



US00D851600S

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

(10) **Patent No.:** **US D851,600 S**
(45) **Date of Patent:** **** Jun. 18, 2019**

- (54) **ELECTRIC CONNECTOR**
- (71) Applicant: **KYOCERA Corporation**, Kyoto-shi, Kyoto (JP)
- (72) Inventors: **Tetsuya Hata**, Yokohama (JP); **Shigeki Ohara**, Isehara (JP)
- (73) Assignee: **KYOCERA Corporation**, Kyoto-shi, Kyoto (JP)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/609,843**
- (22) Filed: **Jul. 6, 2017**

- (30) **Foreign Application Priority Data**
 - Jan. 13, 2017 (JP) 2017-000435
 - Jan. 13, 2017 (JP) 2017-000436
- (51) **LOC (11) Cl.** **13-03**
- (52) **U.S. Cl.**
USPC **D13/149**
- (58) **Field of Classification Search**
USPC D13/118–120, 122, 123, 133, 145–149, D13/151, 153, 154–157, 173, 184, 199
CPC . F16J 15/24; H01R 4/24; H01R 13/52; H01R 13/56; H01R 31/02; H01R 31/06; H01R 35/02; H01R 4/50; H01R 13/46; H02G 15/113; H02G 15/18
See application file for complete search history.

- (56) **References Cited**
U.S. PATENT DOCUMENTS
 - 5,562,478 A * 10/1996 Yamamoto H01R 4/2433 439/402
 - 5,690,505 A * 11/1997 Hirata H01R 4/2433 439/402
 - 5,759,065 A * 6/1998 Hatagishi H01R 4/2433 439/404

- 5,762,517 A * 6/1998 Abe H01R 4/2433 439/402
 - 6,111,201 A * 8/2000 Drane H02G 15/18 174/92
 - D465,843 S * 11/2002 Guala D24/129
- (Continued)

FOREIGN PATENT DOCUMENTS

- JP H08306428 A 11/1996
 - JP H11204192 A 7/1999
- (Continued)

OTHER PUBLICATIONS

mmm.co.jp, Retrieved on Jun. 28, 2017, from URL: http://www.mmm.co.jp/electro/connector/u_element/index.html.

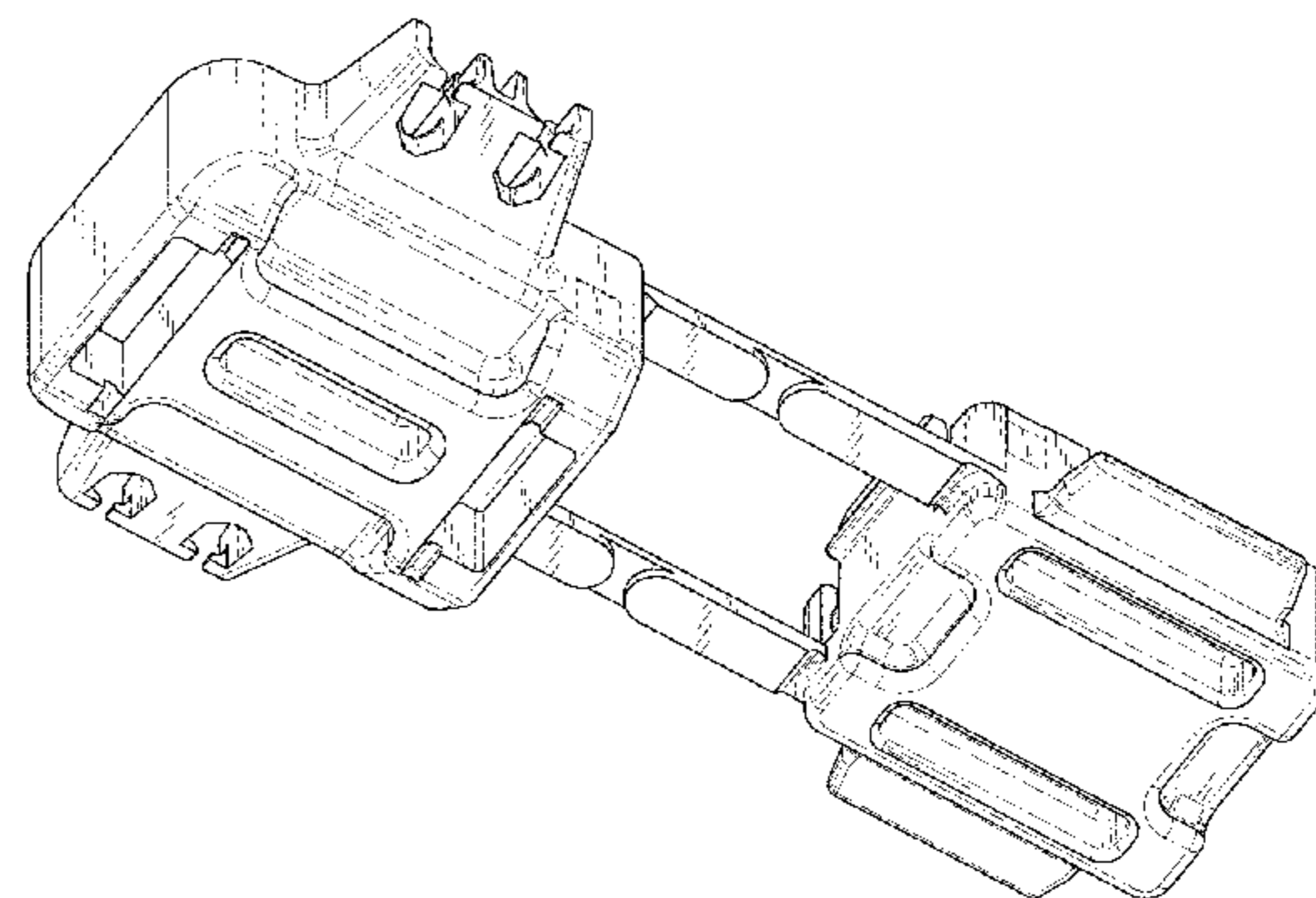
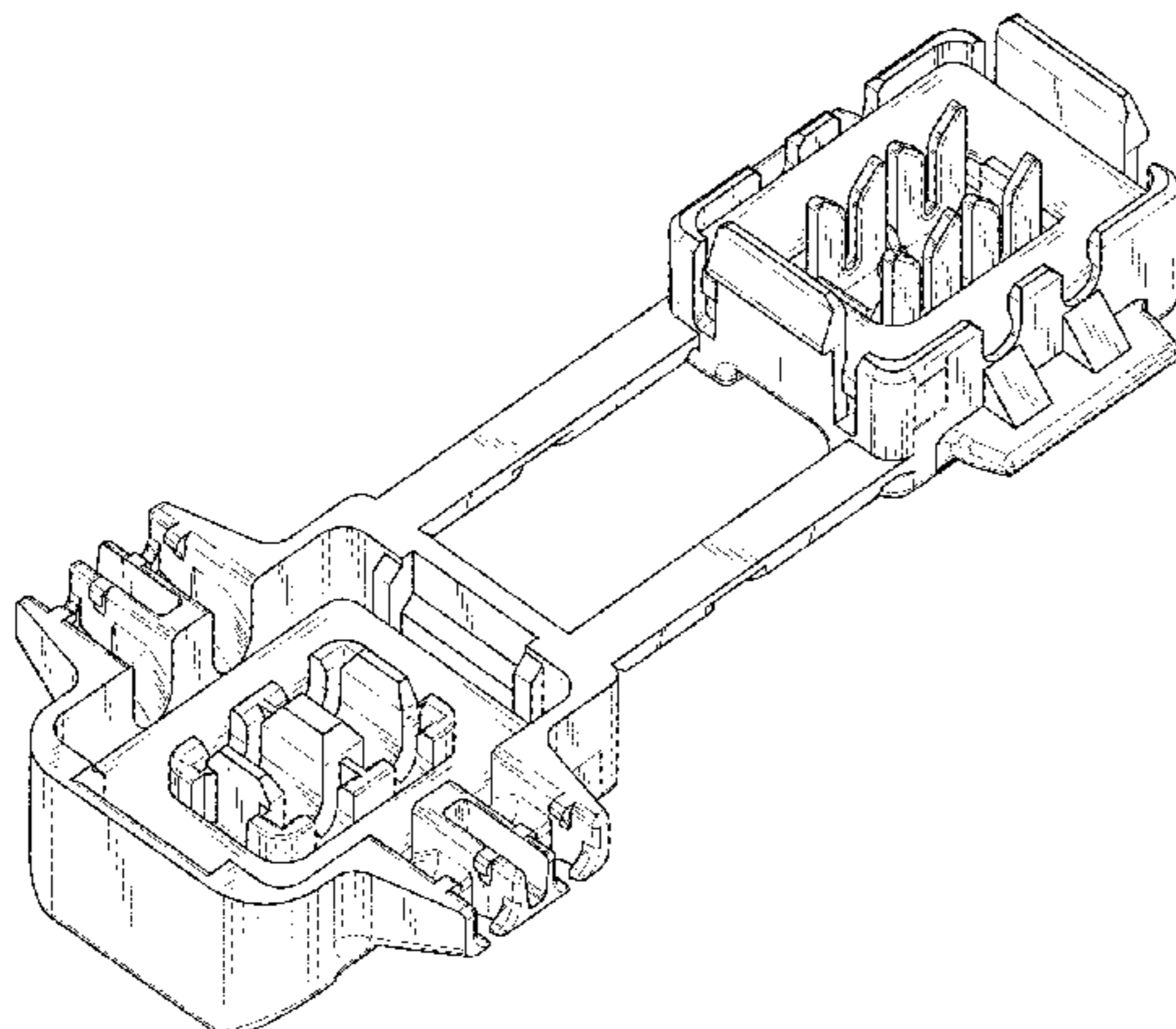
Primary Examiner — Angela J Lee
Assistant Examiner — Shawn T Gingrich
(74) *Attorney, Agent, or Firm* — Kenja IP Law PC

- (57) **CLAIM**
The ornamental design for an electric connector, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of an electric connector showing our new design;
 FIG. 2 is a rear perspective view thereof;
 FIG. 3 is a front view thereof;
 FIG. 4 is a top view thereof;
 FIG. 5 is a right side view thereof;
 FIG. 6 is a left side view thereof;
 FIG. 7 is a rear view thereof;
 FIG. 8 is a bottom view thereof;
 FIG. 9 is a section view taken along line 9-9 in FIG. 4; and,
 FIG. 10 is a bottom view thereof in a folded state in an environment of use.
 The wires shown in broken lines in FIG. 10 represent environment and form no part of the claimed design.

1 Claim, 10 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

6,769,931 B2 * 8/2004 Negishi H01R 4/2433
439/402
D592,151 S * 5/2009 Marks D13/156
D616,058 S * 5/2010 Kruger D22/112
D797,055 S * 9/2017 Mallette D13/149
D828,815 S * 9/2018 Hata D13/149
D841,596 S * 2/2019 Hata D13/149
2010/0029147 A1 * 2/2010 Shrum H01R 4/5091
439/863

FOREIGN PATENT DOCUMENTS

JP 3028988 B2 4/2000
JP 2605275 Y2 7/2000
JP 2014116097 A 6/2014
JP 2016189329 A * 11/2016
JP 2017117703 A * 6/2017 H01R 4/00

* cited by examiner

FIG. 1

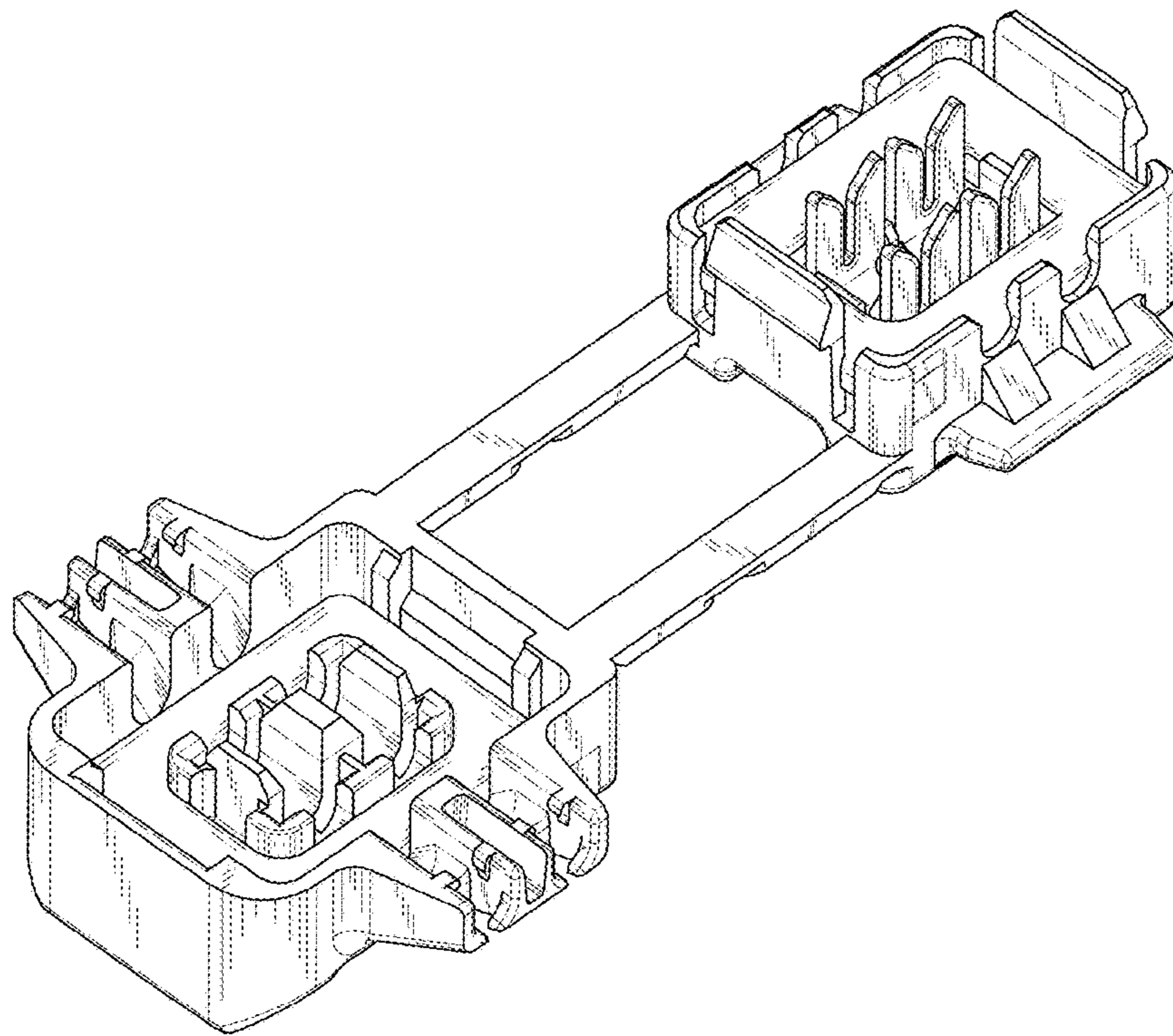


FIG. 2

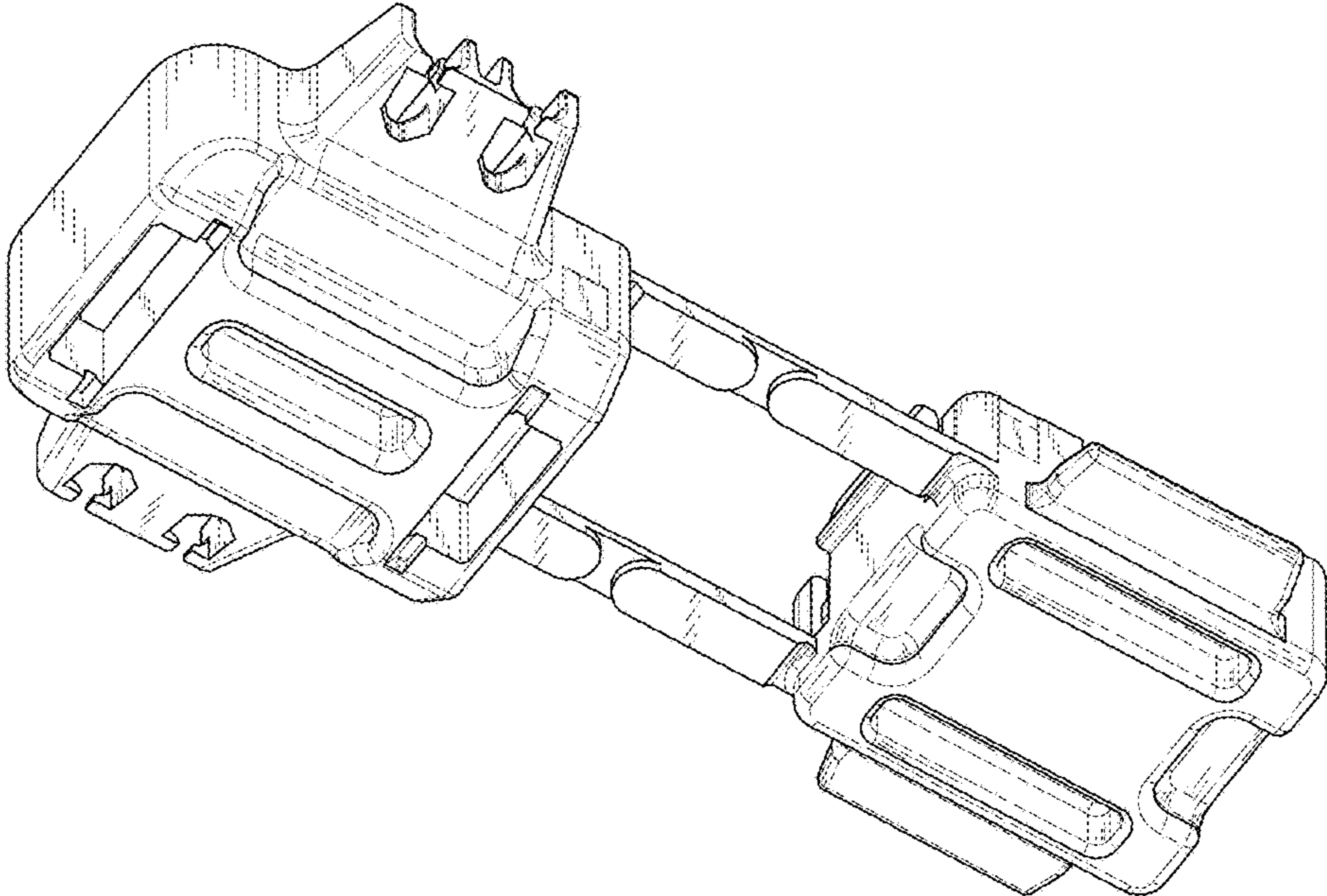


FIG. 3

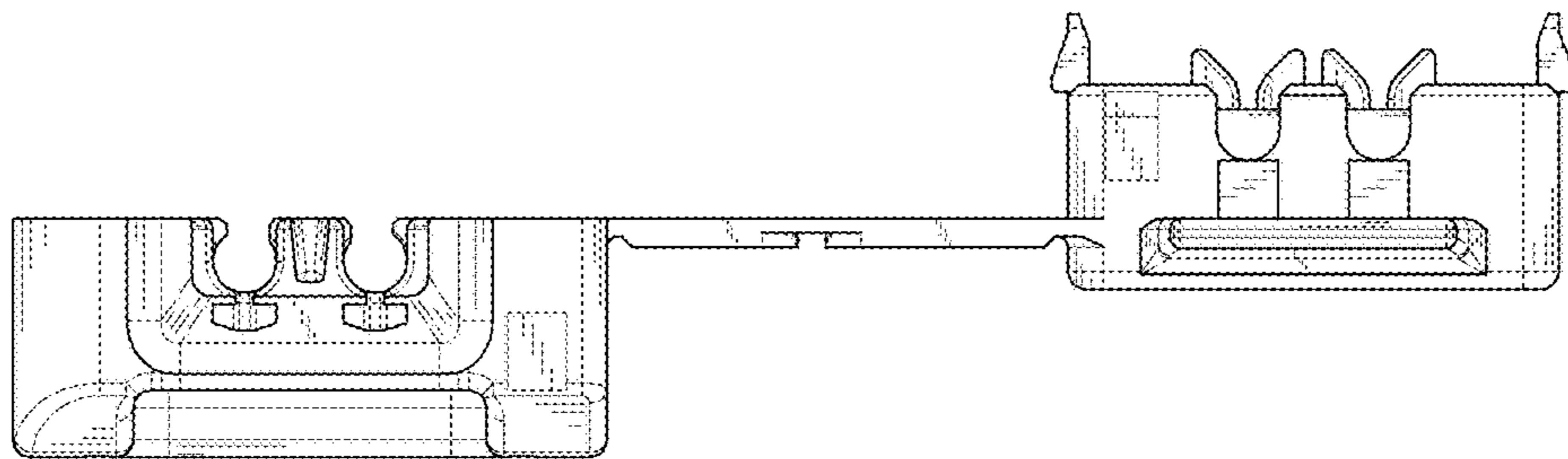


FIG. 4

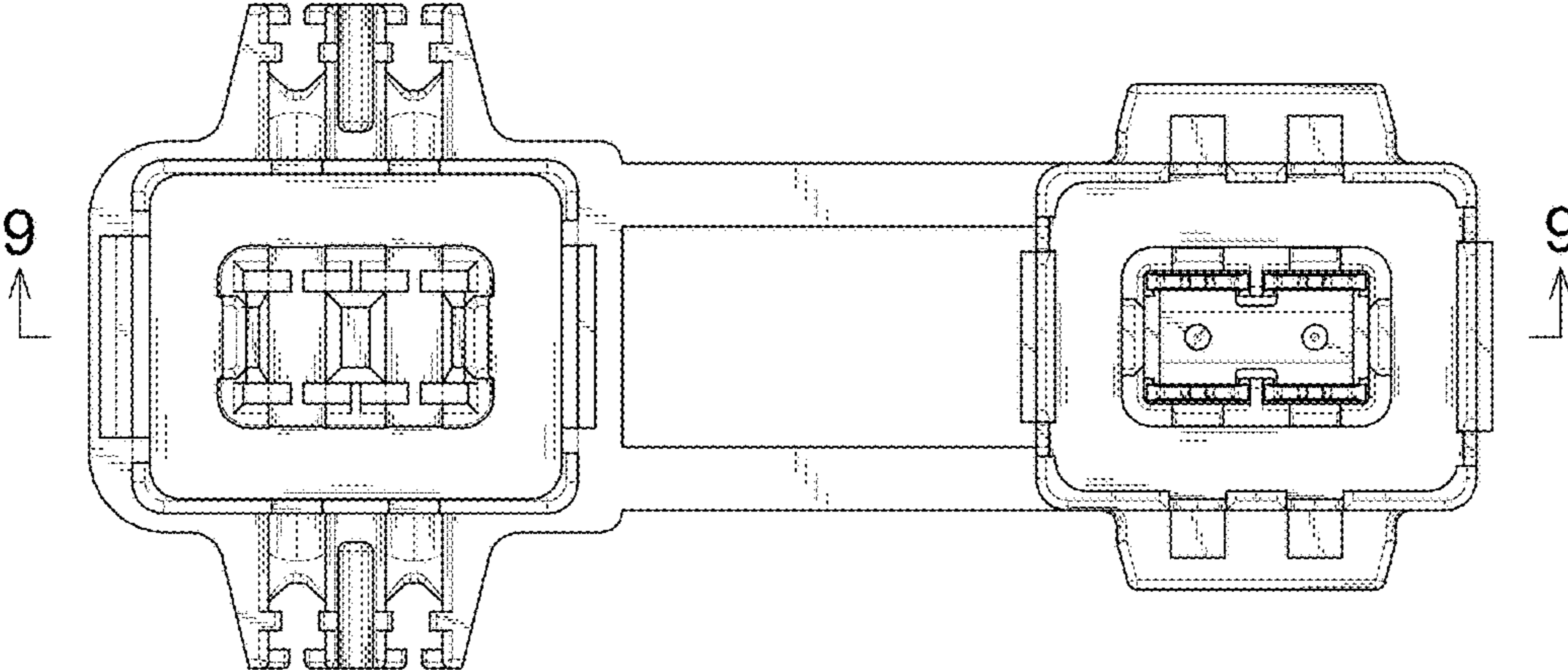


FIG. 5

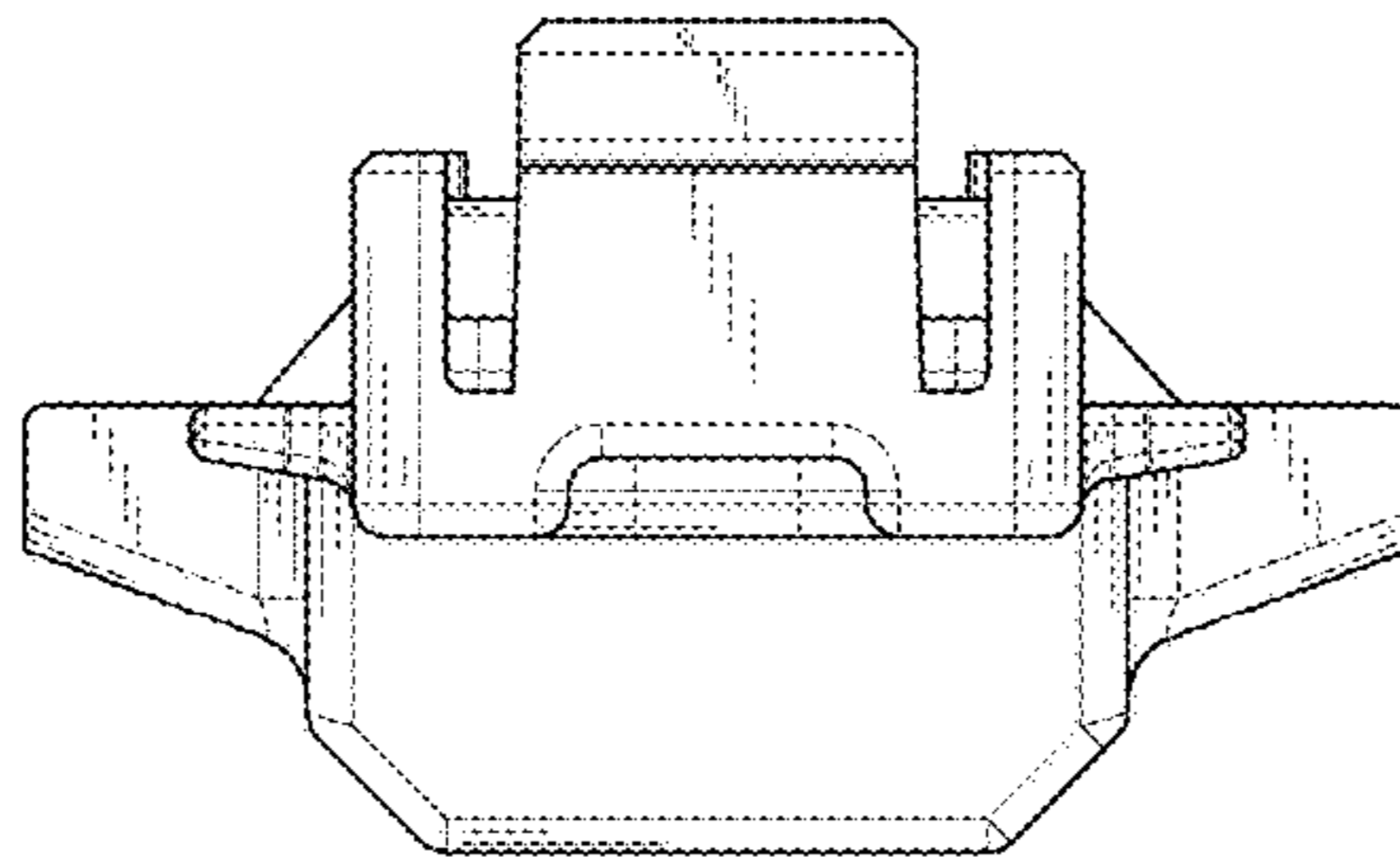


FIG. 6

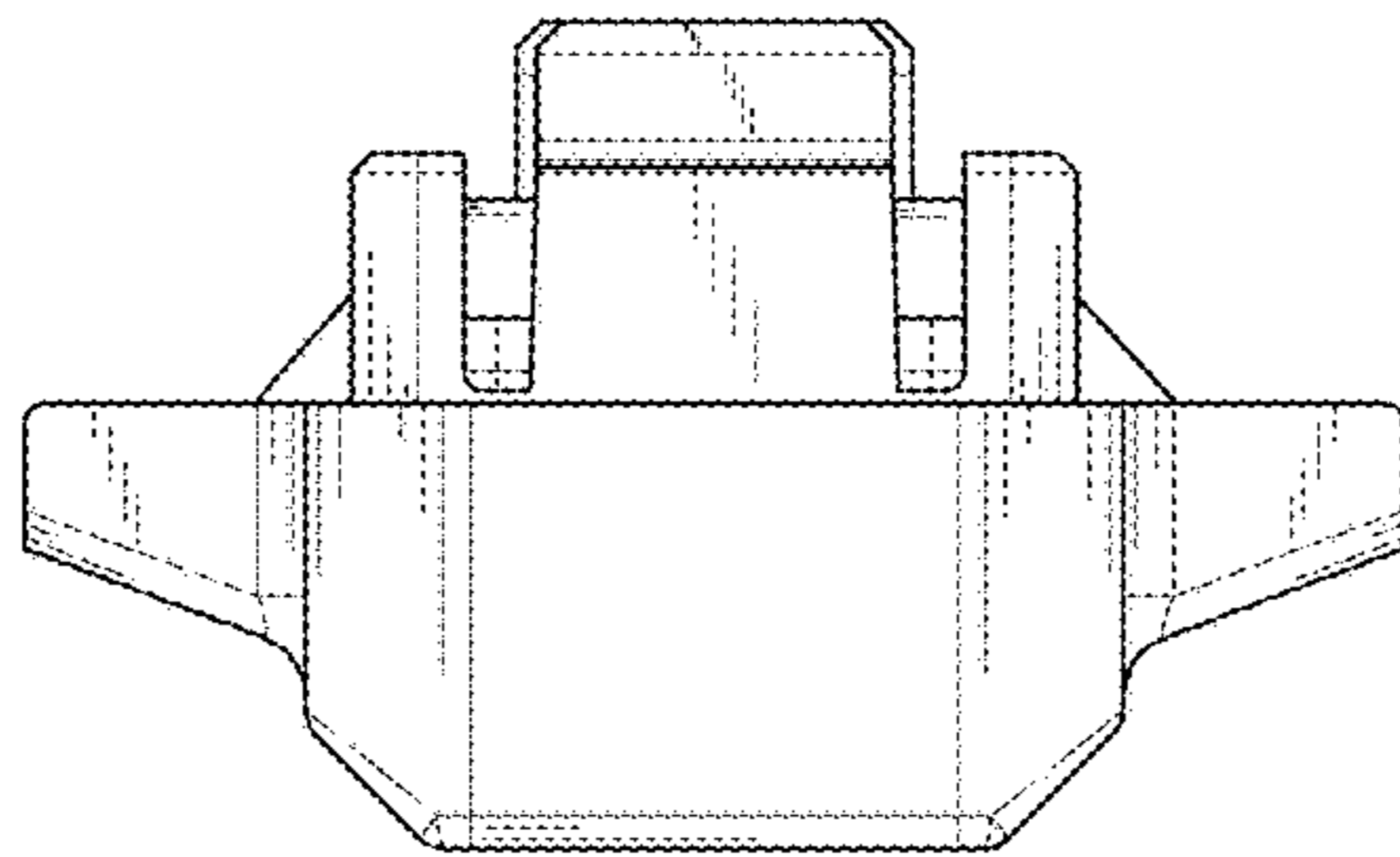


FIG. 7

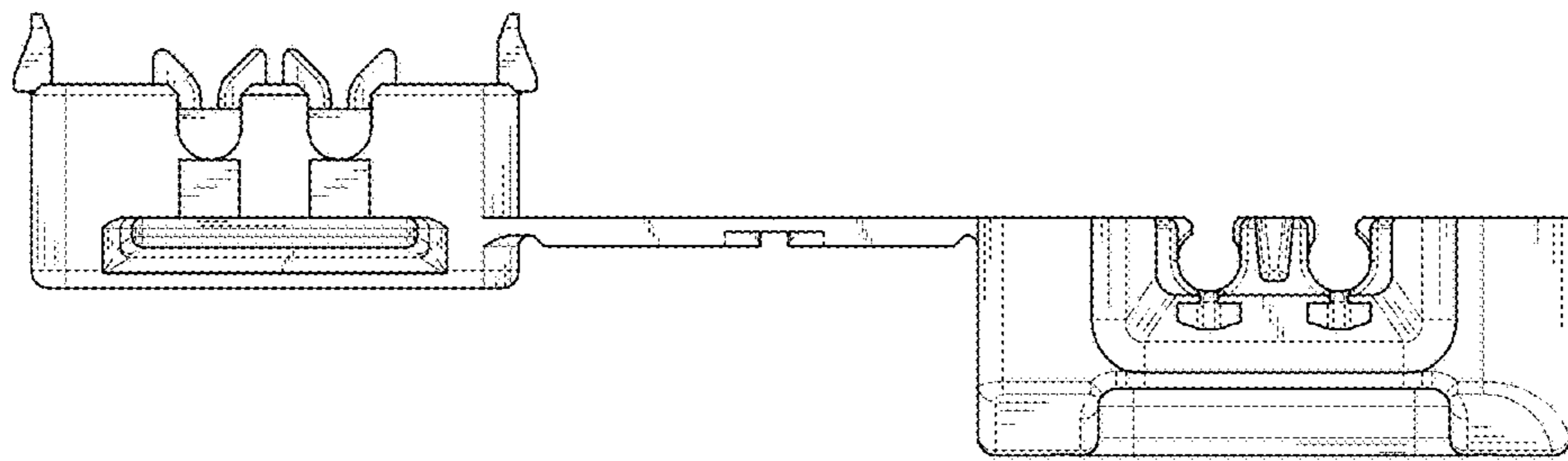


FIG. 8

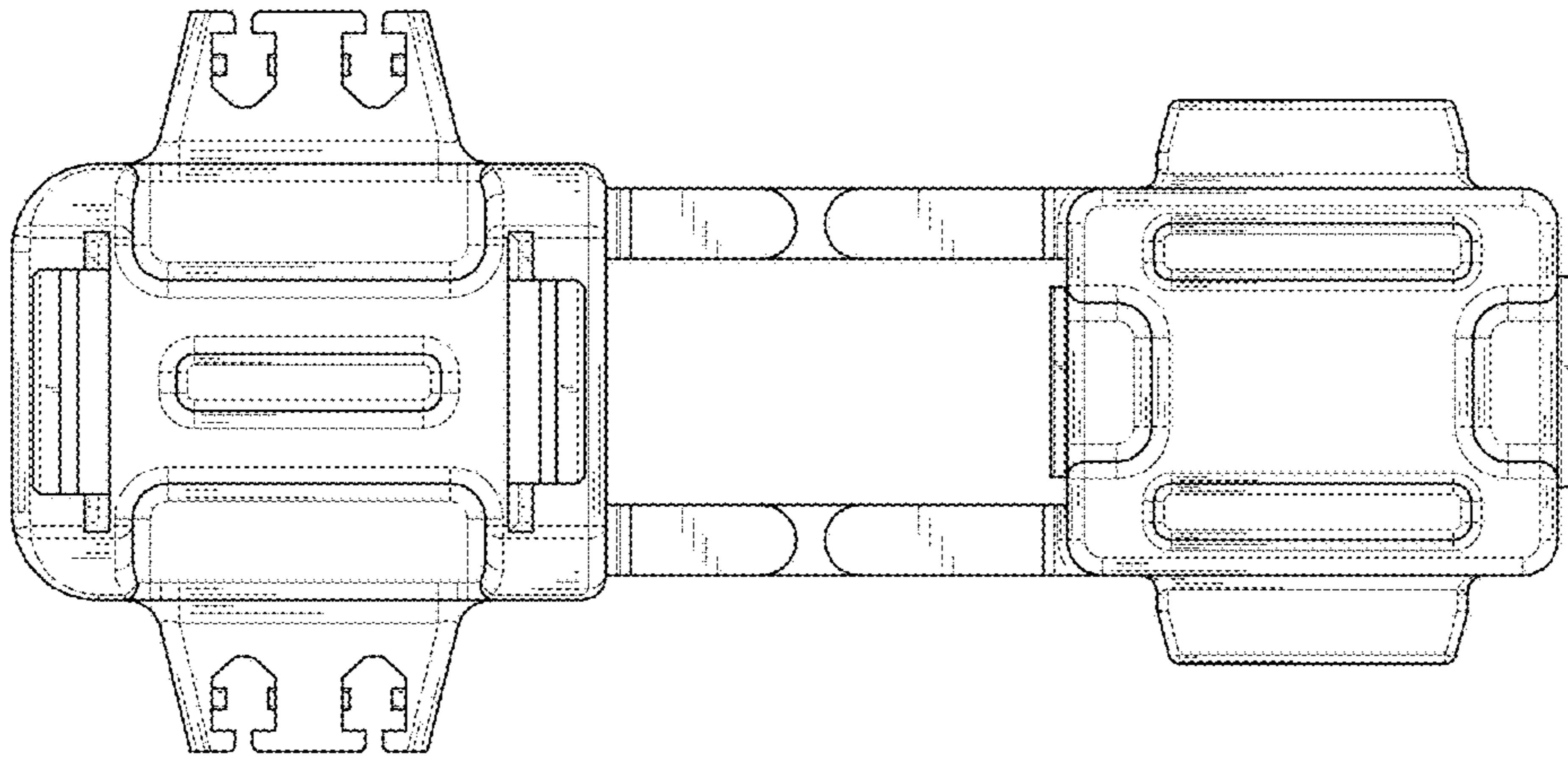


FIG. 9

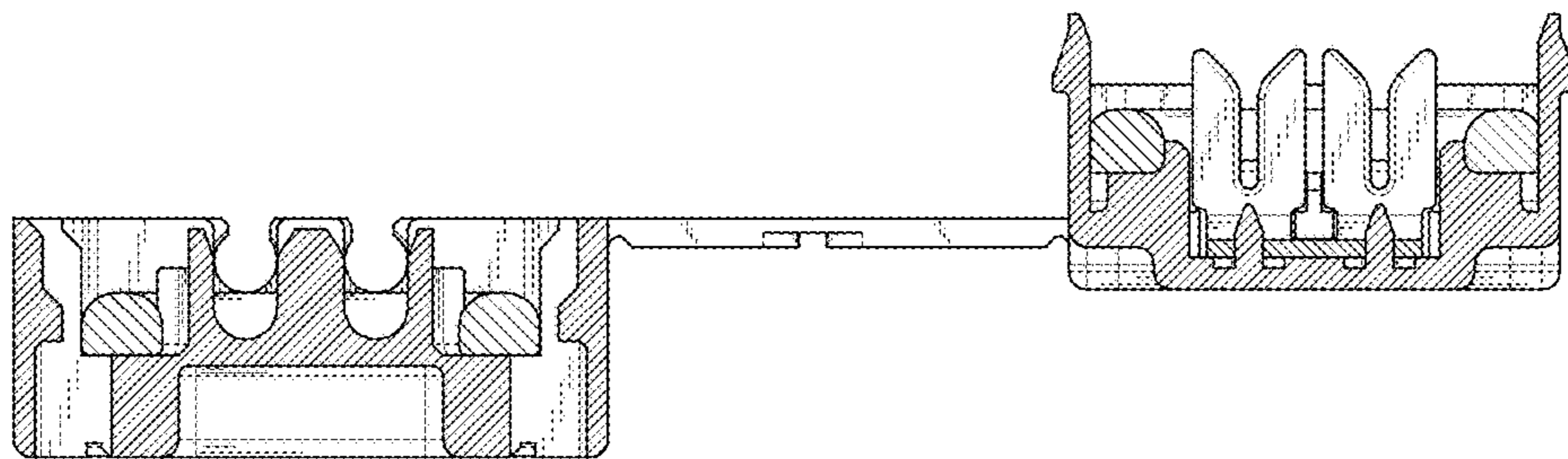


FIG. 10

