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Miller et al.

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(45)

Date of Patent:

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(54) SPINAL IMPLANT

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(**) Term: 15 Years

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Related U.S. Application Data

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12, 2020, now Pat. No. Des. 948,050.

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

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

(58) Field of Classification Search
USPC D24/155, 171, 231

(Continued)

(56) References Cited

U.S. PATENT DOCUMENTS

6,176,882 B1 1/2001 Biedermann et al.
6,245,108 B1 6/2001 Biscup

(Continued)

FOREIGN PATENT DOCUMENTS

CA 197609 * 5/2022

OTHER PUBLICATIONS

Spinal Surgery News, "FDA Approval for Titan Spine NanoLock",
first available Mar. 9, 2015. (https://www.spinalsurgeynews.com/2015/03/fda-approval-for-titan_spine_nanolock/9556) (Year: 2015).*

(Continued)

Primary Examiner — Leanne Was-Englehart

Assistant Examiner — Justin A Johnson

(57) CLAIM

The ornamental design for a spinal implant, as shown and
described.

DESCRIPTION

FIG. 1 is a top perspective view of a first embodiment of a
spinal implant showing my design;

FIG. 2 is a bottom perspective view of the spinal implant of
FIG. 1;

FIG. 3 is a first side elevational view of the spinal implant
of FIG. 1;

FIG. 4 is a second side elevational view of the spinal implant
of FIG. 1;

FIG. 5 is a rear elevational view of the spinal implant of FIG.
1;

FIG. 6 is a front elevational view of the spinal implant of
FIG. 1;

FIG. 7 is a top plan view of the spinal implant of FIG. 1;

FIG. 8 is a bottom plan view of the spinal implant of FIG.
1;

FIG. 9 is a top perspective view of a second embodiment of
a spinal implant showing my design;

FIG. 10 is a bottom perspective view of the spinal implant
of FIG. 9;

FIG. 11 is a first side elevational view of the spinal implant
of FIG. 9;

FIG. 12 is a second side elevational view of the spinal
implant of FIG. 9;

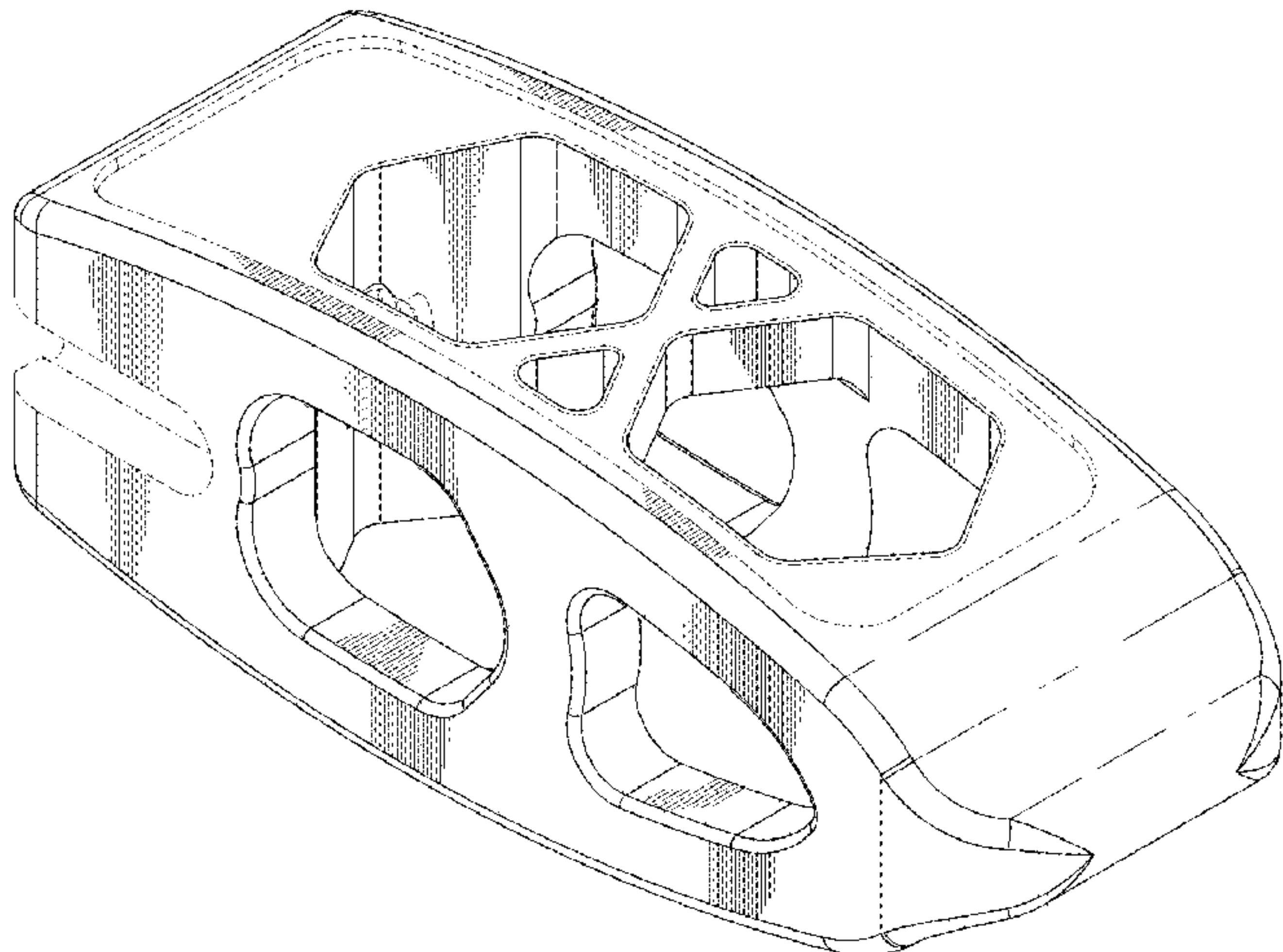
FIG. 13 is a rear elevational view of the spinal implant of
FIG. 9;

FIG. 14 is a front elevational view of the spinal implant of
FIG. 9;

FIG. 15 is a top plan view of the spinal implant of FIG. 9;

and,
FIG. 16 is a bottom plan view of the spinal implant of FIG.
9.

(Continued)



The broken lines immediately adjacent to solid lines depict unclaimed boundaries that form no part of the claimed design. The remaining broken lines shown in the figures are included for the purpose of illustration and form no part of the claimed design.

1 Claim, 16 Drawing Sheets

- (58) **Field of Classification Search**
CPC ... A61B 17/80; A61F 2/00; A61F 2/02; A61F 2/28; A61F 2/50
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,432,140 B1 8/2002 Lin
6,491,724 B1 12/2002 Ferree
D472,632 S 4/2003 Anderson
6,610,089 B1 8/2003 Liu et al.
6,676,703 B2 1/2004 Biscup
6,743,255 B2 6/2004 Ferree
6,773,460 B2 8/2004 Jackson
6,964,687 B1 11/2005 Bernard et al.
6,979,353 B2 12/2005 Bresina
7,137,997 B2 11/2006 Paul
7,141,068 B2 11/2006 Ross et al.
D533,277 S 12/2006 Blain
7,169,183 B2 1/2007 Liu et al.
D541,940 S 5/2007 Blain
7,229,477 B2 6/2007 Biscup
7,326,251 B2 2/2008 McCombe et al.
7,331,996 B2 2/2008 Sato et al.
D566,276 S 4/2008 Blain
7,500,991 B2 3/2009 Bartish et al.
7,569,074 B2 8/2009 Eisermann et al.
7,591,852 B2 9/2009 Prosser
7,641,690 B2 1/2010 Abdou
7,655,043 B2 2/2010 Peterman et al.
D620,110 S 7/2010 Courtney et al.
D620,113 S * 7/2010 Courtney D24/155
D627,468 S 11/2010 Richter et al.
D629,108 S 12/2010 Richter et al.
D741,488 S * 10/2015 Tohmeh D24/155

D754,346 S 4/2016 Pimenta et al.
D797,934 S 9/2017 Pimenta et al.
9,937,053 B2 * 4/2018 Melkent A61F 2/4455
D841,167 S * 2/2019 Ricca D24/155
10,327,913 B2 * 6/2019 Palmatier A61F 2/447
D877,909 S * 3/2020 Linder D24/155
D878,590 S * 3/2020 Linder D24/155
D879,961 S * 3/2020 Linder D24/155
D896,384 S * 9/2020 Kapitan G06K 19/06037
D24/155
D907,771 S * 1/2021 Trudeau A61F 2/4455
D24/155
D912,820 S * 3/2021 Tran A61F 2/4425
D24/155
2018/0078386 A1 * 3/2018 Kieser G06K 19/06037
2020/0405499 A1 * 12/2020 Gerbec A61F 2/4425

OTHER PUBLICATIONS

RY Ortho, “FDA Clears Joimax’s Endoscopic-Assisted Fusion Cage”, first available Jul. 15, 2015. (<https://ryortho.com/breaking/fda-clears-joimaxs-endoscopic-assisted-fusion-cage/>) (Year: 2015).*

Modern Machine Shop, “Advanced Material in Additive Manufacturing Produces Better Spinal Implant”, first available Apr. 13, 2017. (<https://www.mmsonline.com/articles/advanced-material-for-additive-manufacturing-produces-better-spinal-implant>) (Year: 2017).*

Orthoworld, “Medtronic Announces the Adaptix Interbody Navigated Titanium Cage”, first available Oct. 7, 2020. (<https://www.orthoworld.com/medtronic-announces-the-adaptix-interbody-navigated-titanium-cage/>) (Year: 2020).*

Office Action issued Sep. 29, 2020 in corresponding Japanese Application No. 2020-016914 with translation summary.

Spinal Surgery News, “FDA Approval for Titan Spine Nanolock”, first available Mar. 9, 2015. (<https://www.spinalsurgerynews.com/2015/03/fda-approval-for-titan-spine-nanolock/9556>) (Year: 2015).

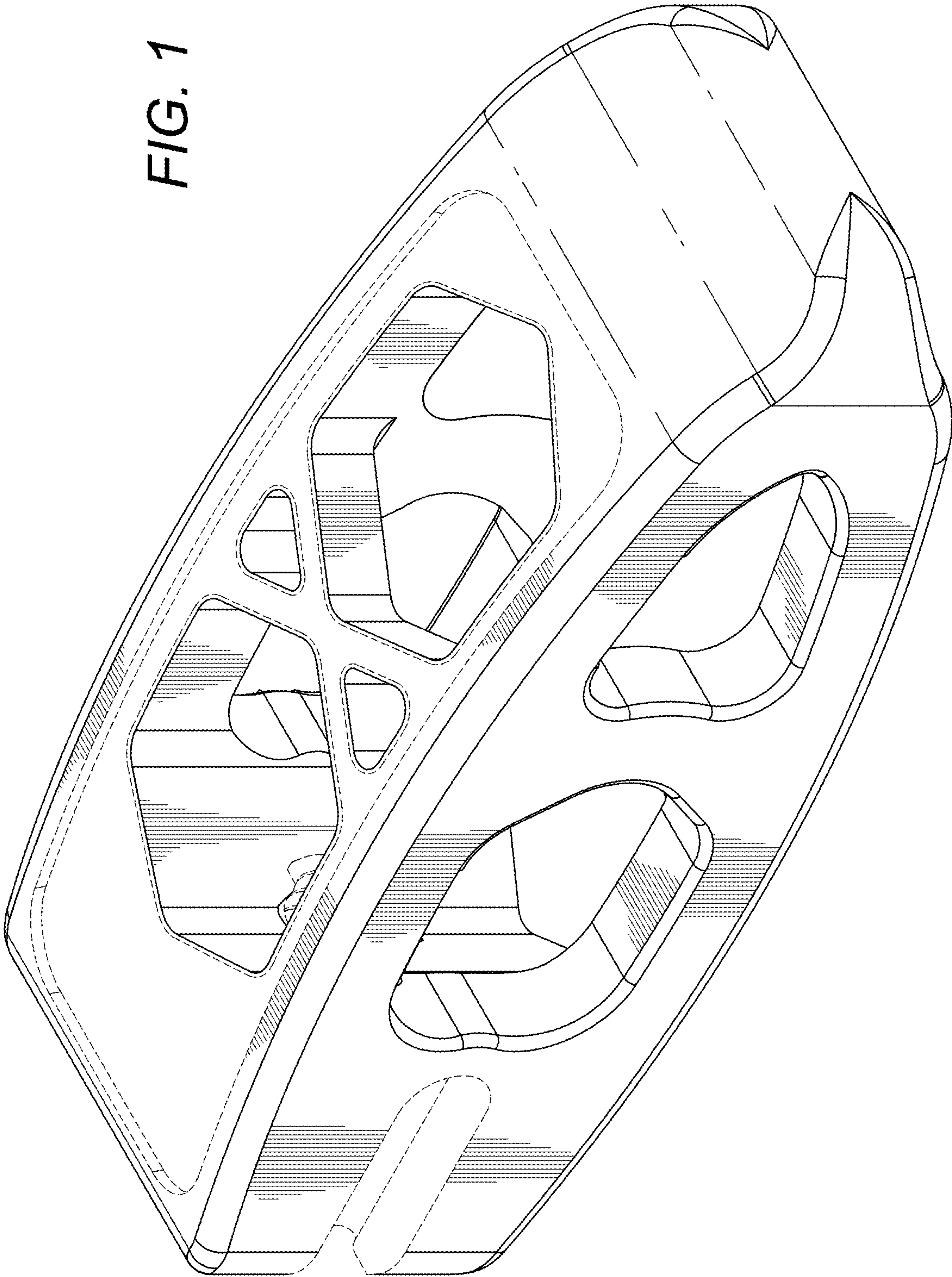
RY Ortho, “FDA Clears Joimax’s Endoscopic-Assisted Fusion Cage”, first available Jul. 15, 2015. (<https://ryortho.com/breaking/fda-clears-joimaxs-endoscopic-assisted-fusion-cage/>) (Year: 2015).

Modern Machine Shop, “Advanced Material in Additive Manufacturing Produces Better Spinal Implant”, first available Apr. 13, 2017. (<https://www.mmsonline.com/articles/advanced-material-for-additive-manufacturing-produces-better-spinal-implant>) (Year: 2017).

Orthoworld, “Medtronic Announces the Adaptix Interbody Navigated Titanium Cage”, first available Oct. 7, 2020. (<https://www.orthoworld.com/medtronic-announces-the-adaptix-interbody-navigated-titanium-cage/>) (Year: 2020).

* cited by examiner

FIG. 1



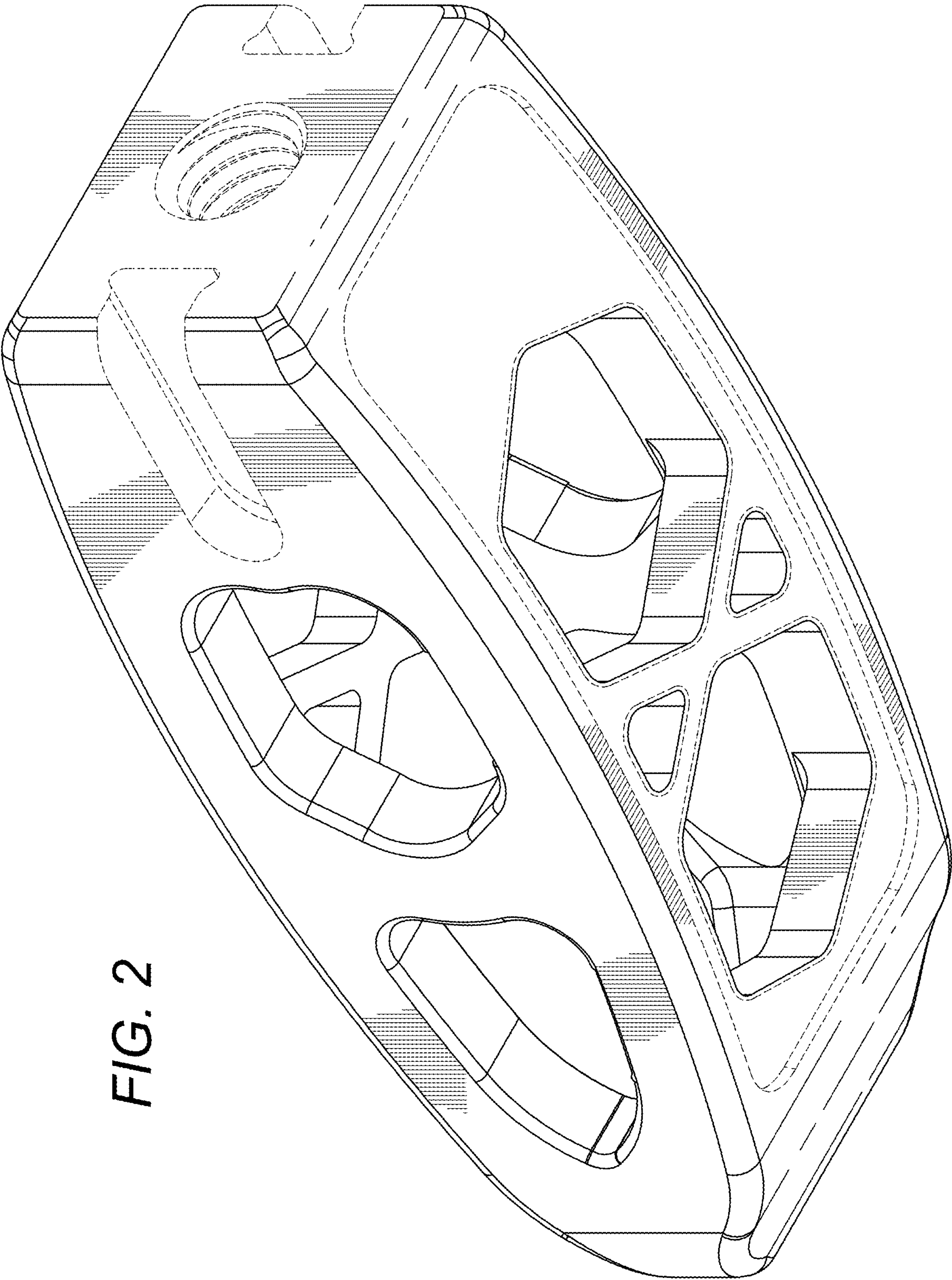


FIG. 2

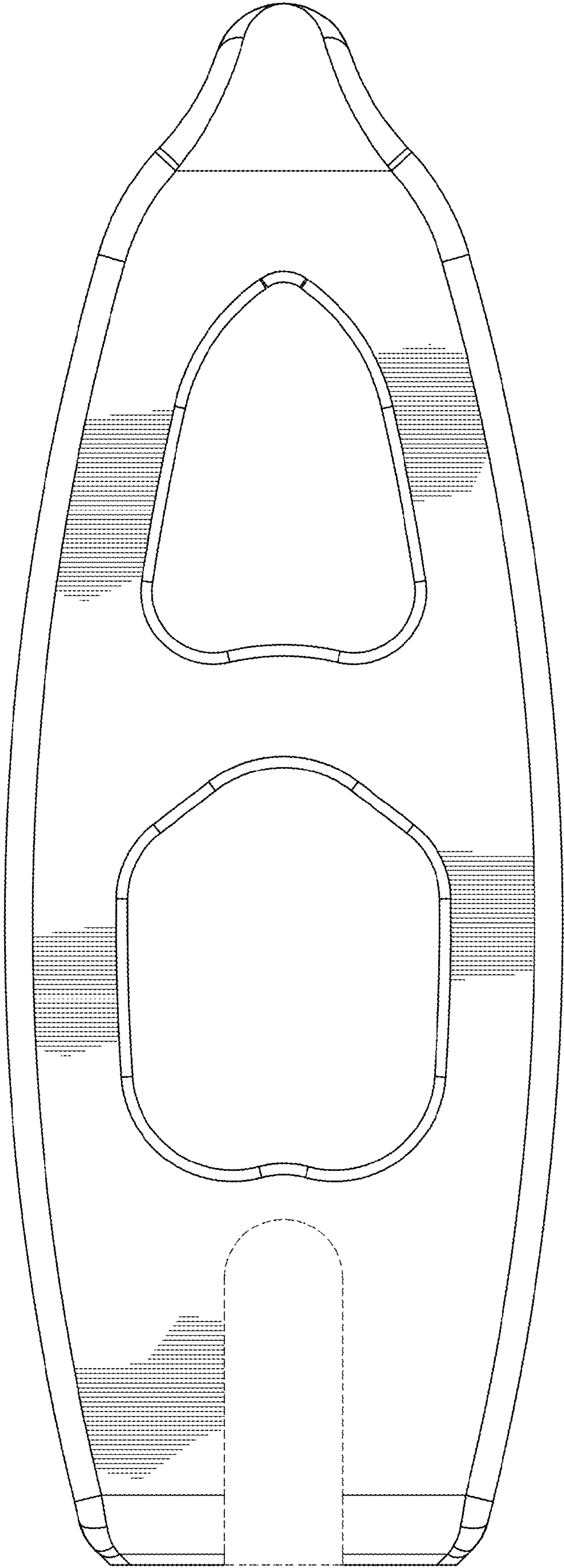


FIG. 3

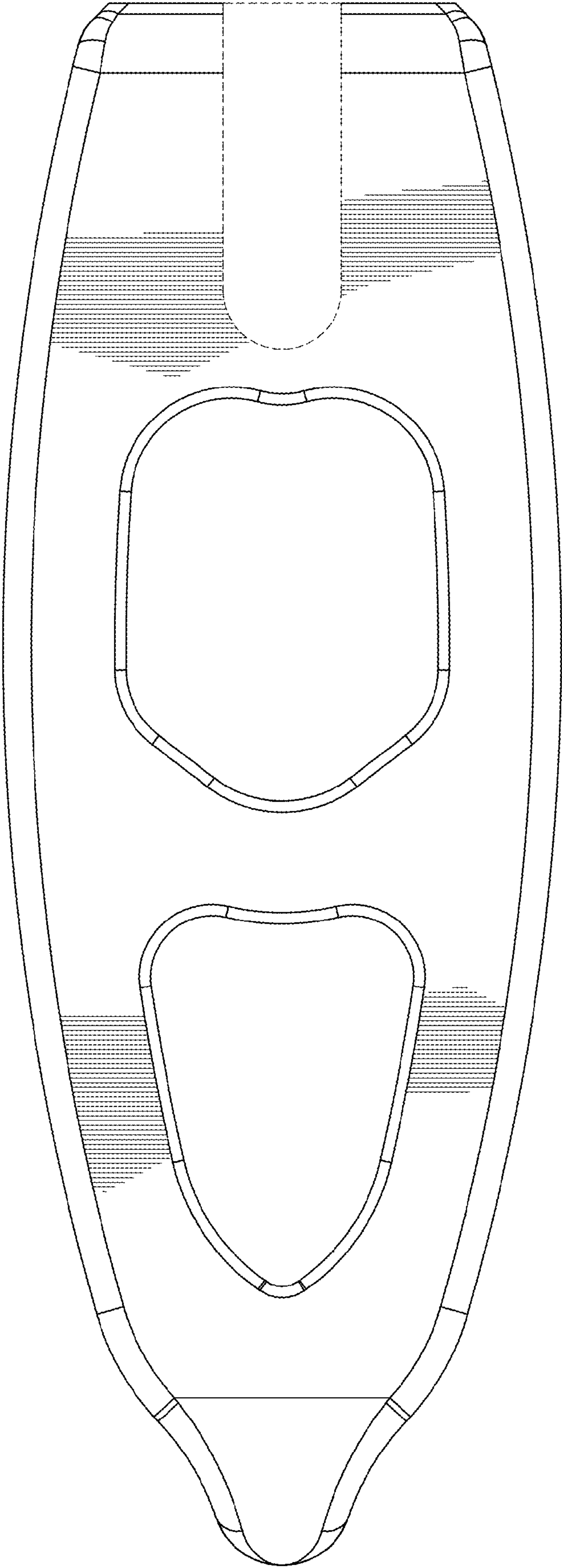


FIG. 4

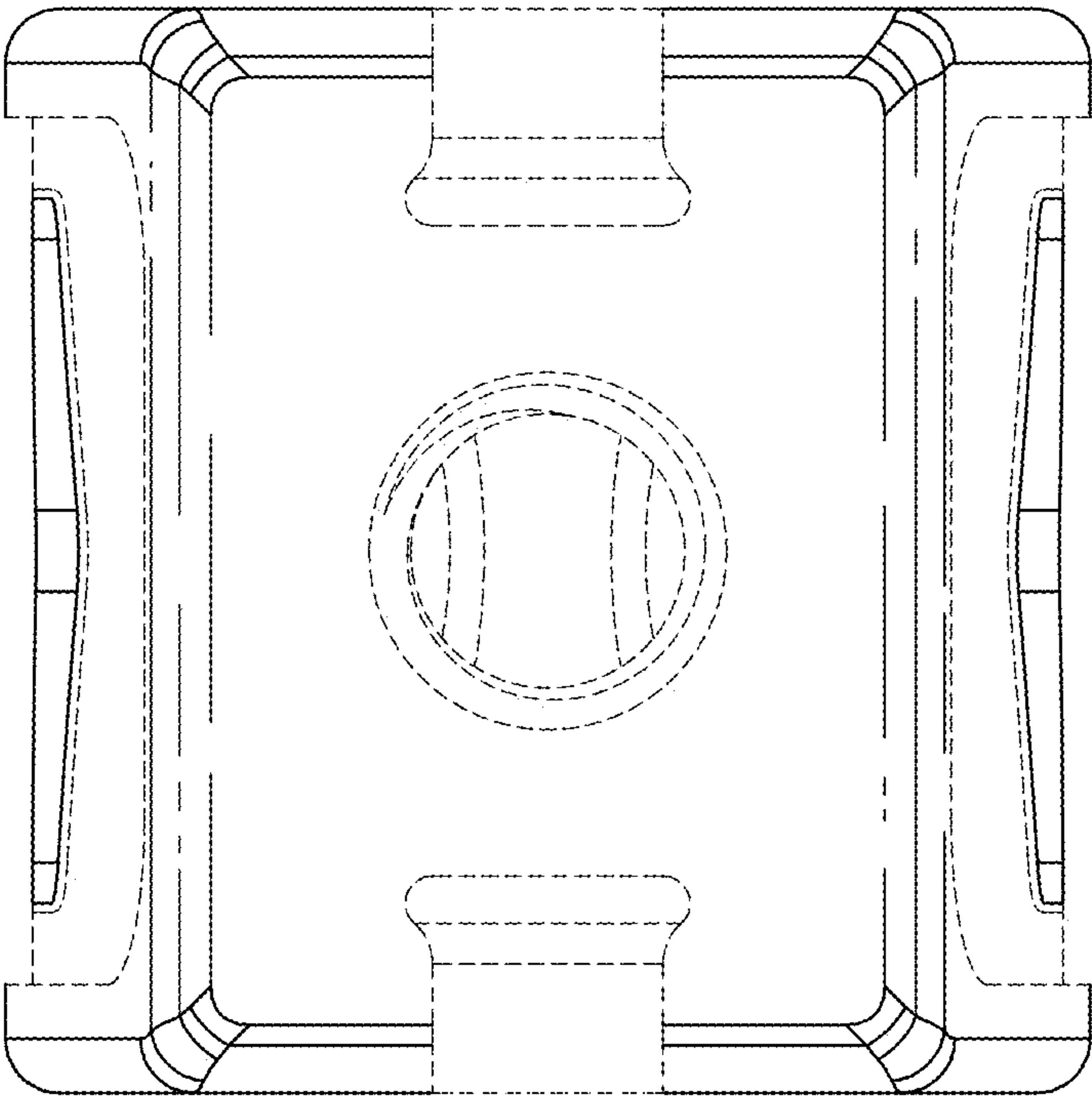


FIG. 5

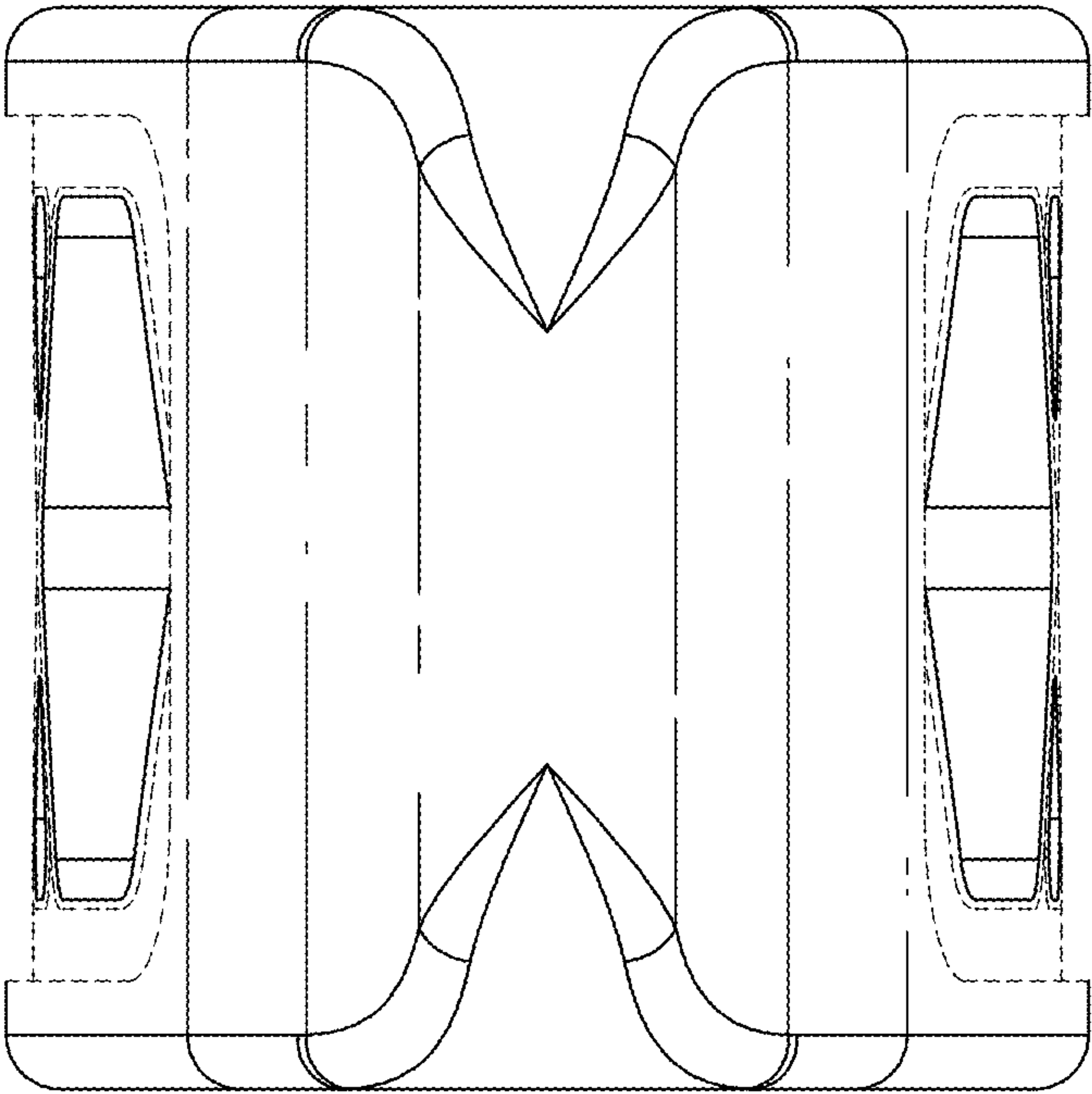


FIG. 6

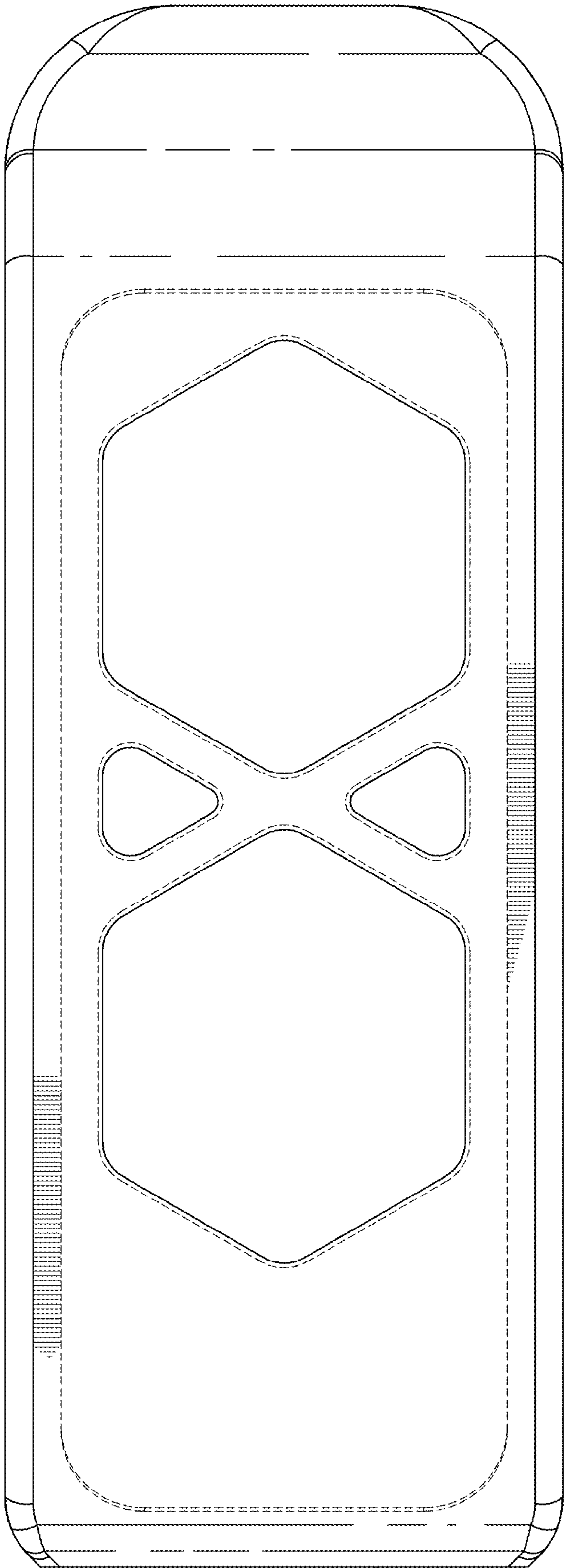


FIG. 7

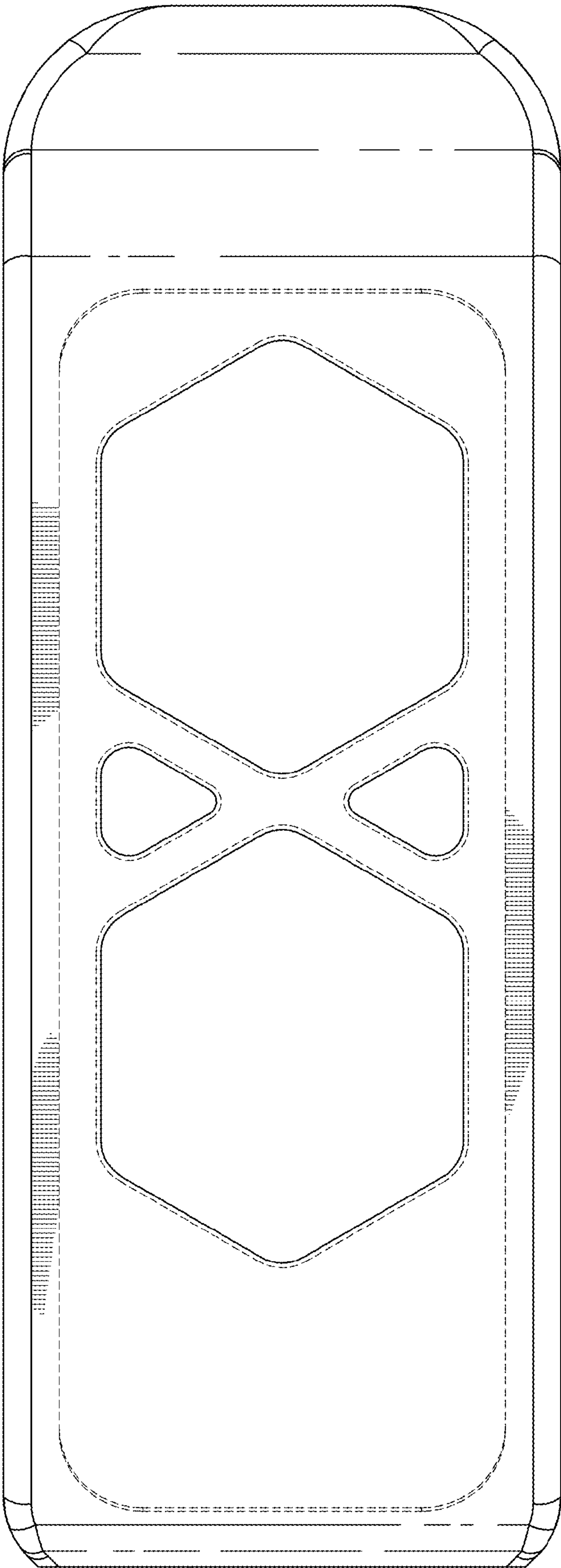
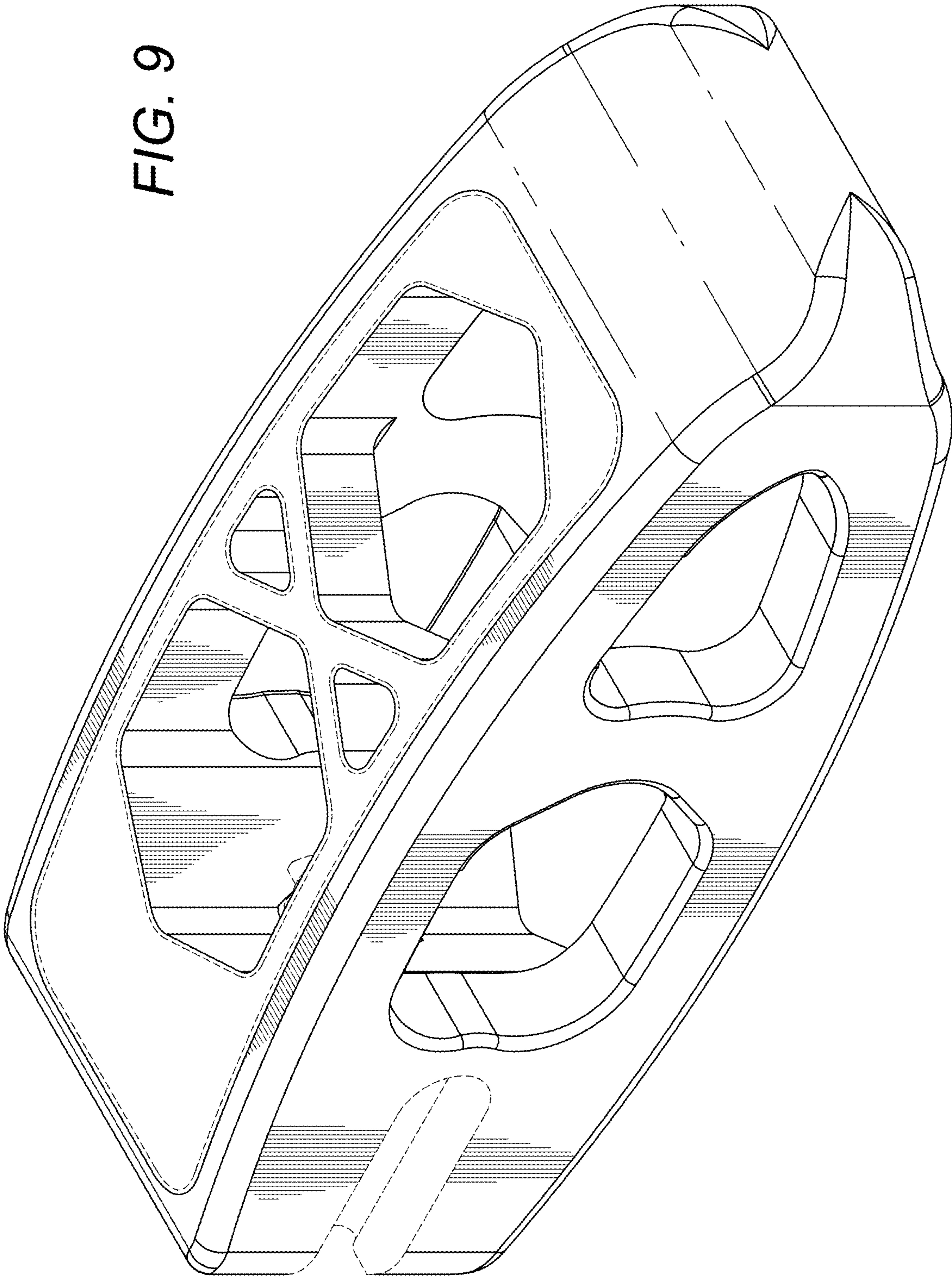


FIG. 8

FIG. 9



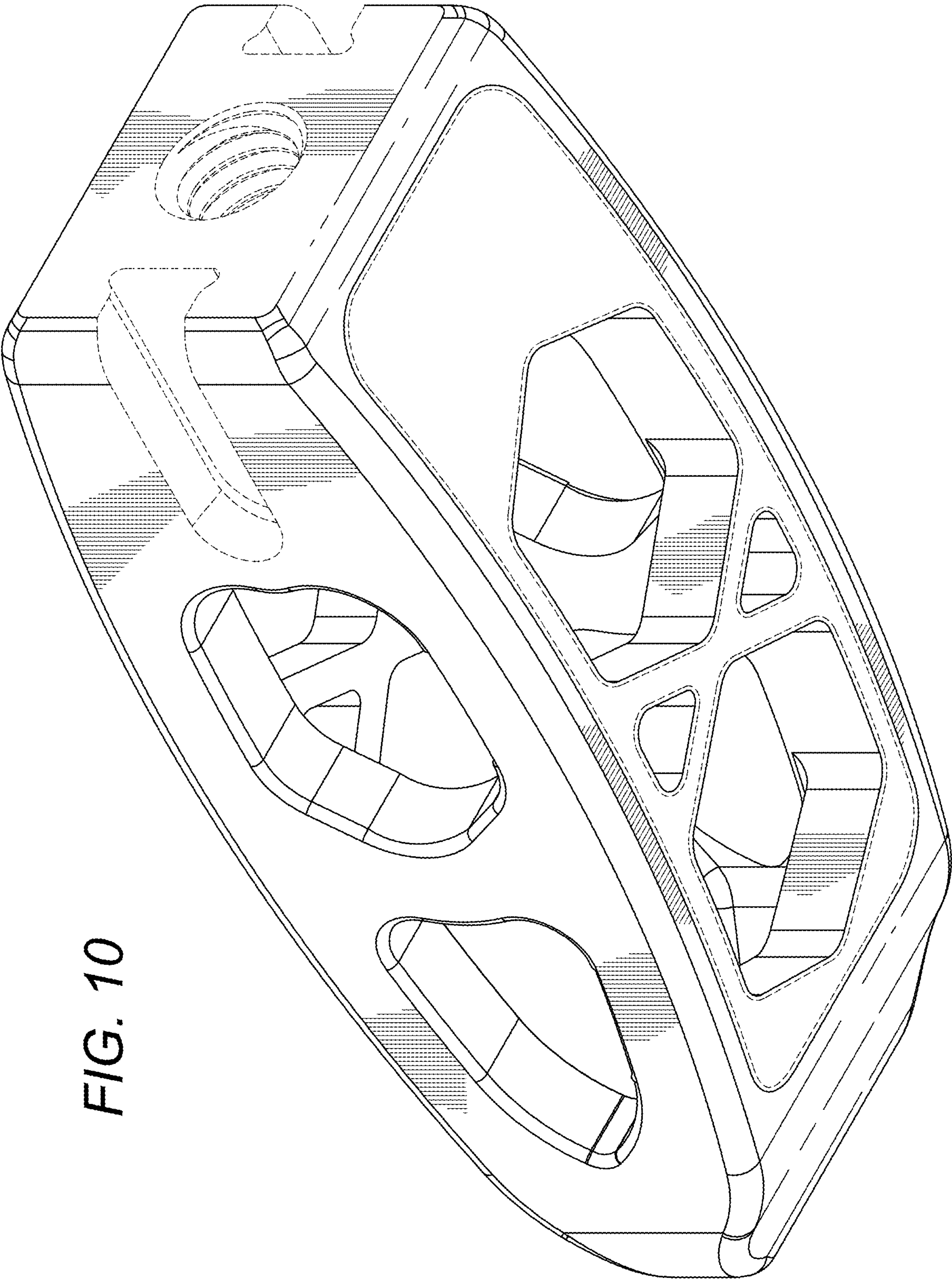


FIG. 10

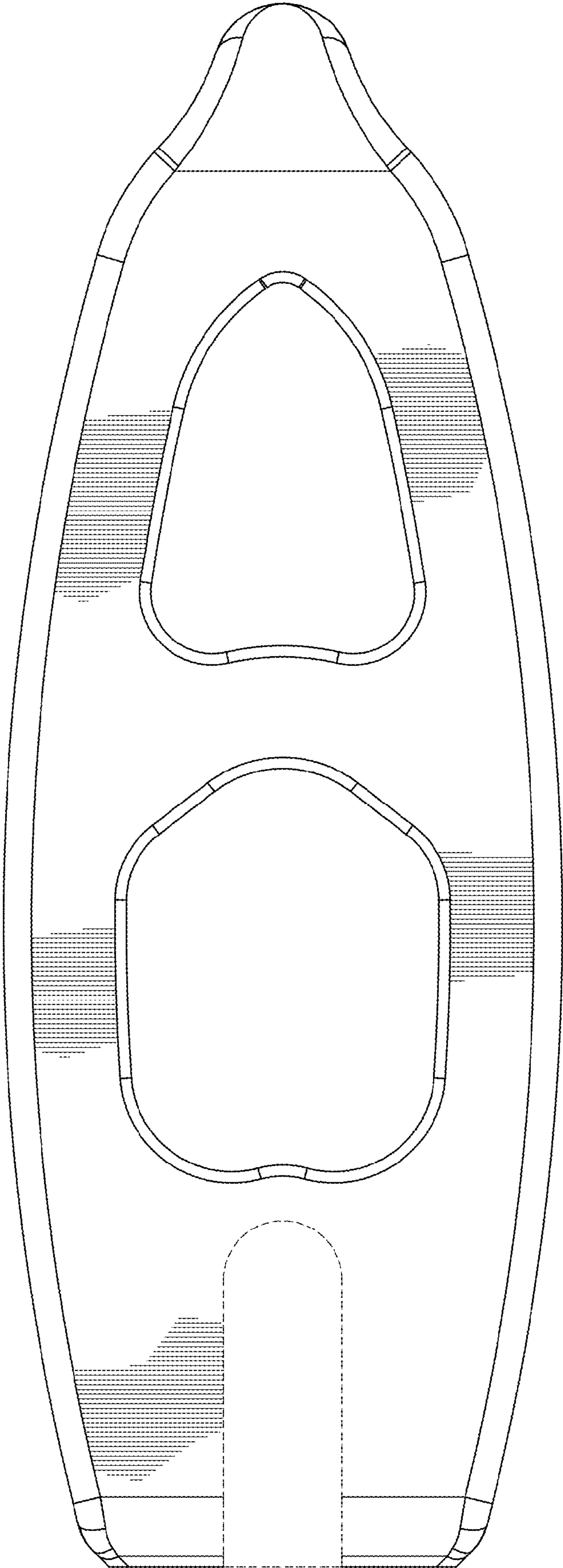


FIG. 11

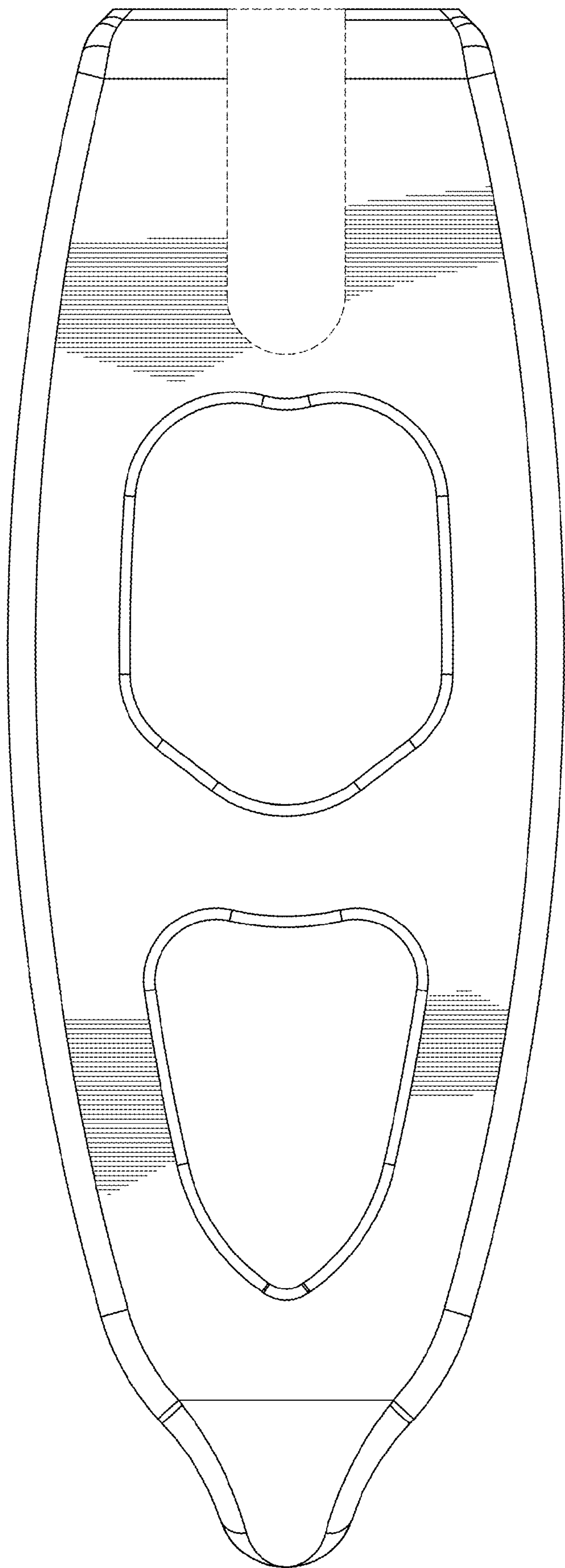


FIG. 12

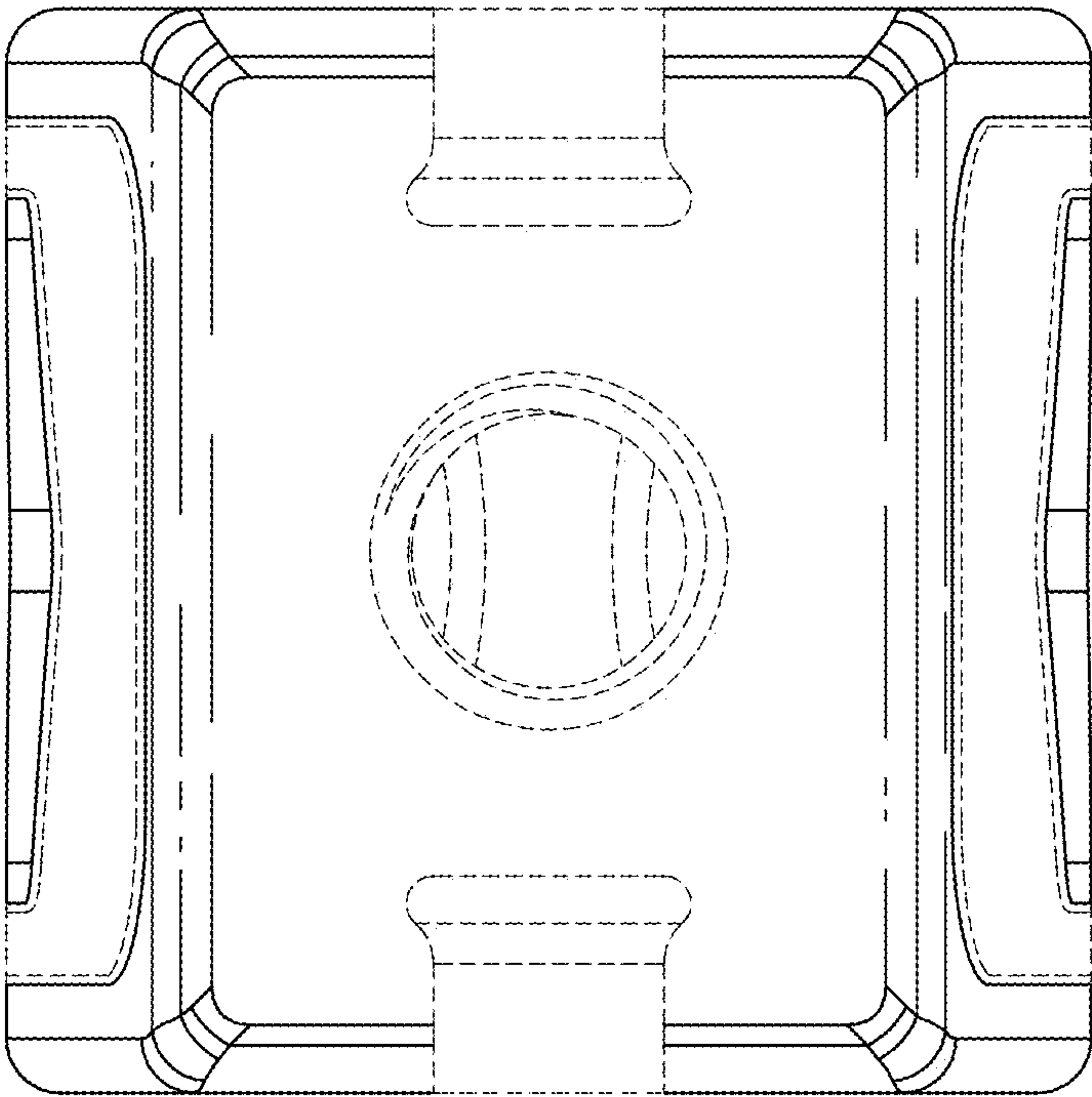


FIG. 13

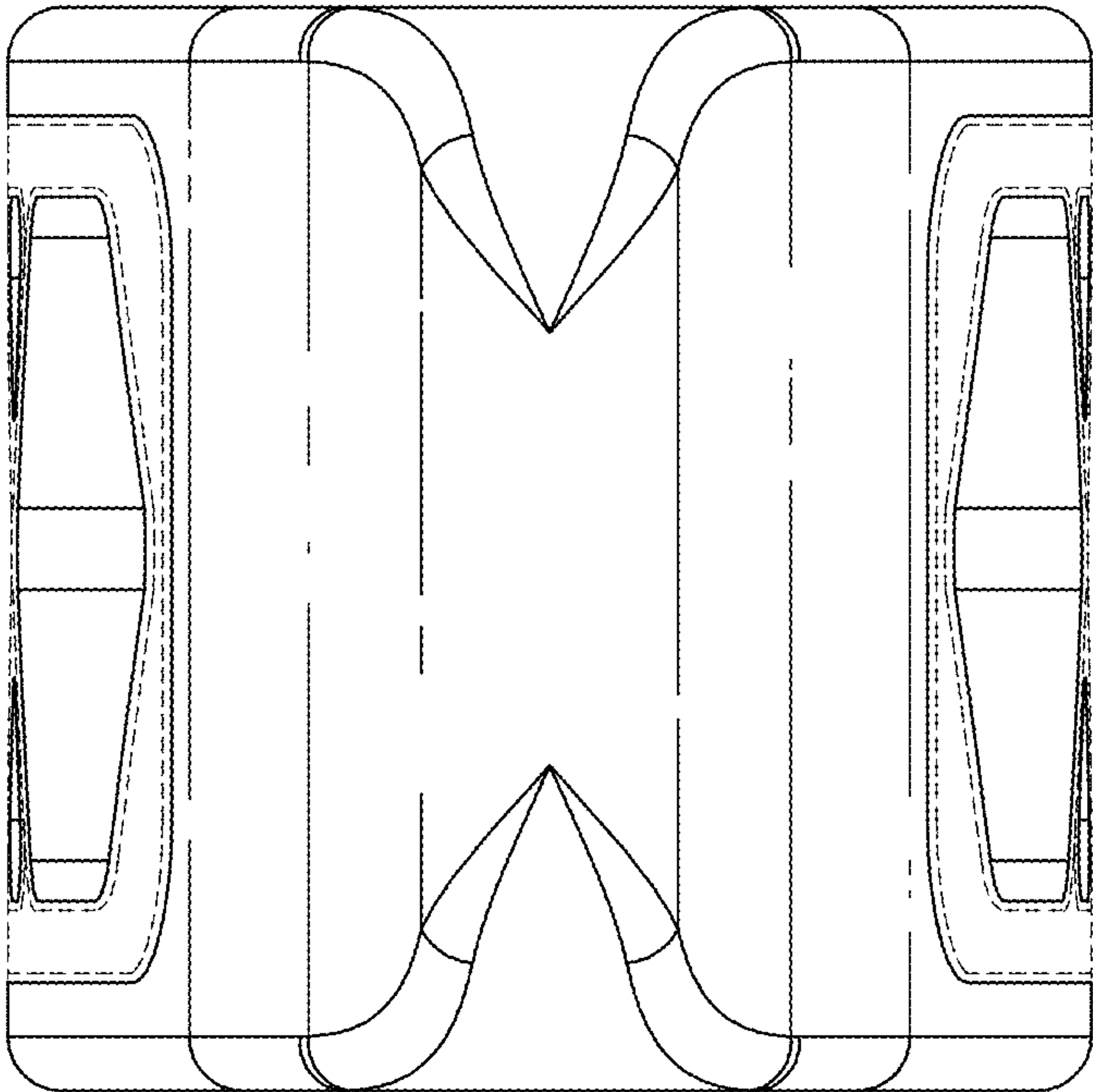


FIG. 14

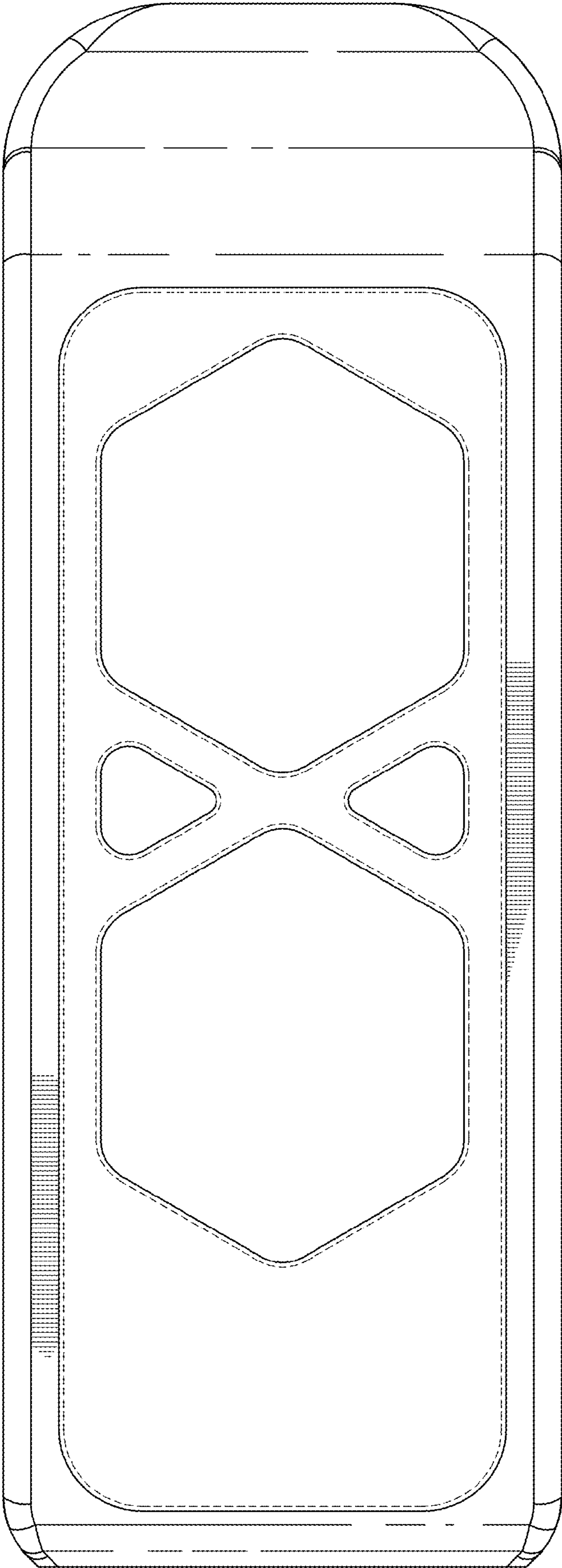


FIG. 15

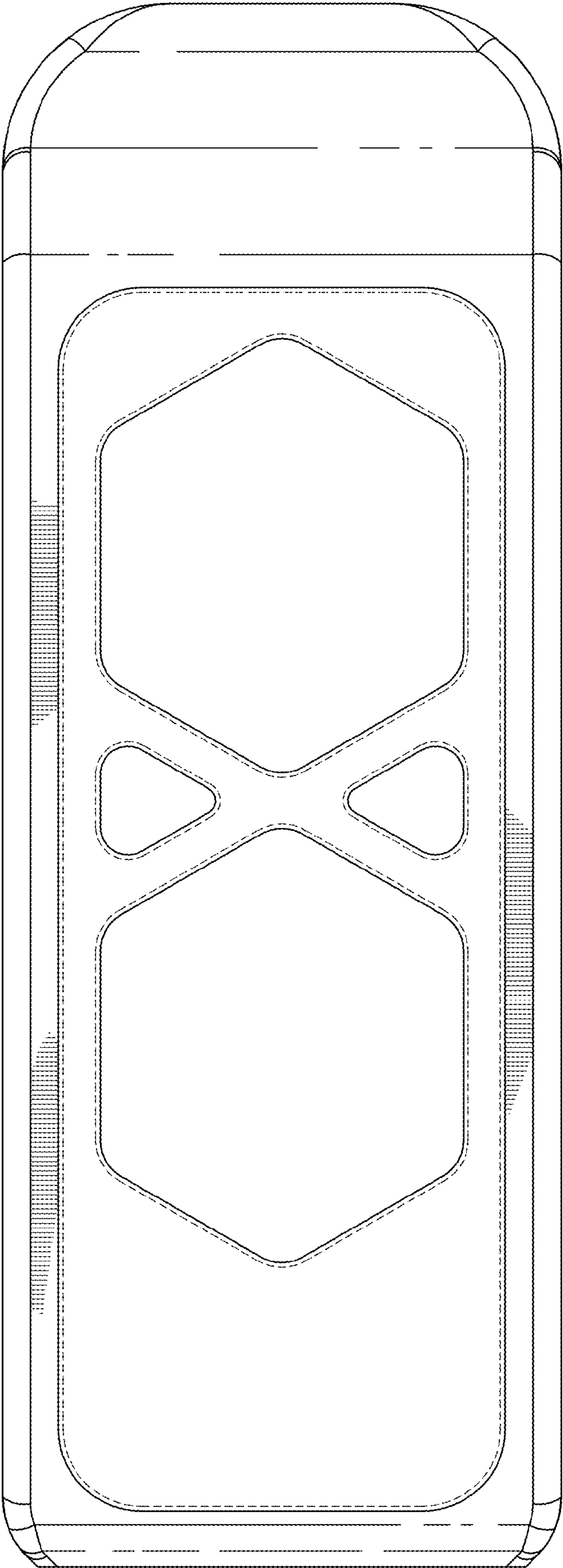


FIG. 16