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(12) **United States Design Patent**
Montgomery

(10) **Patent No.:** **US D980,882 S**

(45) **Date of Patent:** **** Mar. 14, 2023**

- (54) **3D PRINTER HOTEND**
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- (73) Assignee: **Slice Engineering, LLC**, Gainesville, FL (US)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/764,684**
- (22) Filed: **Dec. 31, 2020**
- (51) **LOC (14) Cl.** **15-09**
- (52) **U.S. Cl.**
USPC **D15/122**
- (58) **Field of Classification Search**
USPC D8/6, 7, 14, 19, 50, 54, 54.1, 55, 59;
D15/122, 135, 138, 199
CPC ... B29C 59/026; B29C 64/106; B29C 64/112;
B29C 64/209; B29C 64/232; B29C
64/386; B29C 64/393; B33Y 30/00;
B33Y 30/02
See application file for complete search history.

- 9,085,109 B2 * 7/2015 Schmehl B33Y 10/00
- D739,885 S * 9/2015 Lee D15/122
- 9,132,676 B2 * 9/2015 Bigford B41J 2/1752
- 9,156,205 B2 * 10/2015 Mark B29C 70/20
- D749,157 S * 2/2016 Seidenberg D15/138
- 9,314,970 B2 * 4/2016 Elsworthy B29C 31/042
- 9,481,133 B2 * 11/2016 Carbone B33Y 30/00
- 9,521,285 B1 * 12/2016 Lee H04N 1/00541
- 9,527,272 B2 * 12/2016 Steele B33Y 10/00
- 10,007,253 B2 * 6/2018 Hotta G05B 19/4099
- 10,052,860 B2 * 8/2018 Chang B33Y 30/00
- 10,105,901 B2 * 10/2018 Mou B41J 2/145
- 10,150,258 B2 * 12/2018 Feinberg B33Y 10/00
- 10,155,313 B2 * 12/2018 Langford B33Y 10/00
- 10,189,205 B1 * 1/2019 Ciscon B29C 64/393
- 10,207,326 B2 * 2/2019 Park B28B 7/465
- 10,207,462 B1 * 2/2019 Fields B29C 67/0085
- 10,207,490 B2 * 2/2019 Wu D01D 5/0023
- 10,214,003 B2 * 2/2019 Lu B33Y 10/00

(Continued)

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(57) **CLAIM**

The ornamental design for a 3D printer hotend, as shown and described.

DESCRIPTION

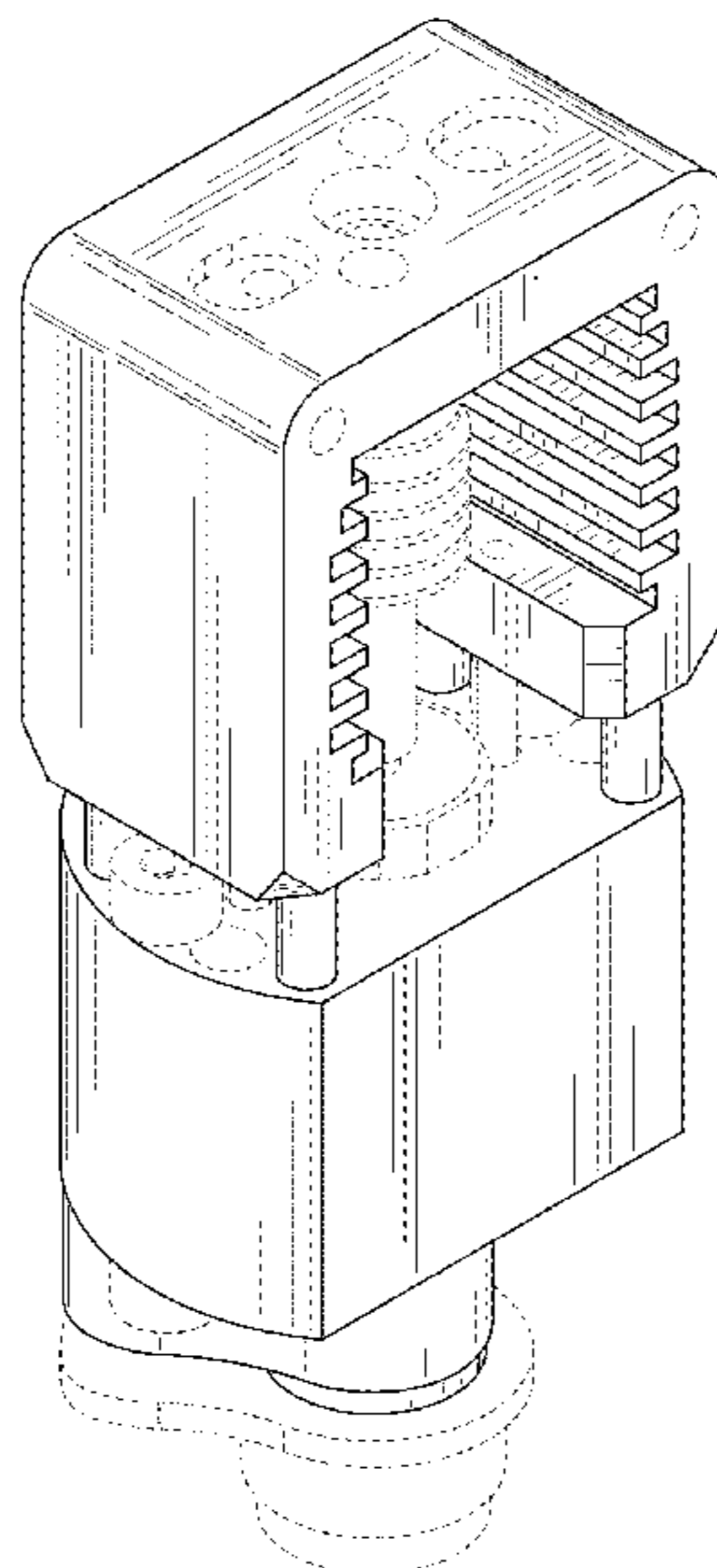
FIG. 1 is a front and top perspective view of a 3D printer hotend showing my new design;
FIG. 2 is a front elevation view thereof;
FIG. 3 is a rear elevation view thereof;
FIG. 4 is a left side elevation view thereof;
FIG. 5 is a right side elevation view thereof;
FIG. 6 is a top plan view thereof;
FIG. 7 is a bottom plan view thereof; and,
FIG. 8 is a rear and bottom perspective view thereof.
The dashed broken lines in the figures illustrate portions of the 3D printer hotend that form no part of the claimed design.

1 Claim, 5 Drawing Sheets

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 5,939,008 A * 8/1999 Comb B33Y 10/00
264/308
- D480,854 S * 10/2003 Hardy D34/1
- 7,168,935 B1 * 1/2007 Taminger B23K 15/0073
219/121.12
- 8,252,223 B2 * 8/2012 Medina B33Y 70/00
264/401
- 8,708,685 B2 * 4/2014 Hickerson B29C 35/0805
425/174.4
- 8,827,684 B1 * 9/2014 Schumacher B29C 64/20
425/375



(56)

References Cited

U.S. PATENT DOCUMENTS

10,245,783	B2 *	4/2019	Fuller	.....	B29C 64/209
10,274,935	B2 *	4/2019	Vernon	.....	G05B 19/4099
10,286,588	B2 *	5/2019	Susnjara	.....	B29C 64/188
10,363,730	B2 *	7/2019	Klein	.....	B29C 64/153
10,384,389	B2 *	8/2019	Contractor	.....	B29C 48/2886
D875,794	S *	2/2020	Montgomery	.....	B29C 64/106
					D15/122
D888,114	S *	6/2020	Montgomery	.....	B33Y 10/00
					D15/122
D905,768	S *	12/2020	Montgomery	.....	B29C 64/209
					D15/122
2010/0100224	A1 *	4/2010	Comb	.....	B33Y 40/00
					700/118
2016/0193778	A1 *	7/2016	Lee	.....	B33Y 40/00
					425/378.1
2016/0368218	A1 *	12/2016	Cruz	.....	B29C 64/20
2017/0050374	A1 *	2/2017	Minardi	.....	G05B 15/02
2017/0144379	A1 *	5/2017	Sung	.....	B33Y 50/02
2019/0030807	A1 *	1/2019	Ciscon	.....	B29C 64/245

* cited by examiner

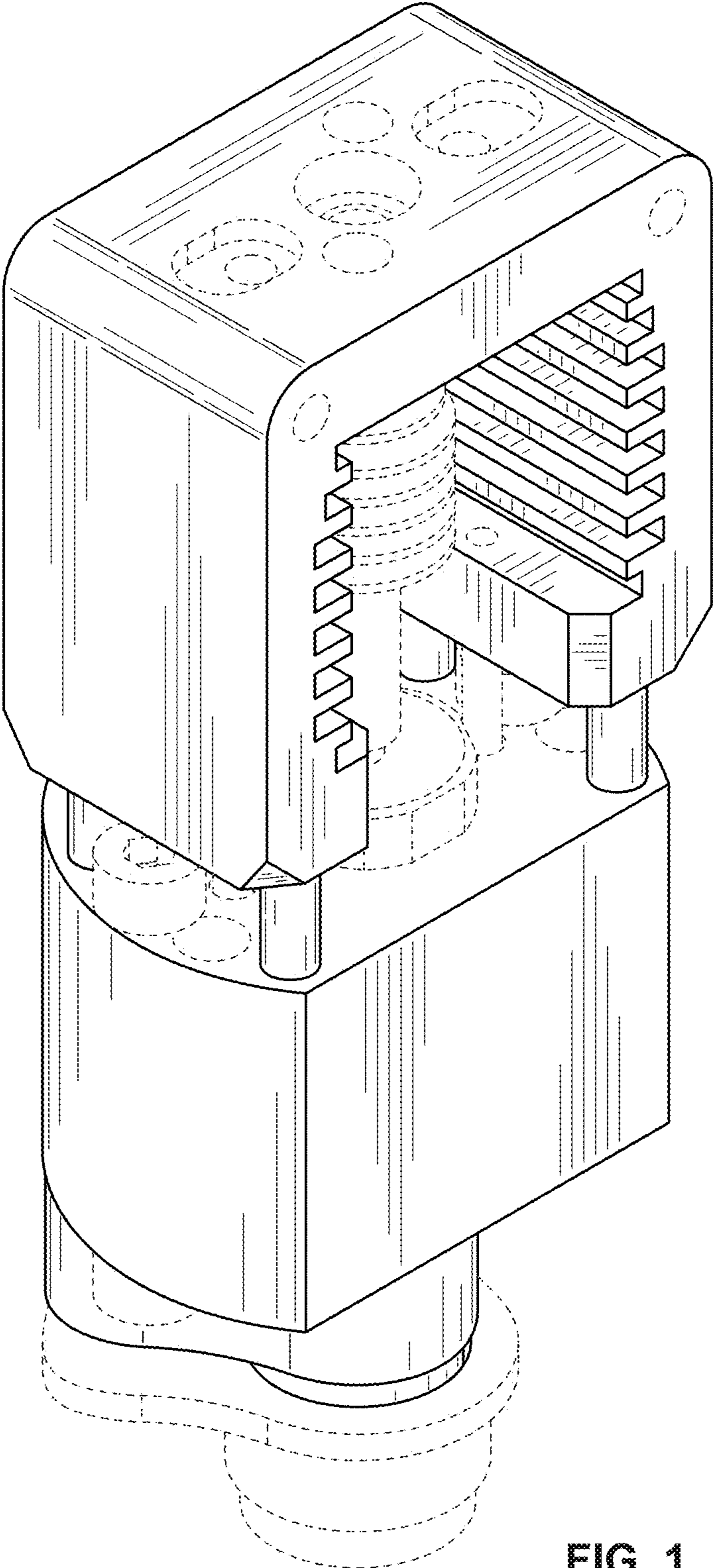


FIG. 1

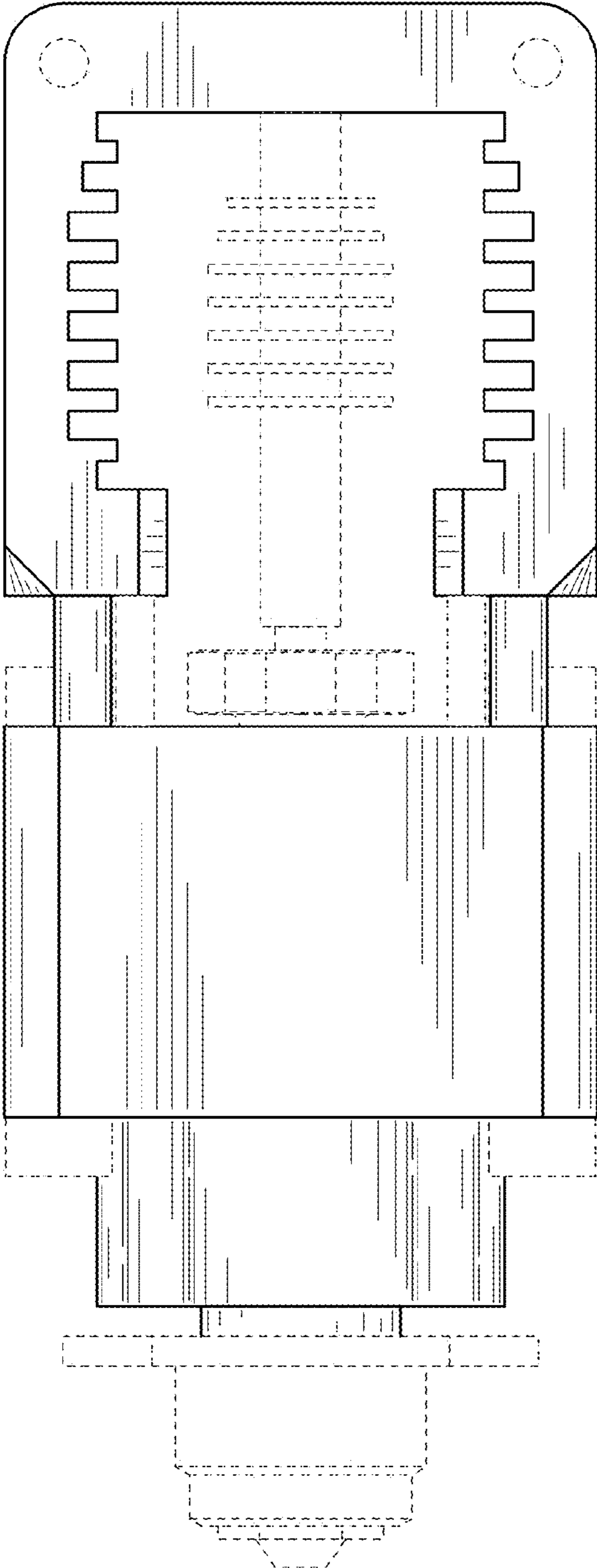


FIG. 2

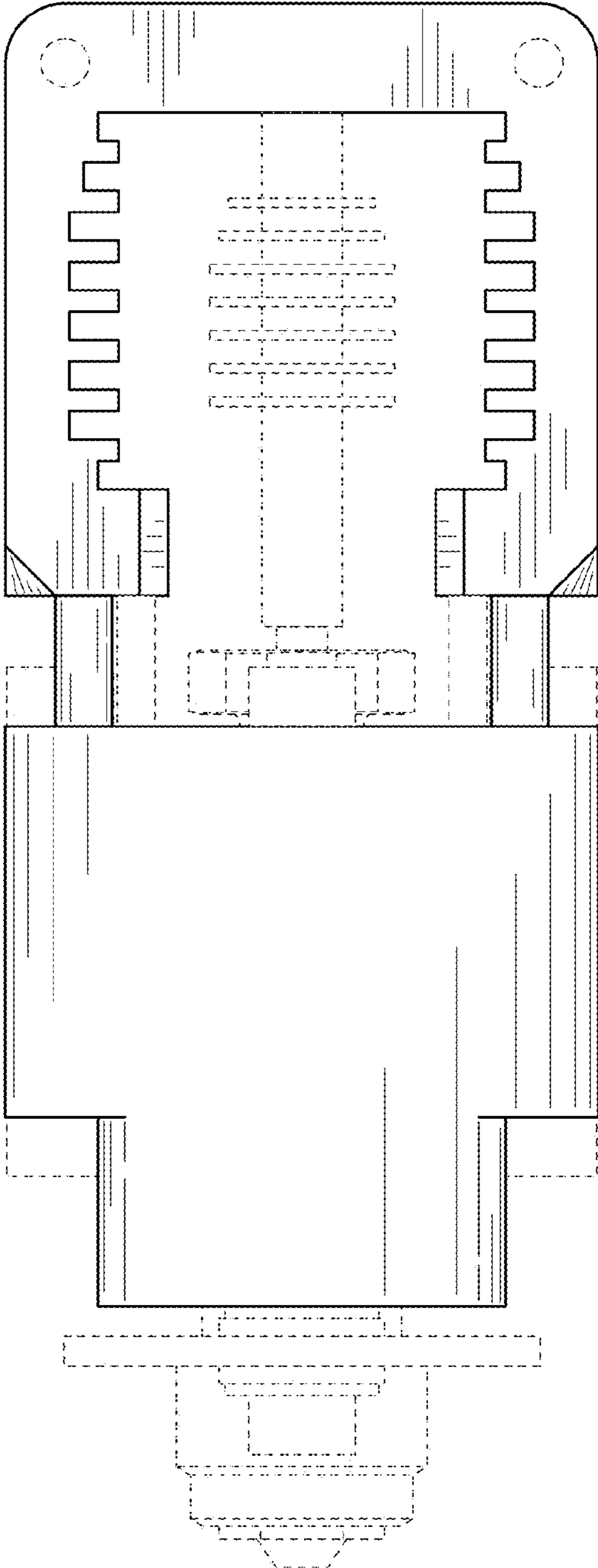


FIG. 3

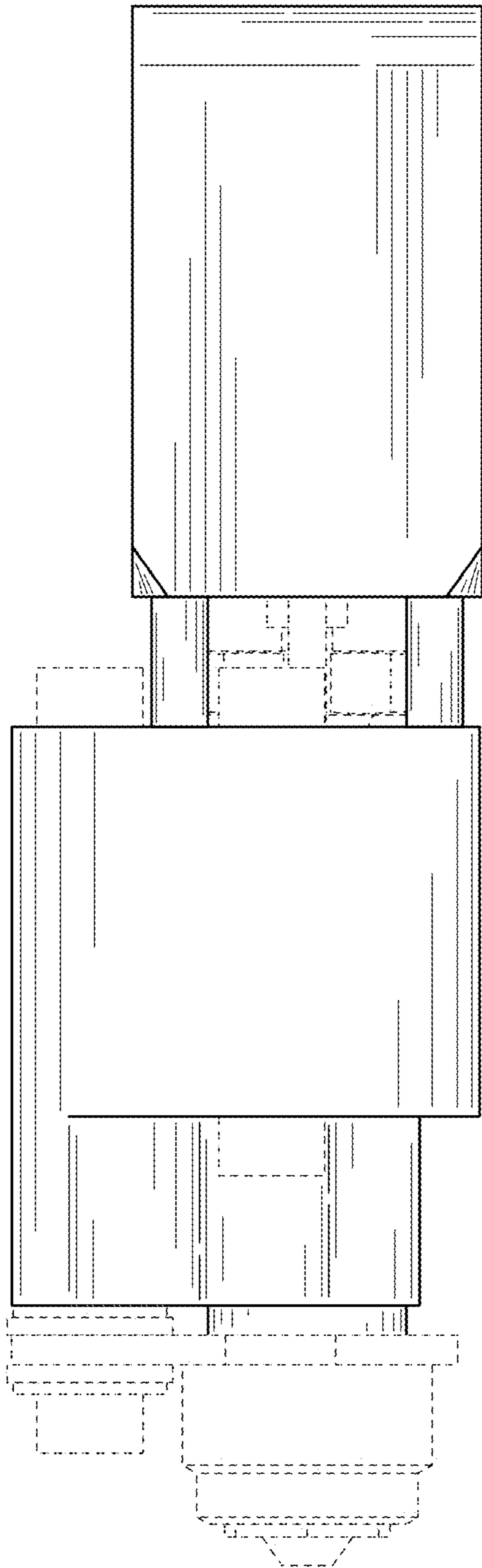


FIG. 4

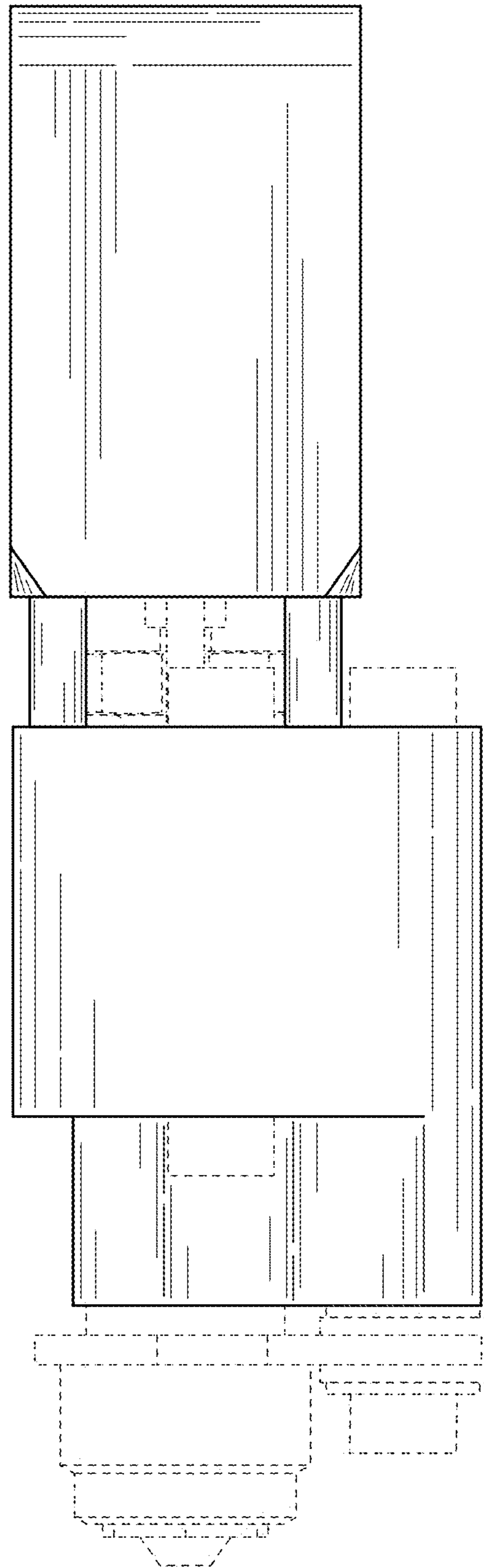


FIG. 5

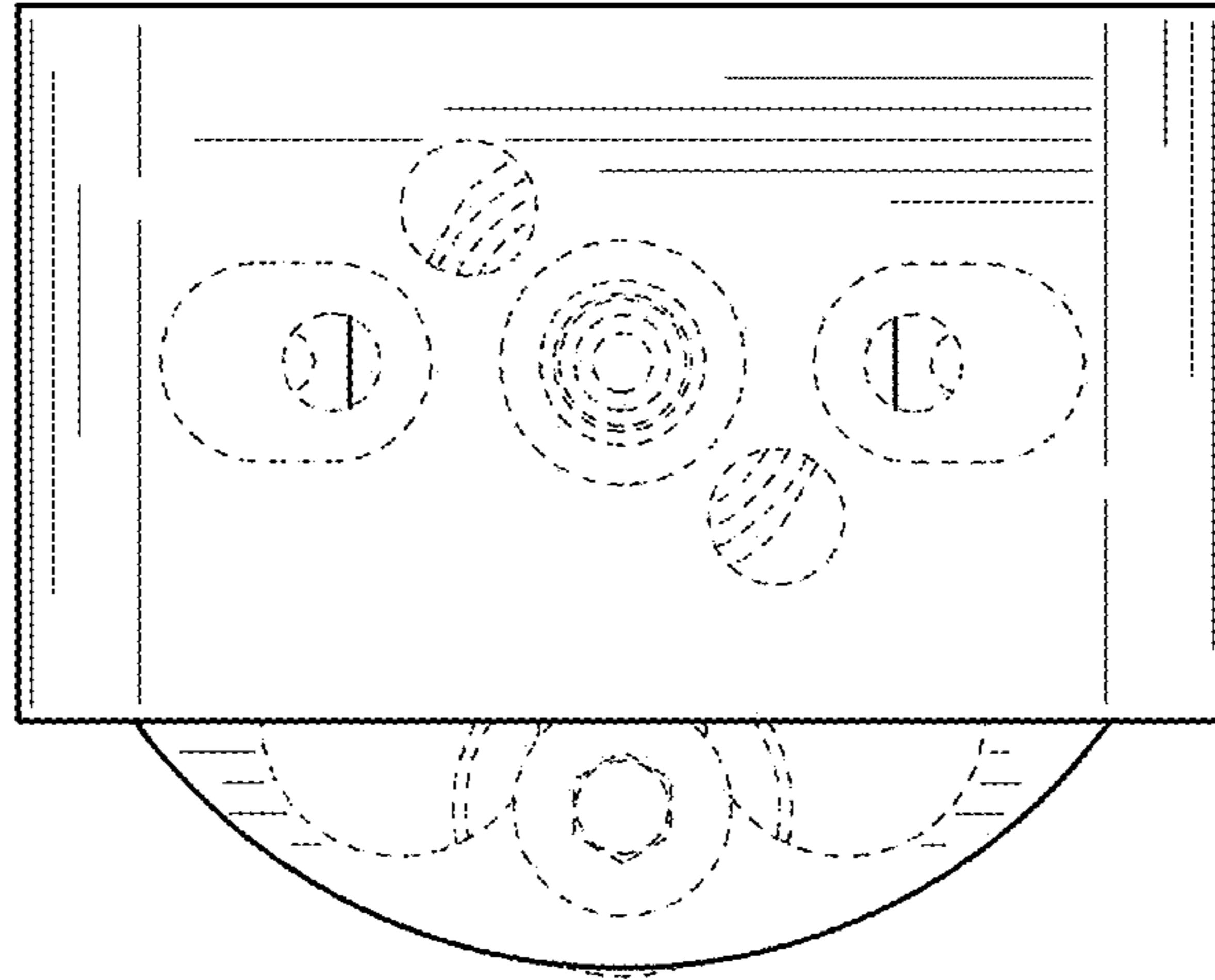


FIG. 6

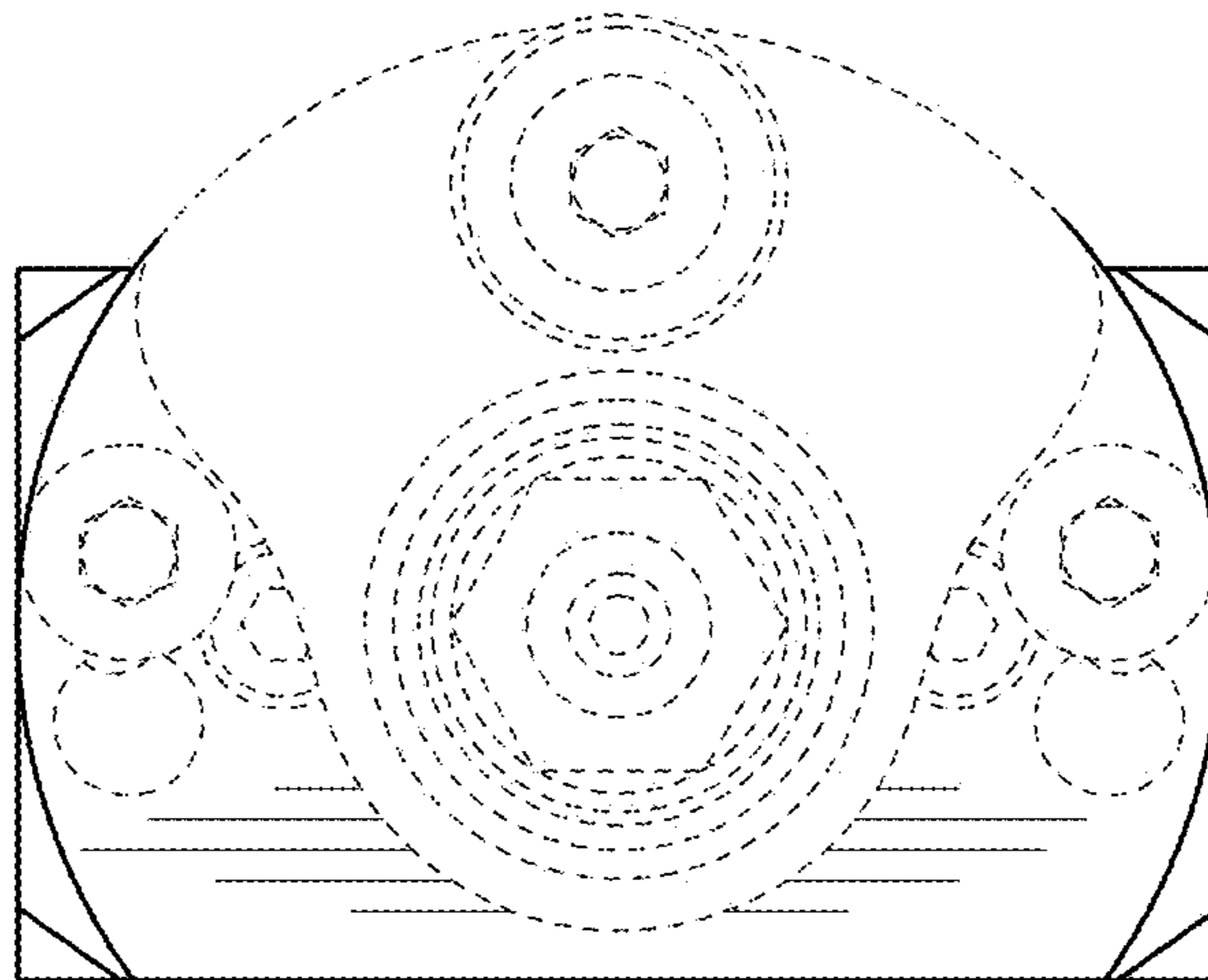


FIG. 7

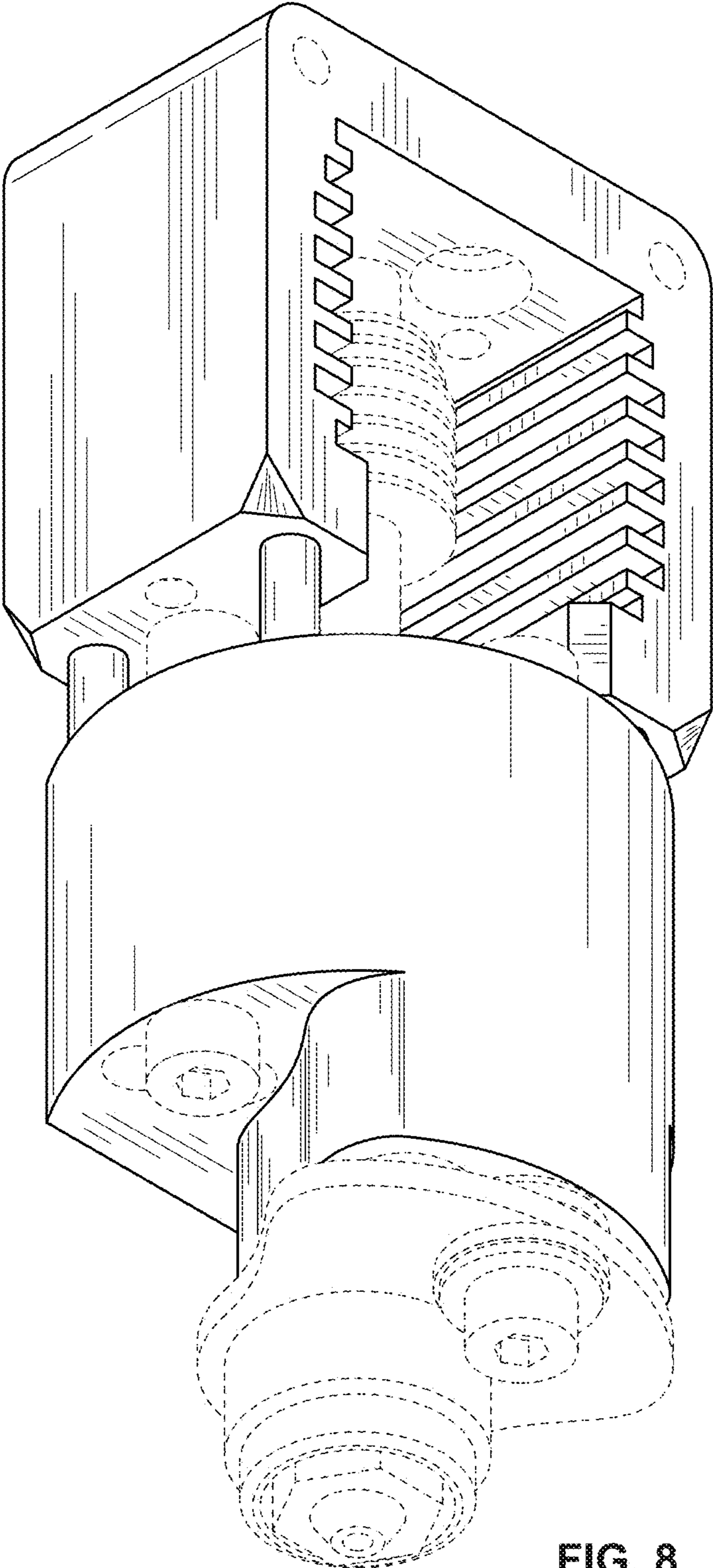


FIG. 8