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

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(54) **ELECTRICAL CONNECTOR**

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

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(51) **LOC (12) Cl.** **13-03**

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

(58) **Field of Classification Search**
USPC D13/101, 118, 123, 133, 145-147, 149,
D13/154, 184, 199
CPC H01R 4/26; H01R 13/40; H01R 13/42;
H01R 13/422; H01R 13/43; H01R
13/436; H01R 13/52; H01R 13/58; H01R
13/62; H01R 13/627; H01R 13/629;
H01R 13/639

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D317,899 S *	7/1991	Takenouchi	.....	D13/133
5,628,648 A *	5/1997	Higgins, Jr.	.....	H01R 13/6272 439/489
D412,312 S *	7/1999	Myers	.....	D13/146
D739,823 S *	9/2015	Endo	.....	D13/146
D744,954 S *	12/2015	Ishiguro	.....	D13/147
D747,634 S *	1/2016	Katagiyama	.....	D8/14
D852,137 S *	6/2019	Sasaki	.....	D13/133

(Continued)

OTHER PUBLICATIONS

Deutsch DTP 2-Pin Connector Kit with 12-14 Gauge Solid Contacts, dated Feb. 18, 2015, [online], [site visited May 24, 2019]. Available from Internet, URL: <https://www.amazon.com/Deutsch-2-Pin-Connector-12-14-Contacts/dp/B0192YAKEA> (Year: 2015).*

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(57) **CLAIM**

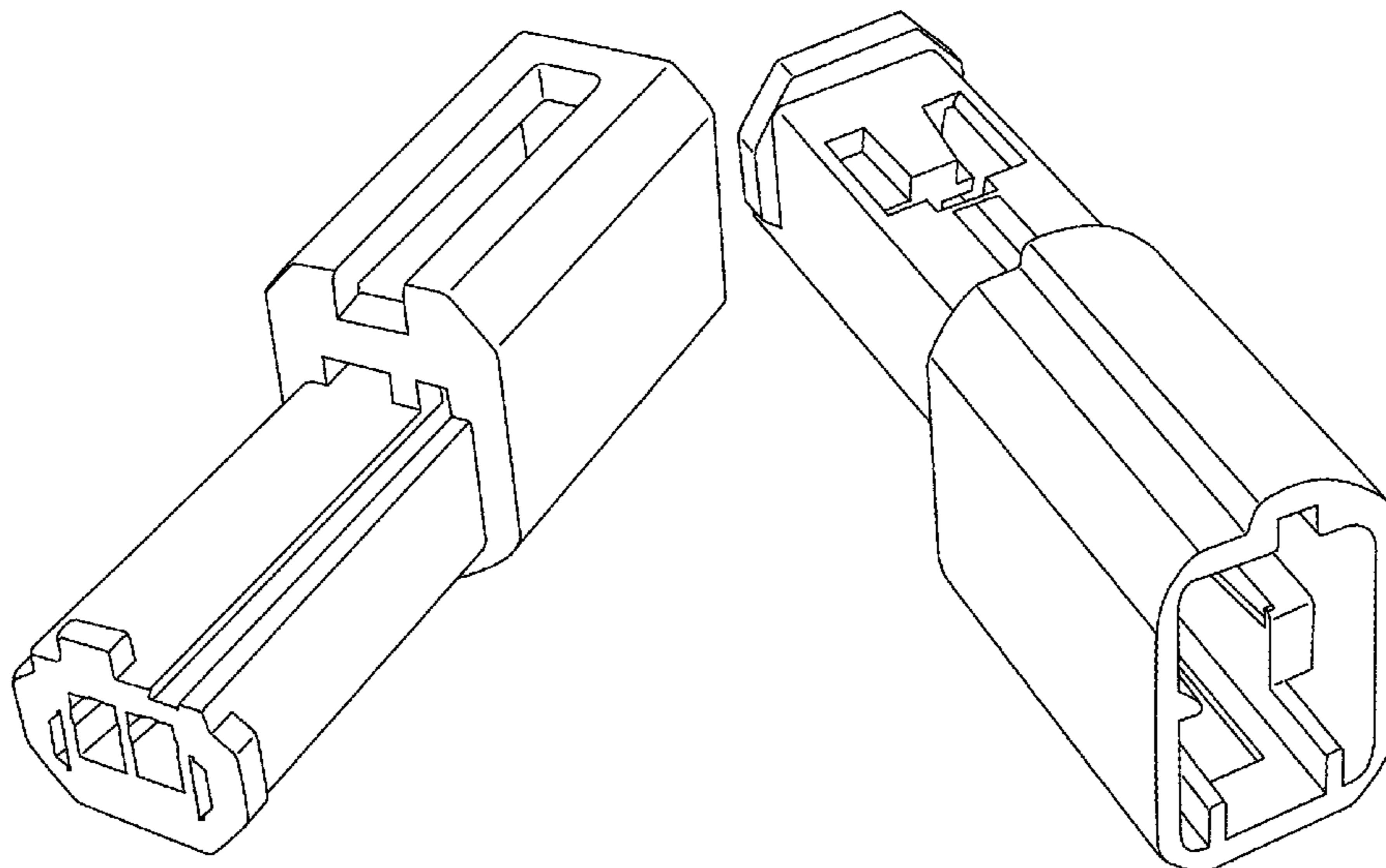
The ornamental design for electrical connector, as shown and described.

DESCRIPTION

FIG. 1 is a top and front perspective view of an electrical connector according to the claimed design;
FIG. 2 is a top and back perspective view of the electrical connector according to the claimed design;
FIG. 3 is a bottom and front perspective view of the electrical connector according to the claimed design;
FIG. 4 is a bottom and back perspective view of the electrical connector according to the claimed design;
FIG. 5 is a front elevational view of the electrical connector according to the claimed design;
FIG. 6 is a back elevational view of the electrical connector according to the claimed design;
FIG. 7 is a left side elevational view of the electrical connector according to the claimed design;
FIG. 8 is a right side elevational view of the electrical connector according to the claimed design;
FIG. 9 is a top plan view of the electrical connector according to the claimed design; and,
FIG. 10 is a bottom plan view of the electrical connector according to the claimed design.

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

1 Claim, 9 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D854,500 S * 7/2019 Asano D13/133
D854,501 S * 7/2019 Asano D13/133
2002/0186932 A1* 12/2002 Barnes G02B 6/3846
385/78
2009/0011637 A1* 1/2009 Kim H01R 9/20
439/578
2014/0242832 A1* 8/2014 Sakakura H01R 13/5227
439/374
2017/0250498 A1* 8/2017 Hodge H01R 13/5208
2017/0357050 A1* 12/2017 Koreeda G02B 6/38
2018/0351290 A1* 12/2018 Shi H01R 13/42
2019/0115688 A1* 4/2019 Oishi H01R 13/631

* cited by examiner

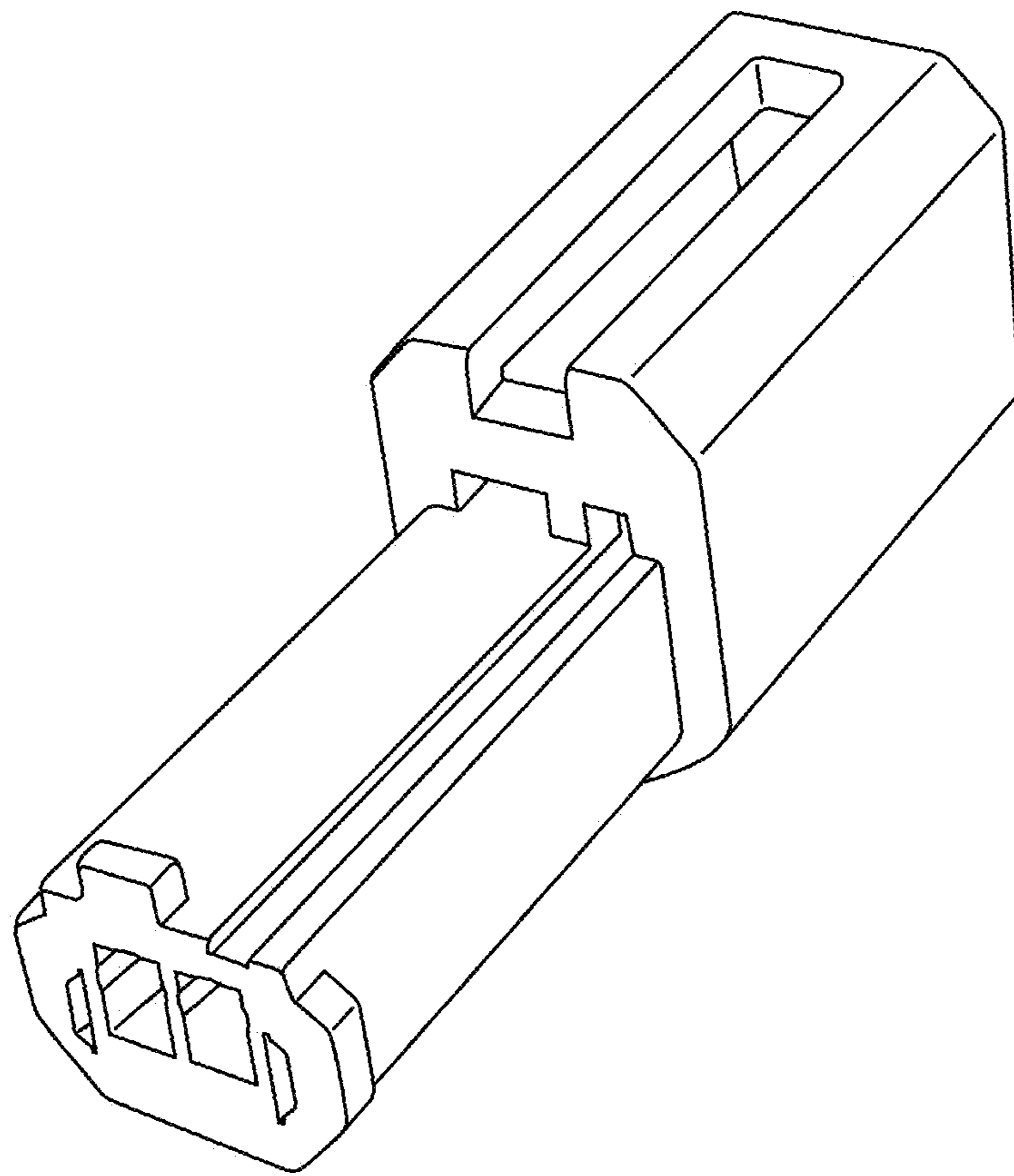


FIG. 1

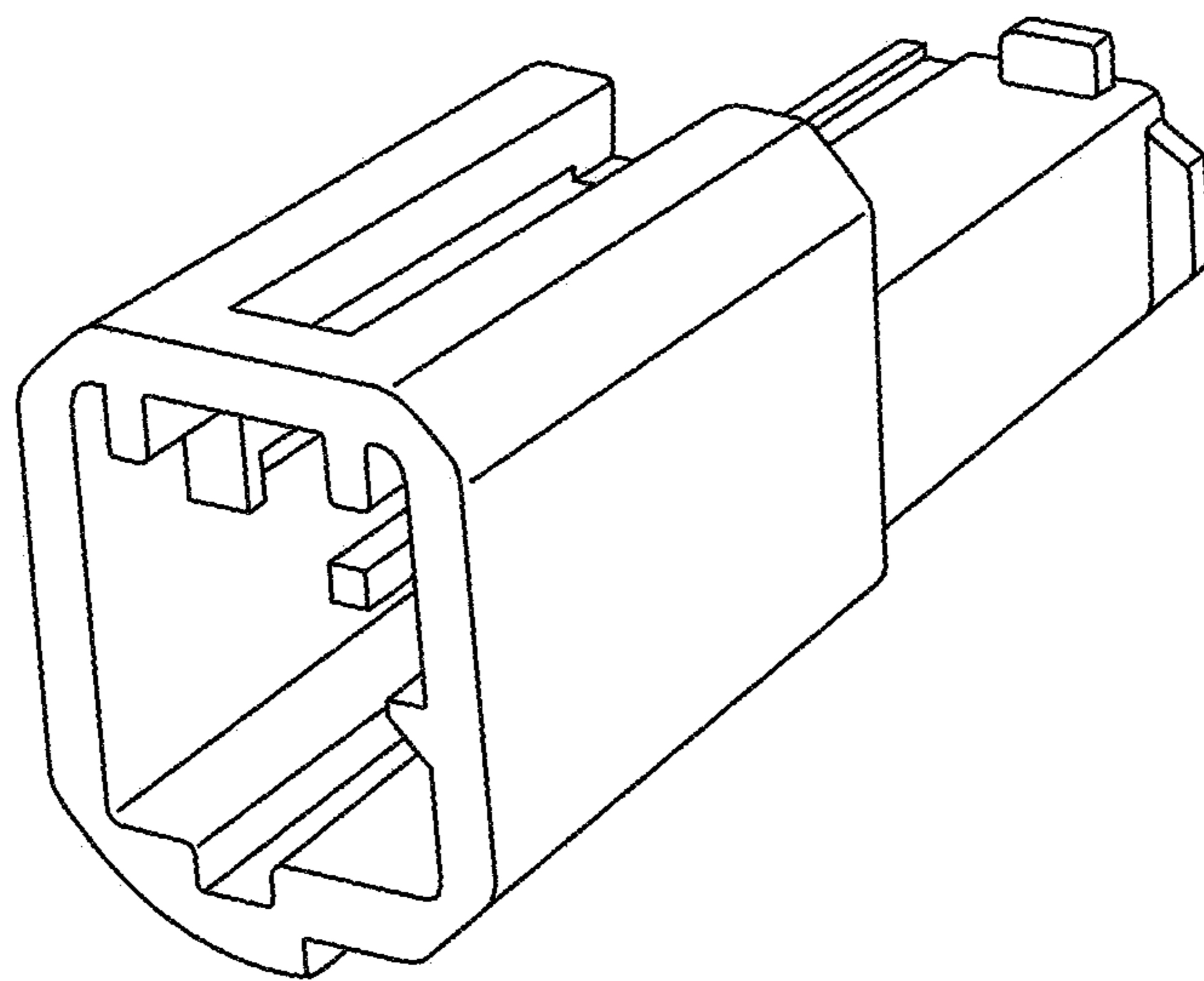


FIG. 2

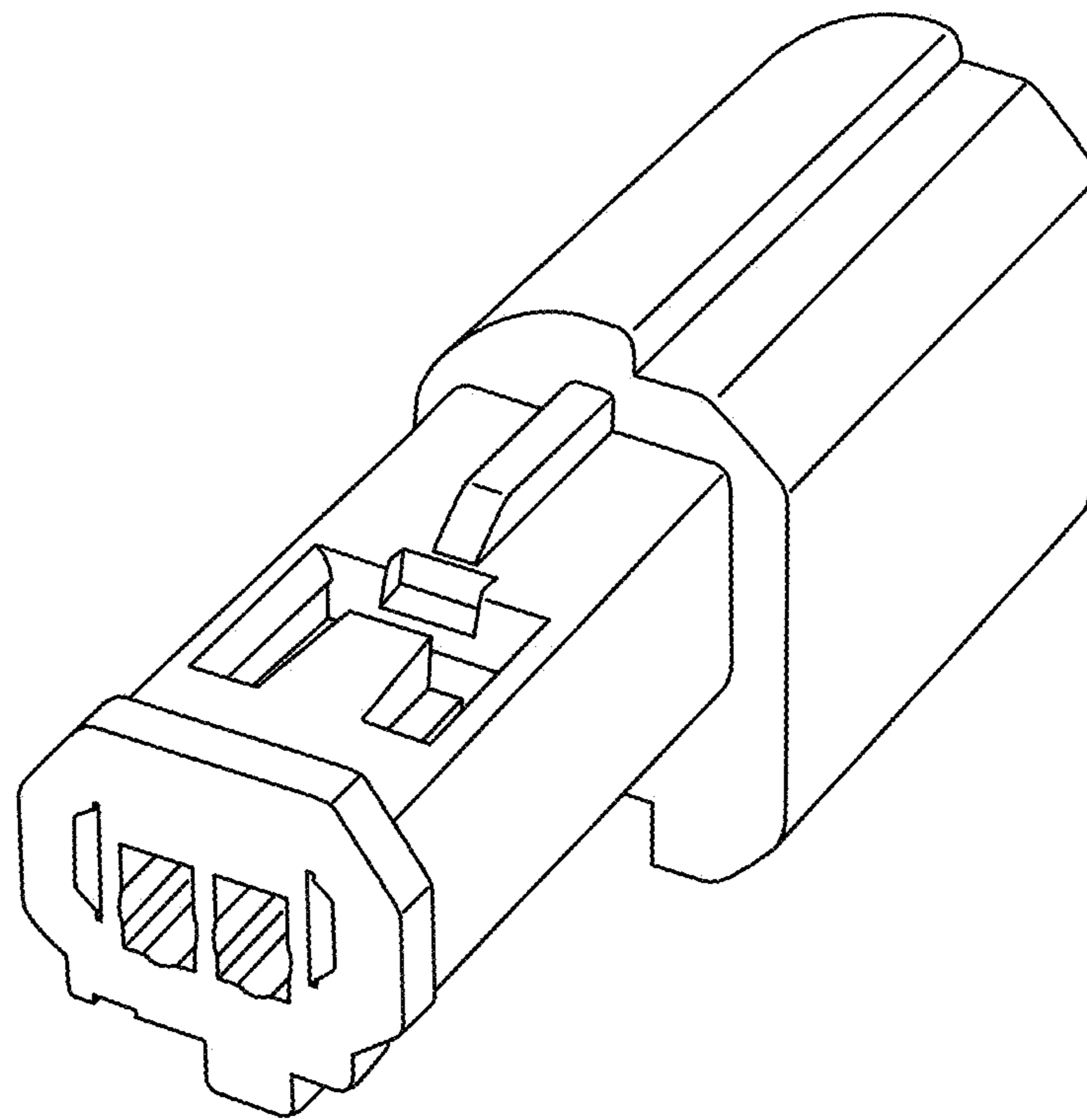


FIG. 3

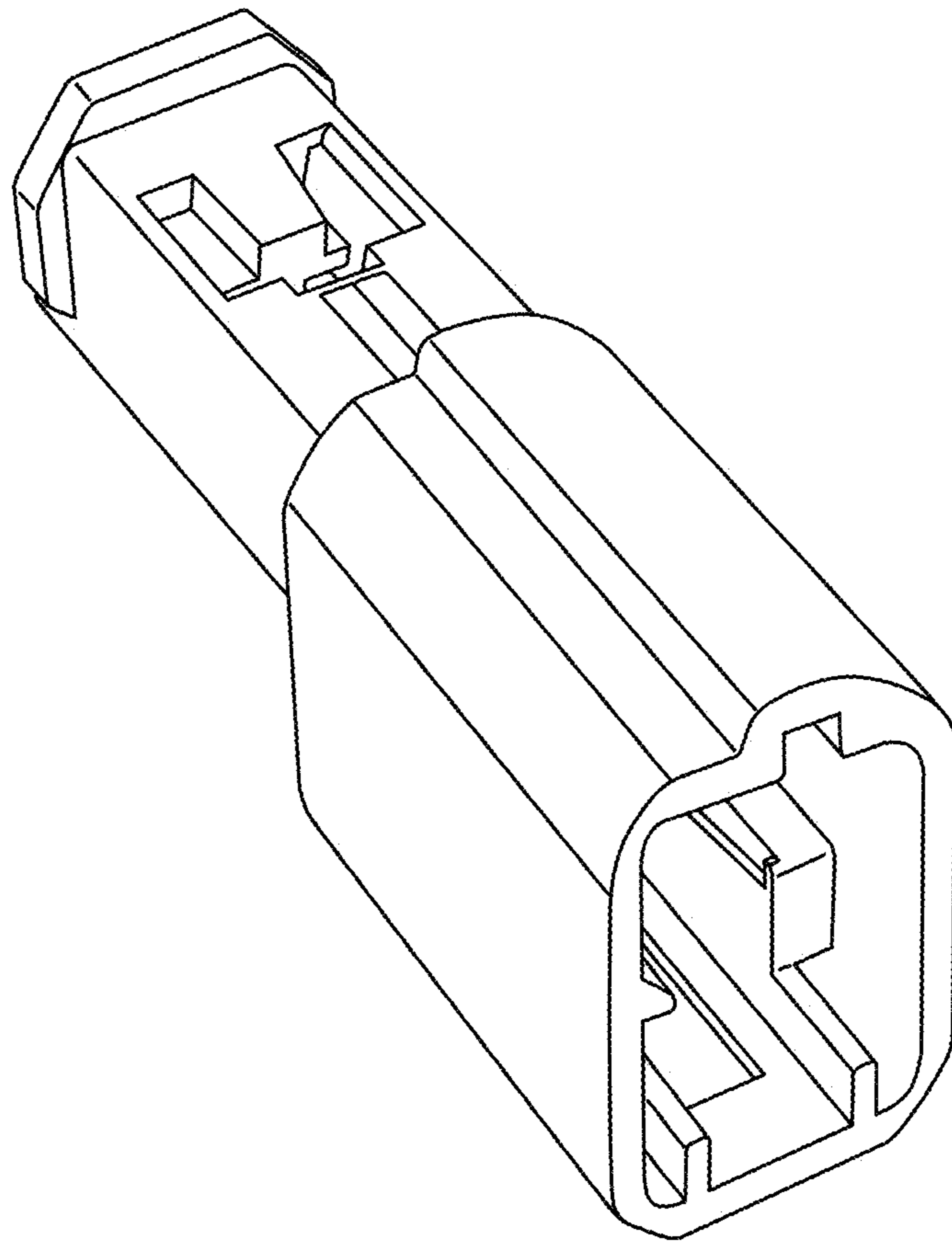


FIG. 4

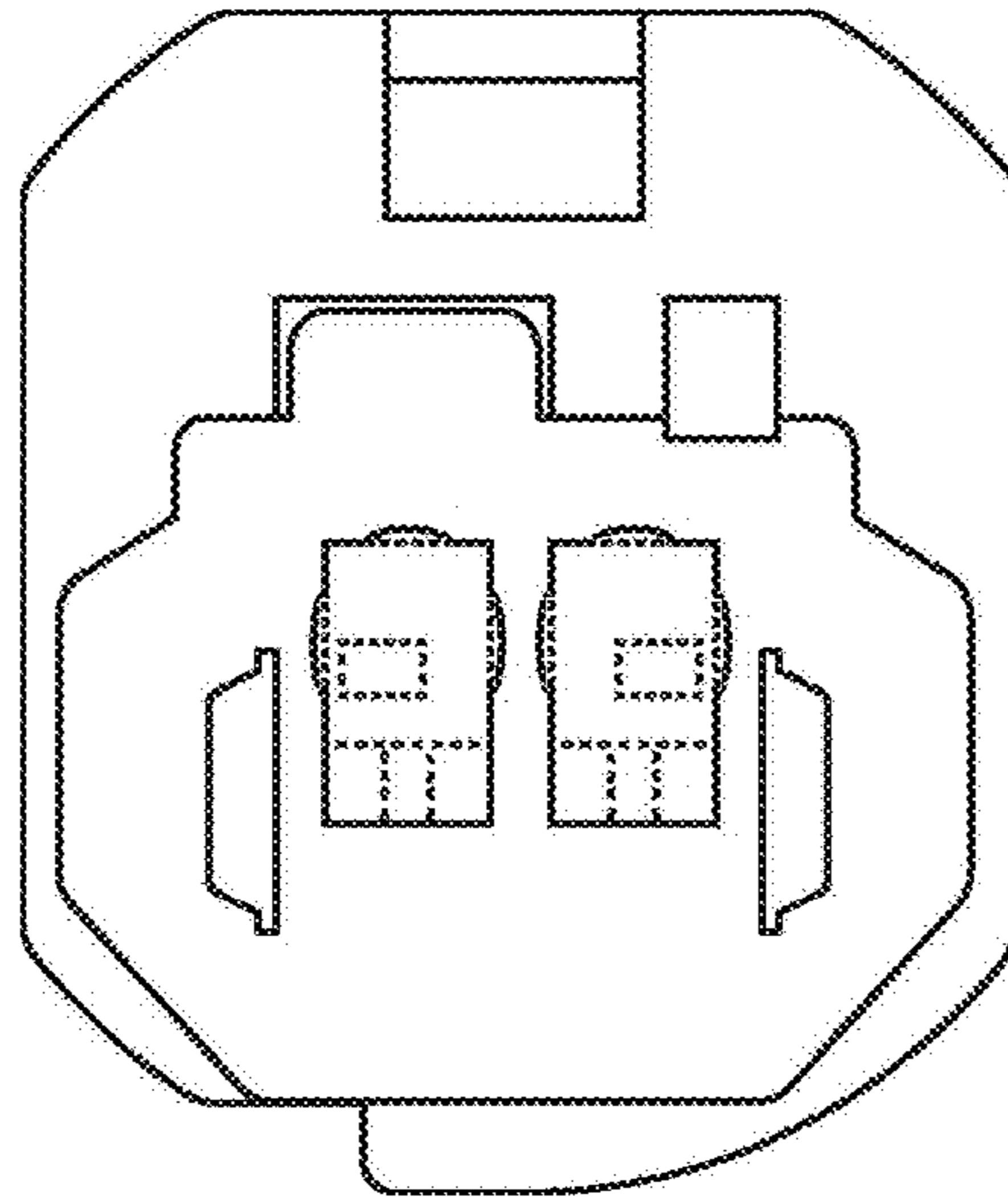


FIG. 5

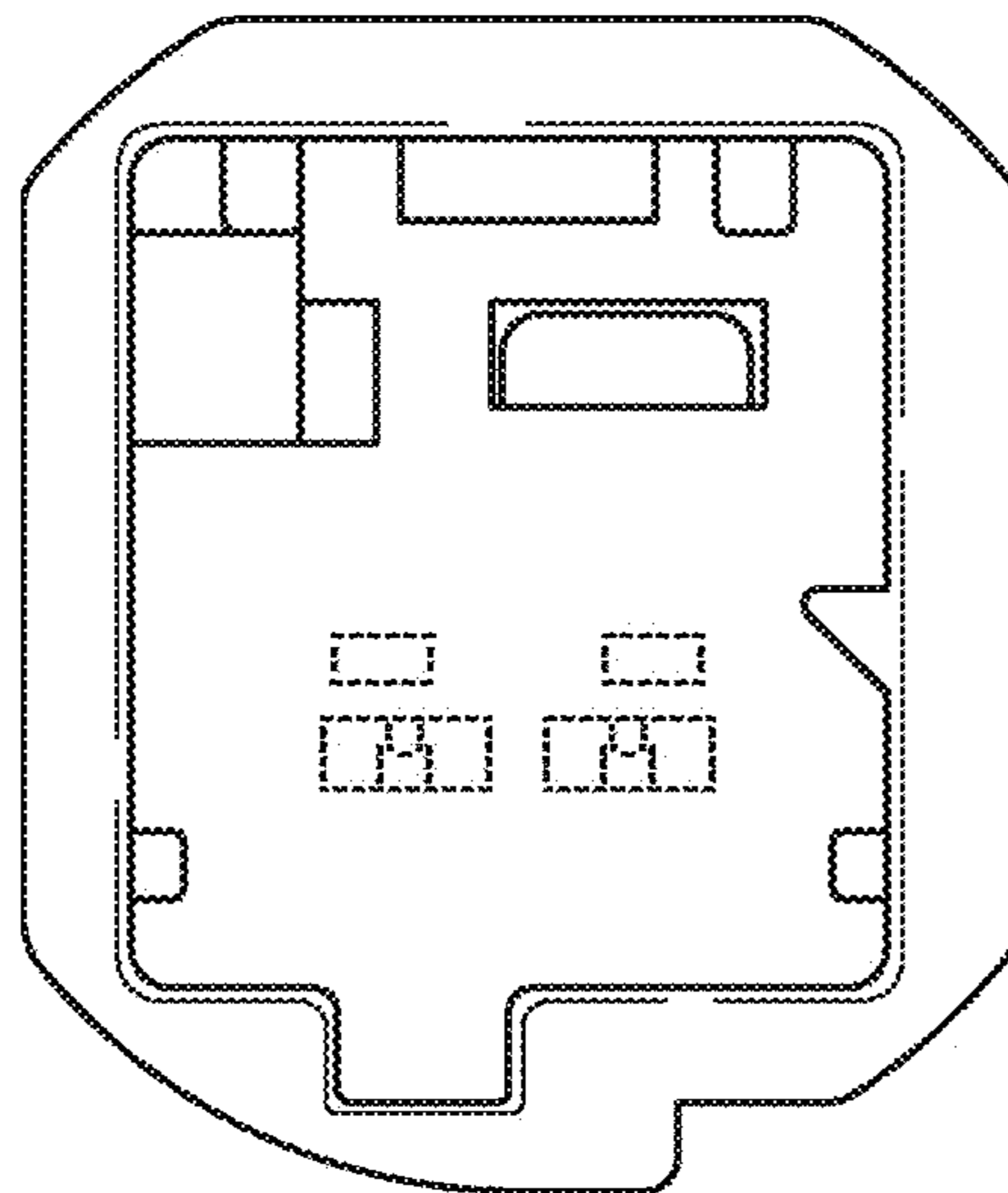


FIG. 6

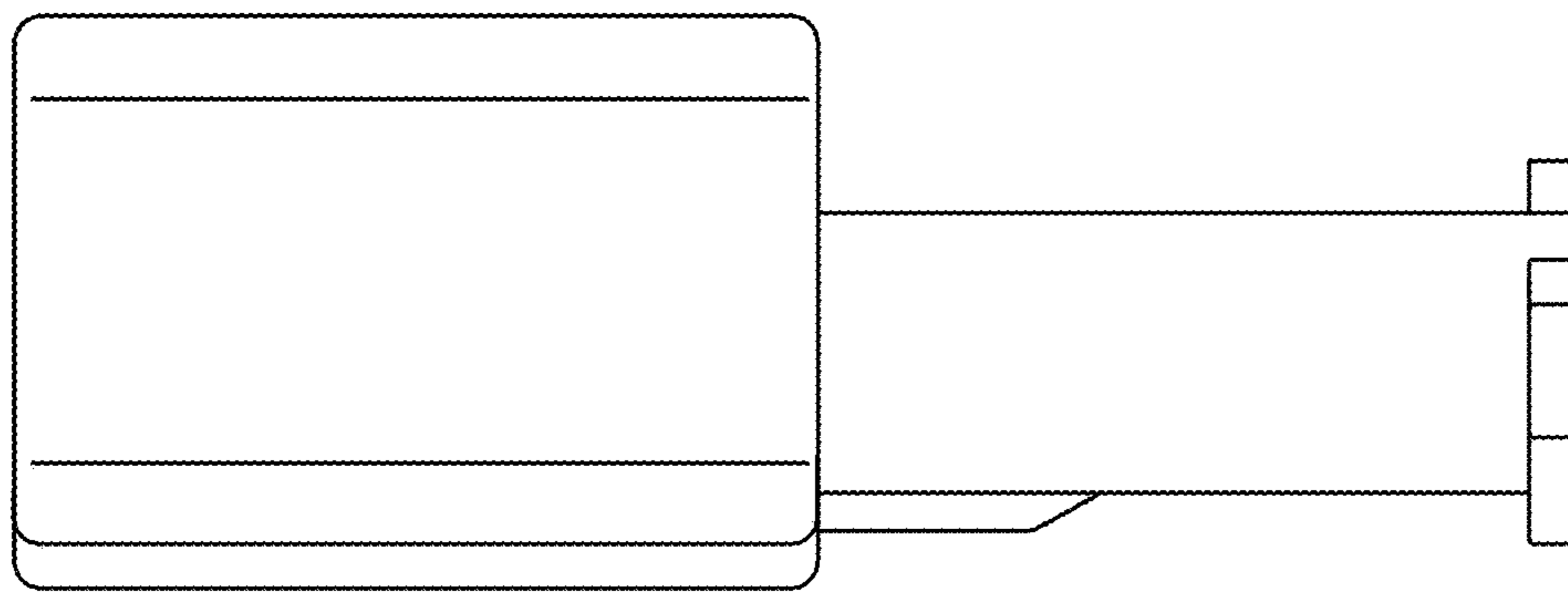


FIG. 7

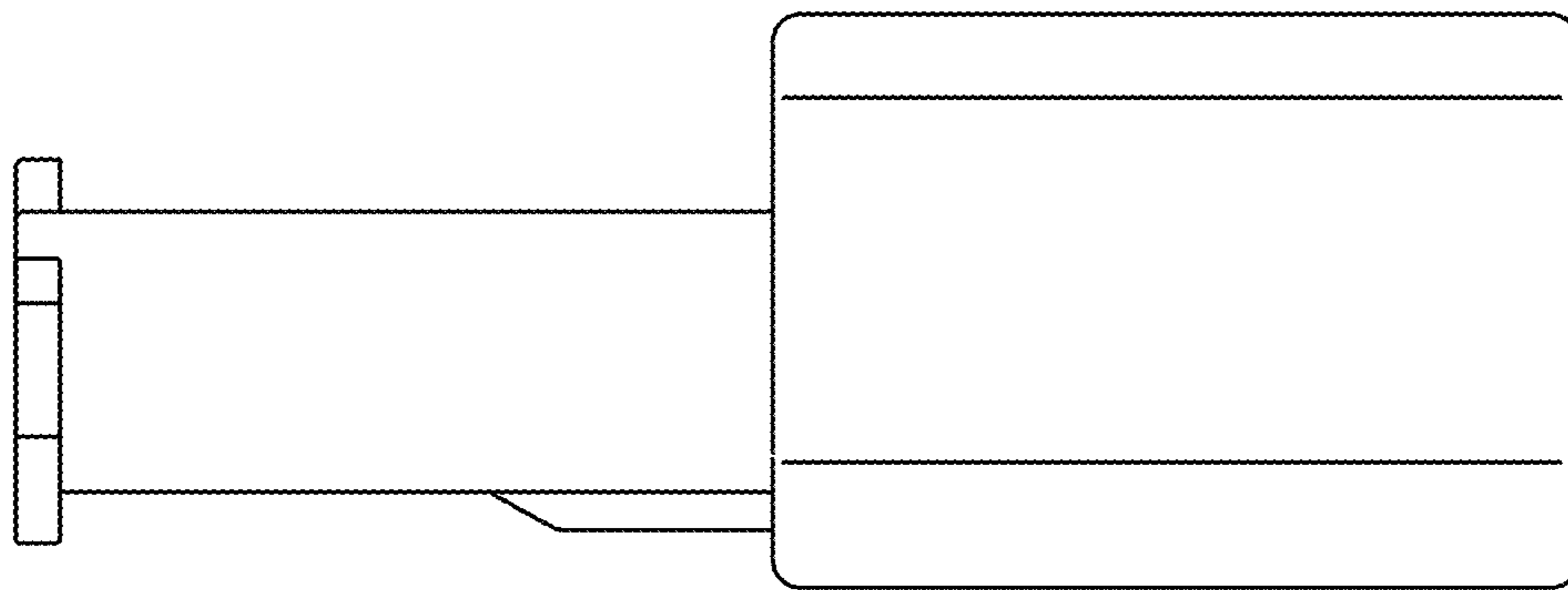


FIG. 8

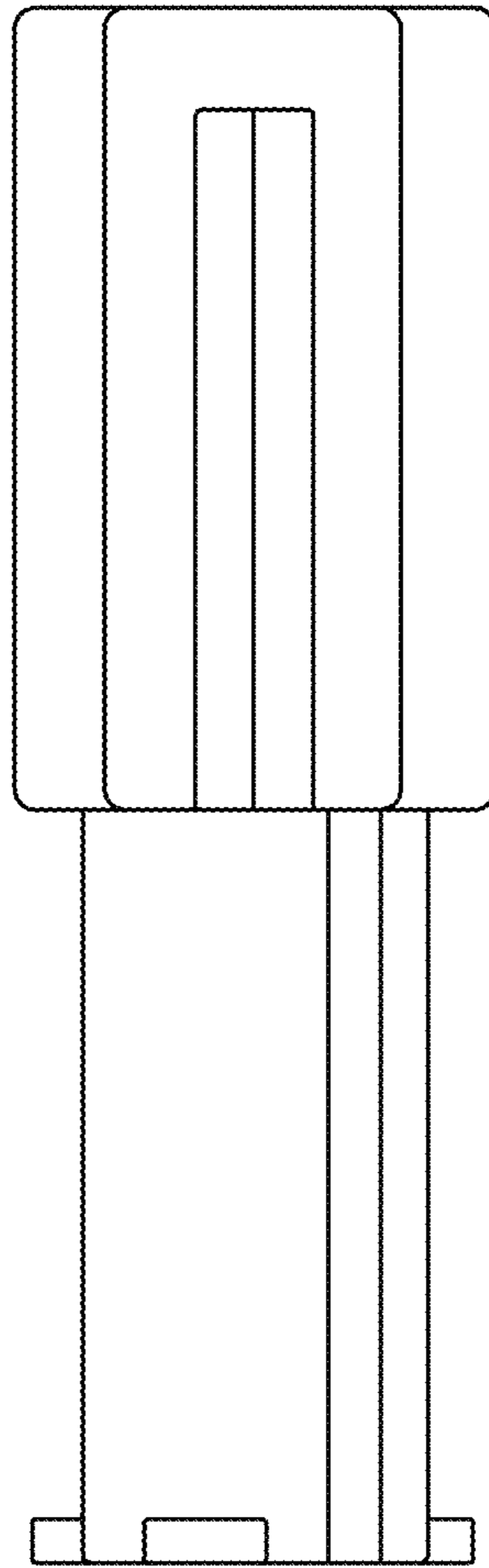


FIG. 9

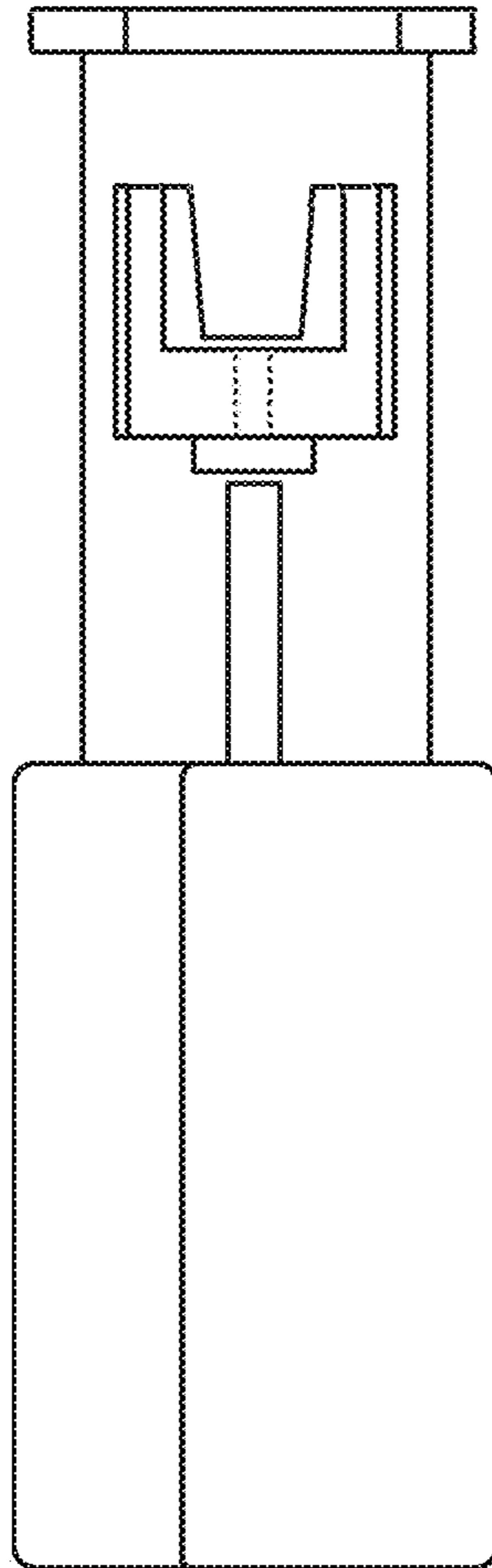


FIG. 10