



US00D928090S

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

(10) **Patent No.:** **US D928,090 S**

(45) **Date of Patent:** **** Aug. 17, 2021**

(54) **ELECTRICAL PLUG CONNECTOR**

(71) Applicant: **Harting Electronics GmbH**,
Espelkamp (DE)

(72) Inventors: **Lars Fennen**, Westoverledingen (DE);
Yuri Junmin Guo, Zhuhai (CN);
Steven Yingtao Wang, Zhuhai (CN)

(73) Assignee: **HARTING Electronics GmbH**,
Espelkamp (DE)

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

(21) Appl. No.: **29/643,132**

(22) Filed: **Apr. 4, 2018**

7,914,347 B2	3/2011	Paulus	
D639,744 S	6/2011	Smith et al.	
D660,797 S	5/2012	Wu	
D676,388 S *	2/2013	Muller	D13/147
D691,950 S	10/2013	Asai et al.	
D698,729 S	2/2014	Fukushima et al.	
D707,626 S	6/2014	Atkinson et al.	
D714,723 S	10/2014	Vogelmann	
D717,247 S	11/2014	Nagasawa et al.	
D718,247 S	11/2014	Müller	
D719,514 S	12/2014	Andresen et al.	
8,998,648 B2	4/2015	Zhang	
D733,655 S	7/2015	Sato et al.	
D754,607 S	4/2016	Hofmann	
9,490,582 B2 *	11/2016	Jaschke	H01R 13/502
D774,000 S *	12/2016	Endo	D13/147
9,543,709 B2 *	1/2017	Schreier	H01R 13/6585
D778,240 S	2/2017	Sato	
D779,434 S	2/2017	Dobler	
D783,069 S	4/2017	Fujii	
9,615,491 B2 *	4/2017	Schreier	H05K 9/00

(Continued)

Related U.S. Application Data

(62) Division of application No. 35/502,502, filed on Aug. 26, 2016 (U.S. filing date under 35 U.S.C. 384), and having an international filing date of Aug. 26, 2016, now Pat. No. Des. 843,320.

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

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

(58) **Field of Classification Search**
USPC D13/133, 147, 151, 110, 146, 138.2;
D15/144
CPC H01R 13/641; H01R 13/506; H01R
13/5216; H01R 13/6599; H01R 13/6585;
H01R 13/502; H01R 9/037; H05K 9/00
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,556,292 A	9/1996	Kato et al.	
7,479,037 B2 *	1/2009	Bernat	H01R 9/037 439/607.41

Primary Examiner — Rhea Shields

(74) *Attorney, Agent, or Firm* — Seed IP Law Group LLP

(57) **CLAIM**

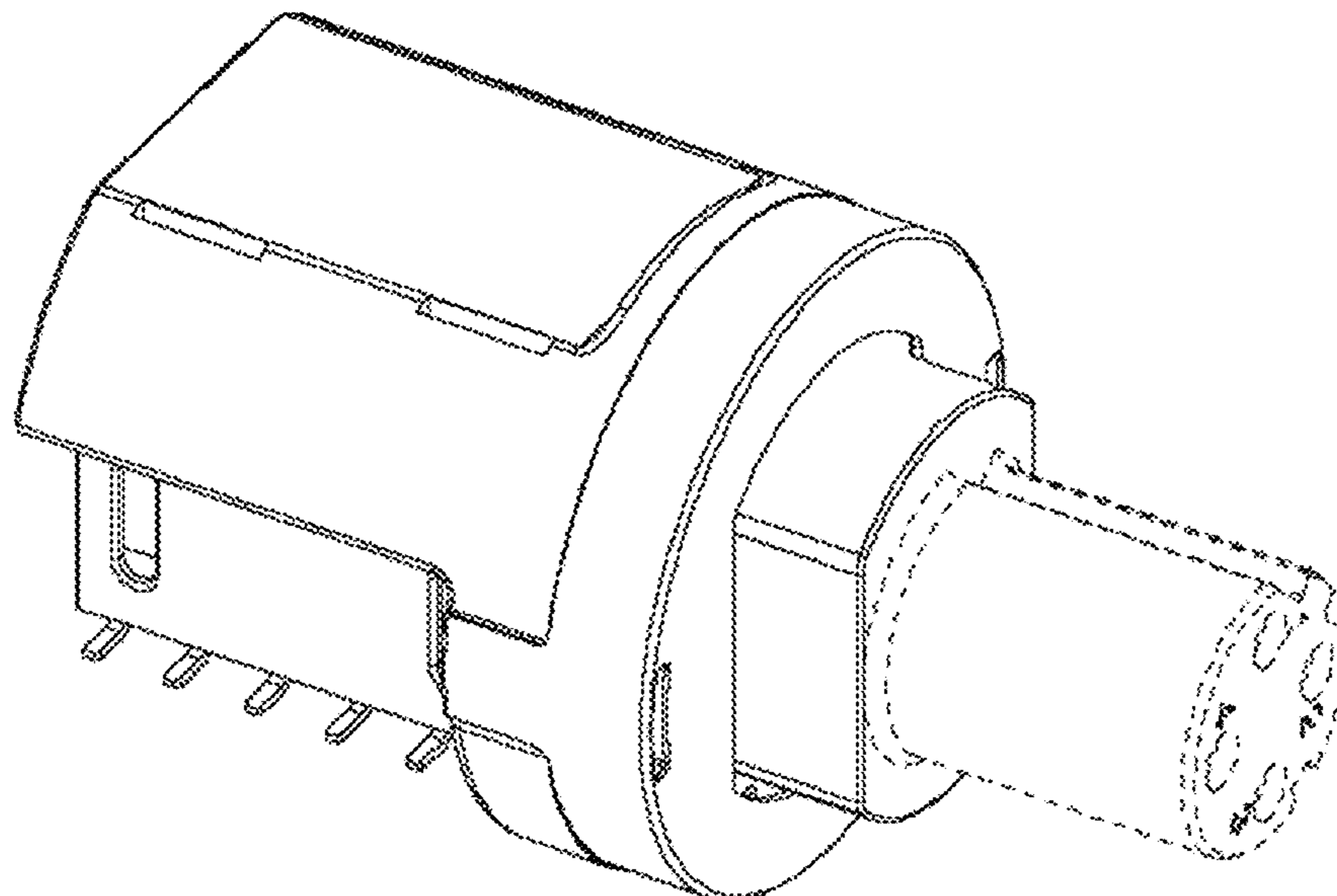
The ornamental design for an electrical plug connector, substantially as shown and described.

DESCRIPTION

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

In the drawings, the broken lines are for the purpose of illustrating portions of the electrical plug connector that form no part of the claimed design.

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

9,627,819 B2 * 4/2017 Post H01R 13/6599
D788,708 S * 6/2017 Vo D13/133
D789,302 S 6/2017 Hsu et al.
D793,340 S 8/2017 Wang
D794,573 S * 8/2017 Tateishi D13/147
D795,196 S 8/2017 Ueda
D795,811 S 8/2017 Kawamoto et al.
D796,564 S * 9/2017 Kachline D15/144
9,774,132 B2 * 9/2017 Lindkamp H01R 13/5216
D808,068 S 1/2018 Yeh et al.
10,218,112 B2 * 2/2019 Luttermann H01R 13/506
D843,320 S * 3/2019 Fennen D13/133
10,587,078 B2 * 3/2020 Friesen H01R 13/641
2015/0162710 A1 6/2015 Schreier et al.

* cited by examiner

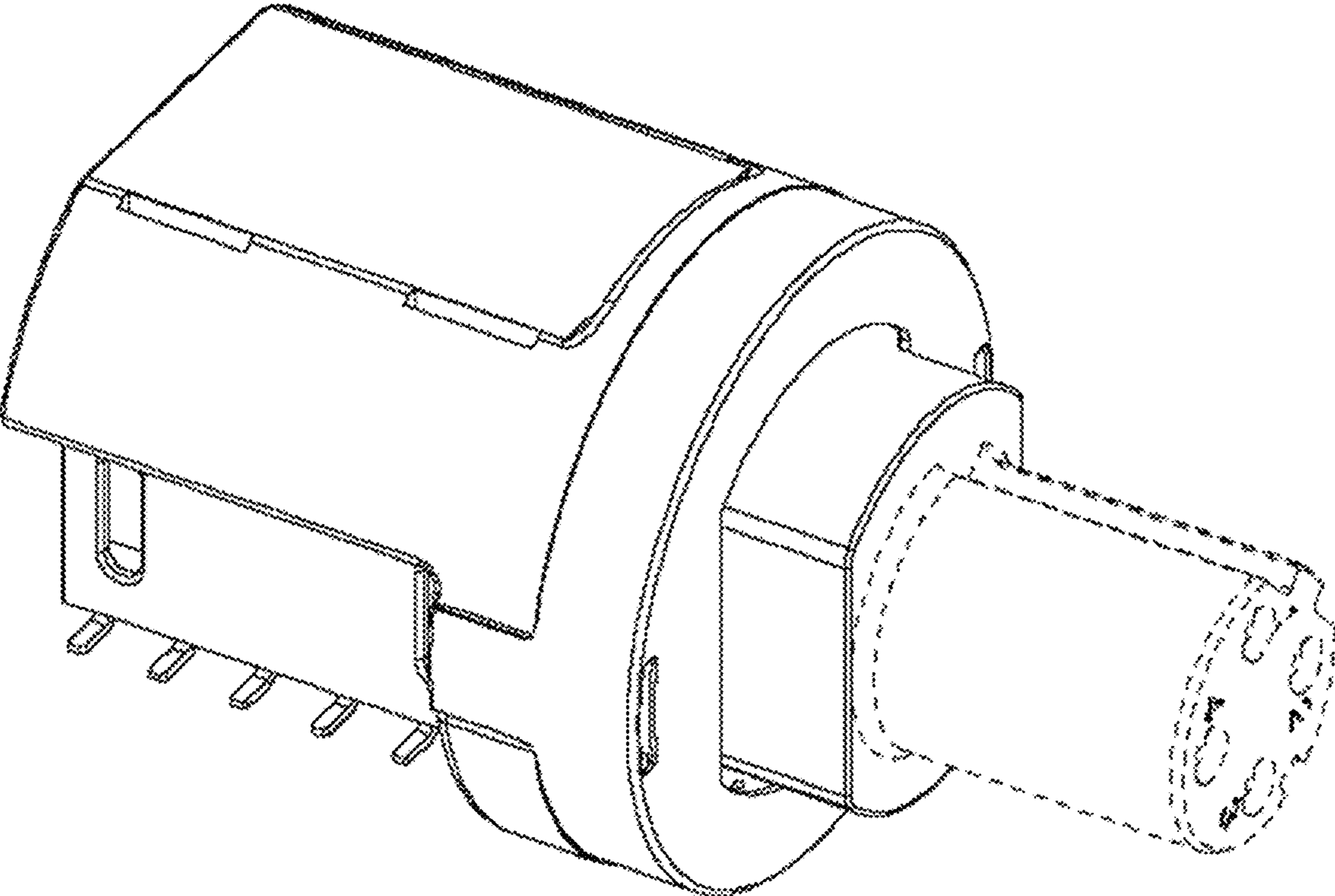


FIG. 1

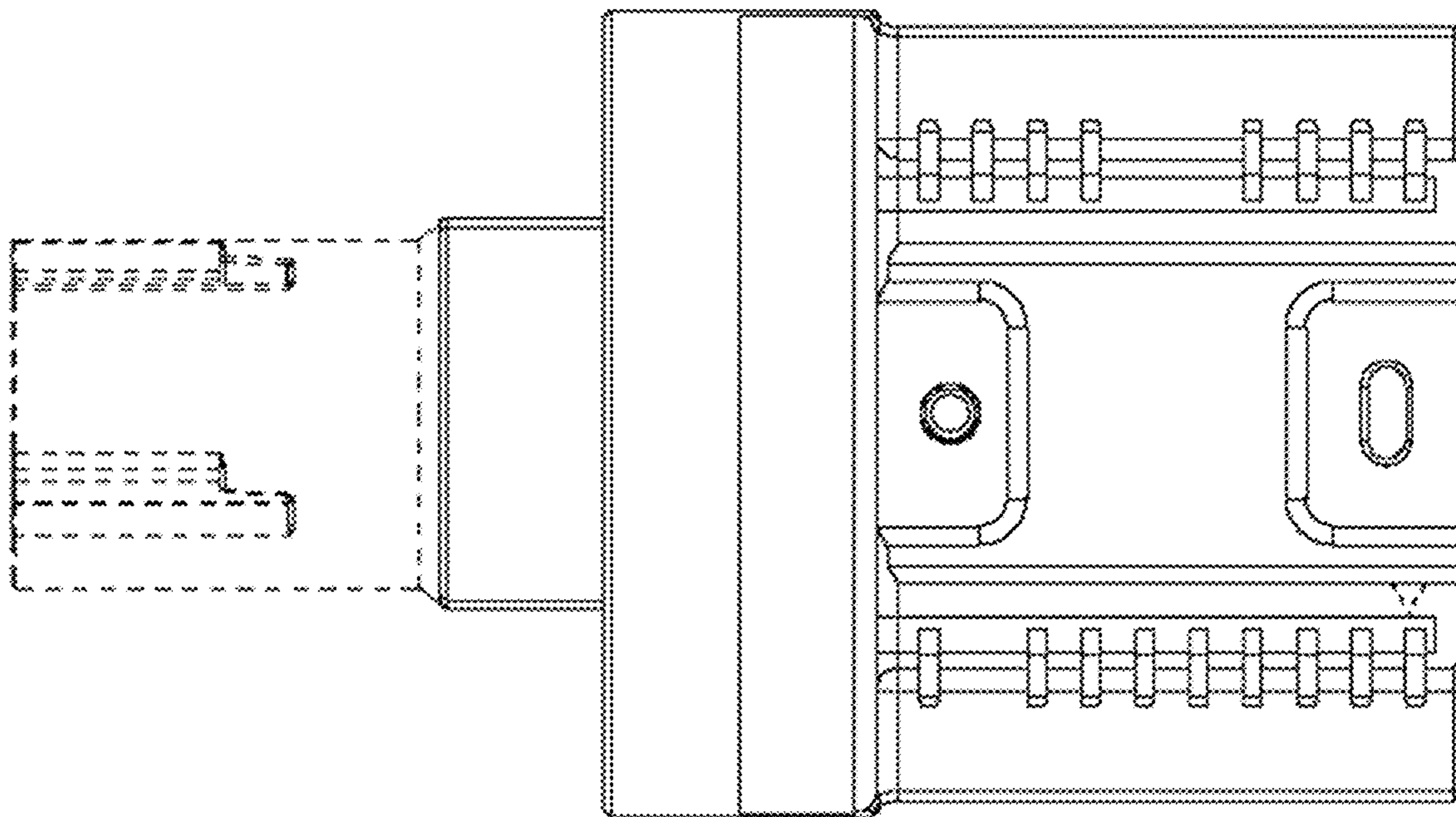


FIG. 2

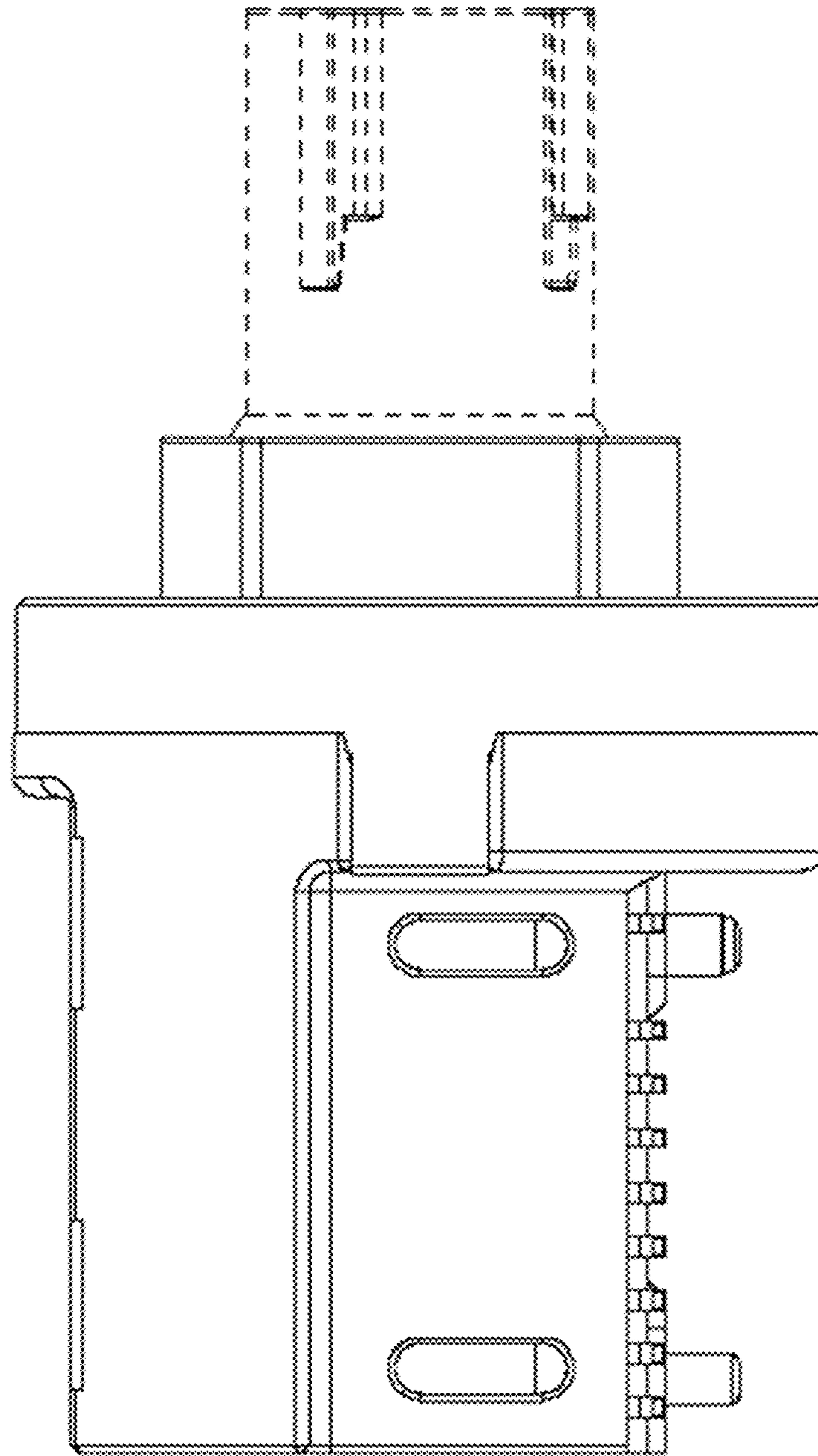


FIG. 3

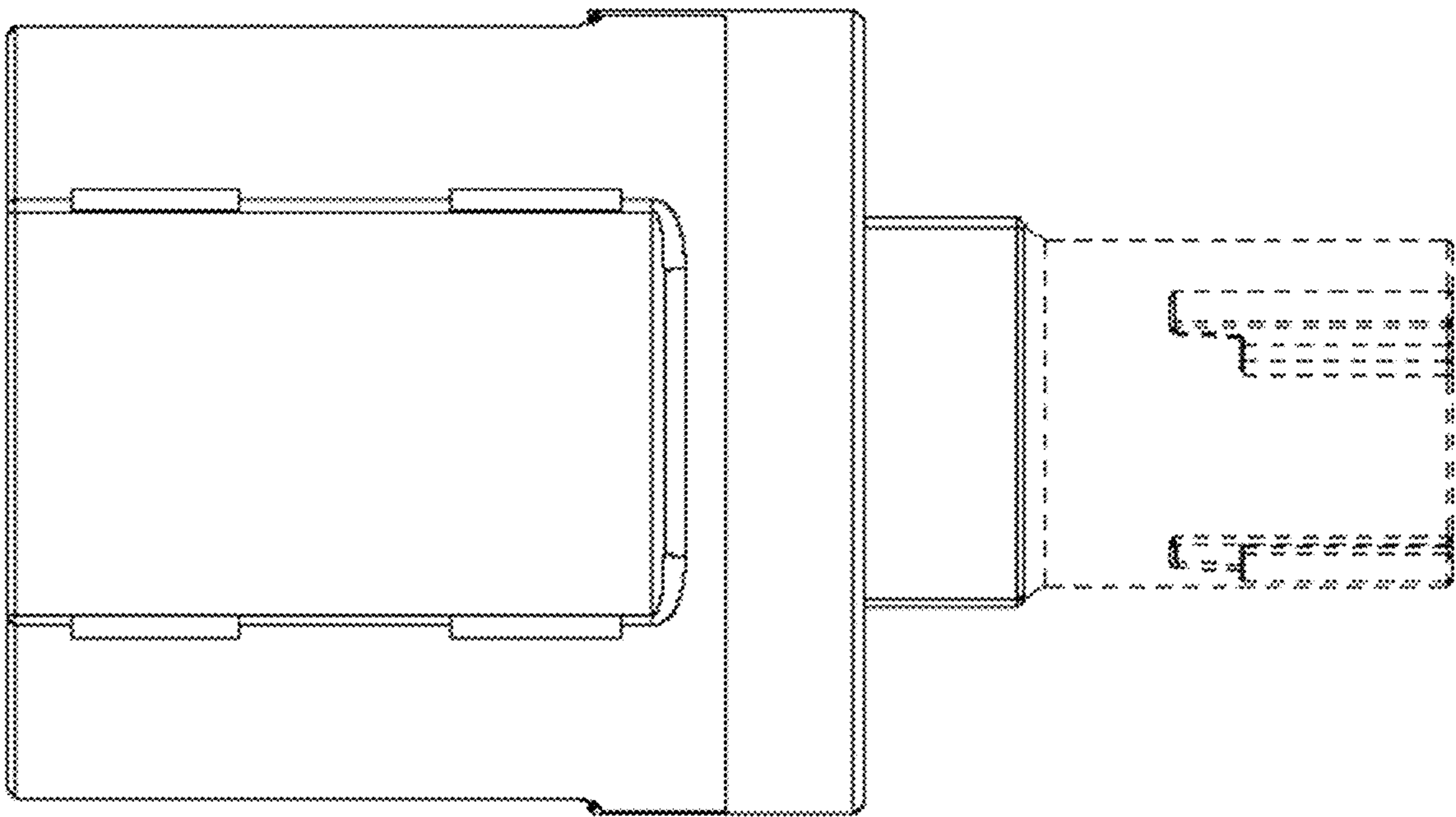


FIG. 4

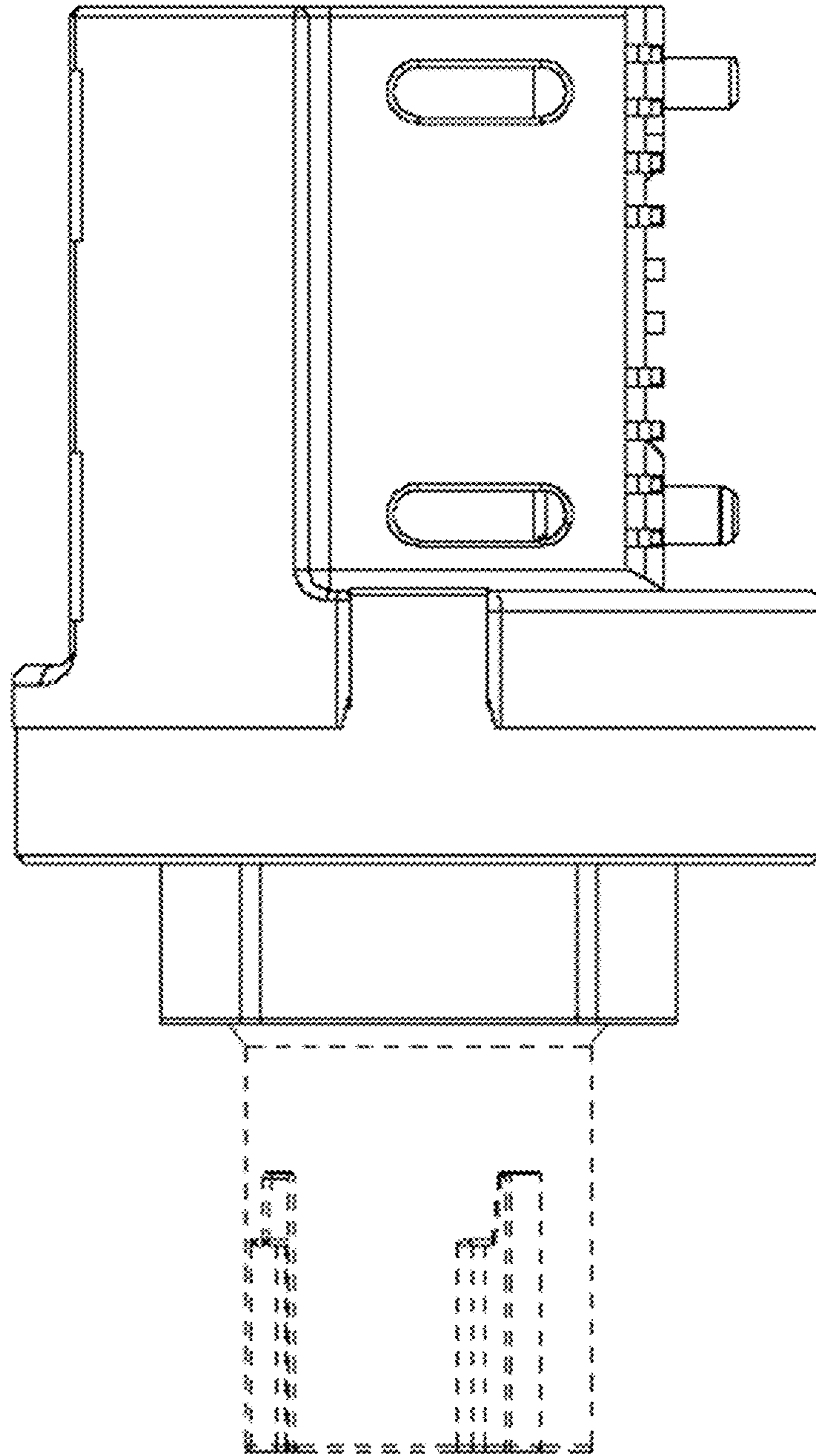


FIG. 5

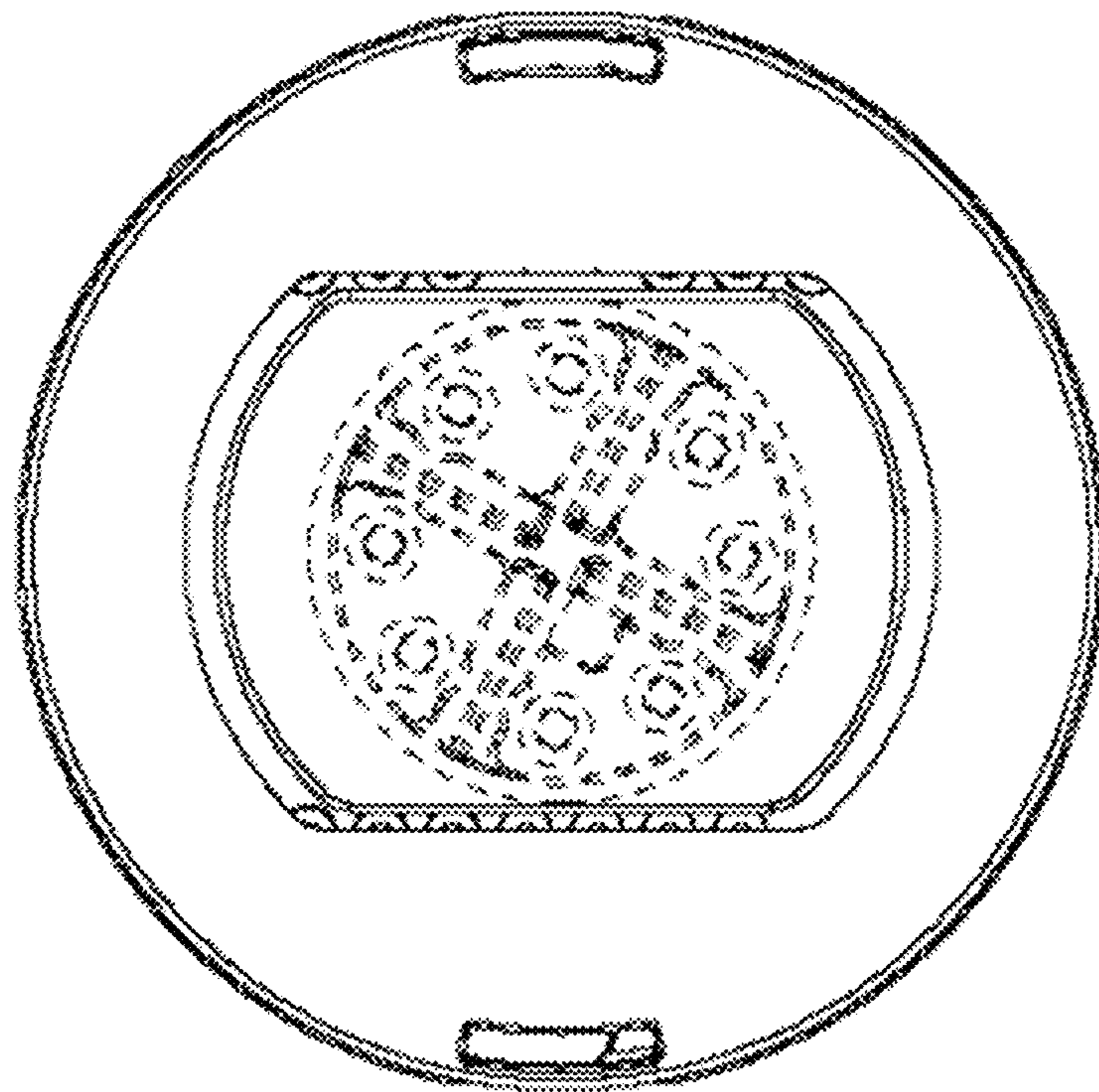


FIG. 6

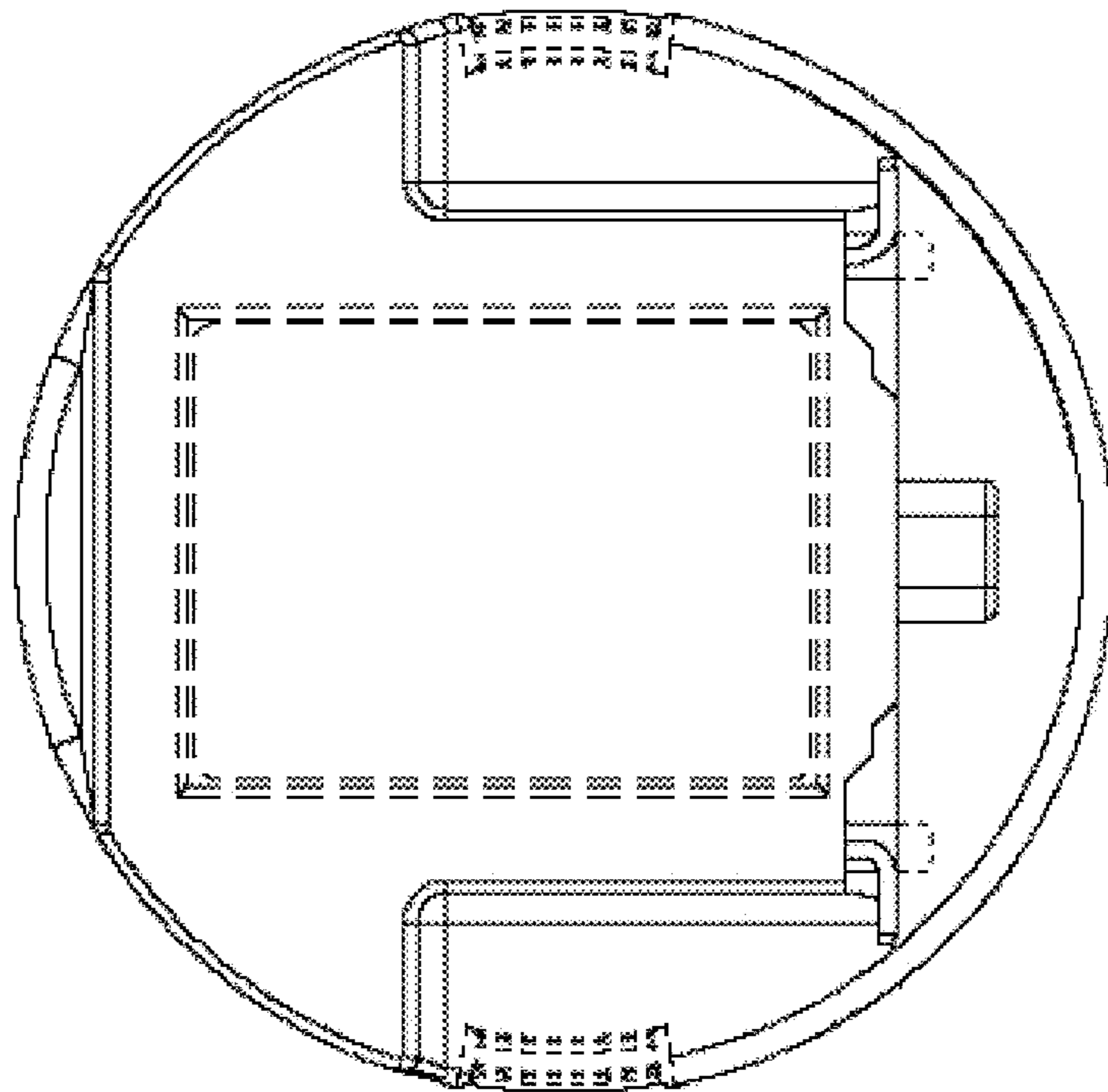


FIG. 7