



US00D987574S

(12) **United States Design Patent**
Liu et al.

(10) **Patent No.:** **US D987,574 S**
(45) **Date of Patent:** **** May 30, 2023**

(54) **ELECTRICAL CONNECTOR**

(71) Applicant: **DONGGUAN LUXSHARE TECHNOLOGIES CO., LTD,**
Dongguan (CN)

(72) Inventors: **Xiaogang Liu,** Dongguan (CN); **Kun Liu,** Dongguan (CN); **Rongzhe Guo,** Dongguan (CN); **Chuanqi Gong,** Dongguan (CN); **Tao Song,** Dongguan (CN)

(73) Assignee: **DONGGUAN LUXSHARE TECHNOLOGIES CO., LTD,**
Dongguan (CN)

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

(21) Appl. No.: **29/759,389**

(22) Filed: **Nov. 23, 2020**

(30) **Foreign Application Priority Data**

Jun. 30, 2020 (CN) 202030346329.X

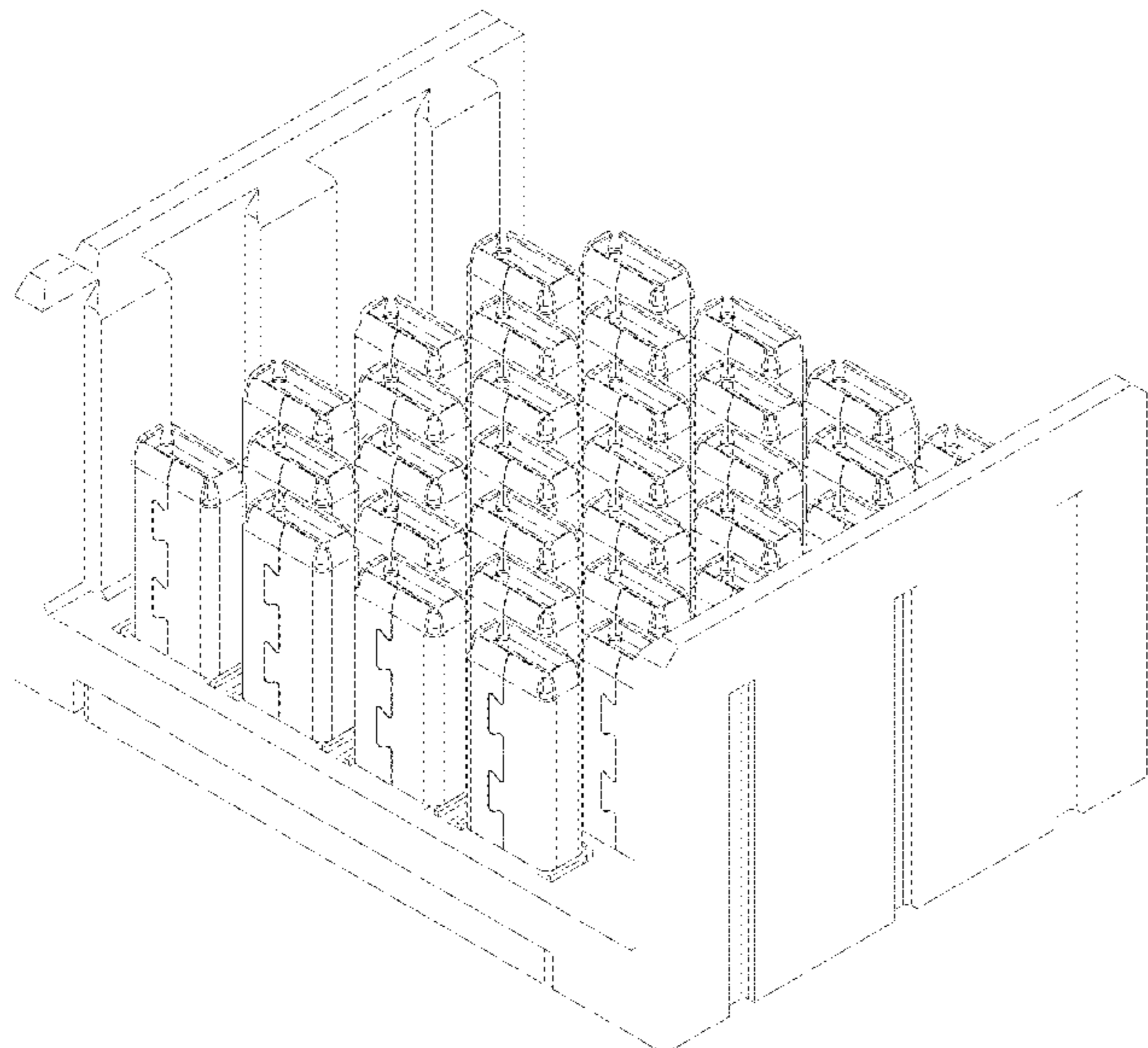
(51) **LOC (14) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/147; D13/133; D13/154**

(58) **Field of Classification Search**
USPC **D13/125, 133, 146-147, 154, 156; D14/240**

CPC **H01R 13/02; H01R 13/40; H01R 13/62; H01R 13/64; H01R 13/111; H01R 13/514; H01R 13/627; H01R 13/2492; H01R 13/6471; H01R 13/6584; H01R 13/6587; H01R 13/6588; H01R 13/6595; H01R 9/05; H01R 12/58; H01R 12/71; H01R 12/585;**

(Continued)



(56) **References Cited**

U.S. PATENT DOCUMENTS

8,475,183 B2 * 7/2013 Chien H01R 12/585
439/78
D731,435 S * 6/2015 Buck D13/147
(Continued)

FOREIGN PATENT DOCUMENTS

CN 111864476 A * 10/2020 H01R 12/71

OTHER PUBLICATIONS

TE Connectivity, Date: Jun. 18, 2016, [online], [site visited Nov. 14, 2022]. Available from internet, URL: <https://www.te.com/usa-en/products/connectors/intersection/high-speed-solutions.html?tab=pgp-story> (Year: 2016).*

(Continued)

Primary Examiner — Shawn T Gingrich

Assistant Examiner — Bryan N. Melvin

(74) *Attorney, Agent, or Firm* — Birch, Stewart, Kolasch & Birch, LLP

(57) **CLAIM**

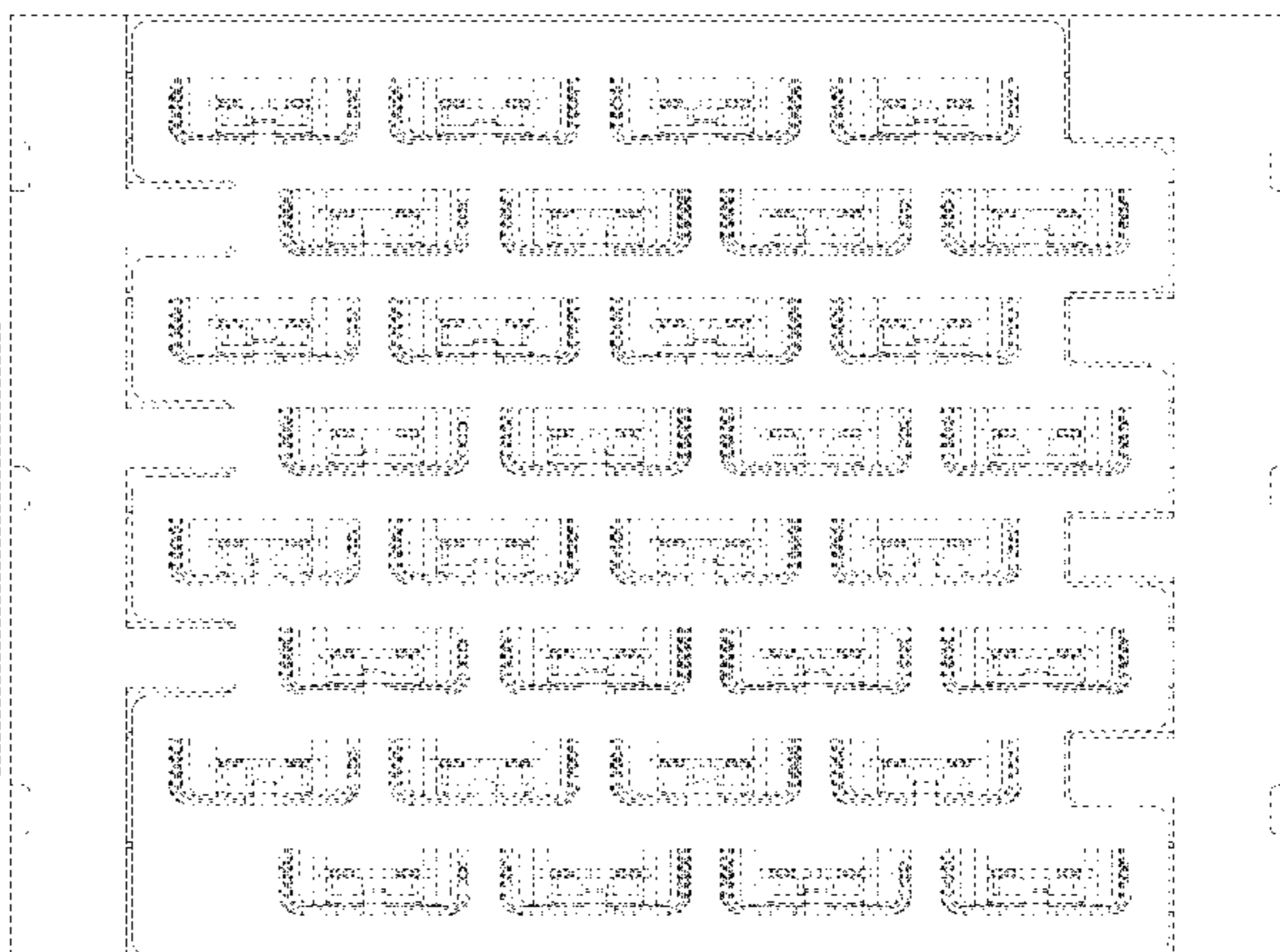
The ornamental design for an electrical connector, as shown and described.

DESCRIPTION

FIG. 1 is a front, top and right side perspective view of an electrical connector showing our new design; FIG. 2 is a front elevational view of the electrical connector; FIG. 3 is a rear elevational view of the electrical connector; FIG. 4 is a top plan view of the electrical connector; FIG. 5 is a bottom plan view of the electrical connector; FIG. 6 is a left side elevational view of the electrical connector; and, FIG. 7 is a right side elevational view of the electrical connector.

The broken lines in the drawings illustrate portions of the electrical connector that form no part of the claimed design.

1 Claim, 7 Drawing Sheets



(58) **Field of Classification Search**

CPC .. H01R 12/712; H01R 12/716; H01R 12/724;
H05K 3/3447; H05K 2201/09236

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D731,437 S * 6/2015 Buck D13/154
10,931,062 B2 * 2/2021 Cohen H01R 12/712
D926,701 S * 8/2021 Lin D13/147
D941,254 S * 1/2022 Song D13/156
D948,455 S * 4/2022 Liu D13/147
2003/0220021 A1 * 11/2003 Whiteman, Jr. ... H01R 13/6587
439/607.08
2012/0202380 A1 * 8/2012 Lappoehn H01R 13/6587
439/607.09
2013/0122744 A1 * 5/2013 Morgan H01R 13/6595
174/51
2017/0358883 A1 * 12/2017 Chen H01R 13/514
2020/0381868 A1 * 12/2020 Lin H01R 13/6588
2021/0399498 A1 * 12/2021 Liu H01R 13/6584

OTHER PUBLICATIONS

Molex, Date: Feb. 7, 2021, [online], [site visited Nov. 14, 2022].
Available from internet, URL: https://www.molex.com/molex/products/family/impact_backplane_connector_system (Year: 2021).*

Z-Pack , Date: Dec. 5, 2018, [online], [site visited Nov. 14, 2022].
Available from internet, URL: <https://www.mouser.com/new/te-connectivity/te-connectivity-z-pack-ehm-connectors/> (Year: 2018).*

* cited by examiner

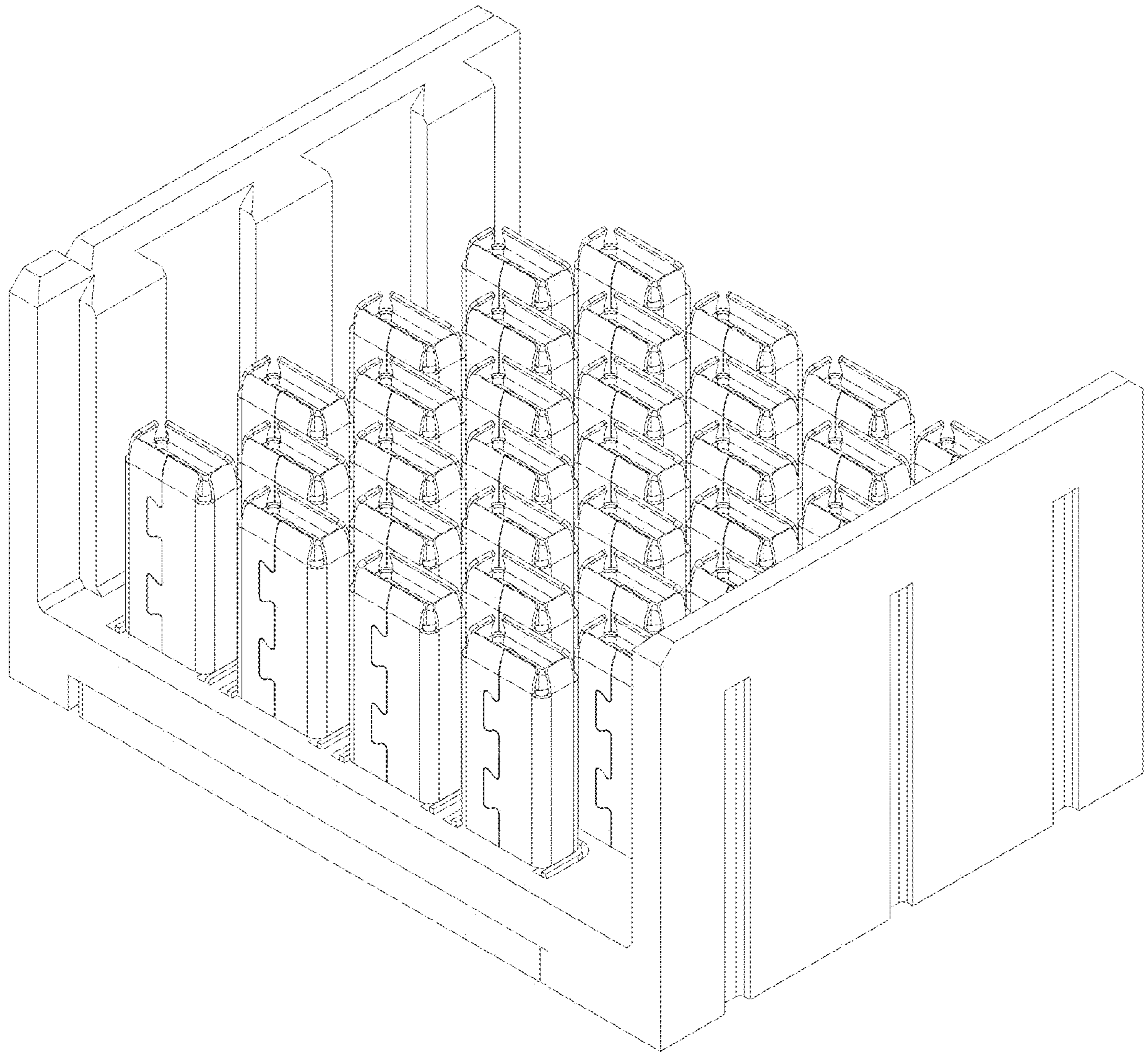


FIG. 1

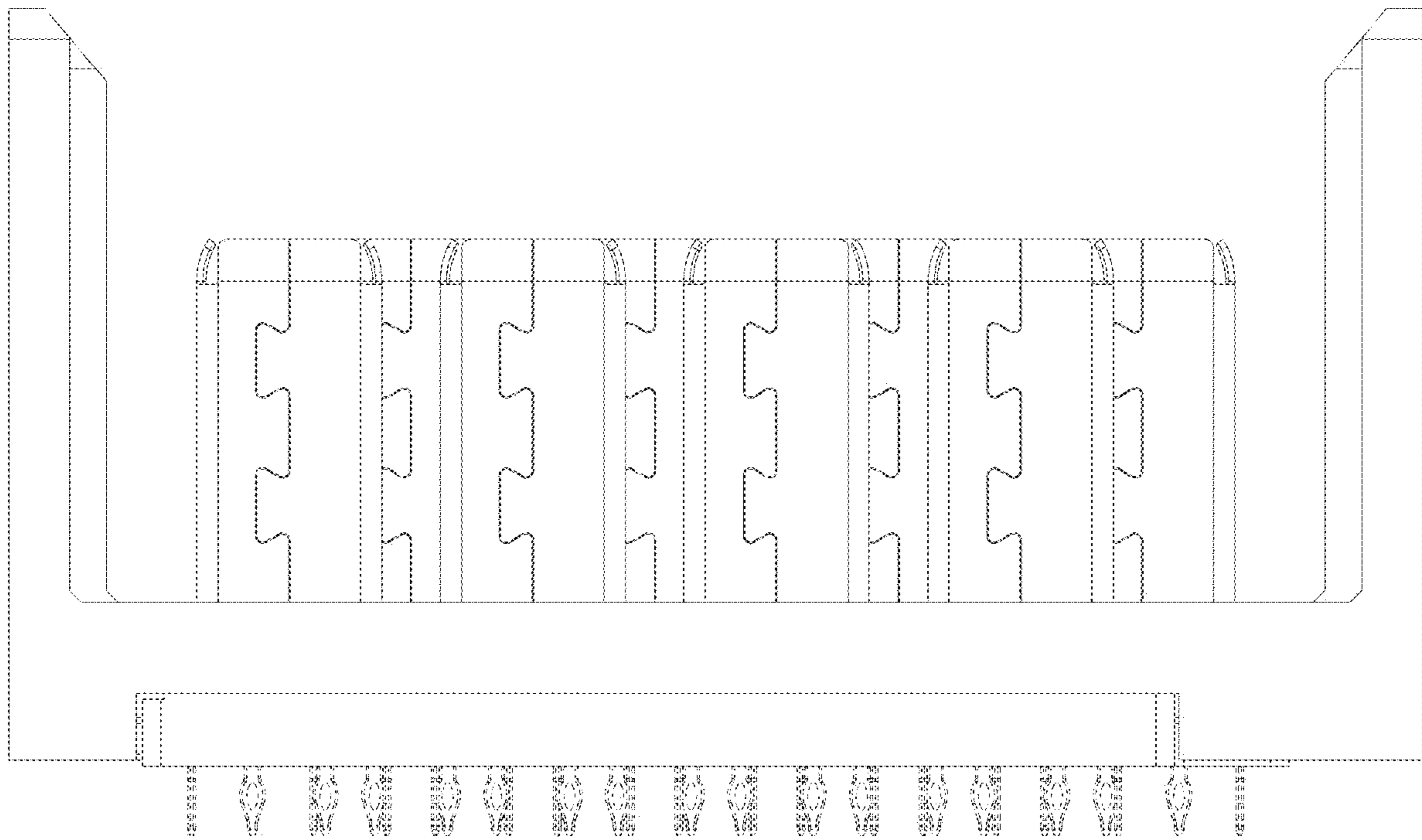


FIG. 2

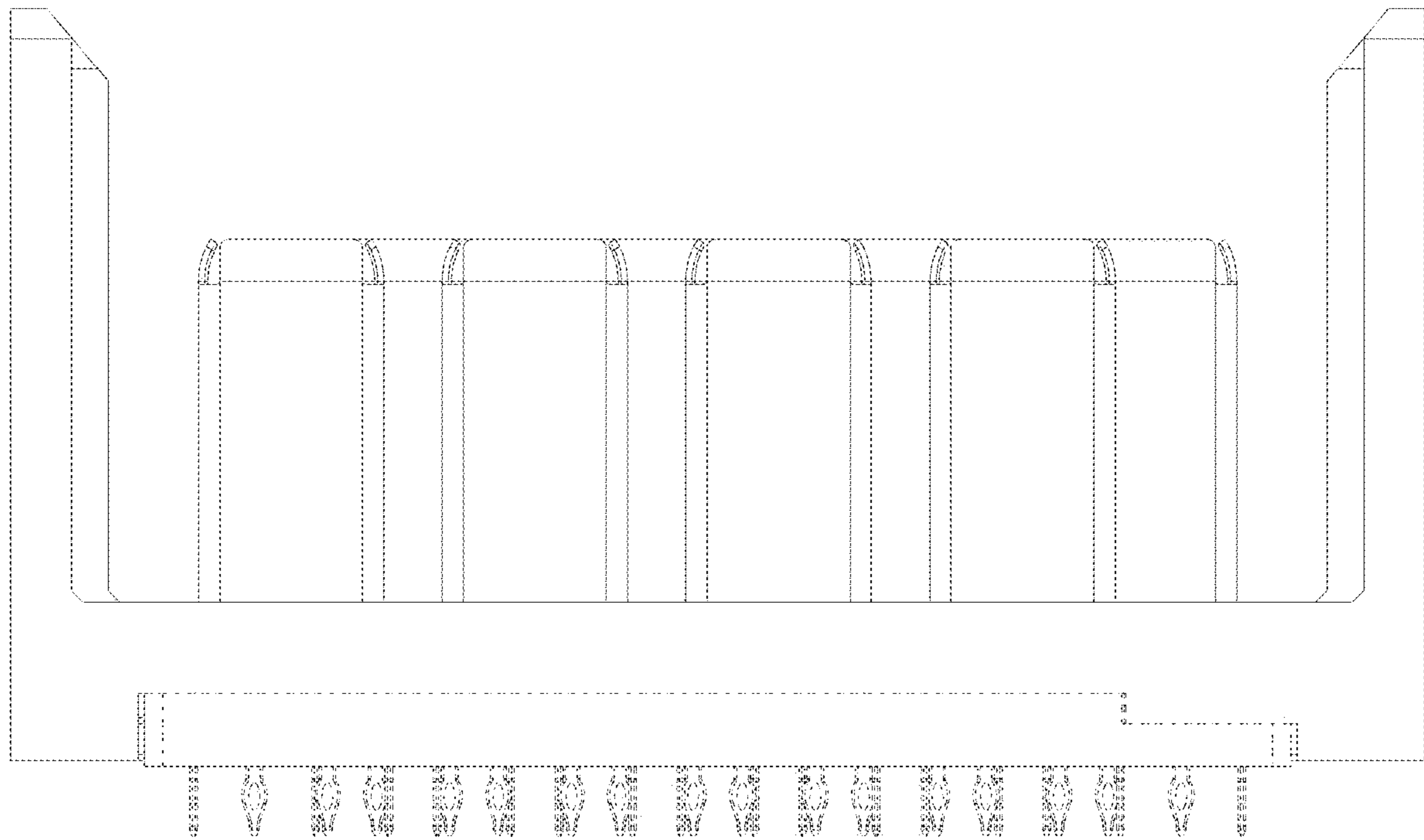


FIG. 3

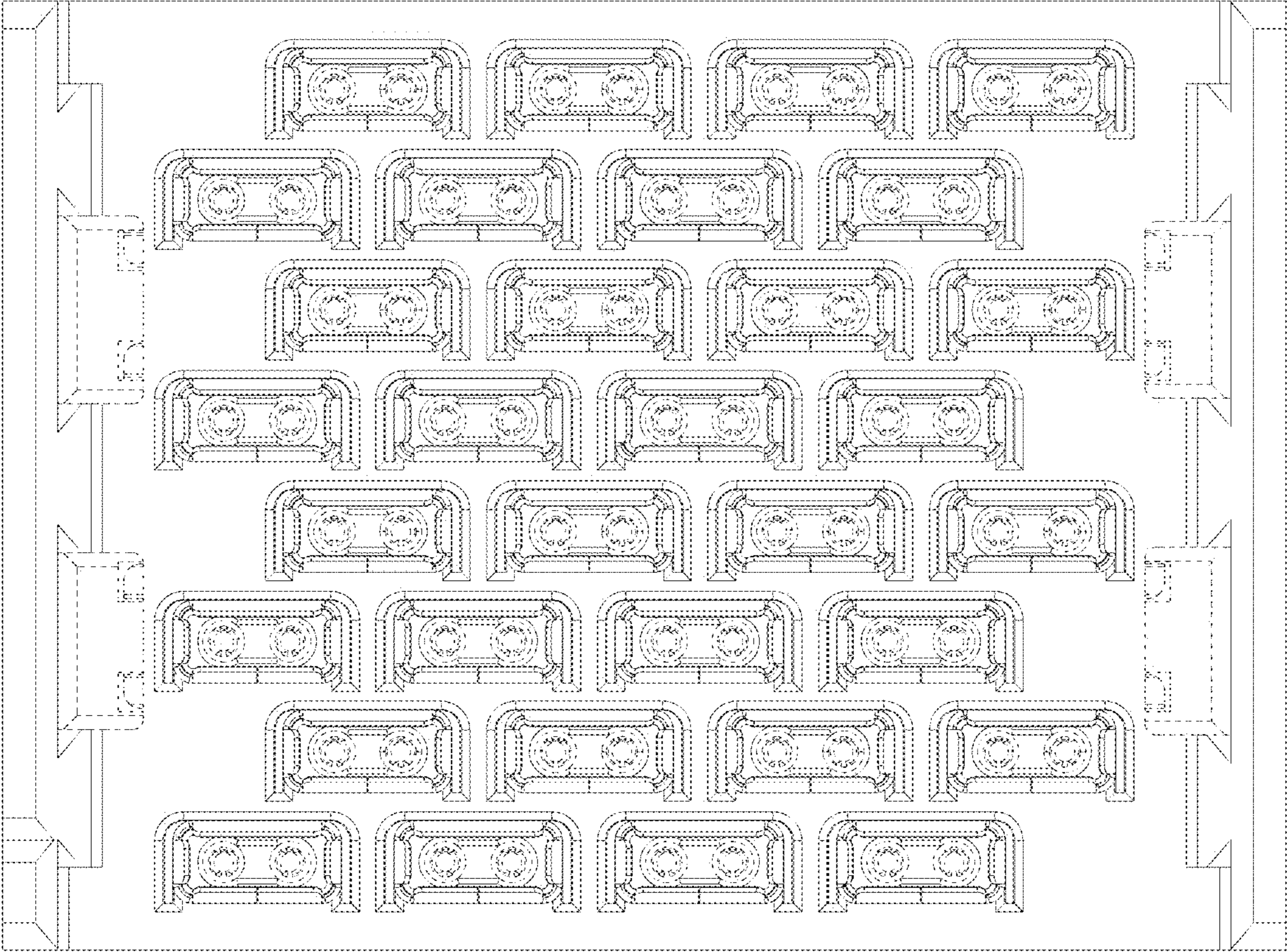


FIG. 4

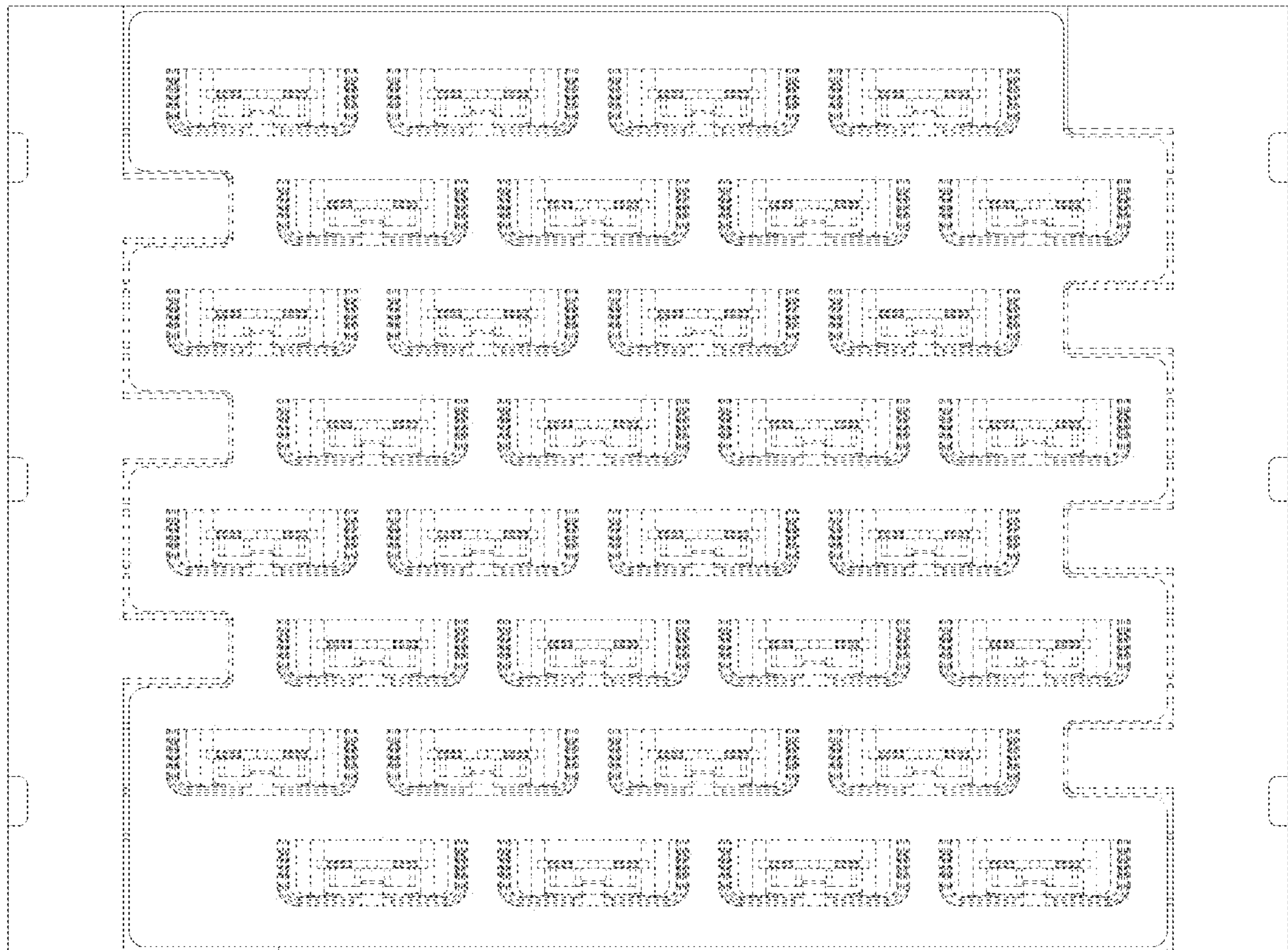


FIG. 5

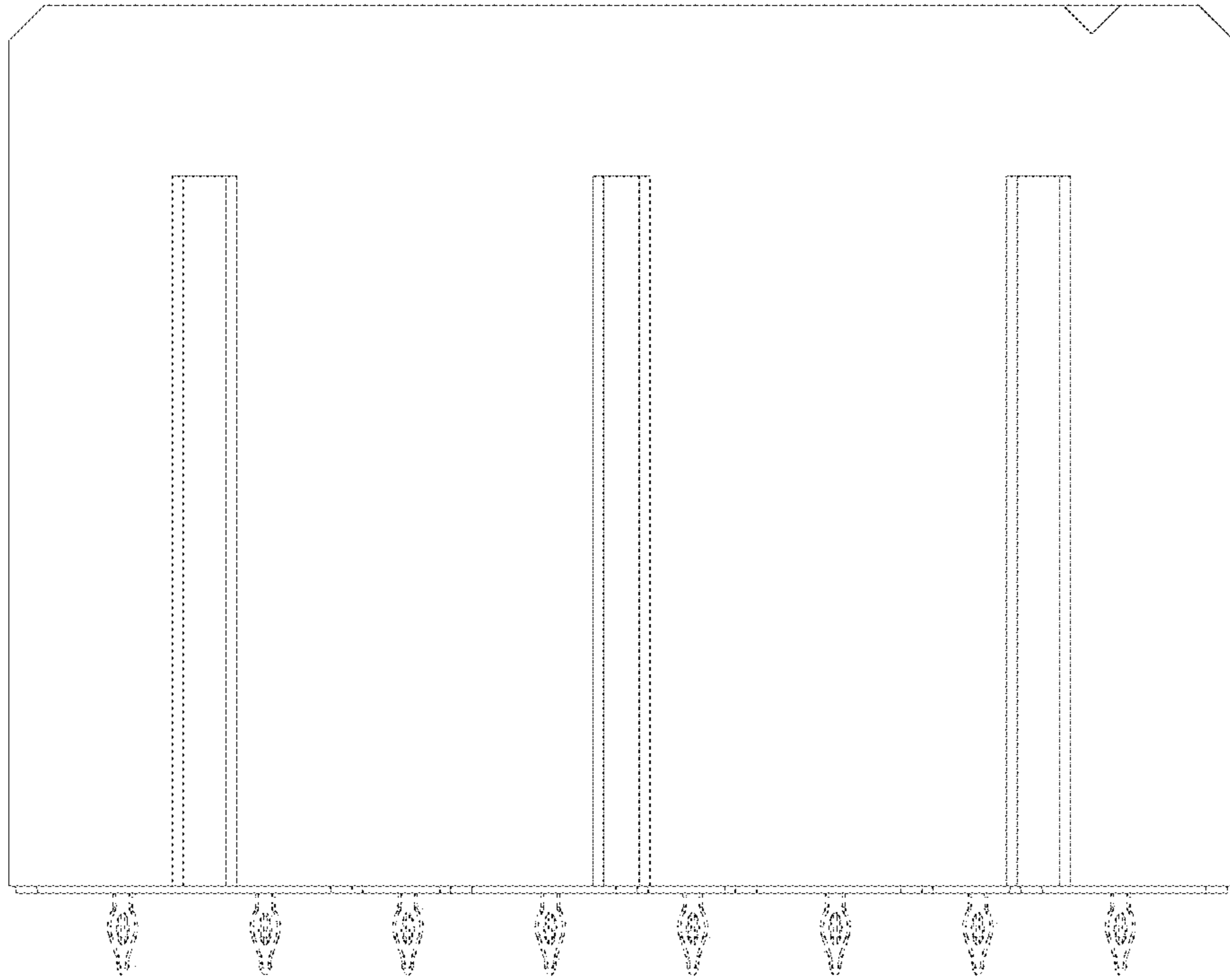


FIG. 6

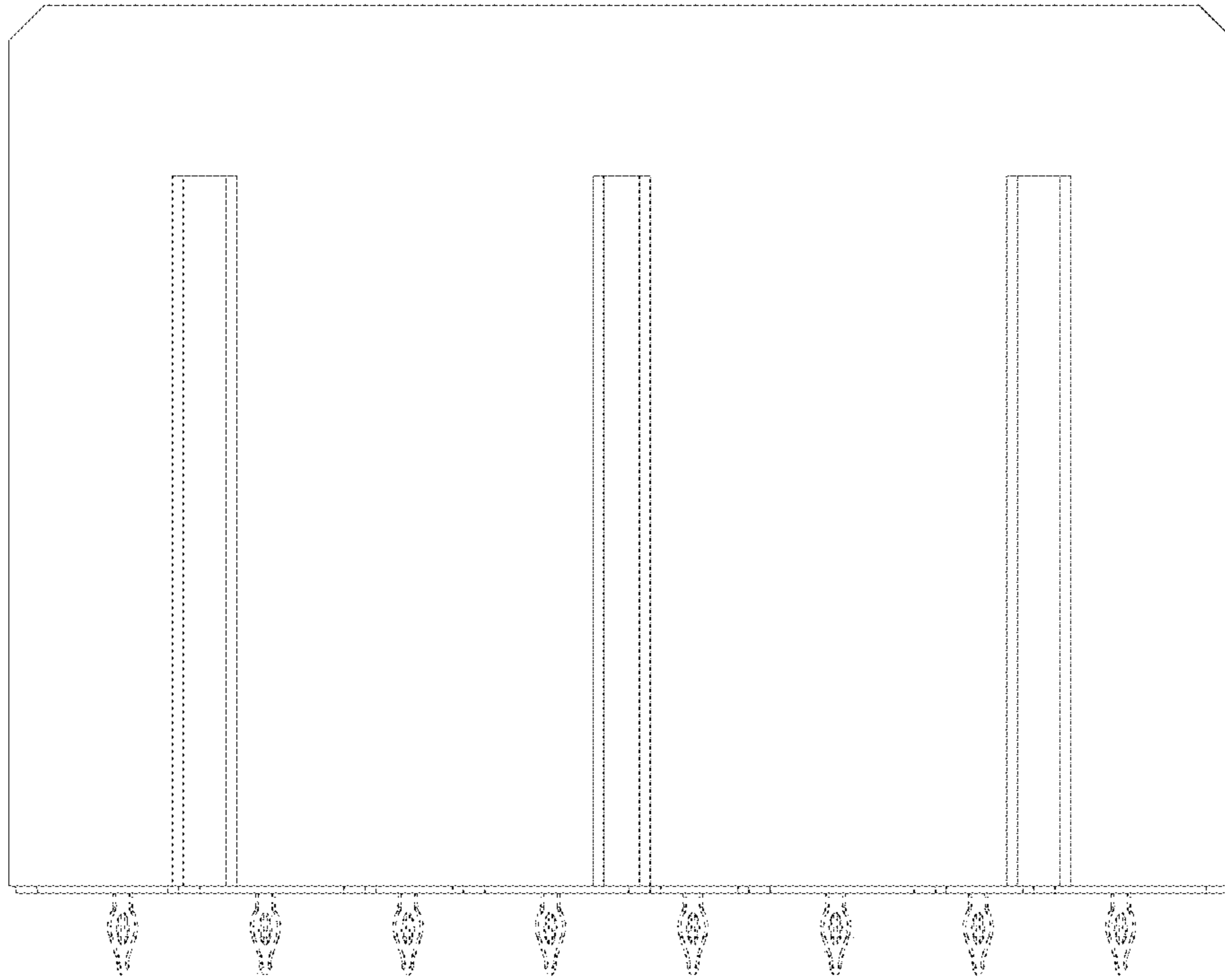


FIG. 7