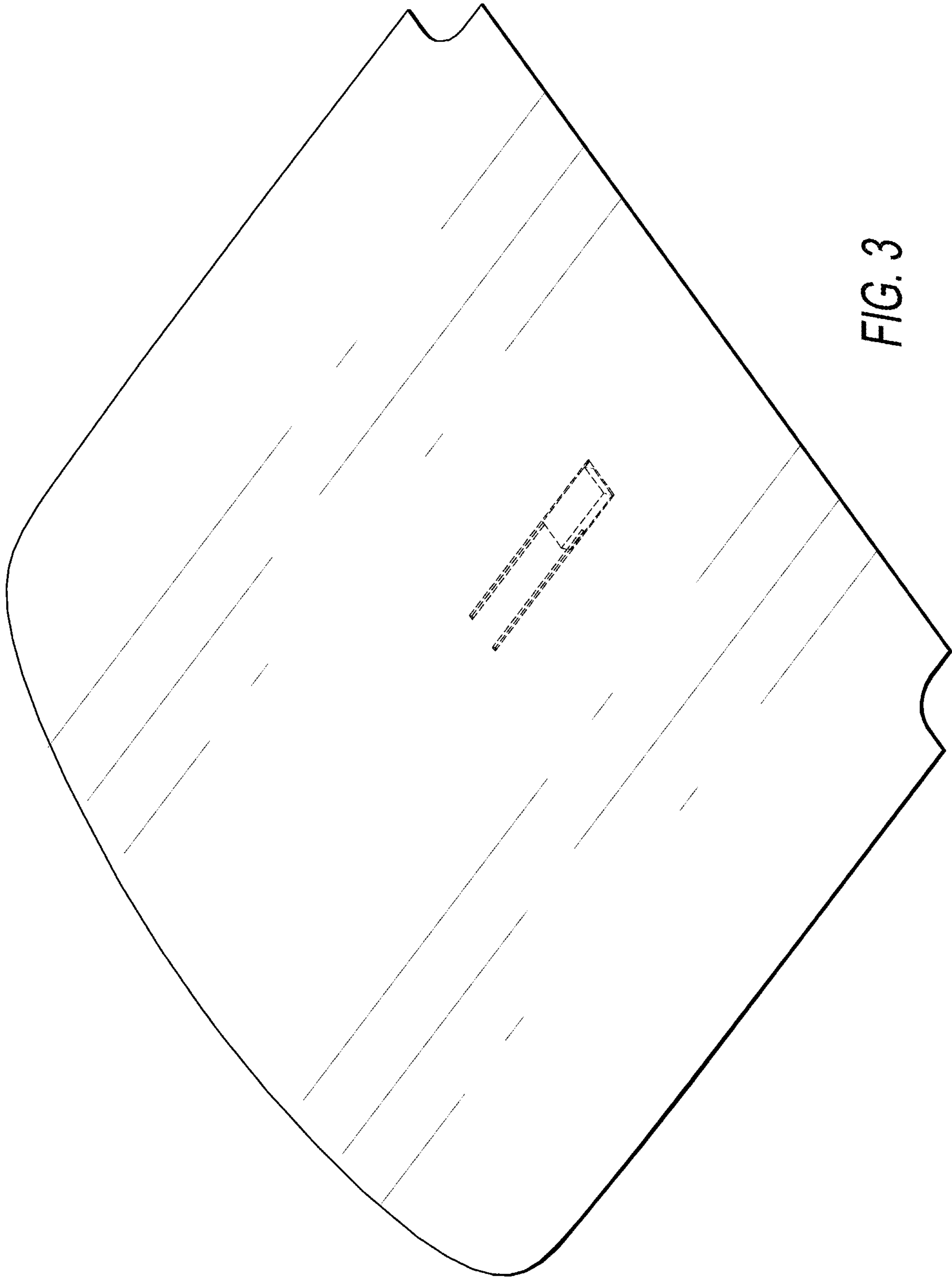
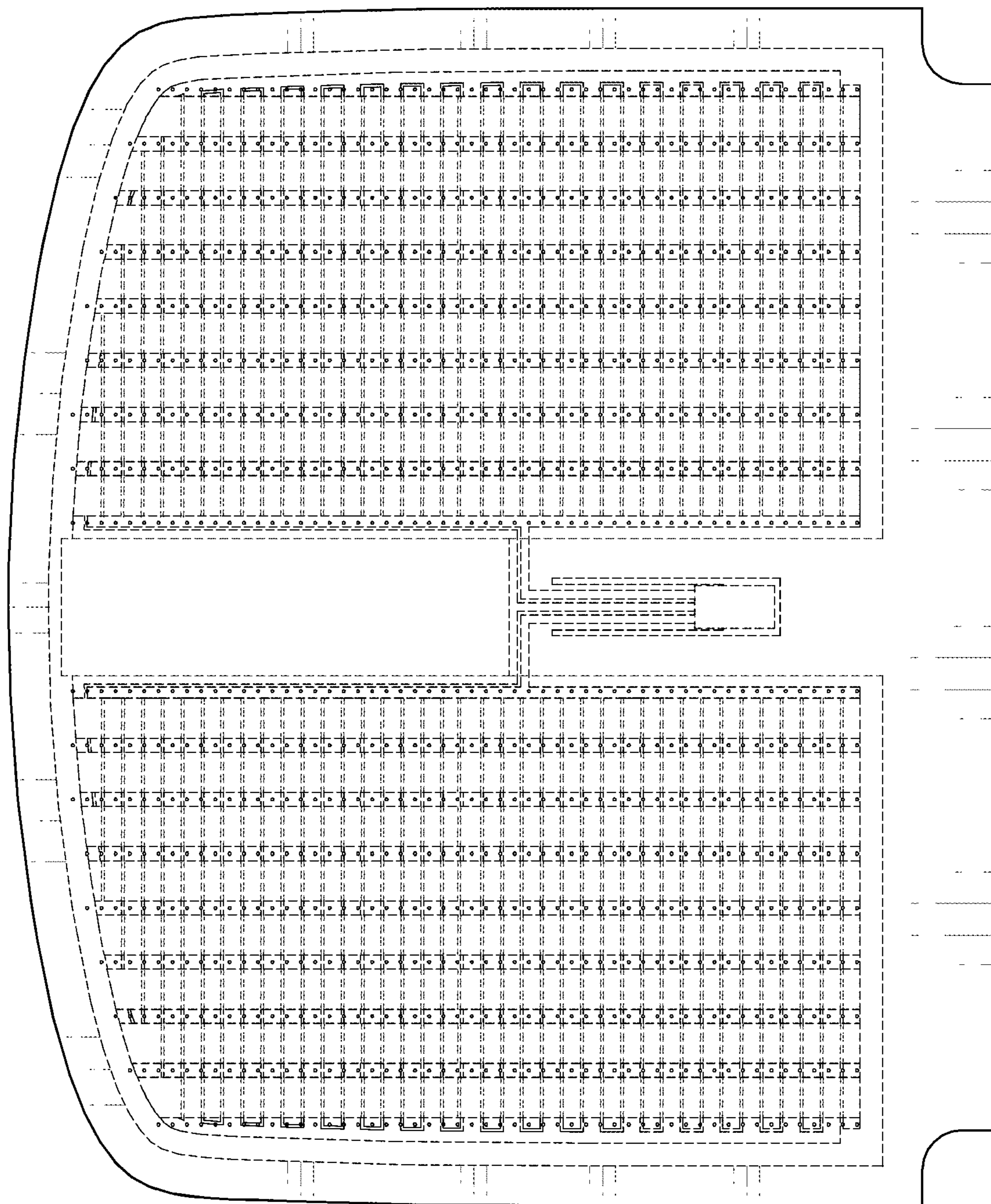


FIG. 4



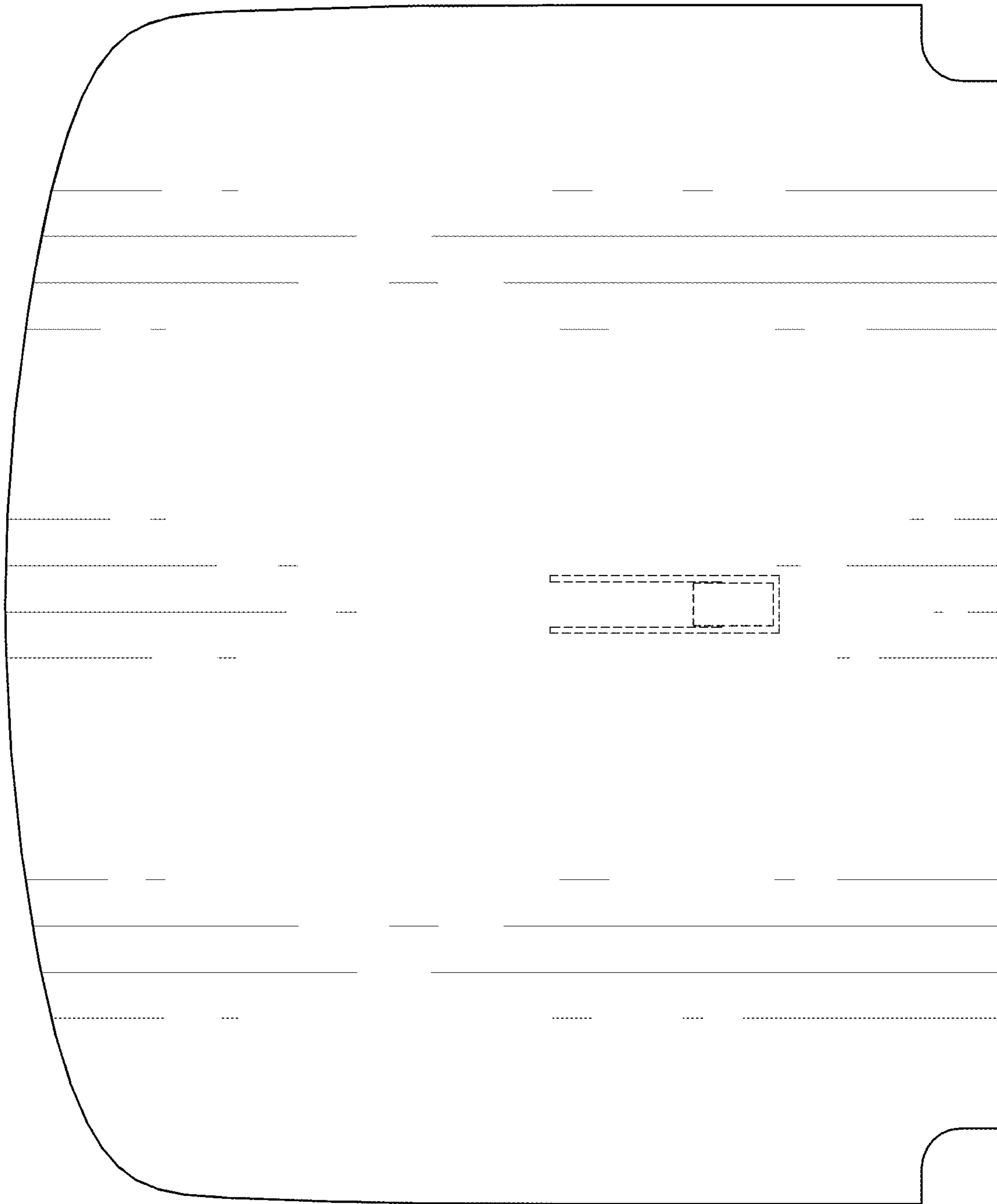


FIG. 5



FIG. 6



FIG. 7



FIG. 8



FIG. 9