



US00D875794S

(12) **United States Design Patent** (10) **Patent No.:** **US D875,794 S**  
**Montgomery** (45) **Date of Patent:** **\*\* Feb. 18, 2020**

- (54) **3D PRINTER HOTEND** 8,708,685 B2 \* 4/2014 Hickerson ..... B29C 35/0805  
425/174.4
- (71) Applicant: **Slice Engineering LLC**, Gainesville, FL (US) 8,827,684 B1 \* 9/2014 Schumacher ..... B29C 64/20  
425/375
- (72) Inventor: **Christopher Mark Montgomery**, Austin, TX (US) 9,085,109 B2 \* 7/2015 Schmehl ..... B33Y 10/00  
D739,885 S \* 9/2015 Lee ..... D15/122  
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  
9,521,285 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
- (\*\*) Term: **15 Years** (Continued)

(21) Appl. No.: **29/695,937**

FOREIGN PATENT DOCUMENTS

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- CN 204977465 U 1/2016
- CN 205439273 U 8/2016

(Continued)

**Related U.S. Application Data**

(63) Continuation of application No. 15/981,615, filed on May 16, 2018.

(51) **LOC (12) 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.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 5,939,008 A \* 8/1999 Comb ..... B33Y 10/00  
264/308
- 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

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(57) **CLAIM**

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

**DESCRIPTION**

FIG. 1 is a front-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 right side elevation view thereof;

FIG. 5 is a left side elevation view thereof;

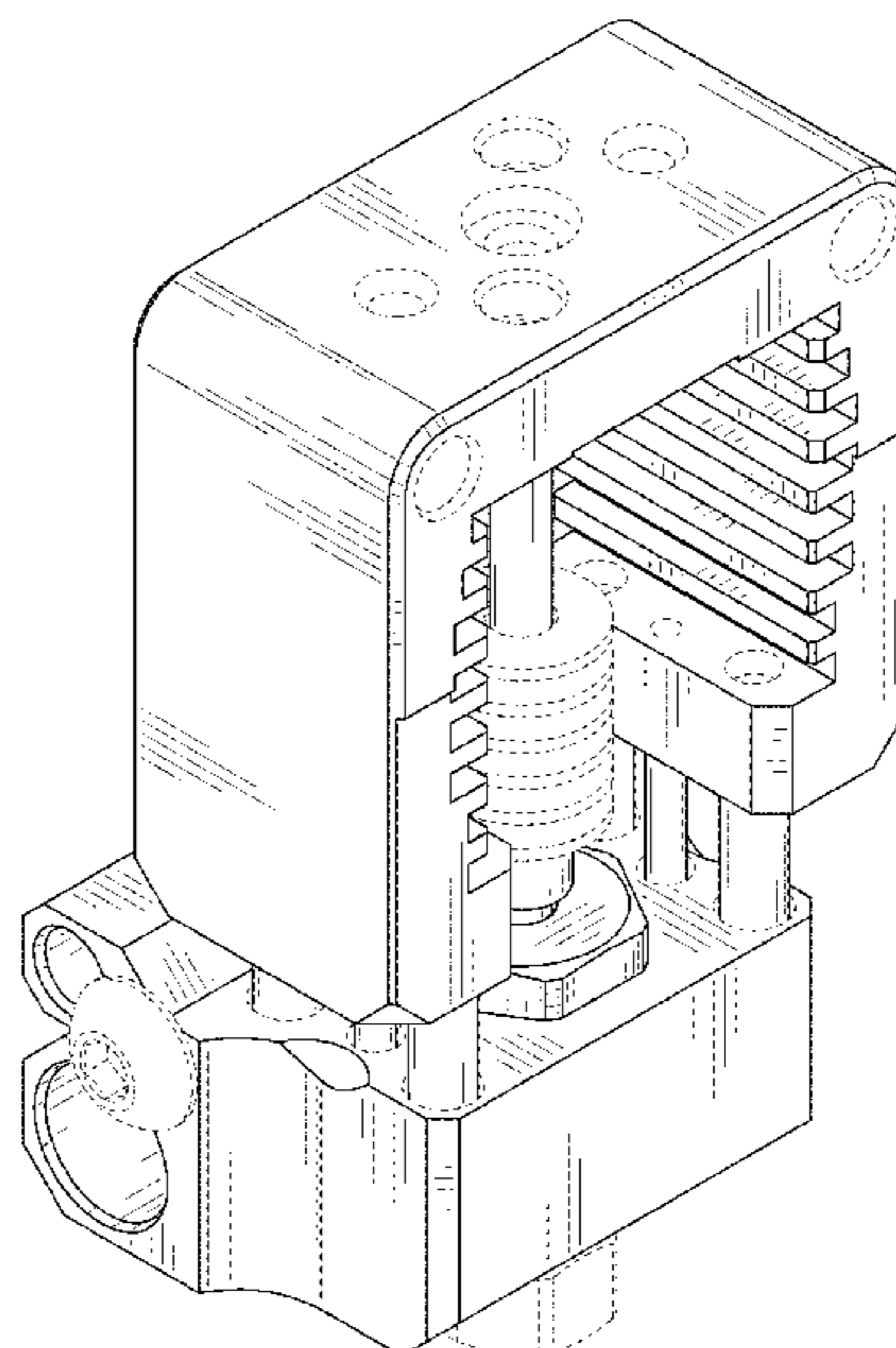
FIG. 6 is a top plan view thereof;

FIG. 7 is a bottom plan view thereof; and,

FIG. 8 is a rear-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, 8 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

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
10,214,003	B2 *	2/2019	Lu .....	B33Y 10/00
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
2010/0100224	A1 *	4/2010	Comb .....	B33Y 40/00 700/118
2016/0193778	A1	7/2016	Lee et al.	
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
2019/0022935	A1	1/2019	Leonardus Van Tooren et al.	
2019/0030807	A1 *	1/2019	Ciscon .....	B29C 64/245

FOREIGN PATENT DOCUMENTS

CN	103950199	B	9/2016
CN	303888554		10/2016
CN	304006997		1/2017
CN	304232309		8/2017
CN	104999669	B	4/2018
DE	102015103377	A1	5/2016
KR	1020170010624	A	2/2017
KR	1020170111520	A	10/2017

\* cited by examiner

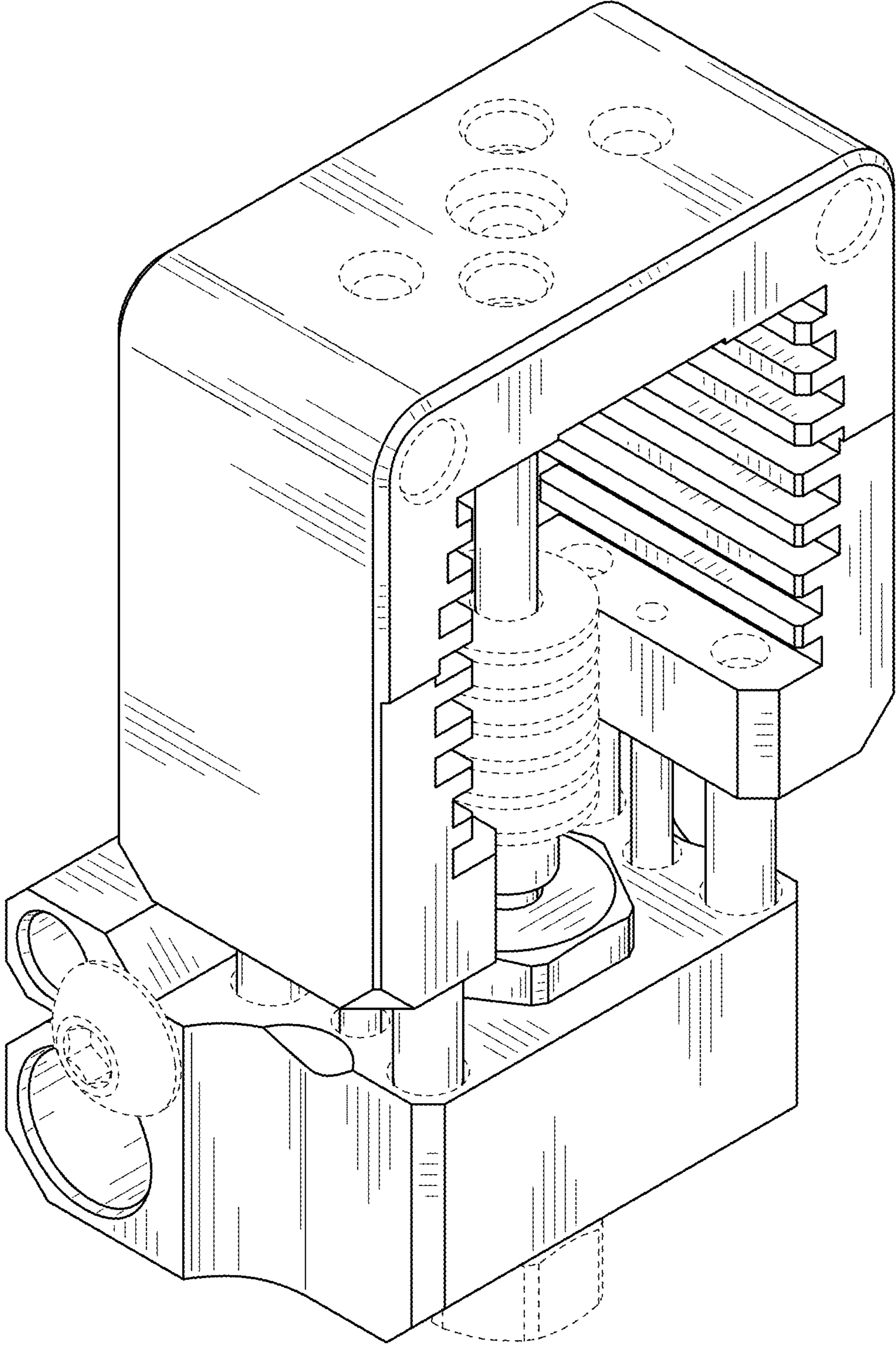


FIG. 1

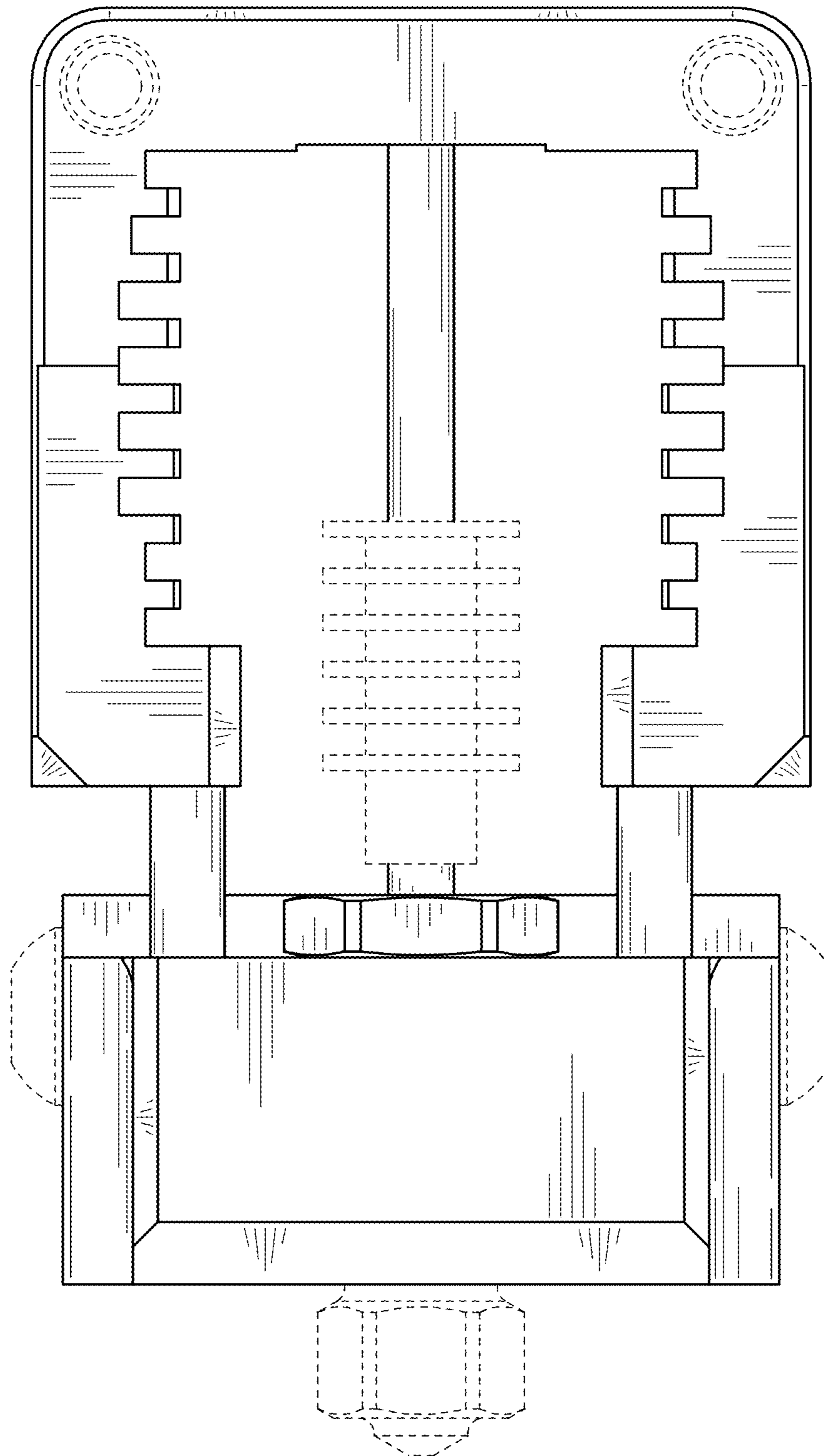


FIG. 2



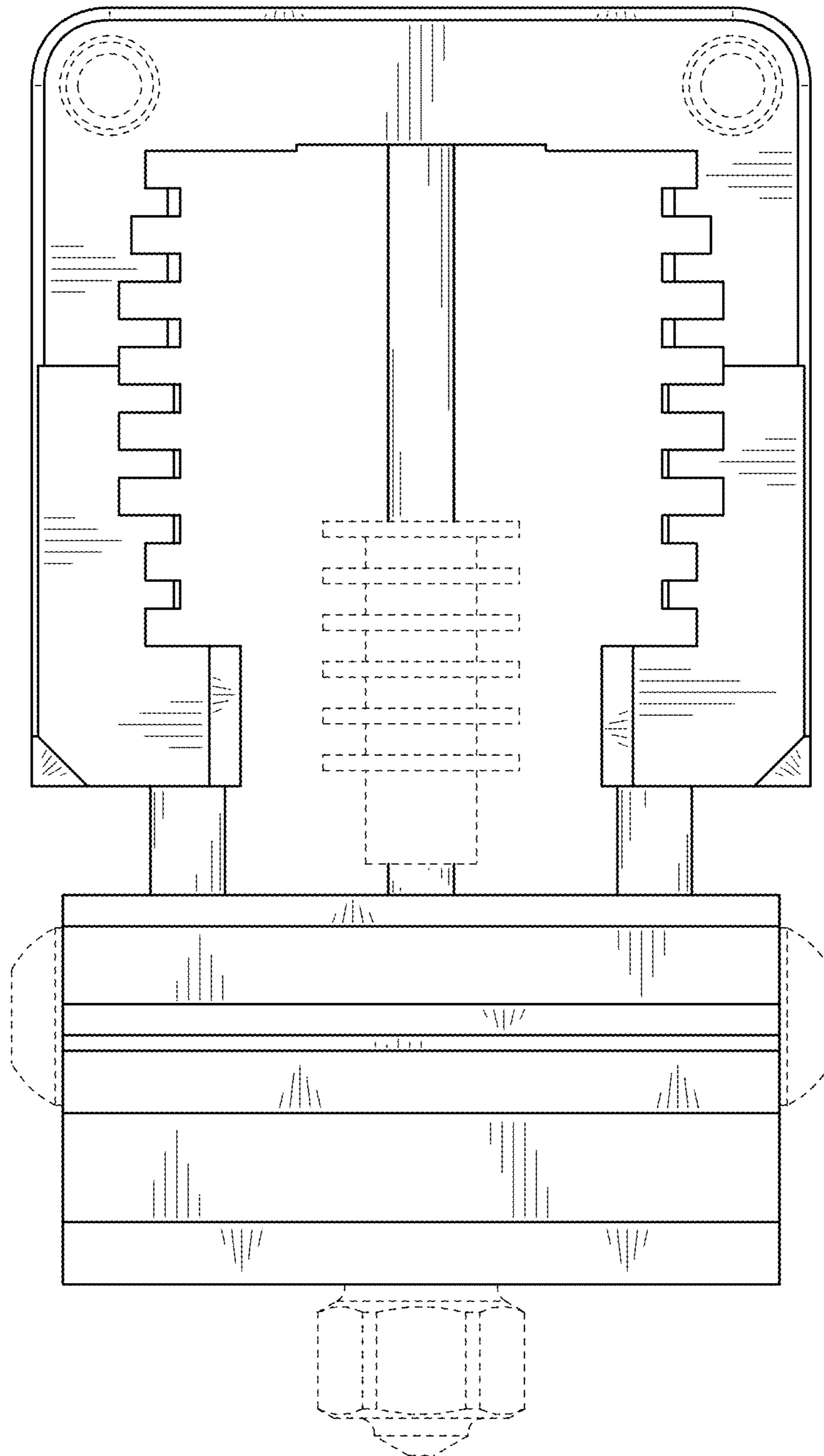


FIG. 3

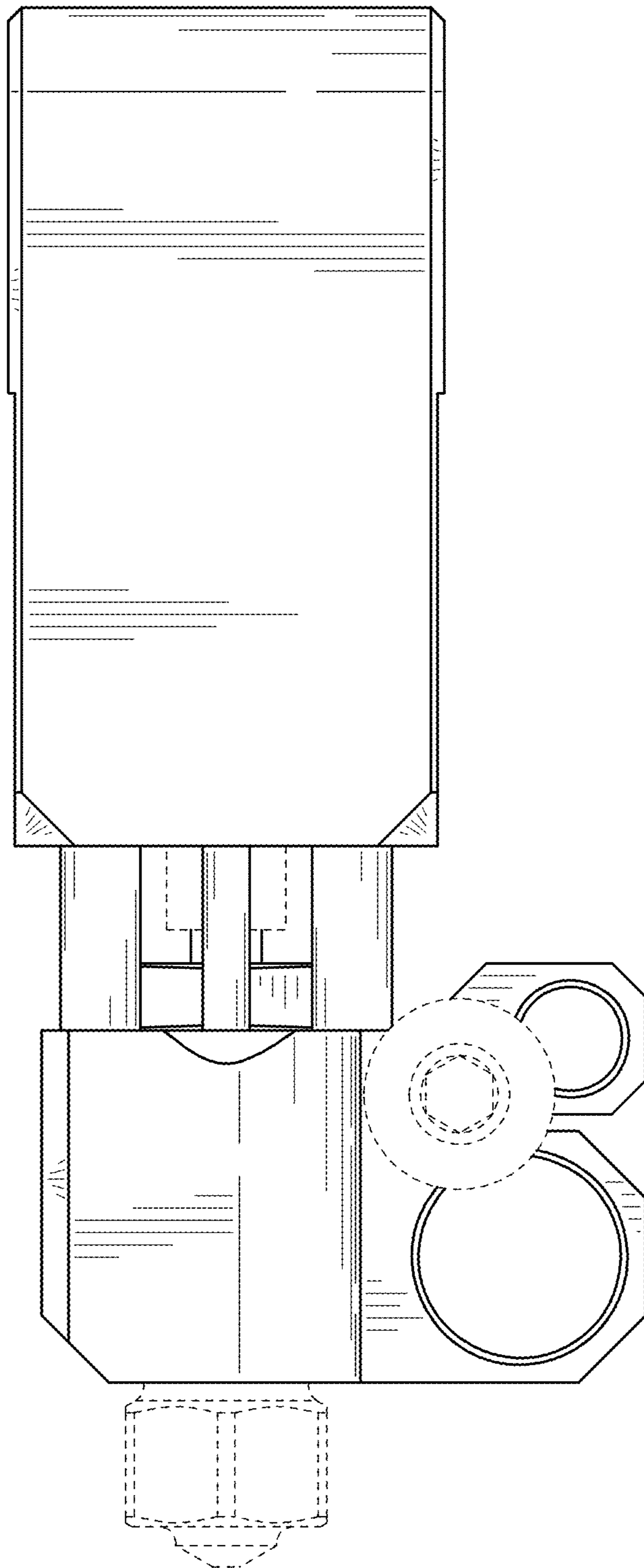


FIG. 4

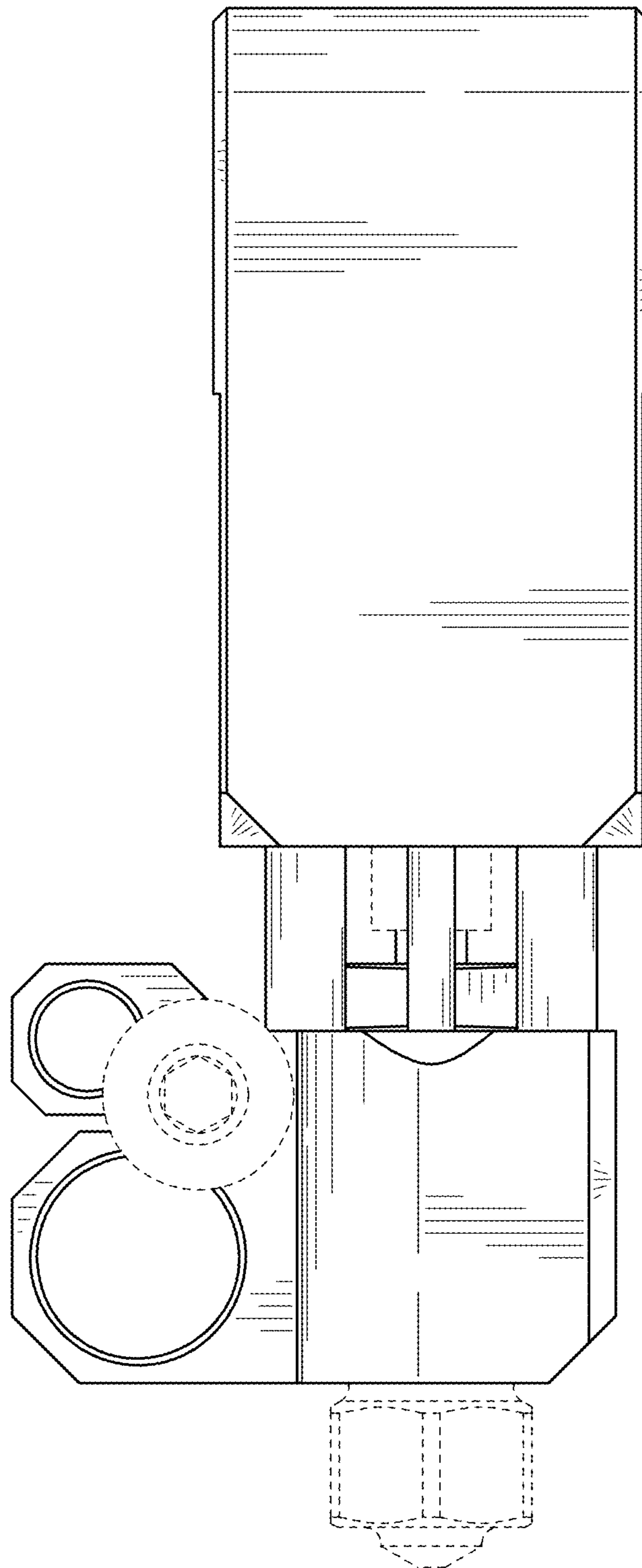


FIG. 5

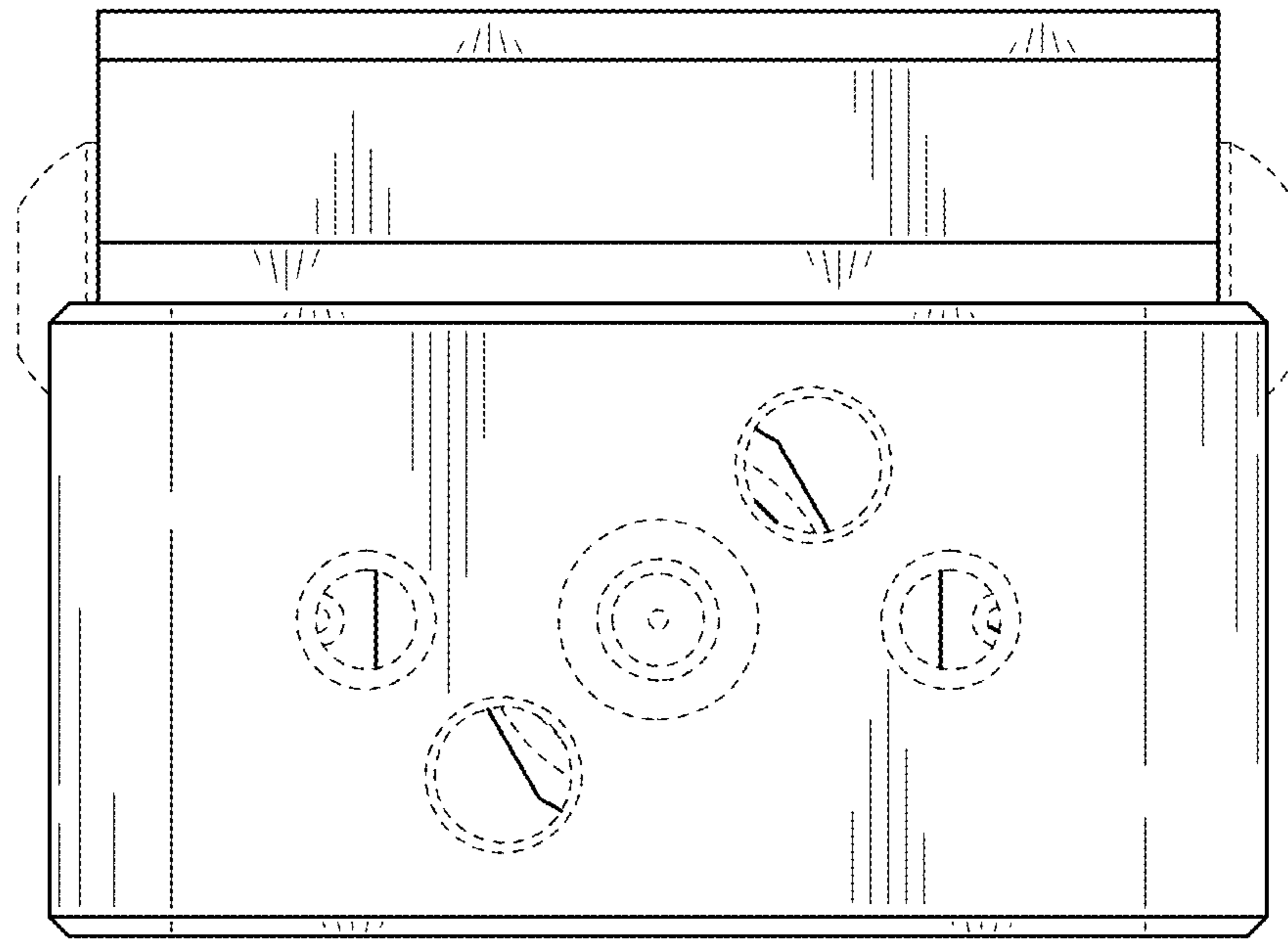


FIG. 6



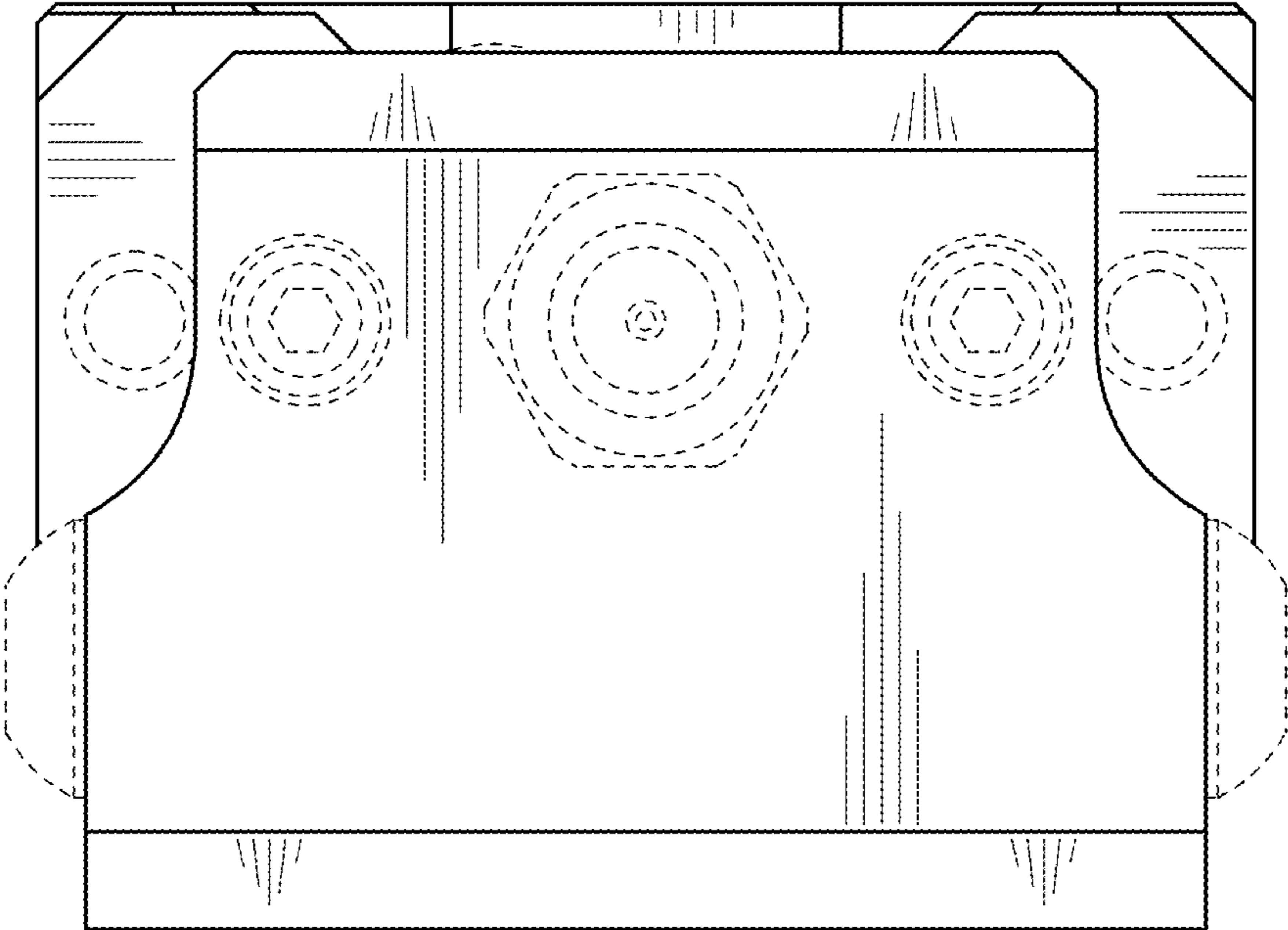


FIG. 7

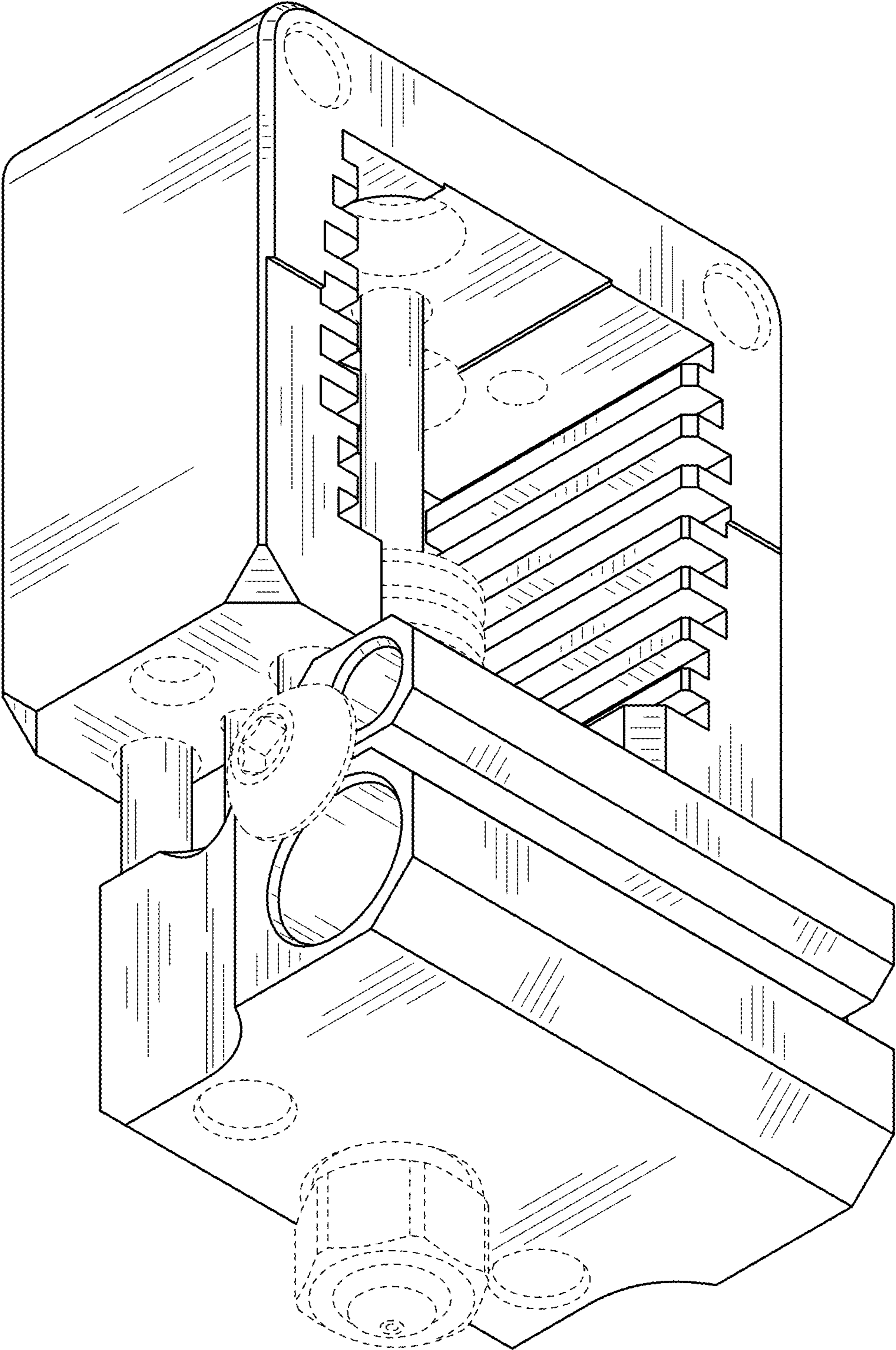


FIG. 8