



US0D1089104S

(12) **United States Design Patent** (10) **Patent No.:** **US D1,089,104 S**
Zabjanovski (45) **Date of Patent:** **** Aug. 19, 2025**

(54) **CONNECTOR**

5,675,682 A 10/1997 De Marchi
5,838,855 A 11/1998 Stephenson
5,876,246 A 3/1999 Martin et al.

(Continued)

(71) Applicant: **Molex, LLC**, Lisle, IL (US)

(72) Inventor: **Lupco Zabjanovski**, Countryside, IL (US)

FOREIGN PATENT DOCUMENTS

(73) Assignee: **Molex, LLC**, Lisle, IL (US)

CN 307543477 * 9/2022
CN 308232261 * 9/2023

(Continued)

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

OTHER PUBLICATIONS

(21) Appl. No.: **29/917,132**

(22) Filed: **Nov. 17, 2023**

(51) **LOC (15) Cl.** **13-03**

(52) **U.S. Cl.** **D13/133**
USPC **D13/133**

(58) **Field of Classification Search**

USPC ... D13/133, 146, 147, 123, 199, 139.7, 148,
D13/149, 153, 154

CPC ... H01R 4/00; H01R 4/28; H01R 4/30; H01R
4/4814; H01R 9/00; H01R 9/16; H01R
13/6272; H01R 2201/26; H01R 13/436;
H01R 13/4361; H01R 13/64; B60R
16/023; B60R 16/0238

See application file for complete search history.

Amass AS150U Plug High DC Current Connector. Date: Sep. 7, 2023. [online]. [Site visited Apr. 1, 2025]. Available from Internet URL: <https://www.amazon.sa/-/en/Current-Connector-Anti-Spark-Lithium-Waterproof/dp/B0BWH5D7H7> (Year: 2023).*

(Continued)

Primary Examiner — Richard Kearney

Assistant Examiner — Landon Thomas Cassell

(57)

CLAIM

The ornamental design for a connector as shown and described.

DESCRIPTION

FIG. 1 is a front top perspective view of a connector showing my new design;

FIG. 2 is a front bottom perspective view thereof;

FIG. 3 is a front view thereof;

FIG. 4 is a rear view thereof;

FIG. 5 is a left side view thereof;

FIG. 6 is a right side view thereof;

FIG. 7 is a top view thereof; and,

FIG. 8 is a bottom view thereof.

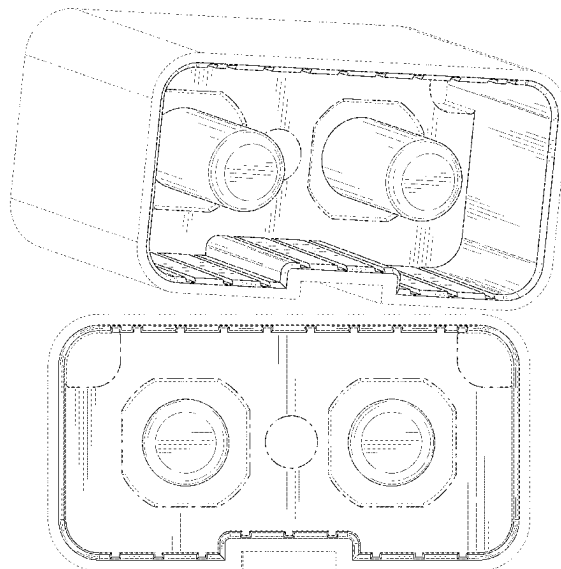
The uneven-length broken lines immediately adjacent to the shaded areas define the bounds of the claimed design and form no part thereof. The even-length broken lines depicting the remainder of the connector form no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,783,447 A 2/1957 Watts
D210,533 S 3/1968 Pauza
4,029,896 A 6/1977 Skinner
D271,196 S 11/1983 Tetreault
4,449,776 A 5/1984 Carmo et al.
H379 H 12/1987 Alexander et al.
4,762,388 A 8/1988 Tanaka et al.
4,923,409 A 5/1990 Ishii
5,398,295 A 3/1995 Chang et al.
D372,420 S 8/1996 Mendez
D384,035 S 9/1997 Kuprewicz et al.

1 Claim, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D425,869 S 5/2000 Yokomizo et al.
 6,109,967 A 8/2000 Chiou
 6,354,746 B1 3/2002 Lee
 D473,844 S 4/2003 Bender et al.
 D474,447 S 5/2003 Kano
 D474,746 S 5/2003 Rupert
 D475,014 S 5/2003 Kano
 D494,141 S 8/2004 Spink, Jr.
 D494,933 S 8/2004 Lu
 D501,649 S 2/2005 Yang et al.
 D531,120 S 10/2006 Tamura
 D537,781 S 3/2007 Tamura
 D564,963 S * 3/2008 Sakamoto D13/133
 7,374,460 B1 5/2008 Hariharesan et al.
 D588,989 S 3/2009 Kok
 D589,445 S 3/2009 Arai et al.
 7,500,790 B2 3/2009 Erdman et al.
 D593,033 S 5/2009 Ogata et al.
 D596,125 S 7/2009 Norin et al.
 D612,810 S 3/2010 Bender
 D616,820 S * 6/2010 Gong D13/133
 D639,744 S 6/2011 Smith et al.
 D642,528 S 8/2011 Gravalin et al.
 D658,130 S 4/2012 Bodwell et al.
 8,241,043 B1 8/2012 Lin
 D684,118 S 6/2013 Yang et al.
 D691,089 S 10/2013 Suzuki
 D723,467 S 3/2015 Smith et al.
 D724,739 S 3/2015 London
 D726,117 S 4/2015 Valdez et al.
 D743,338 S 11/2015 Christensen et al.
 D743,339 S 11/2015 Christensen et al.
 D746,233 S 12/2015 Lyons et al.
 D748,058 S 1/2016 Corona
 D753,600 S 4/2016 Svelnis et al.
 D787,449 S 5/2017 Tashima et al.
 D803,157 S 11/2017 Mugan et al.
 D814,418 S 4/2018 Kawakami
 D818,967 S 5/2018 Rippe et al.
 D826,869 S 8/2018 Sakurai et al.
 D835,044 S 12/2018 Ramanna et al.
 10,302,874 B2 5/2019 Tong et al.
 D851,595 S 6/2019 Chen
 D866,846 S 11/2019 Cho et al.
 D876,358 S 2/2020 Tabata
 D878,304 S 3/2020 Joniak et al.
 D896,757 S 9/2020 Somanathapura Ramanna et al.
 D906,976 S 1/2021 Somanathapura Ramanna et al.
 D913,236 S 3/2021 Li
 D915,290 S 4/2021 Ghasabi
 D924,168 S 7/2021 Zabjanovski et al.
 D929,342 S 8/2021 Corona
 D931,814 S 9/2021 Haley et al.
 D939,442 S 12/2021 Soward et al.
 D941,770 S 1/2022 Haley et al.
 D942,399 S 2/2022 Belle et al.
 D942,400 S 2/2022 Belle et al.
 D942,949 S 2/2022 Somanathapura Ramanna et al.
 D942,952 S 2/2022 Belle et al.
 D942,953 S 2/2022 Belle et al.
 D942,954 S 2/2022 Joniak et al.
 D955,990 S 6/2022 Byrne et al.
 D964,287 S 9/2022 Corona
 D994,606 S 8/2023 Belle et al.
 D994,610 S 8/2023 Belle et al.
 D994,611 S 8/2023 Belle et al.
 D994,612 S 8/2023 Belle et al.
 D994,613 S 8/2023 Belle et al.
 D1,044,727 S * 10/2024 Lai D13/133
 12,170,419 B2 * 12/2024 Lai H01R 13/631
 2003/0036308 A1 2/2003 Fukuda
 2005/0221673 A1 10/2005 Myer
 2009/0081905 A1 3/2009 Chen
 2010/0105226 A1 * 4/2010 Gong H01R 13/64
 439/135

2010/0216354 A1 8/2010 Copper et al.
 2010/0216355 A1 8/2010 Copper et al.
 2011/0104955 A1 5/2011 Seeley et al.
 2012/0184122 A1 * 7/2012 Stokowski H01R 43/20
 439/247
 2012/0243831 A1 9/2012 Chen
 2013/0040508 A1 2/2013 Martellotti
 2013/0260586 A1 * 10/2013 Higuchi H01R 13/5202
 439/272
 2014/0044397 A1 2/2014 Hikosaka
 2014/0151999 A1 6/2014 Imaki et al.
 2014/0357137 A1 12/2014 Sian et al.
 2015/0118902 A1 * 4/2015 Data H01R 24/28
 439/658
 2015/0270626 A1 9/2015 Bishop
 2015/0357738 A1 12/2015 Griepenstroh et al.
 2016/0161682 A1 6/2016 Nishimura
 2017/0302017 A1 10/2017 Inoue
 2018/0351290 A1 12/2018 Shi et al.
 2019/0074650 A1 3/2019 Huang
 2019/0123467 A1 4/2019 Simmonds
 2020/0028307 A1 1/2020 Demaratos
 2020/0059035 A1 2/2020 Denzinger
 2020/0070211 A1 3/2020 Brown et al.
 2021/0273364 A1 9/2021 Listing et al.
 2022/0200189 A1 6/2022 Sundarakrishnamachari et al.
 2023/0035246 A1 2/2023 Li
 2023/0396010 A1 * 12/2023 Lai H01R 12/7088

FOREIGN PATENT DOCUMENTS

JP 2014107127 A 6/2014
 TW D155545 S 8/2013
 TW D190117 S 5/2018
 TW D193580 S 10/2018
 TW D194915 S 12/2018
 TW D197288 S 5/2019
 TW D202036 S 1/2020
 TW D202281 S 1/2020
 TW D209290 S 1/2021
 TW D227154 S 8/2023
 TW D227751 S 10/2023
 WO 9710627 A1 3/1997

OTHER PUBLICATIONS

Avin Products Briefing 1. Date: May 10, 2024. [online]. [Site visited Apr. 1, 2025]. Available from Internet URL: <https://www.youtube.com/watch?v=8vdt6oXTPw4> (Year: 2024).
 RPTCOTU Waterproof Battery Quick Connect. Date: Jan. 23, 2024. [online]. [Site visited Apr. 1, 2025]. Available from Internet URL: <https://www.amazon.com/RPTCOTU-Waterproof-Disconnect-8AWG-connections/dp/B0CT2P1D2T/?th=1> (Year: 2024).
 Molex Products, Part No. 2118880001; Molex; retrieved Mar. 11, 2021; published date unknown, prior to Mar. 11, 2021, 2 pages.
 Non-Final Office Action received for Design U.S. Appl. No. 29/783,766, mailed on Dec. 6, 2022, 8 pages.
 Notice of allowance received for Design U.S. Appl. No. 29/753,336, mailed on Nov. 22, 2021, 7 pages.
 Notice of allowance received for Design U.S. Appl. No. 29/753,328, mailed on Nov. 22, 2021, 7 pages.
 Notice of allowance received for Design U.S. Appl. No. 29/753,329, mailed on Nov. 22, 2021, 7 pages.
 Notice of allowance received for Design U.S. Appl. No. 29/753,333, mailed on Nov. 22, 2021, 7 pages.
 Notice of allowance received for Design U.S. Appl. No. 29/753,340, mailed on Mar. 29, 2023, 7 pages.
 Notice of allowance received for Design U.S. Appl. No. 29/753,342, mailed on Mar. 18, 2022, 8 pages.
 Notice of allowance received for Design U.S. Appl. No. 29/783,749, mailed on Dec. 22, 2022, 9 pages.
 Non-Final office action received for U.S. Appl. No. 29/858,153 mailed on Aug. 1, 2024, 6 pages.
 Non-Final office action received for U.S. Appl. No. 29/858,161 mailed on Aug. 15, 2024, 7 pages.

(56)

References Cited

OTHER PUBLICATIONS

Notice of Allowance received for U.S. Appl. No. 29/858,148 mailed
on Aug. 1, 2024, 8 pages.

Notice of Allowance received for U.S. Appl. No. 29/858,160 mailed
on Aug. 1, 2024, 8 pages.

* cited by examiner

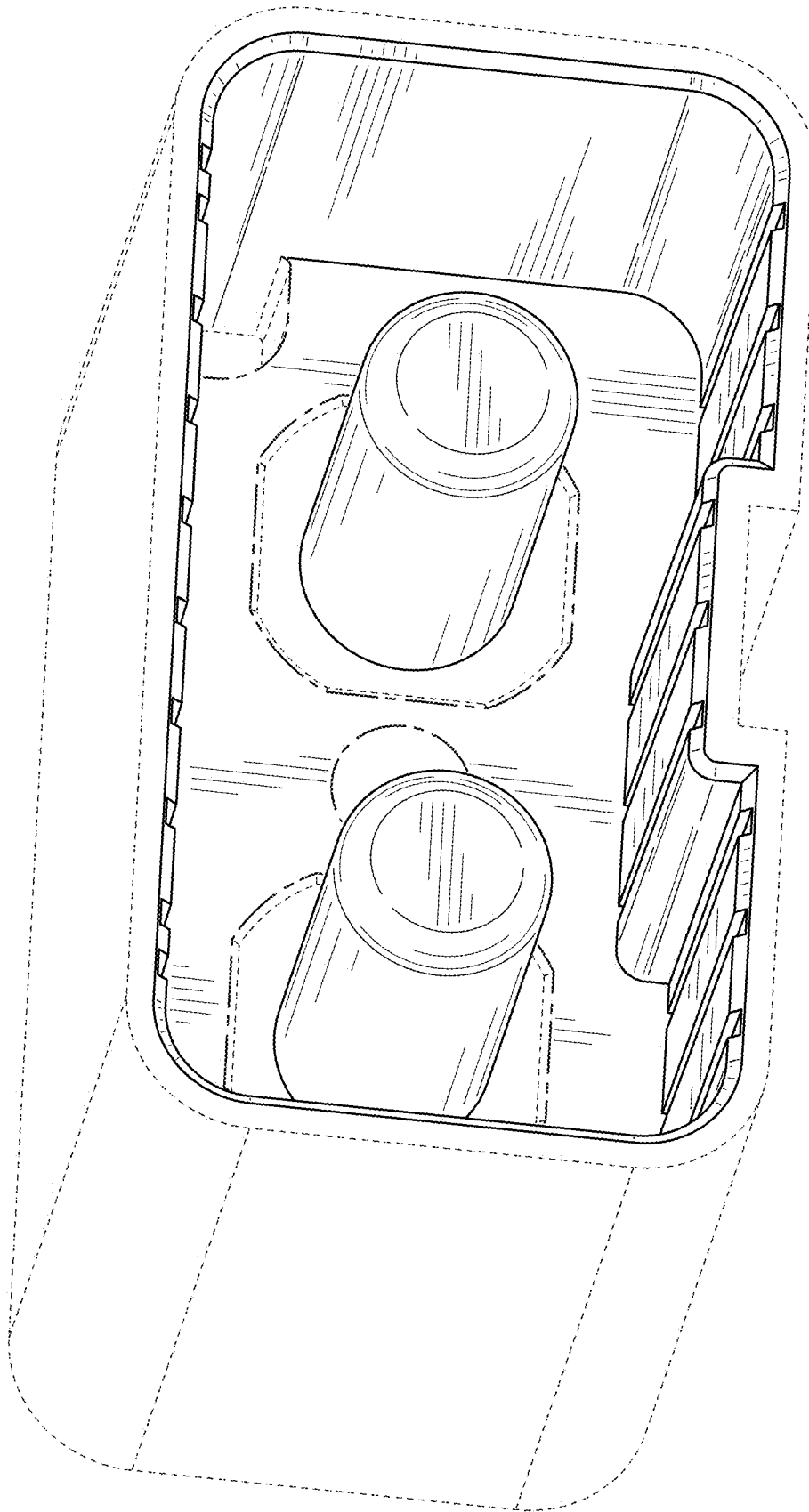


FIG. 1

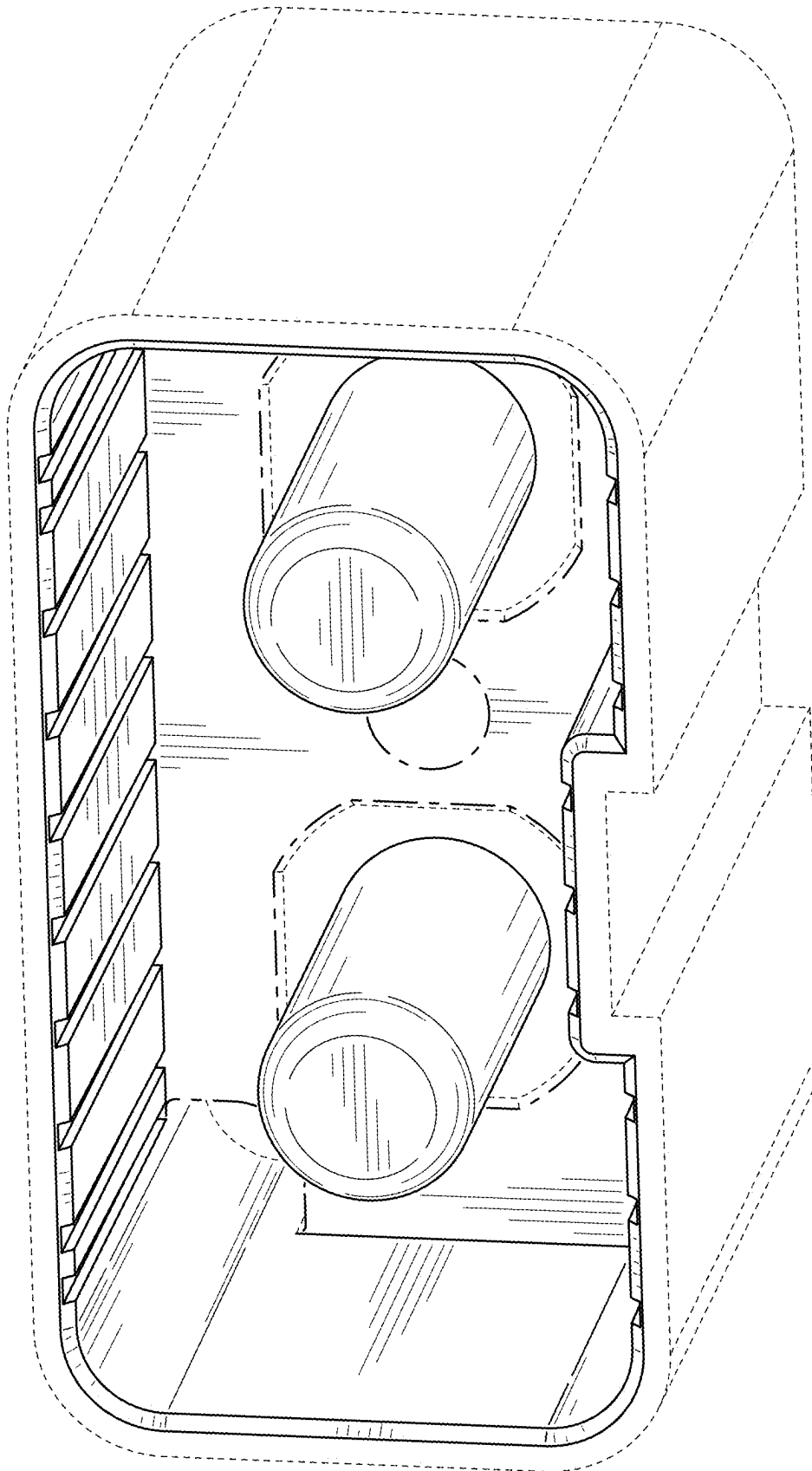


FIG. 2

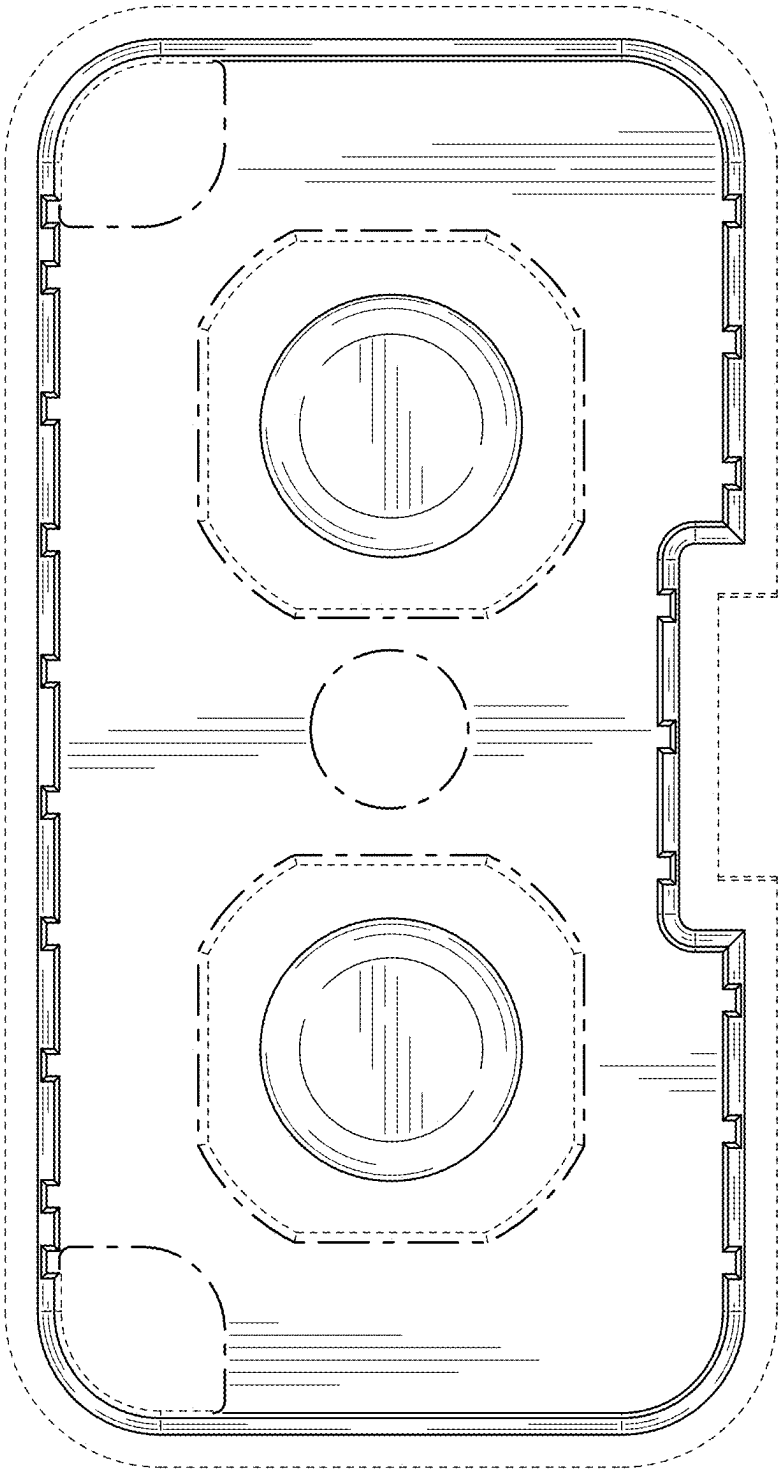


FIG. 3

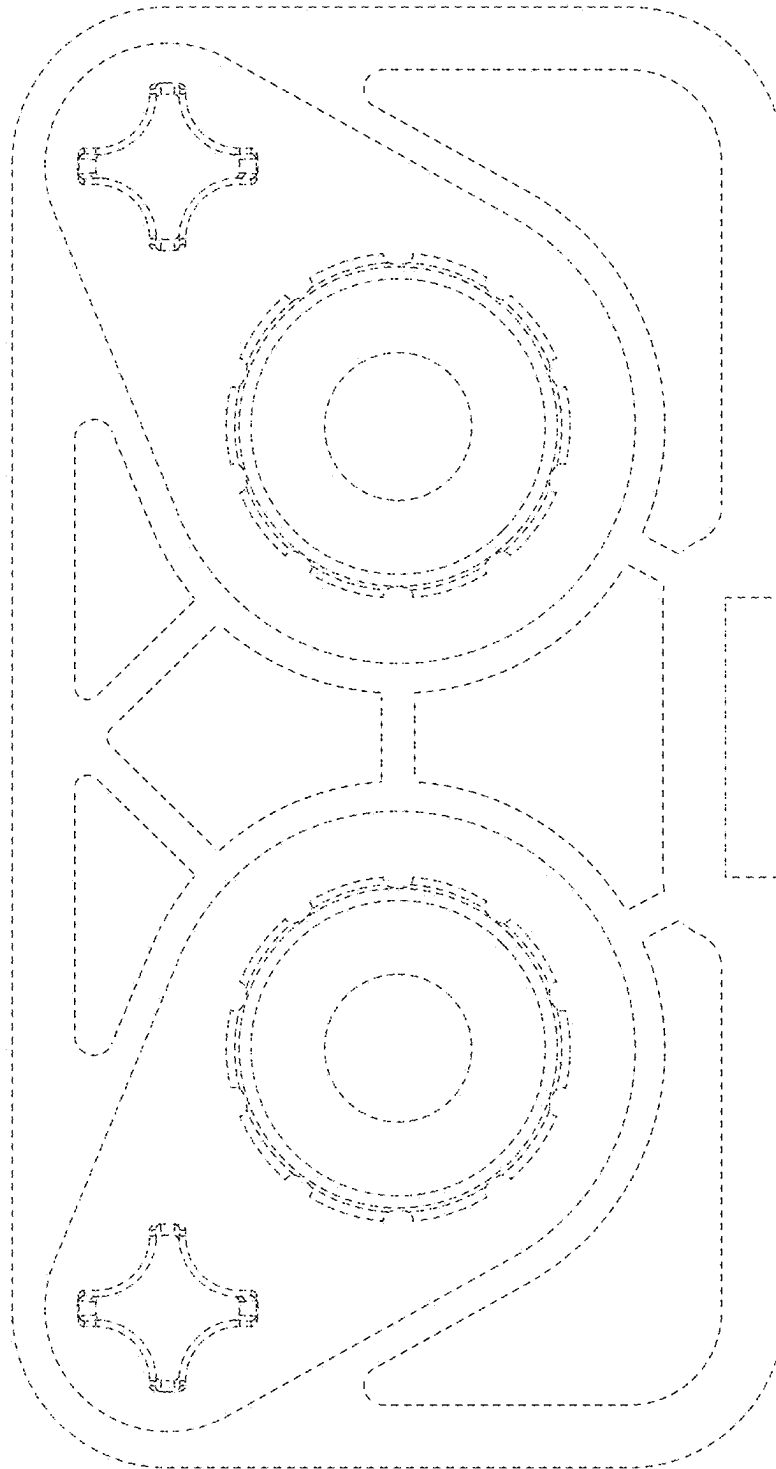


FIG. 4



FIG. 5



FIG. 6

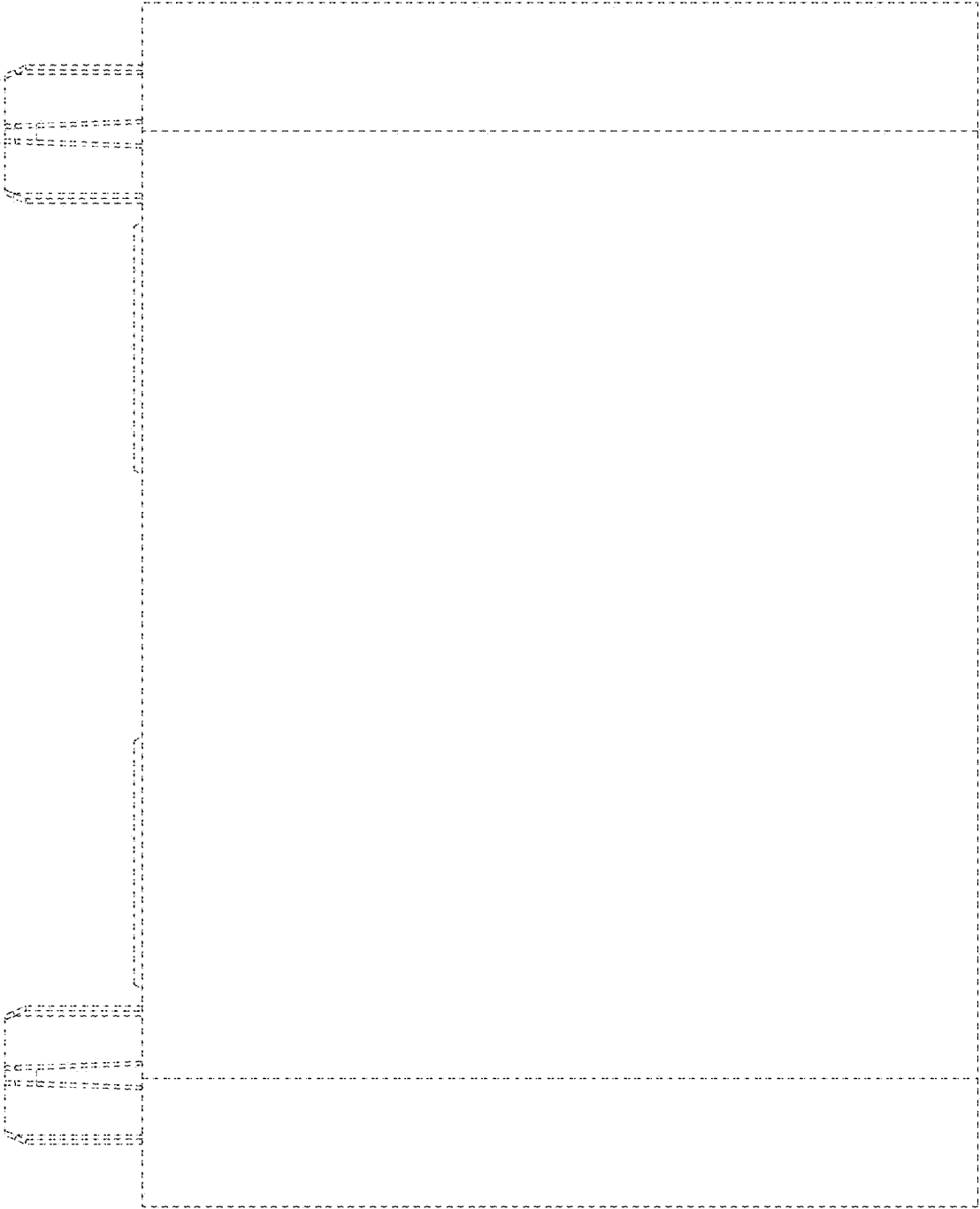


FIG. 7

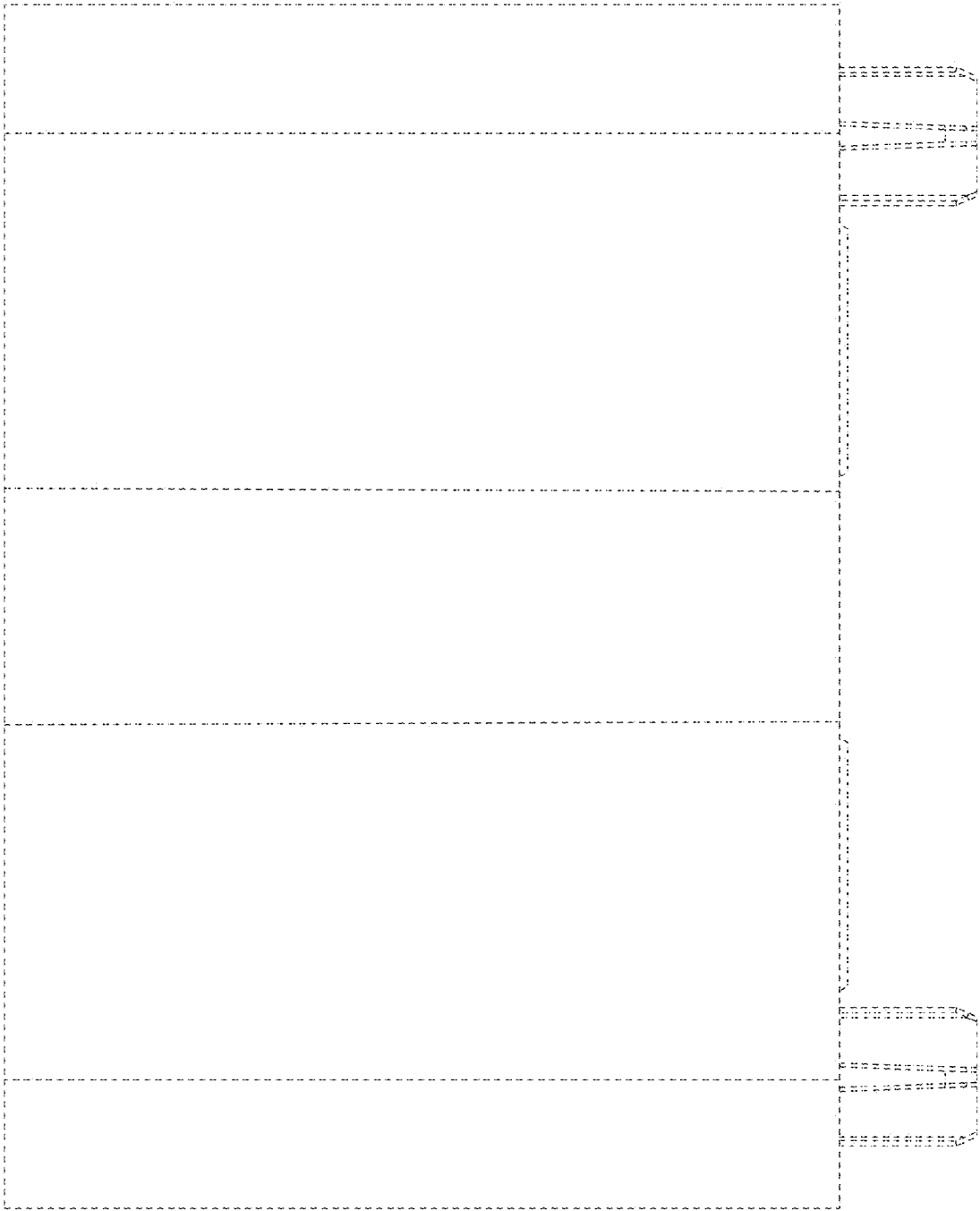


FIG. 8