



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
(73) Assignee: Slice Engineering LLC , Gainesville, FL (US)	9,156,205 B2 *	10/2015	Mark	B29C 70/20 D749,157 S * 2/2016 Seidenberg
(**) Term: 15 Years	9,314,970 B2 *	4/2016	Elsworthy	B29C 31/042 9,521,285 B1 * 12/2016 Lee
	9,527,272 B2 *	12/2016	Steele	B33Y 10/00 10,007,253 B2 * 6/2018 Hotta
	10,052,860 B2 *	8/2018	Chang	G05B 19/4099 B33Y 30/00

(Continued)

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

(22) Filed: **Jun. 24, 2019**

FOREIGN PATENT DOCUMENTS

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

Primary Examiner — Patricia A Palasik

(74) *Attorney, Agent, or Firm* — McAndrews, Held & Malloy, Ltd.

(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;

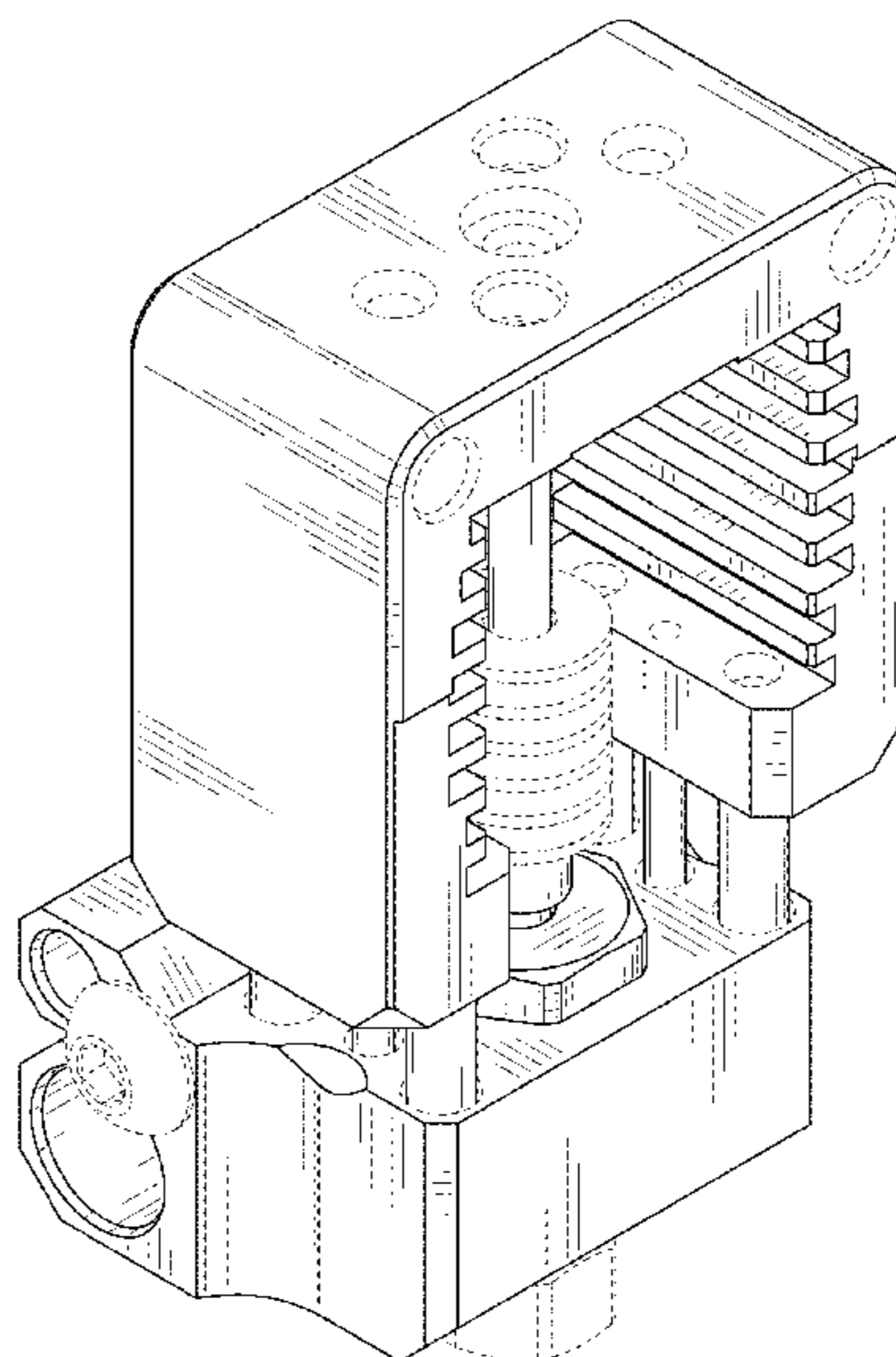
FIG. 6 is a top plan view thereof;

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

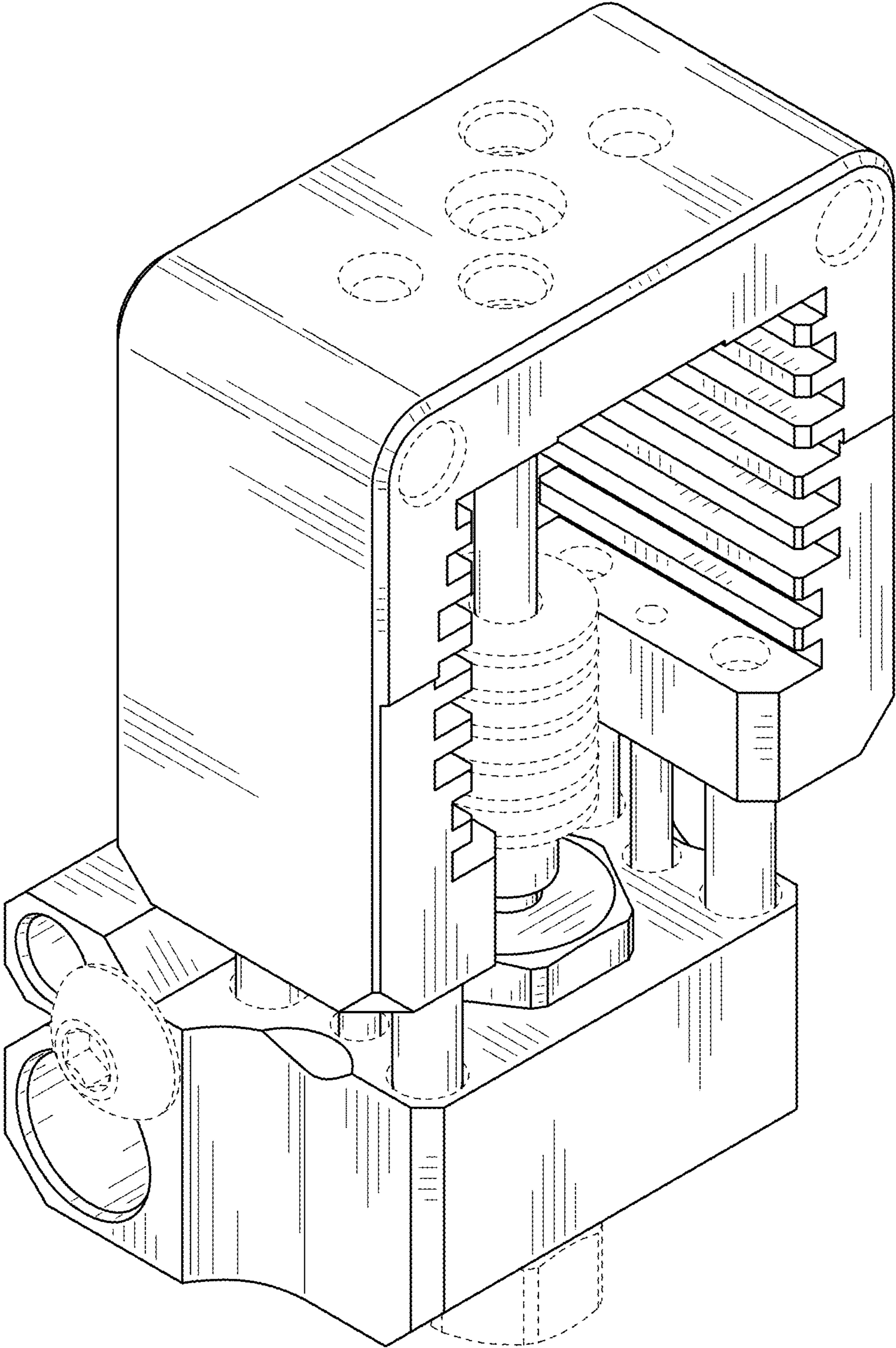


FIG. 1

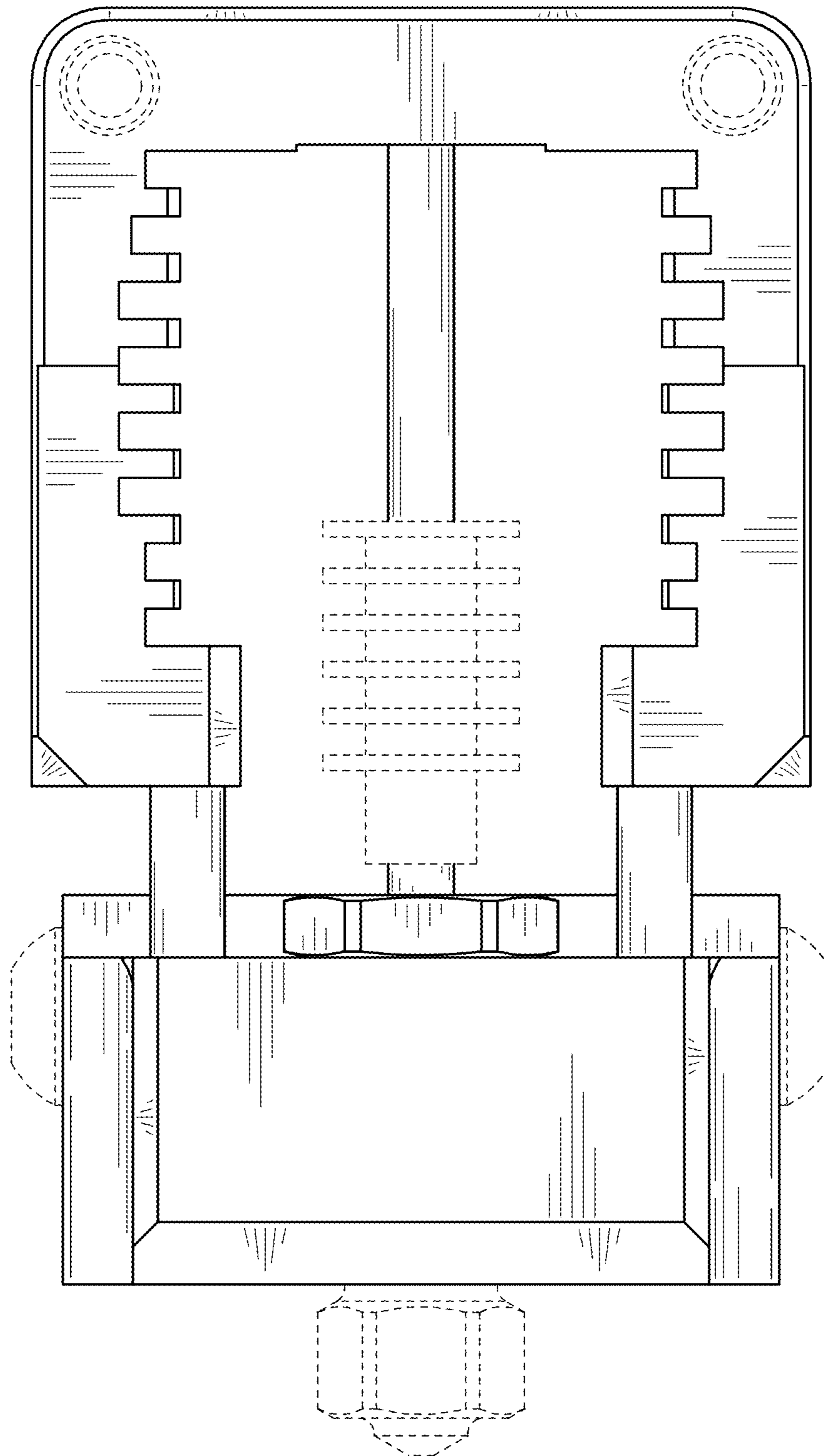


FIG. 2

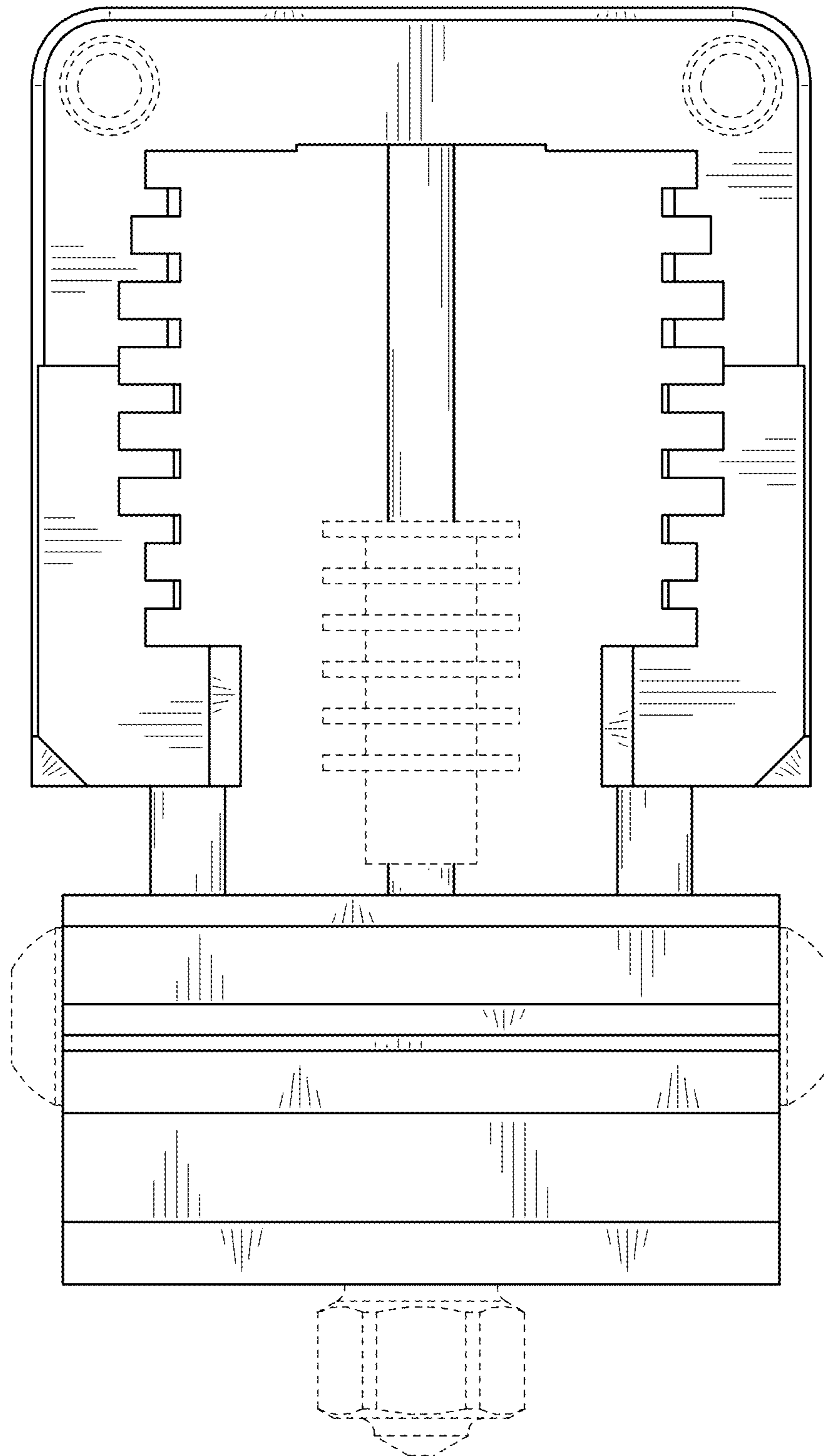


FIG. 3

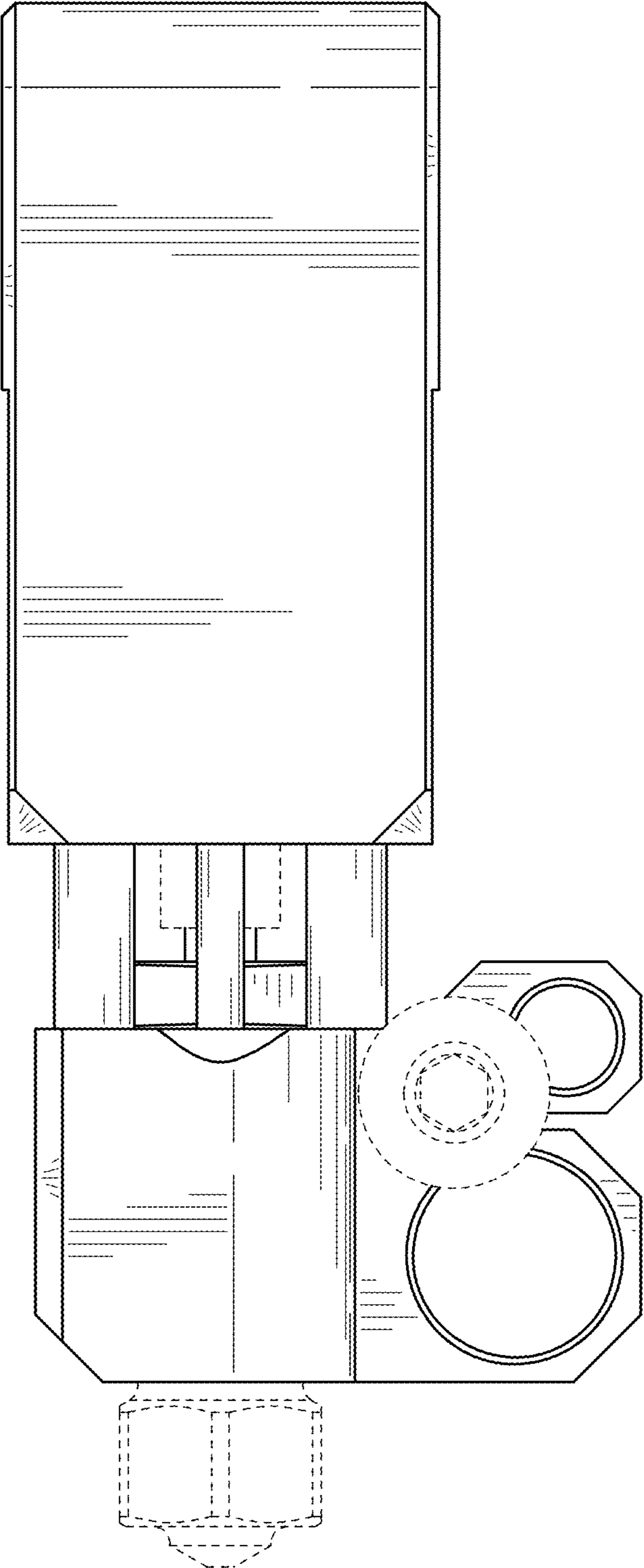


FIG. 4

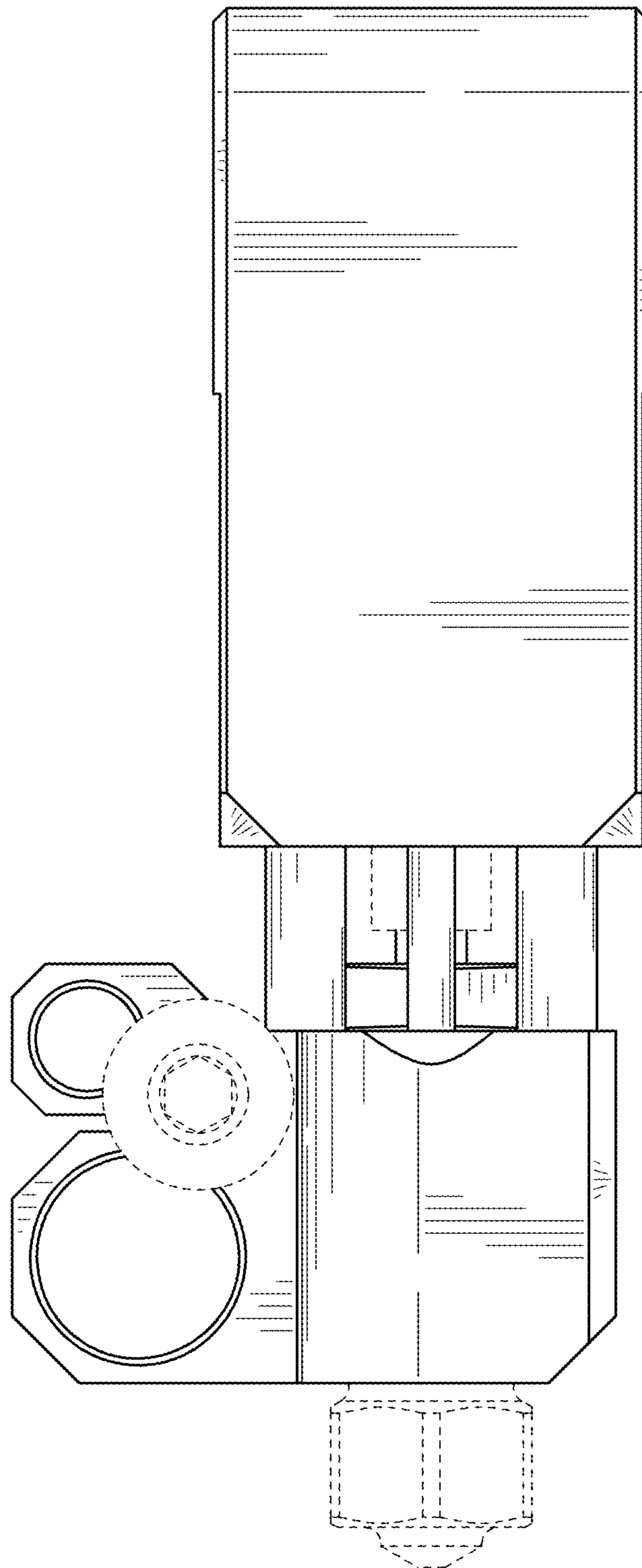


FIG. 5

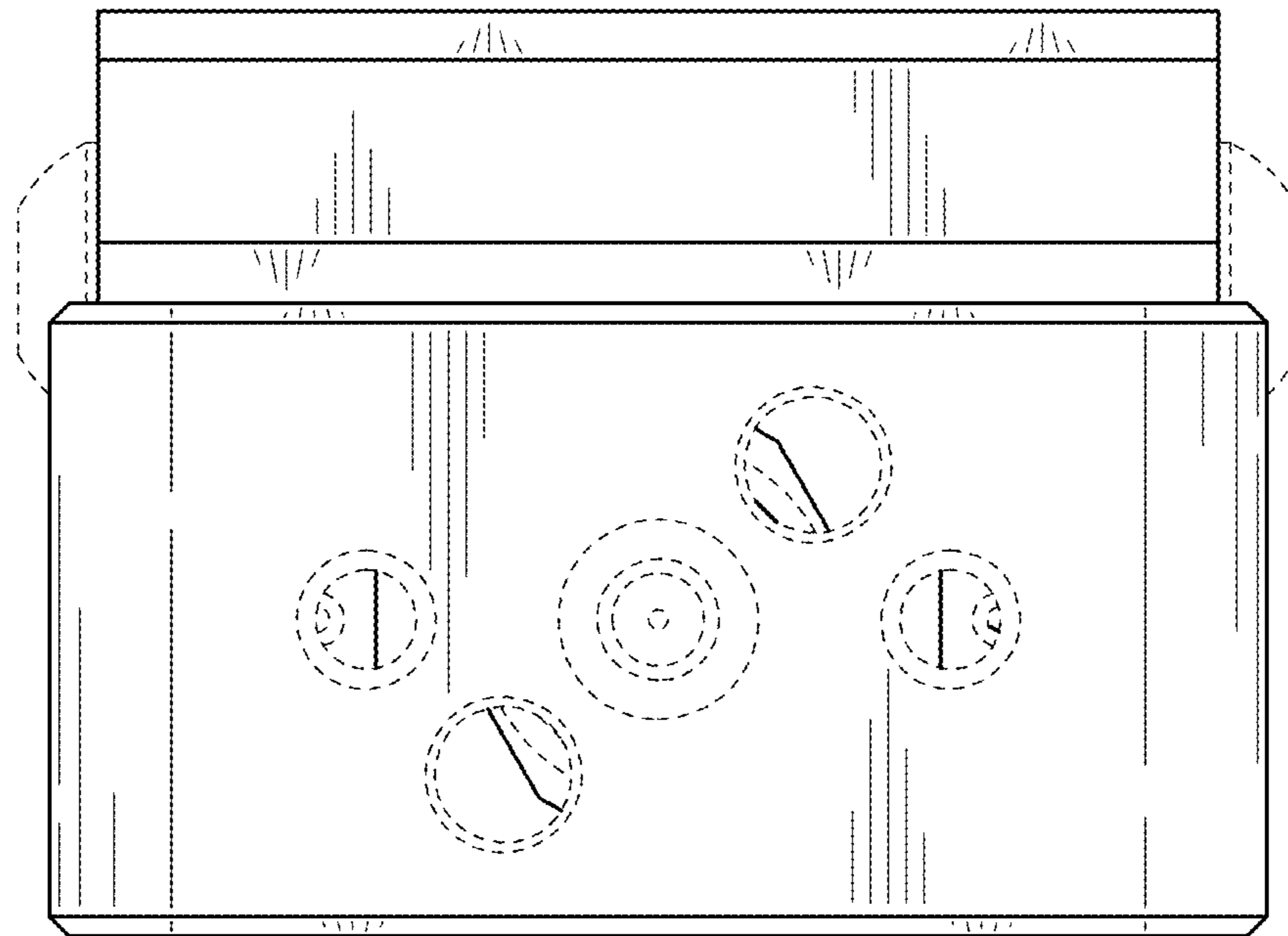


FIG. 6

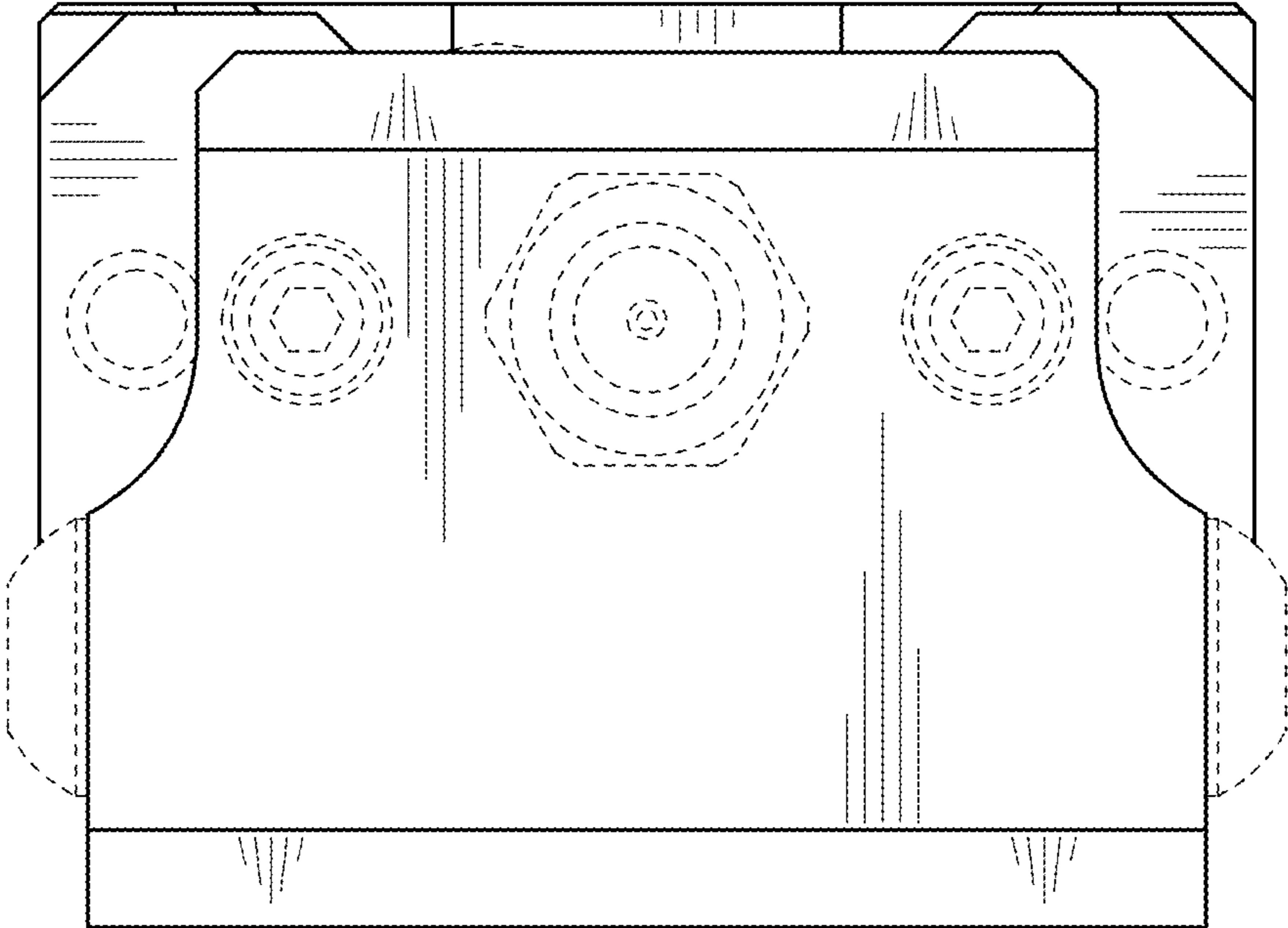


FIG. 7

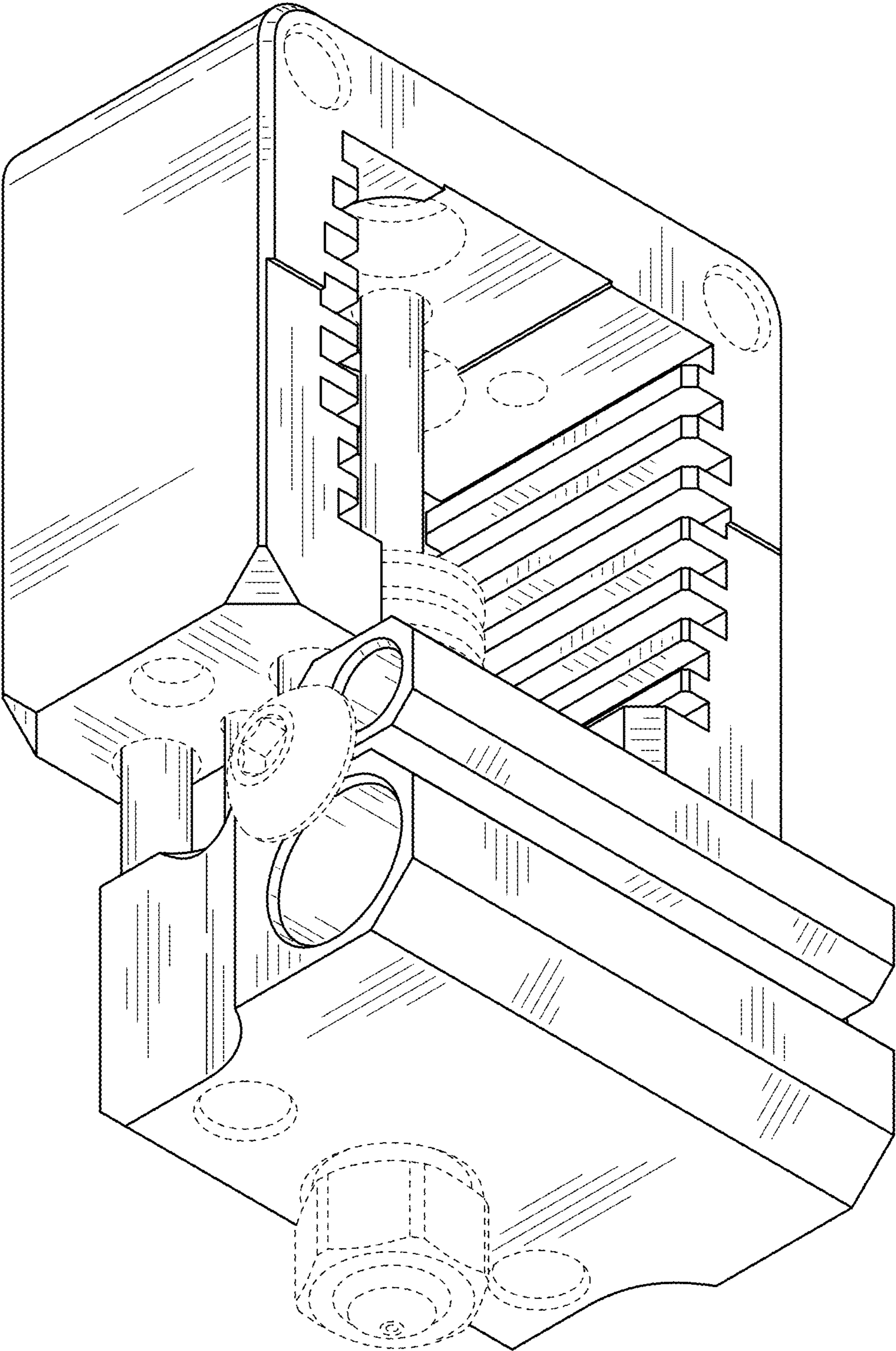


FIG. 8