

US00D860953S

(12) **United States Design Patent** (10) **Patent No.:** **US D860,953 S**
Sakaizawa et al. (45) **Date of Patent:** **** Sep. 24, 2019**

(54) **ELECTRICAL CONNECTOR**

H01R 13/52; H01R 13/6471; H01R 13/6473; H01R 13/6581; H01R 13/6585

See application file for complete search history.

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(56) **References Cited**

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U.S. PATENT DOCUMENTS

(73) Assignee: **HIROSE ELECTRIC CO., LTD.**,
Tokyo (JP)

D345,343	S	*	3/1994	Nakamura	D13/147
D410,434	S	*	6/1999	Wu	.....	D13/147
D425,867	S	*	5/2000	Lok	.....	D13/147
D433,667	S	*	11/2000	Li	.....	D13/147
D523,813	S	*	6/2006	He	.....	D13/147
D540,746	S	*	4/2007	Watanabe	.....	D13/147
D543,151	S	*	5/2007	Watanabe	.....	D13/147
D706,721	S	*	6/2014	Naito	.....	D13/147
D733,661	S	*	7/2015	Tada	.....	D13/147

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

(Continued)

(21) Appl. No.: **29/674,262**

Primary Examiner — Angela J Lee

(22) Filed: **Dec. 20, 2018**

Assistant Examiner — Shawn T Gingrich

Related U.S. Application Data

(62) Division of application No. 29/566,619, filed on Jun. 1, 2016, now Pat. No. Des. 851,043.

(74) *Attorney, Agent, or Firm* — Rankin, Hill & Clark LLP

(30) **Foreign Application Priority Data**

Dec. 3, 2015 (JP) 2015-027046
Dec. 3, 2015 (JP) 2015-027047

(57) **CLAIM**

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

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

DESCRIPTION

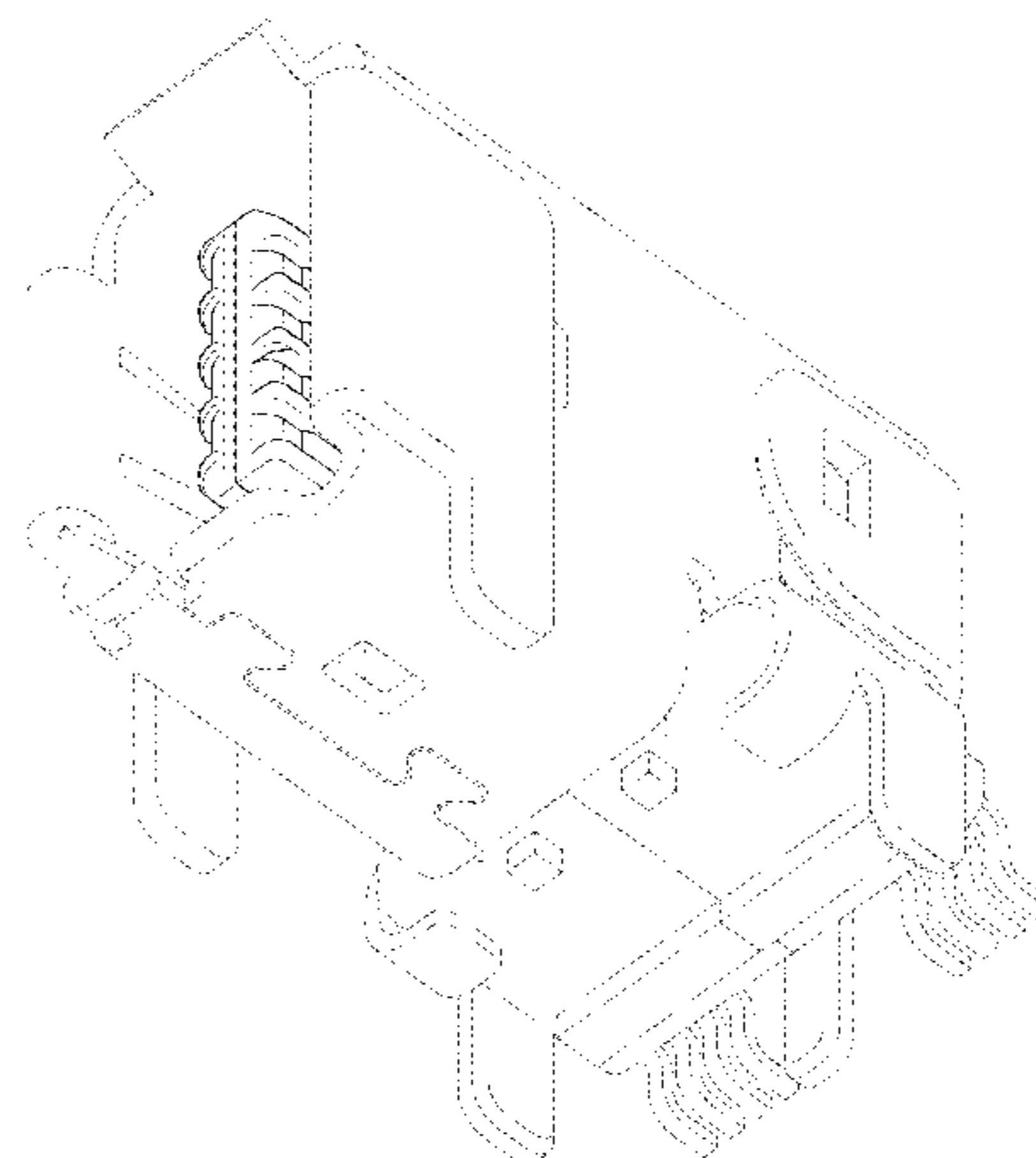
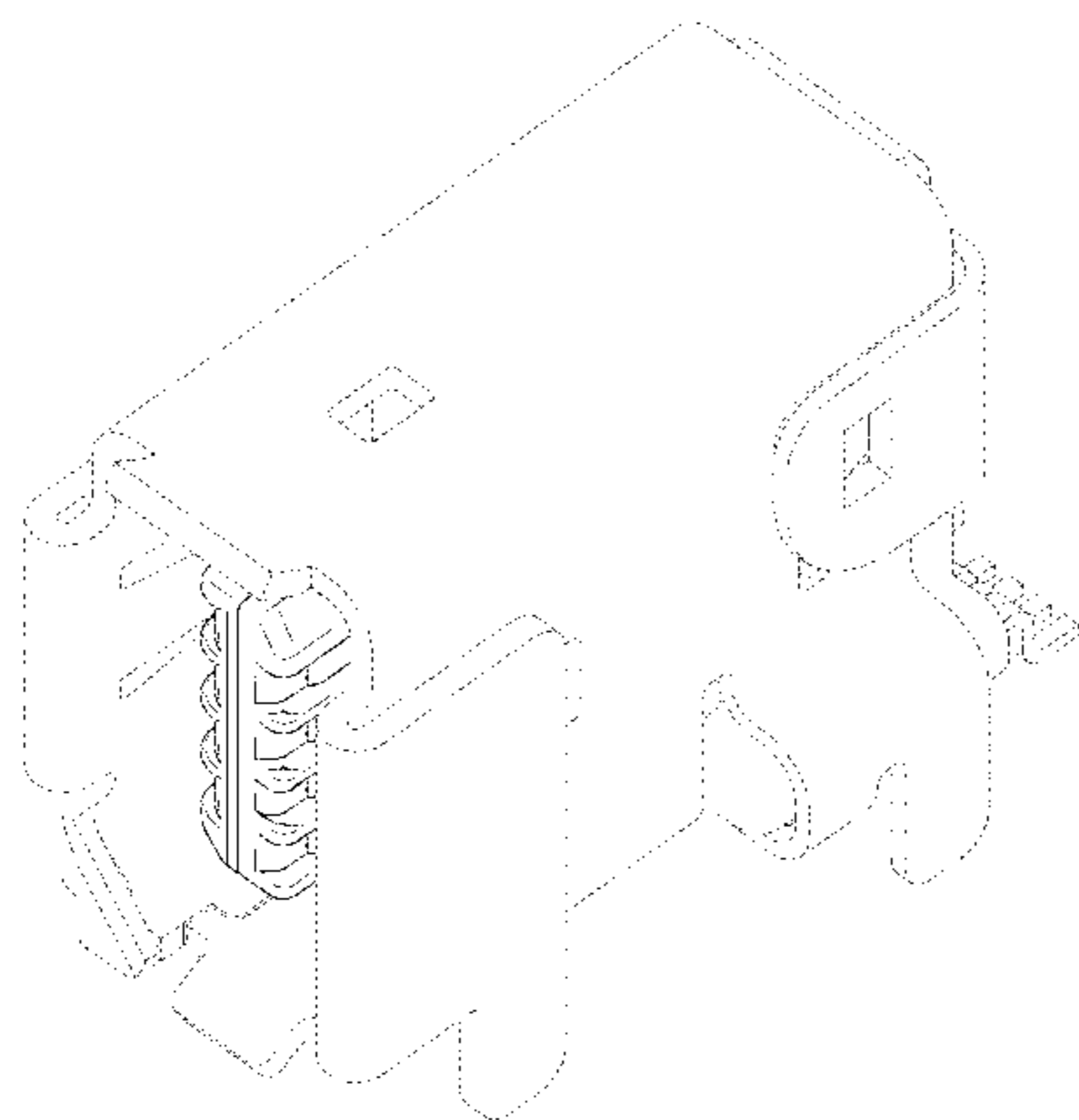
(52) **U.S. Cl.**
USPC **D13/147; D13/133**

FIG. 1 is a perspective view of the front, top and right side of the electrical connector showing our new design;
 FIG. 2 is a perspective view of the front, bottom and right side thereof;
 FIG. 3 is a perspective view of the rear, top and left side thereof;
 FIG. 4 is a perspective view of the rear, bottom and left side thereof;
 FIG. 5 is a front view thereof;
 FIG. 6 is a rear view thereof;
 FIG. 7 is a left side view thereof;
 FIG. 8 is a right side view thereof;
 FIG. 9 is a top plan view thereof;
 FIG. 10 is a bottom view thereof; and,
 FIG. 11 is a cross sectional view at 11-11 in FIG. 5.

(58) **Field of Classification Search**

USPC D13/101, 103, 110, 112, 117, 118, 120,
D13/123, 129–133, 145–147, 149, 151,
D13/153–155, 173, 183, 199
 CPC H01R 12/00; H01R 12/70; H01R 12/707;
H01R 12/72; H01R 13/62; H01R 13/66;
H01R 13/627; H01R 13/639; H01R
13/648; H01R 13/658; H01R 24/00;
H01R 24/06; H01R 25/00; H01R 12/71;

(Continued)



The broken line showing of the electrical connector is for the purpose of illustrating portions of the electrical connector and forms no part of the claimed design.

1 Claim, 11 Drawing Sheets

(56) **References Cited**

U.S. PATENT DOCUMENTS

9,640,917	B1 *	5/2017	Li	H01R 13/6581
D812,570	S *	3/2018	Sakaizawa	D13/147
D843,945	S *	3/2019	Naganuma	D13/147
D843,946	S *	3/2019	Naganuma	D13/147
D851,043	S *	6/2019	Sakaizawa	D13/147
2009/0017693	A1 *	1/2009	Nagata	H01R 12/724
				439/660
2018/0358755	A1 *	12/2018	Sakaizawa	H01R 13/6582

* cited by examiner

FIG. 1

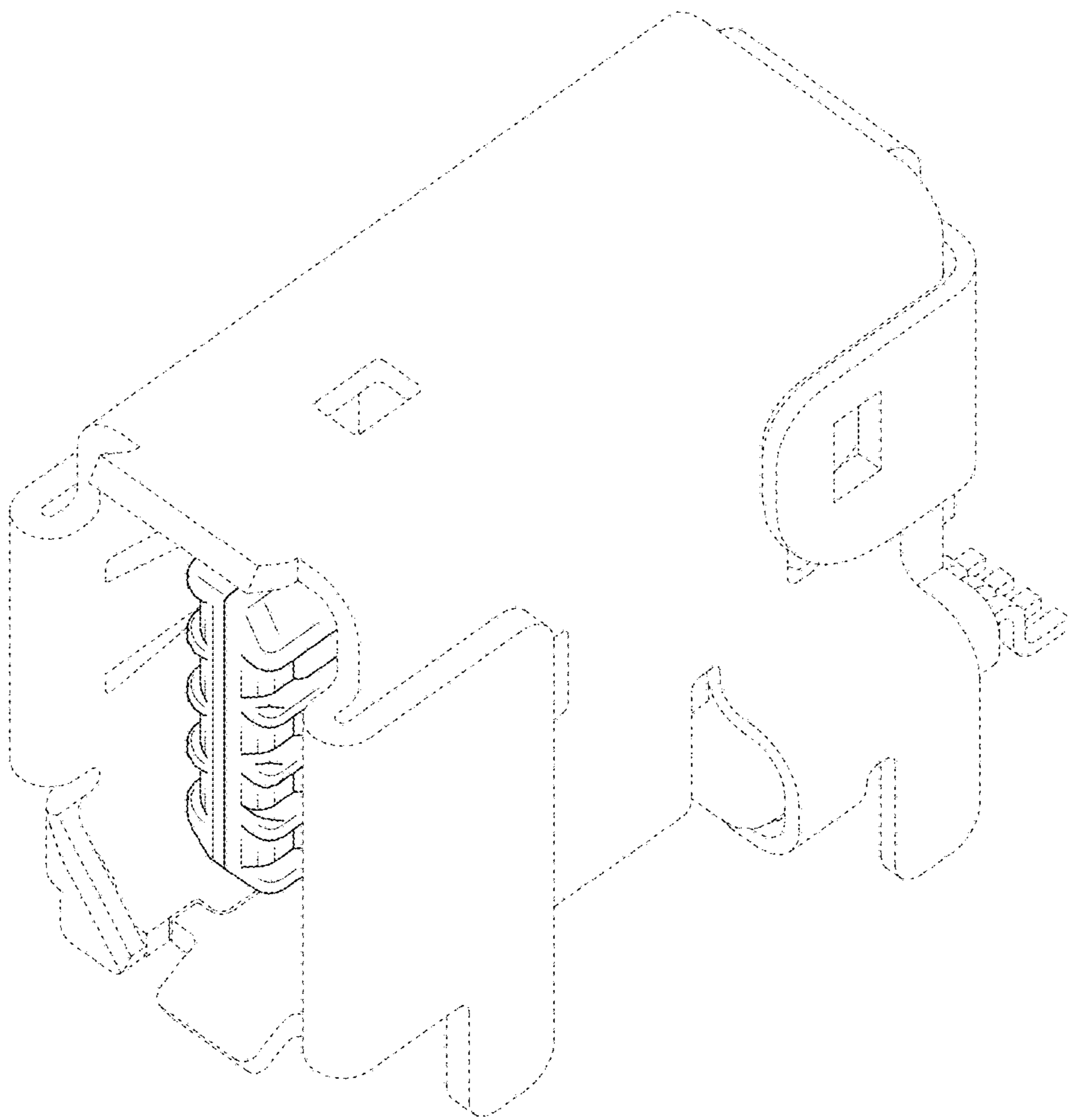


FIG. 2

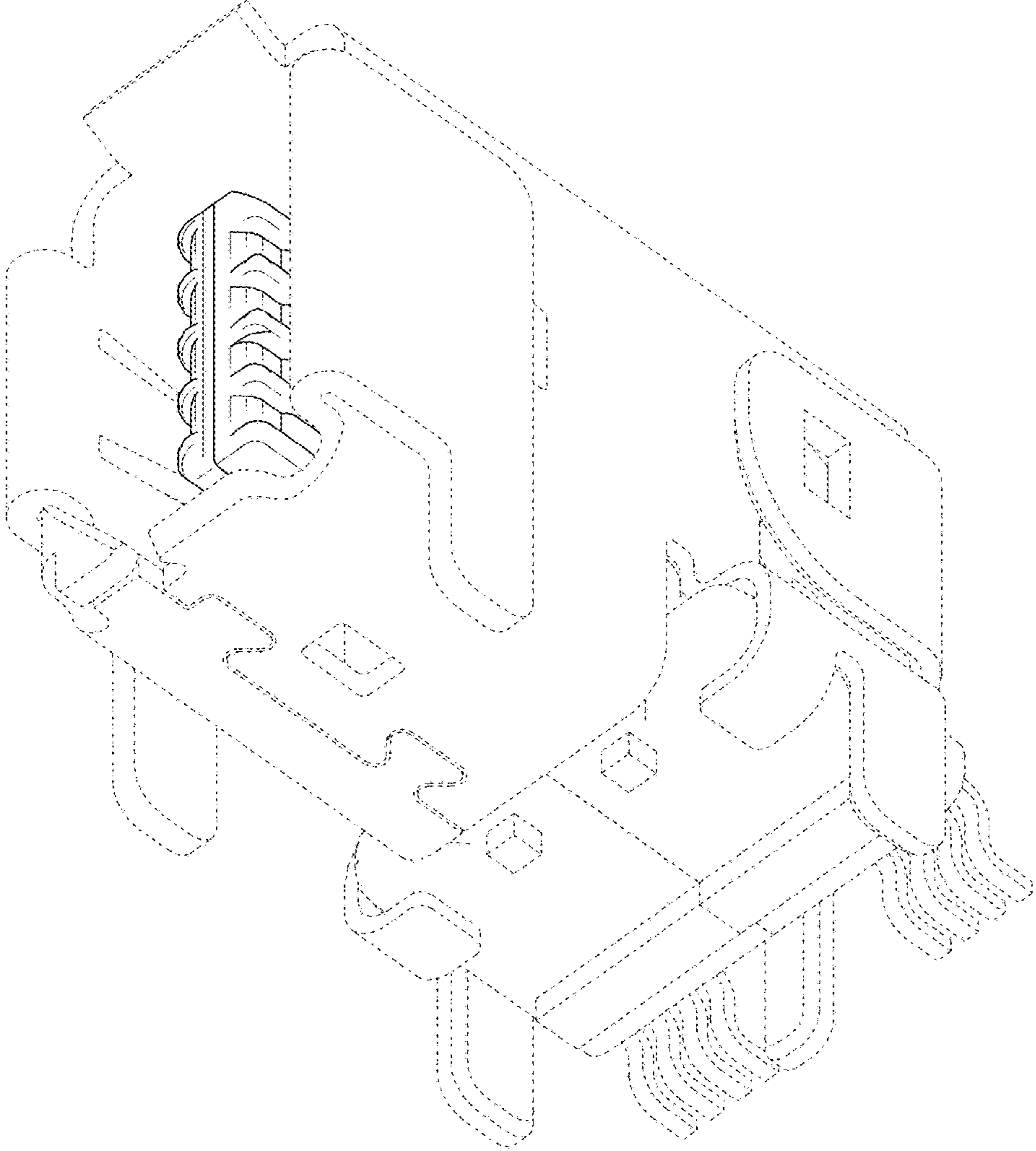


FIG. 3

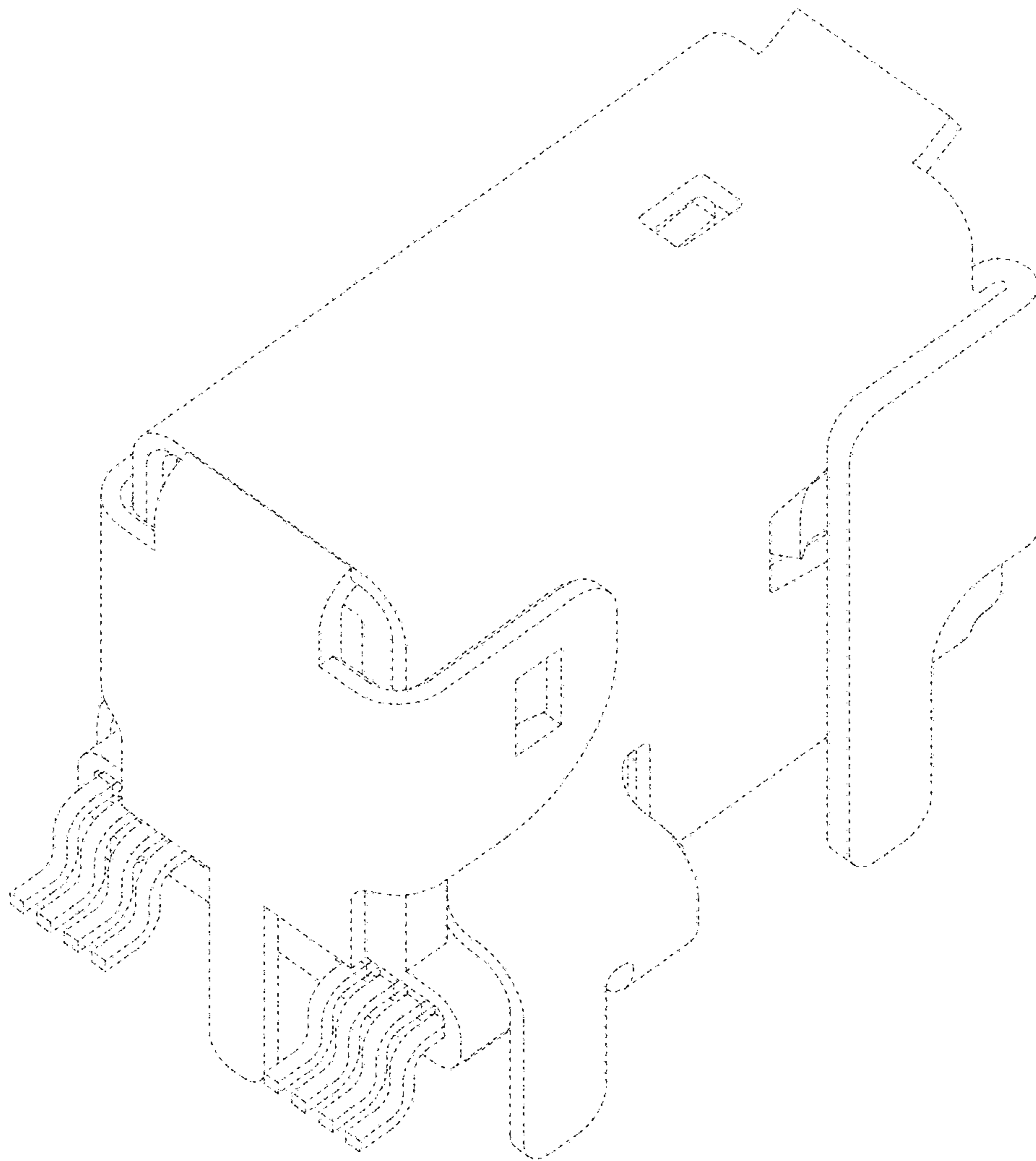


FIG. 4

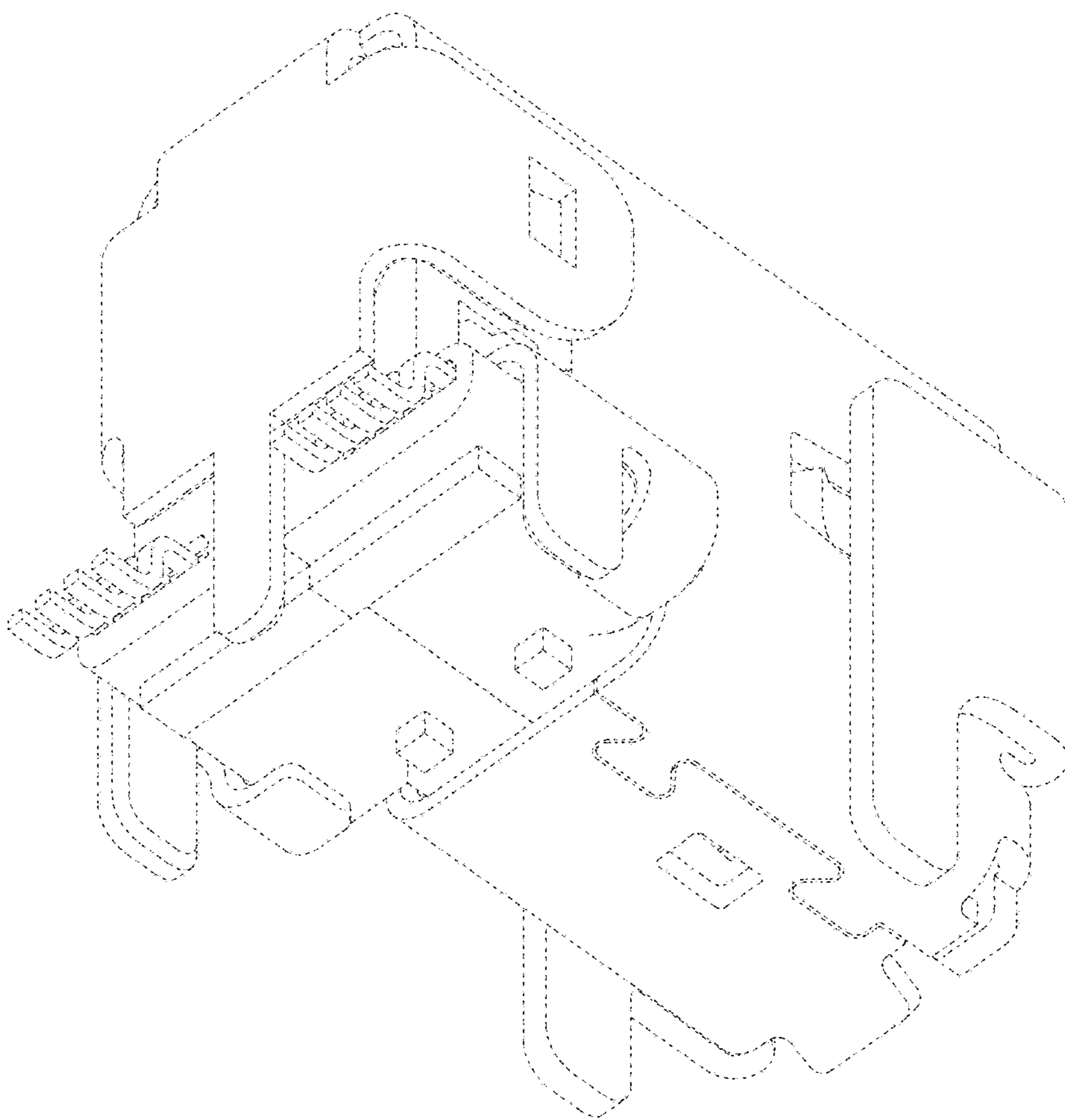


FIG. 5

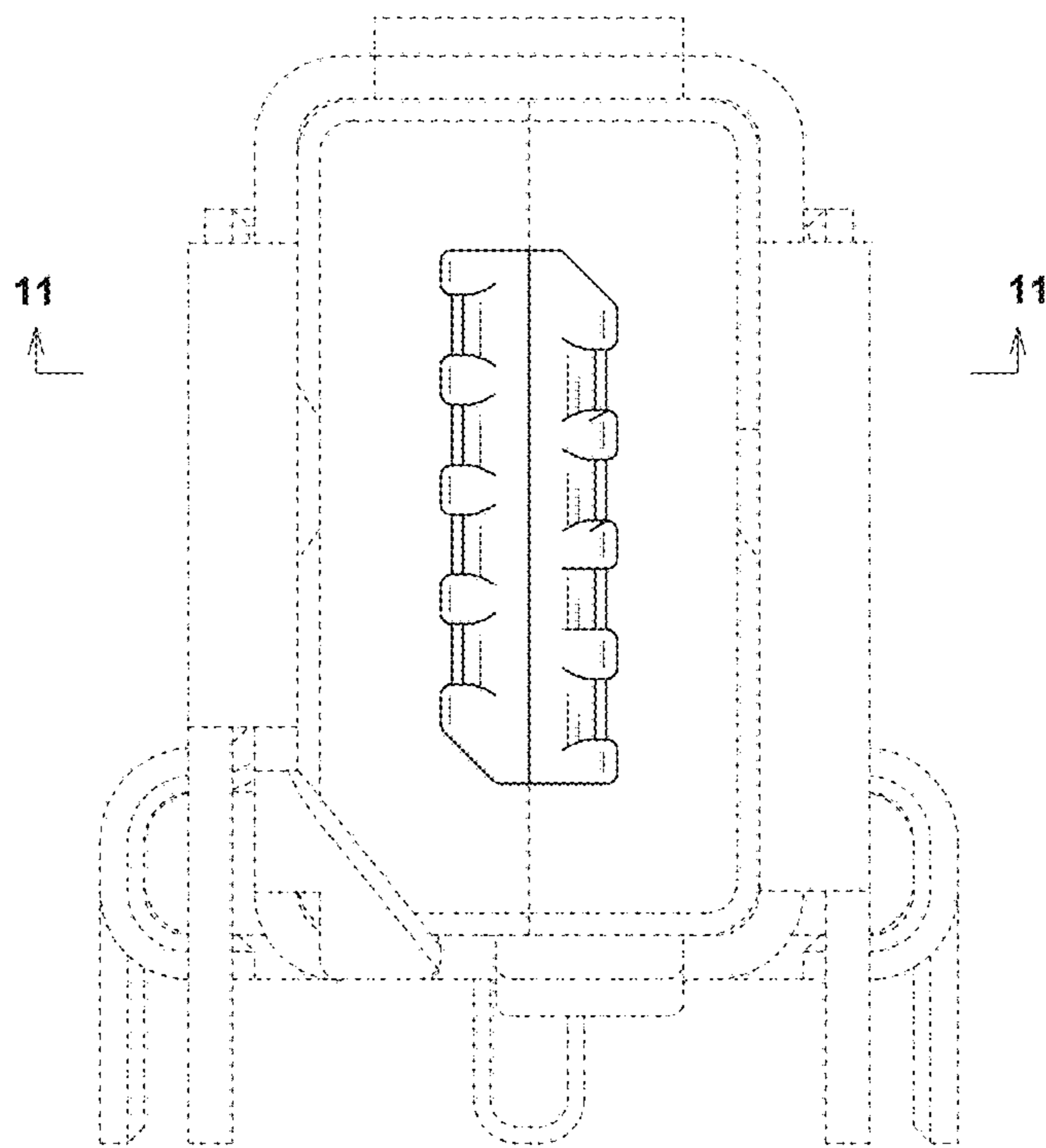


FIG. 6

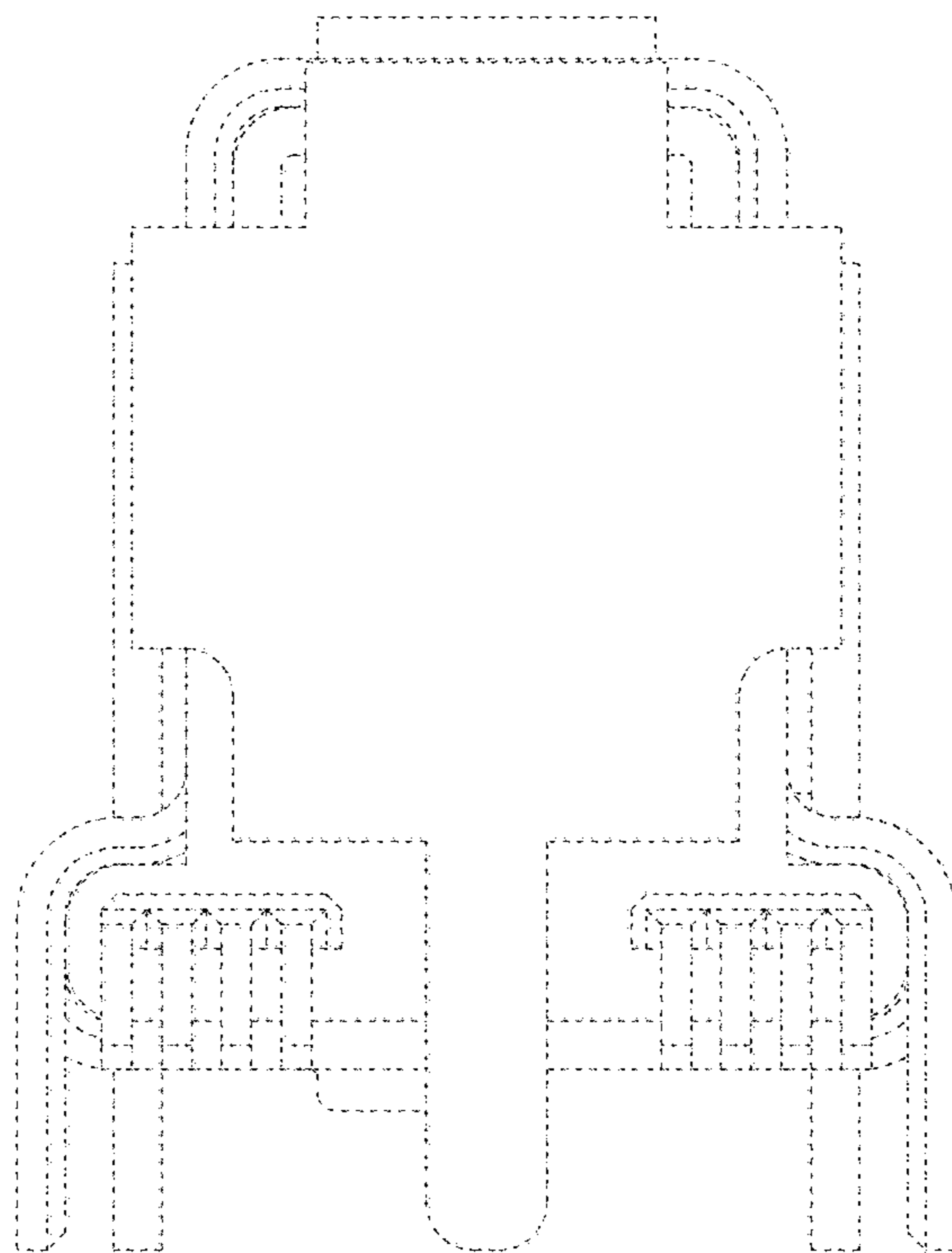


FIG. 7

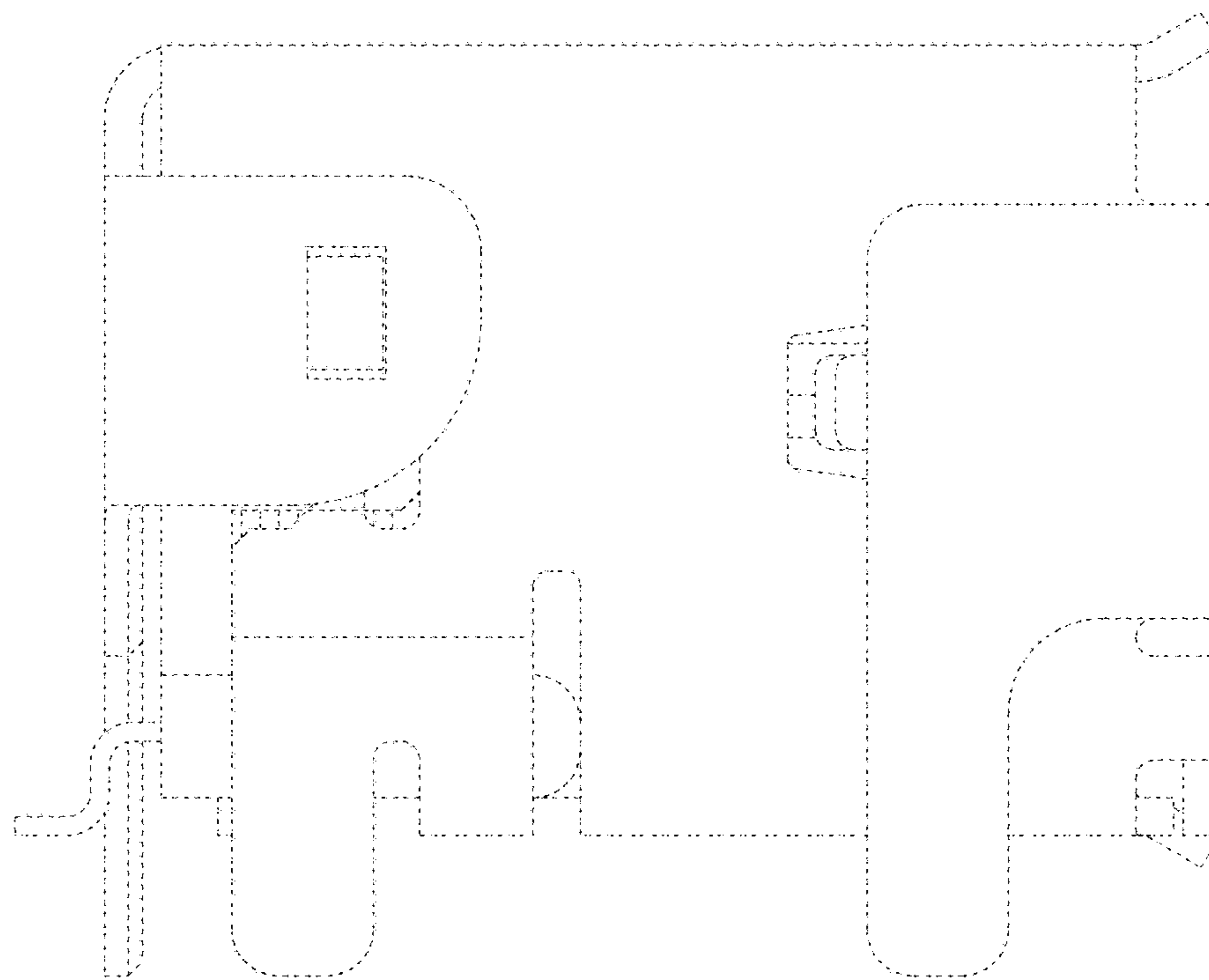


FIG. 8

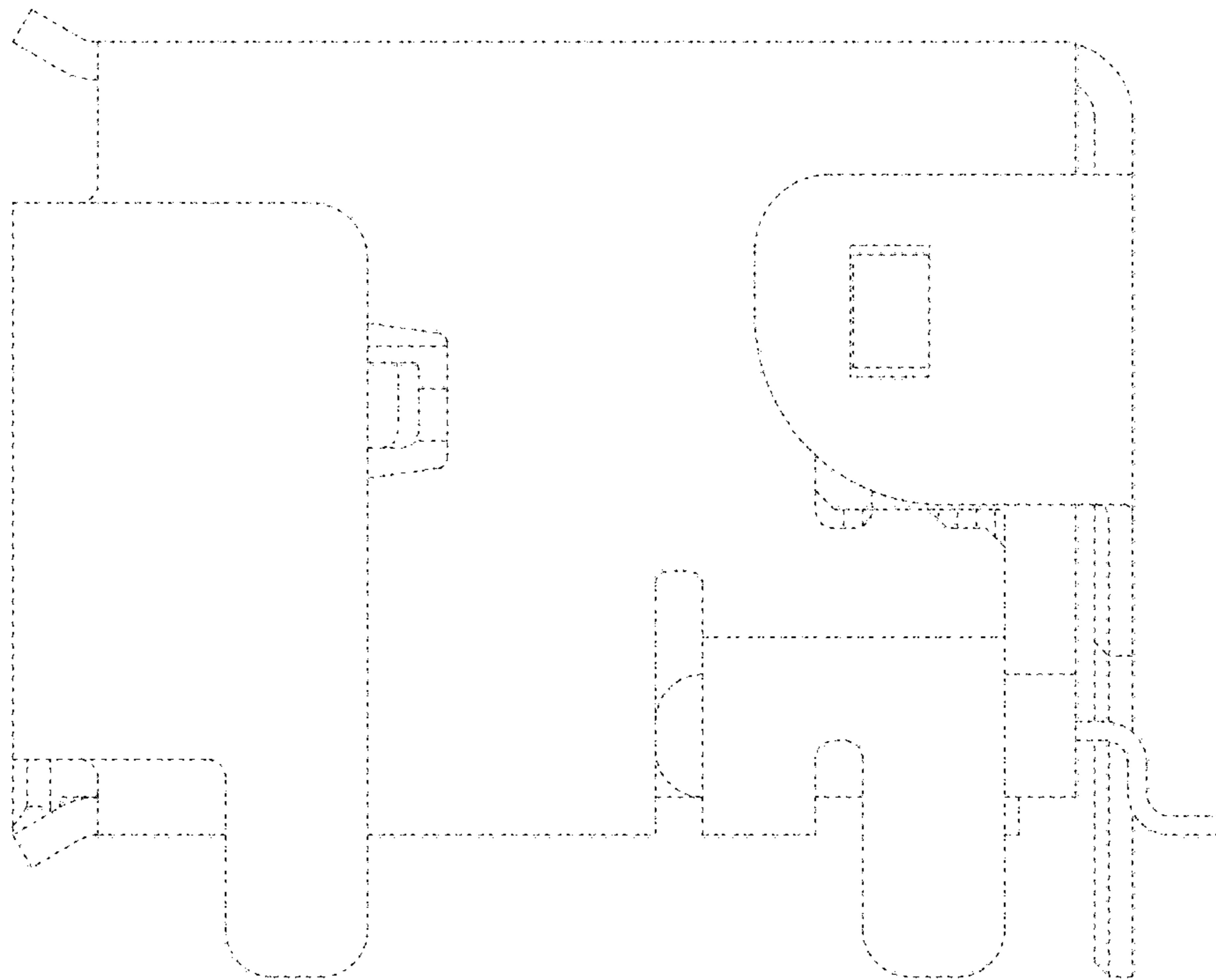


FIG. 9

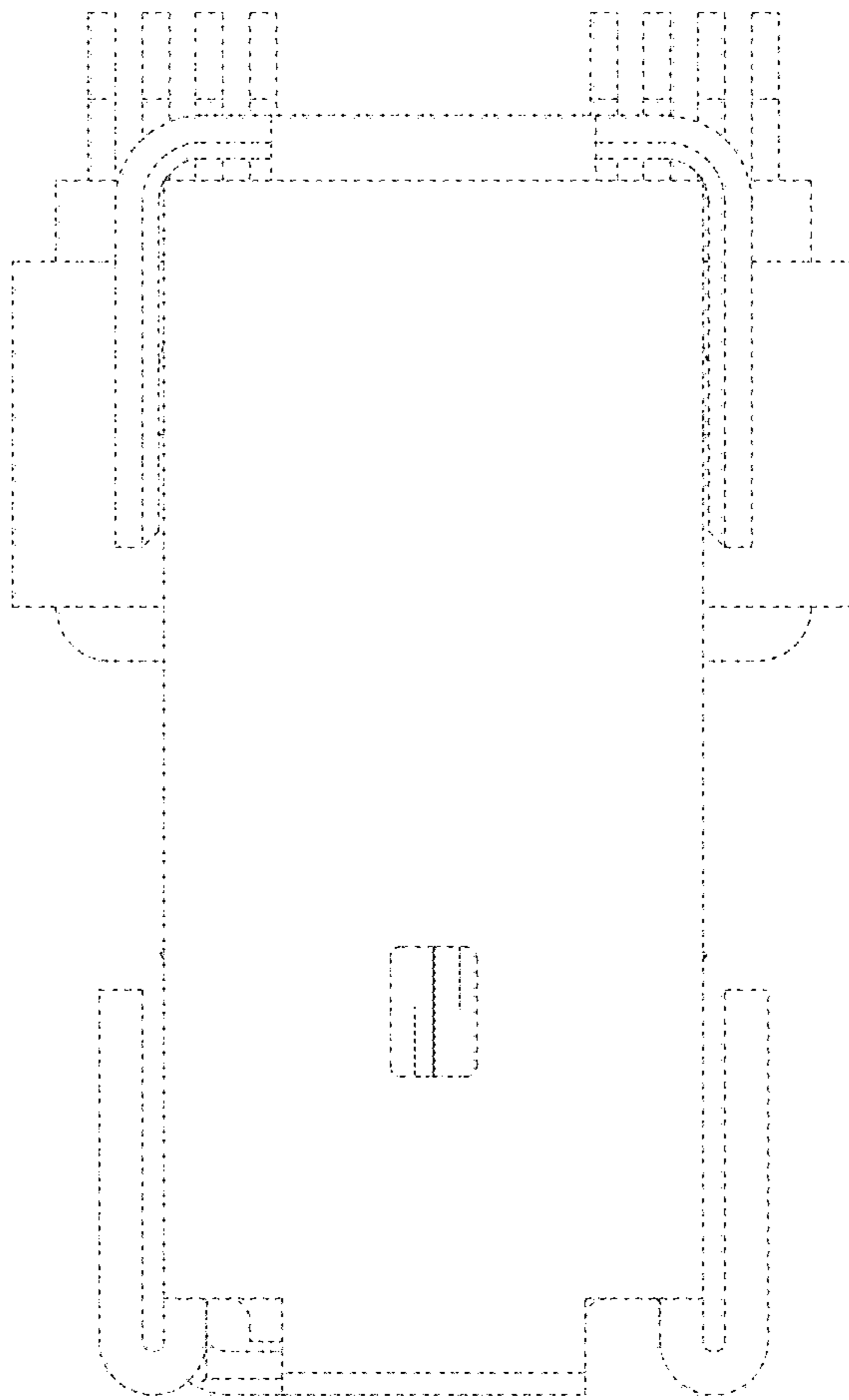


FIG. 10

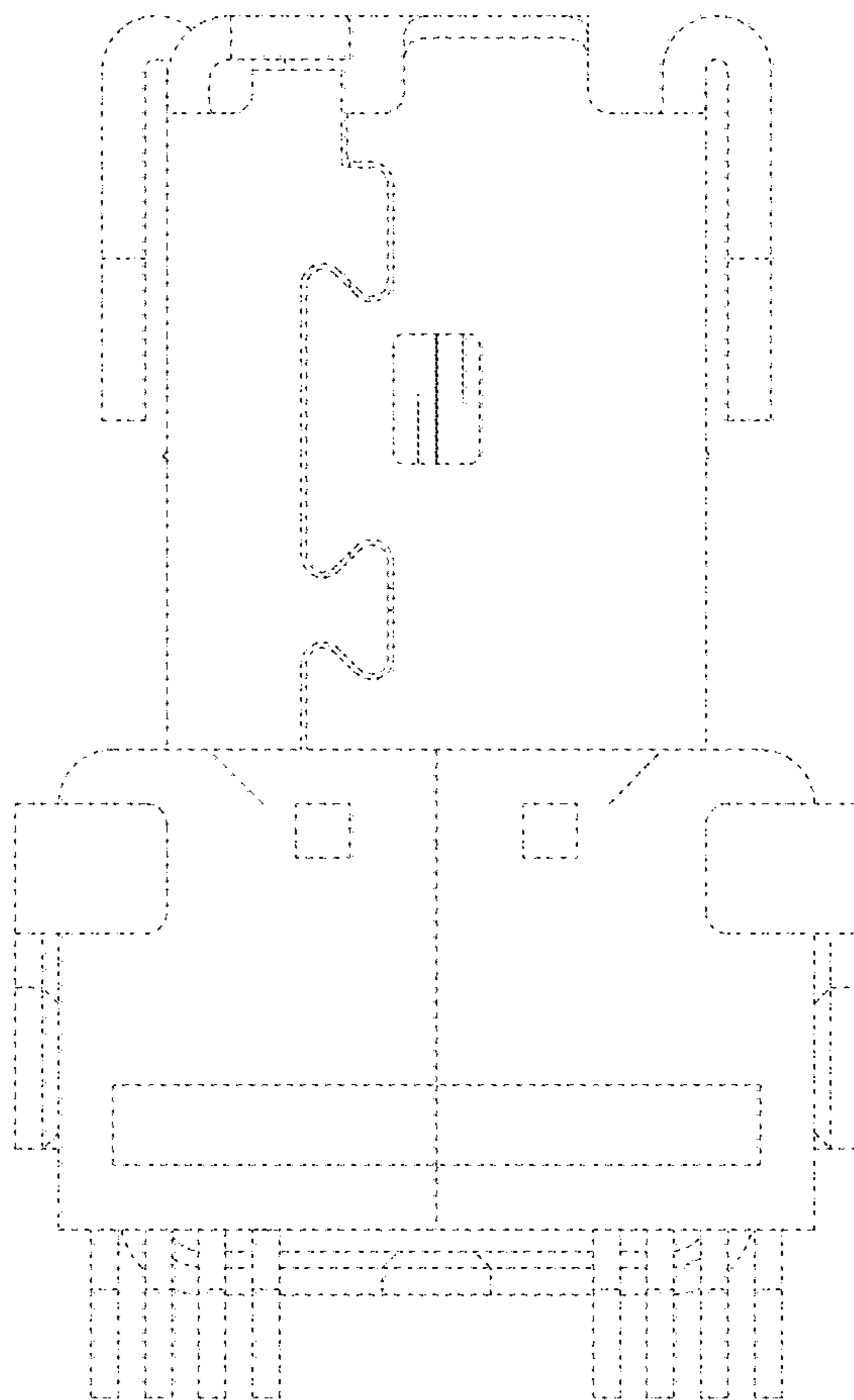


FIG. 11

