



US00D984965S

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

(10) **Patent No.:** **US D984,965 S**

(45) **Date of Patent:** **** May 2, 2023**

(54) **ELECTRICAL CONNECTOR**

(71) Applicant: **SUMITOMO WIRING SYSTEMS, LTD.**, Mie-ken (JP)

(72) Inventors: **Yasushi Okayasu**, Yokkaichi (JP);
Takeshi Matsumoto, Yokkaichi (JP);
Shinichiro Morishita, Yokkaichi (JP)

(73) Assignee: **SUMITOMO WIRING SYSTEMS, LTD.**, Mie-Ken (JP)

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

(21) Appl. No.: **29/771,704**

(22) Filed: **Feb. 24, 2021**

(30) **Foreign Application Priority Data**

Aug. 27, 2020 (JP) 2020-018010 D

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

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

(58) **Field of Classification Search**
USPC D13/119, 120, 133-136, 146-147, 148,
D13/154, 162, 199
CPC H01M 50/48; H01M 50/50; H01M 50/20;
H01M 50/209; H01M 50/249; H01M
50/569; H01M 10/425; H01R 13/00;
H01R 13/424; H01R 13/641; H01R
13/743; H01R 13/4223; H01R 13/5202;
H01R 13/6215; H01R 13/6272; H01R
13/6592; H01R 31/065; B60L 50/64
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D310,995 S * 10/1990 Yamamoto D13/147
D311,379 S * 10/1990 Kuzuno D13/147
5,127,848 A * 7/1992 Taguchi H01R 13/6272
D13/133

D377,005 S * 12/1996 Lin D13/134
D528,984 S * 9/2006 Li D13/133
D544,838 S * 6/2007 Ciancanelli D13/134
D599,297 S * 9/2009 Chen D13/147
D751,039 S * 3/2016 Ptok D13/146
D754,075 S * 4/2016 Svelnis D13/146

(Continued)

OTHER PUBLICATIONS

Sumitomo, Date: Jul. 10, 2014, [online], [site visited Mar. 22, 2022]. Available from internet, URL: <https://prd.sws.co.jp/components/en/series.php?s1=2> (Year: 2014).*

Primary Examiner — Shawn T Gingrich

Assistant Examiner — Bryan N. Melvin

(74) *Attorney, Agent, or Firm* — Cantor Colburn LLP

(57) **CLAIM**

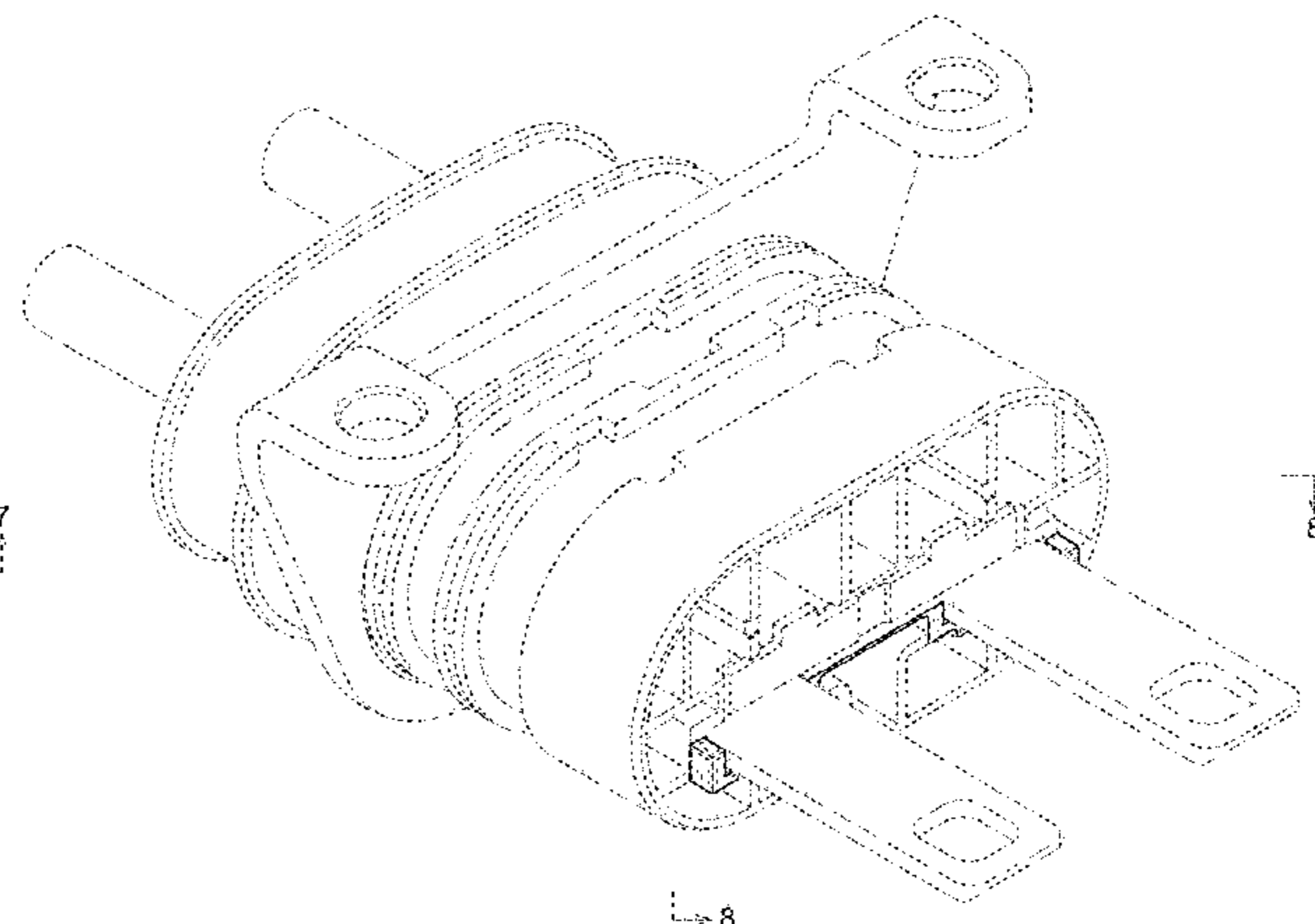
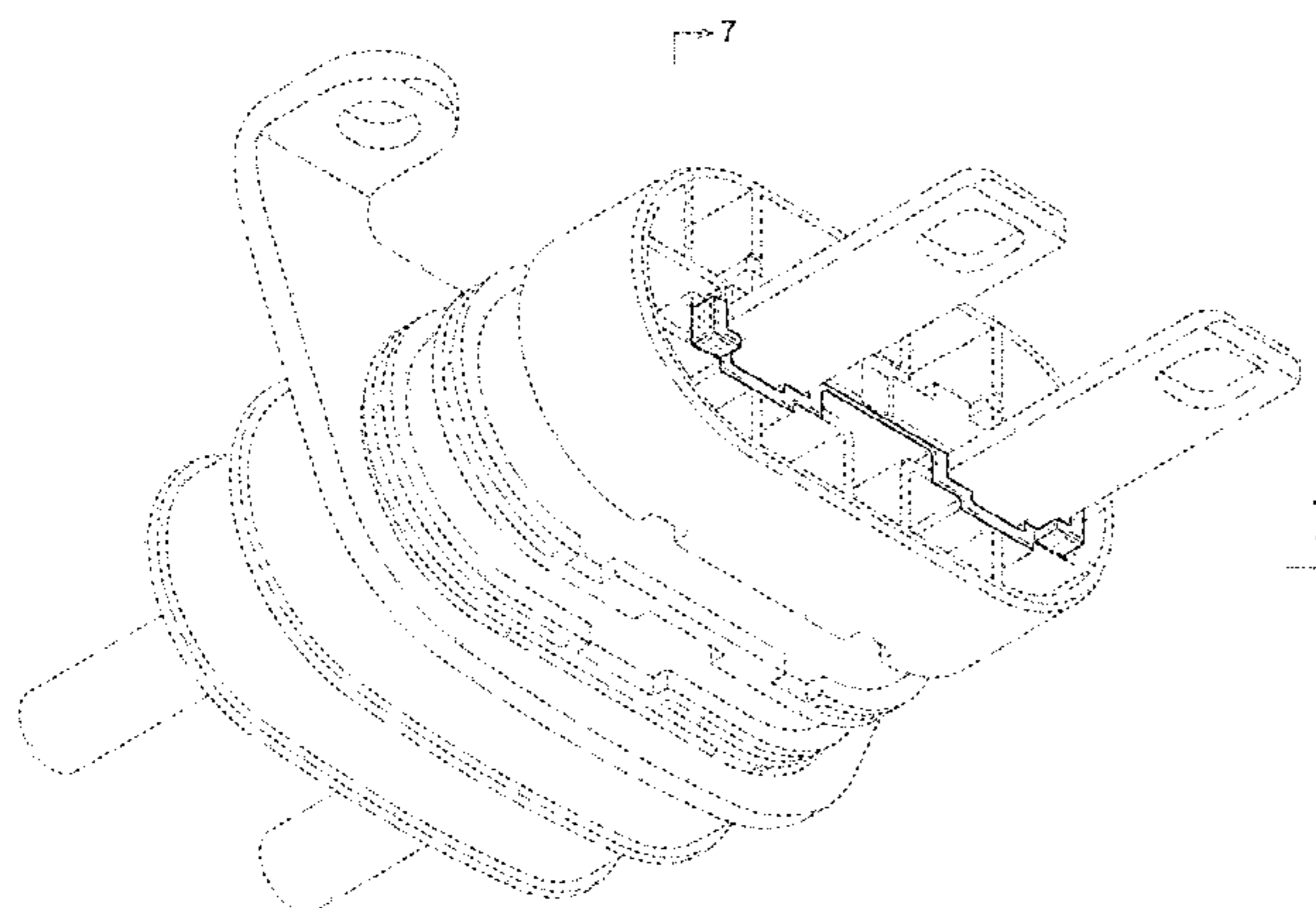
The ornamental design for an electrical connector, as shown and described.

DESCRIPTION

FIG. 1 is a front, bottom and right side perspective view of an electrical connector showing our new design; FIG. 2 is a front, top and right side perspective view thereof; FIG. 3 is a front view thereof; the rear view being a mirror image of FIG. 3; FIG. 4 is a top plan view thereof; FIG. 5 is a bottom plan view thereof; FIG. 6 is an enlarged right side view thereof; FIG. 7 is an enlarged view of a portion of FIG. 1 defined by line 7-7; and, FIG. 8 is an enlarged view of a portion of FIG. 2 defined by line 8-8.

The broken lines illustrate portions of the electrical connector that form no part of the claimed design. The dash-dotted lines denote the boundary of the claim and form no part of the claimed design.

1 Claim, 8 Drawing Sheets



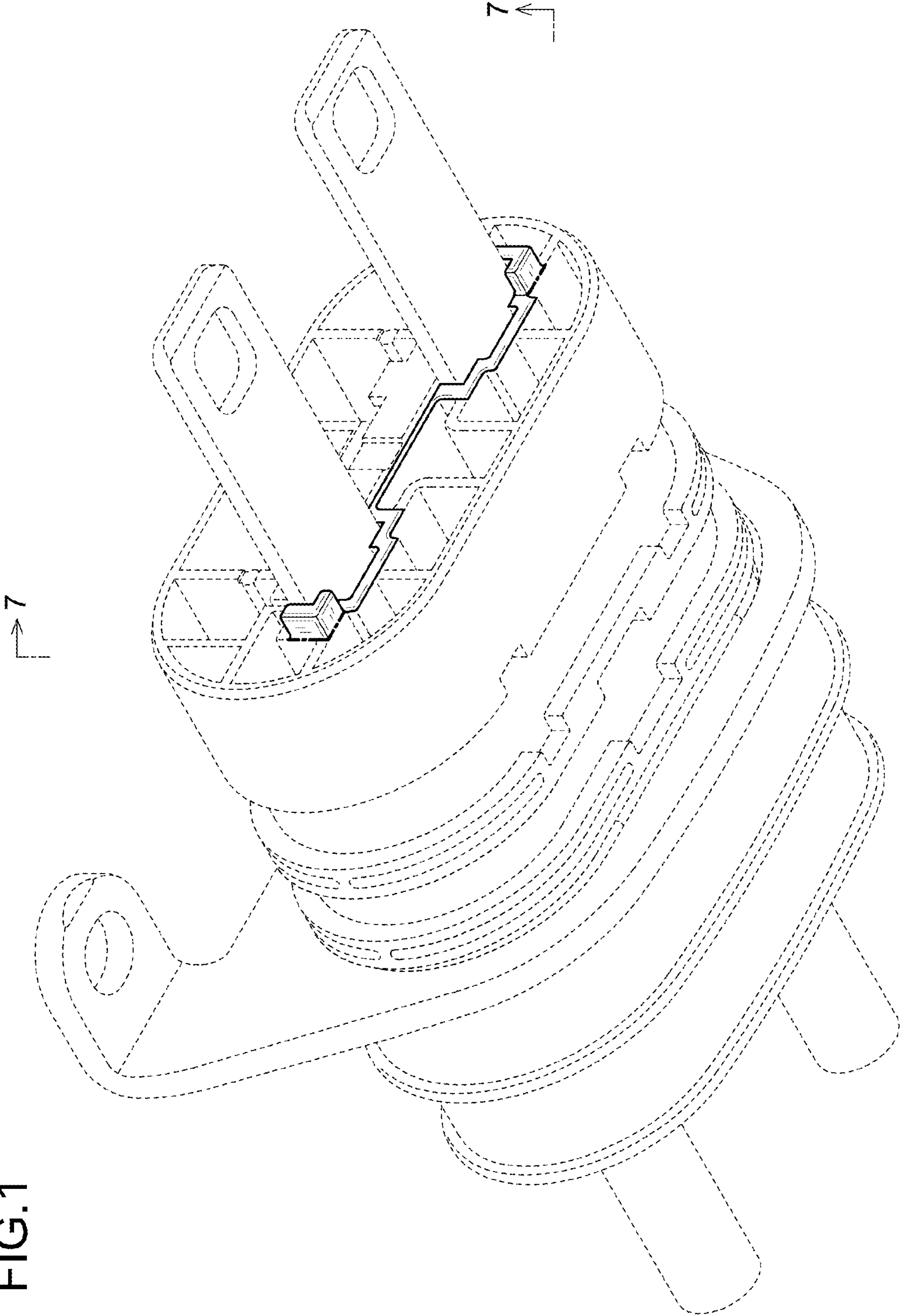
(56)

References Cited

U.S. PATENT DOCUMENTS

D765,030 S * 8/2016 Tyler D13/119
10,249,916 B2 * 4/2019 Tyler H01M 50/50
2013/0059466 A1 * 3/2013 Ishibashi H01R 13/6592
439/533
2014/0370737 A1 * 12/2014 Okayasu H01R 13/4223
439/357

* cited by examiner



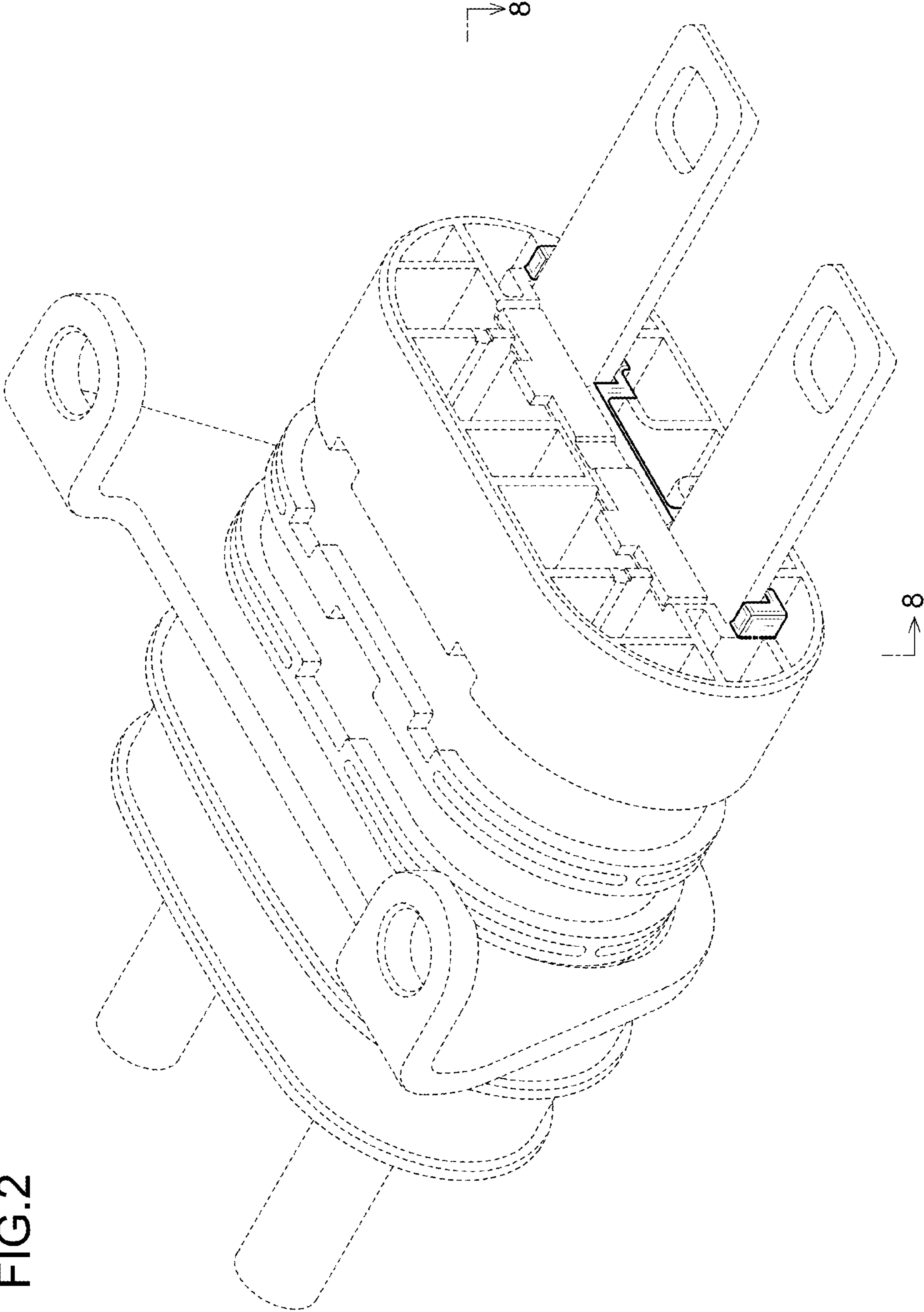


FIG. 2

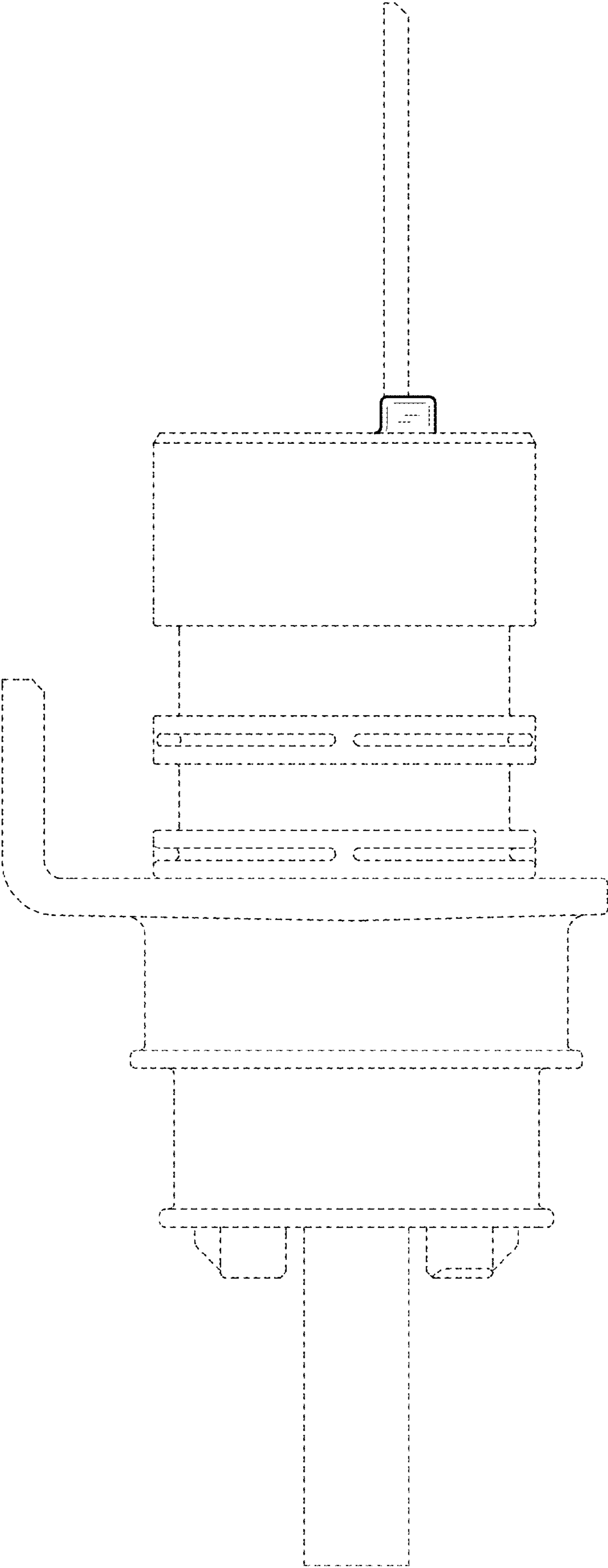


FIG.3

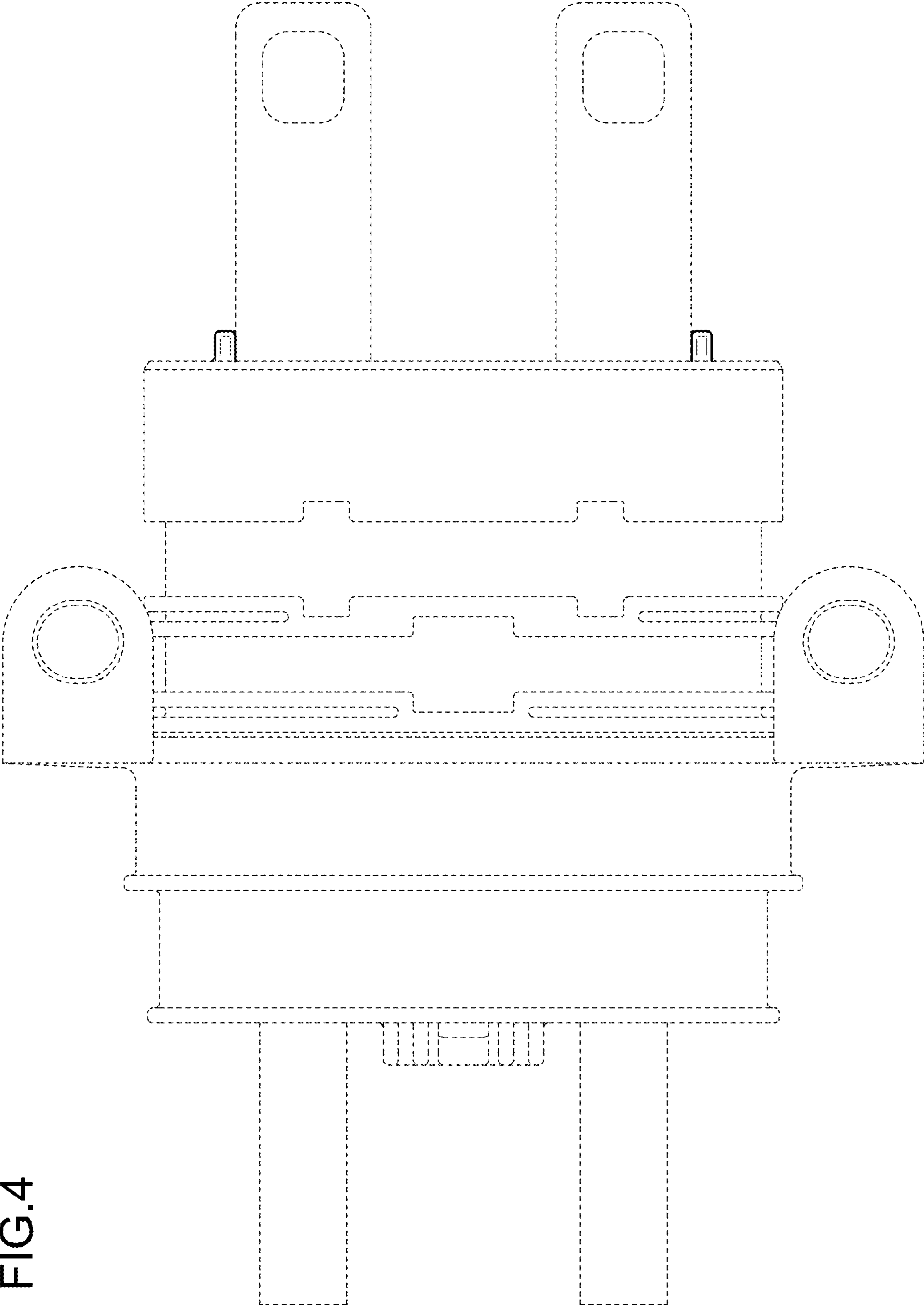


FIG. 4

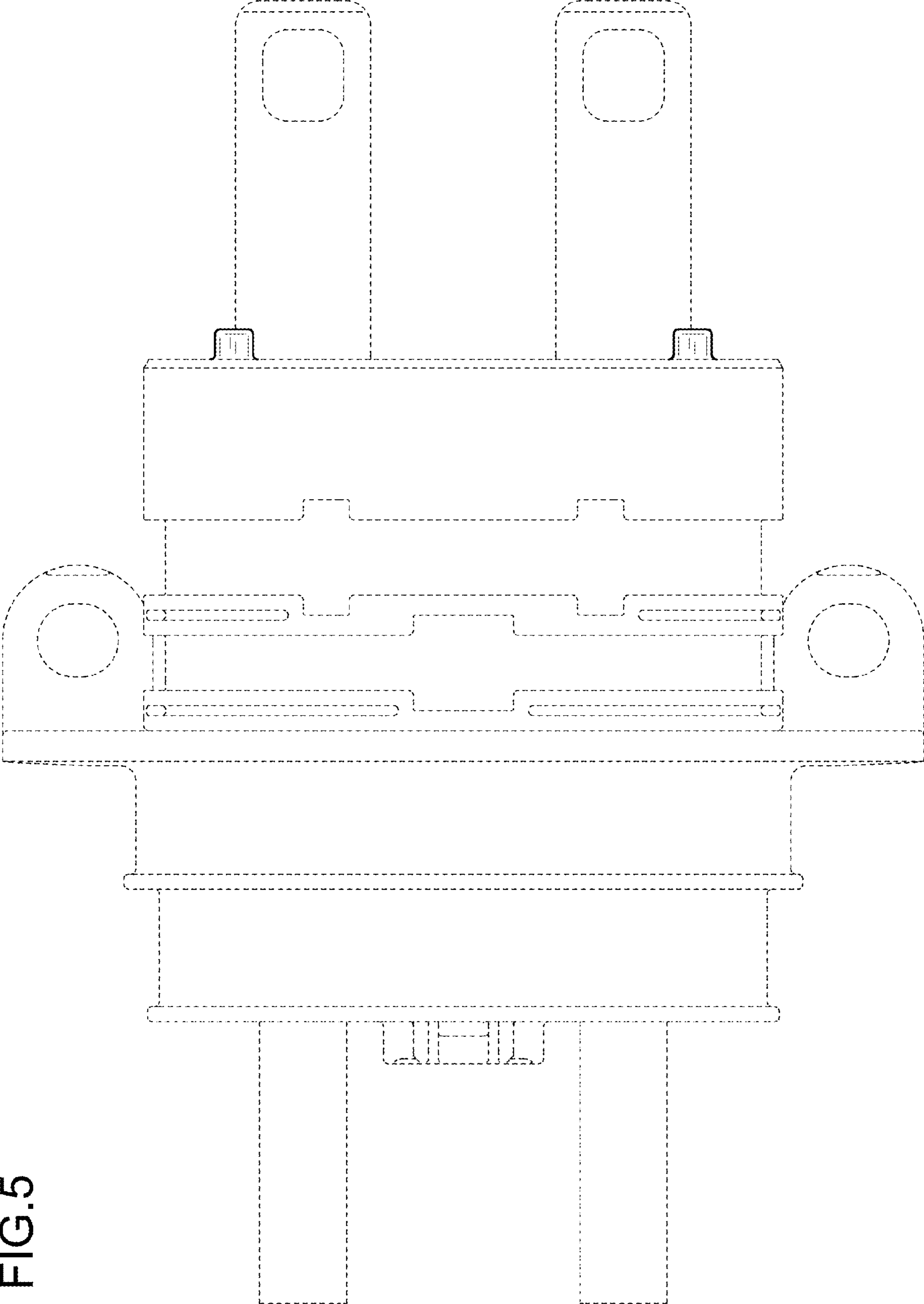


FIG. 5

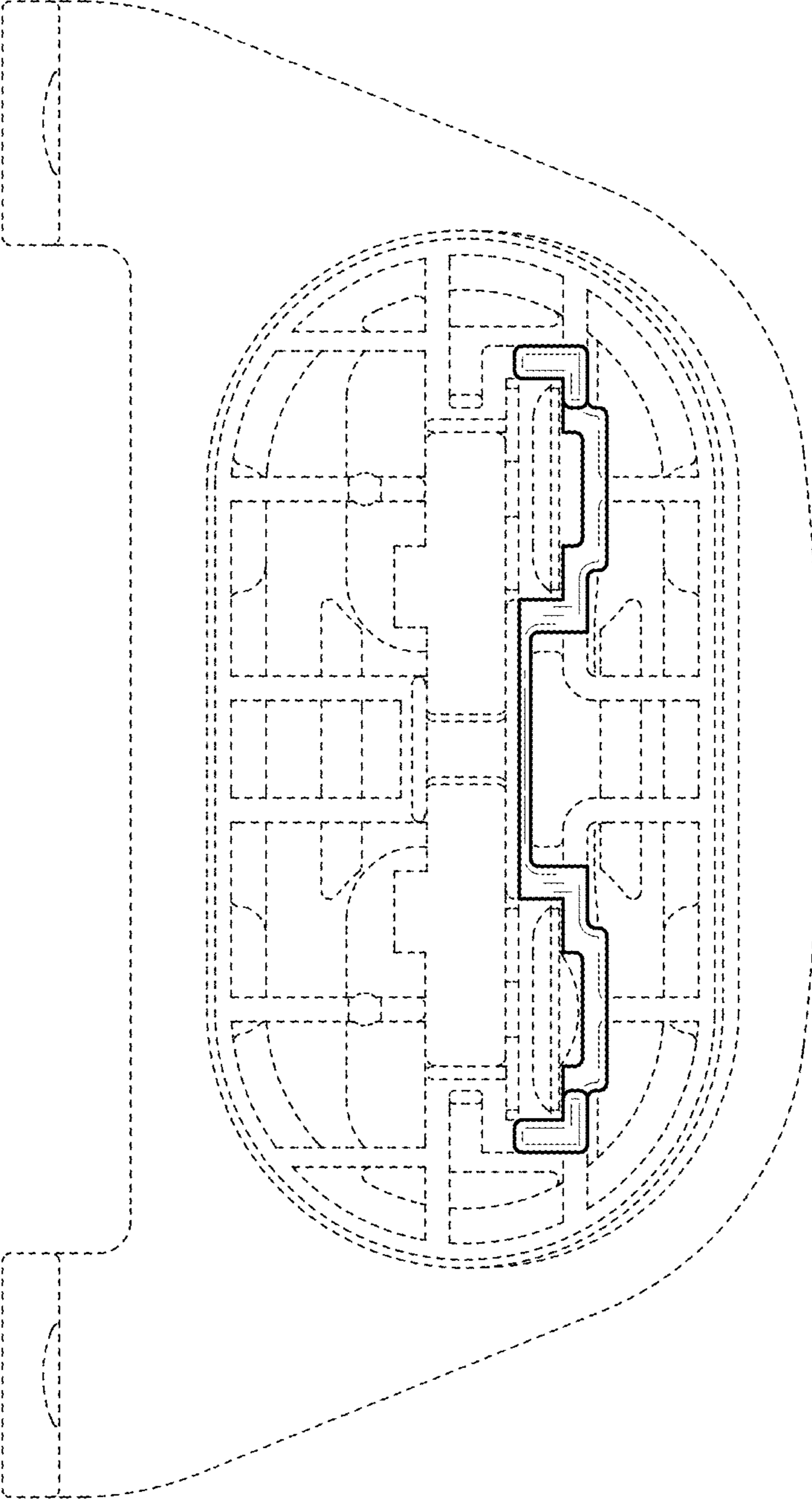


FIG.6

FIG.7

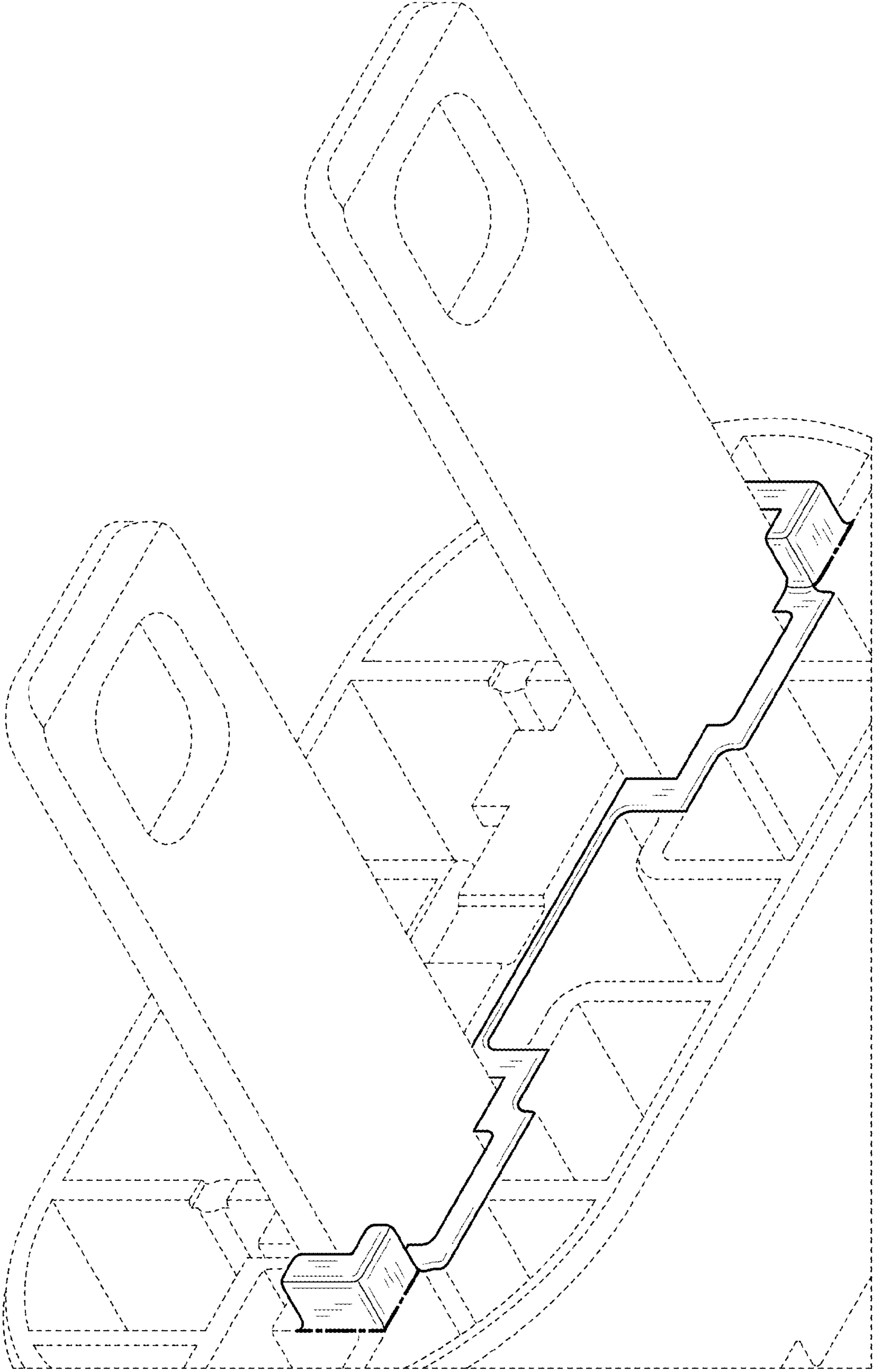


FIG.8

