



US00D839332S

(12) **United States Design Patent** (10) **Patent No.:** **US D839,332 S**
Bailey et al. (45) **Date of Patent:** **** Jan. 29, 2019**

- (54) **END EFFECTOR**
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- (72) Inventors: **Brent Andrew Bailey**, Toronto (CA);
Sean Adrian Conroy, Toronto (CA)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/614,777**
- (22) Filed: **Aug. 23, 2017**
- (51) **LOC (11) Cl.** **15-99**
- (52) **U.S. Cl.**
USPC **D15/199**
- (58) **Field of Classification Search**
USPC D15/199; D21/578-583, 621, 622
CPC B25J 5/007; B60B 19/006; B62D 57/024;
H01F 7/0221; Y10S 901/01
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D282,077 S *	1/1986	Abe	.....	D15/122
D287,368 S *	12/1986	Shibayama	.....	D15/122
D293,324 S *	12/1987	Gotou	.....	D15/122
D343,630 S *	1/1994	Tomiyama	.....	D15/199
5,413,454 A *	5/1995	Movsesian	.....	B25J 5/007 294/100
D617,903 S *	6/2010	Unger	.....	D24/146
D625,347 S *	10/2010	Feng	.....	D15/199
D711,061 S *	8/2014	Chen	.....	D34/29
D713,436 S *	9/2014	Liu	.....	D15/199
D718,160 S *	11/2014	Shimano	.....	D10/65
D776,735 S *	1/2017	Zhu	.....	D15/199

D782,553 S *	3/2017	Goto	.....	D15/199
D783,695 S *	4/2017	Ke	.....	D15/143
D785,688 S *	5/2017	Matsuda	.....	D15/199
D790,618 S *	6/2017	Ke	.....	D15/199
D792,495 S *	7/2017	Matsuda	.....	D15/199
D800,199 S *	10/2017	Yang	.....	D15/199
D800,813 S *	10/2017	Zhu	.....	D15/199
D810,801 S *	2/2018	Hsu	.....	D15/199
2009/0114054 A1 *	5/2009	Horiuchi	.....	B25J 9/102 74/490.05
2016/0229058 A1 *	8/2016	Pinter	.....	G06Q 50/22
2016/0271803 A1 *	9/2016	Stewart	.....	B25J 11/0085
2017/0182658 A1 *	6/2017	Bordegnoni	.....	B25J 9/0009
2017/0225341 A1 *	8/2017	Kerestes	.....	B25J 17/0208
2018/0029221 A1 *	2/2018	Tanaka	B25J 9/0009
2018/0111270 A1 *	4/2018	Hasegawa	B25J 9/1682

* cited by examiner

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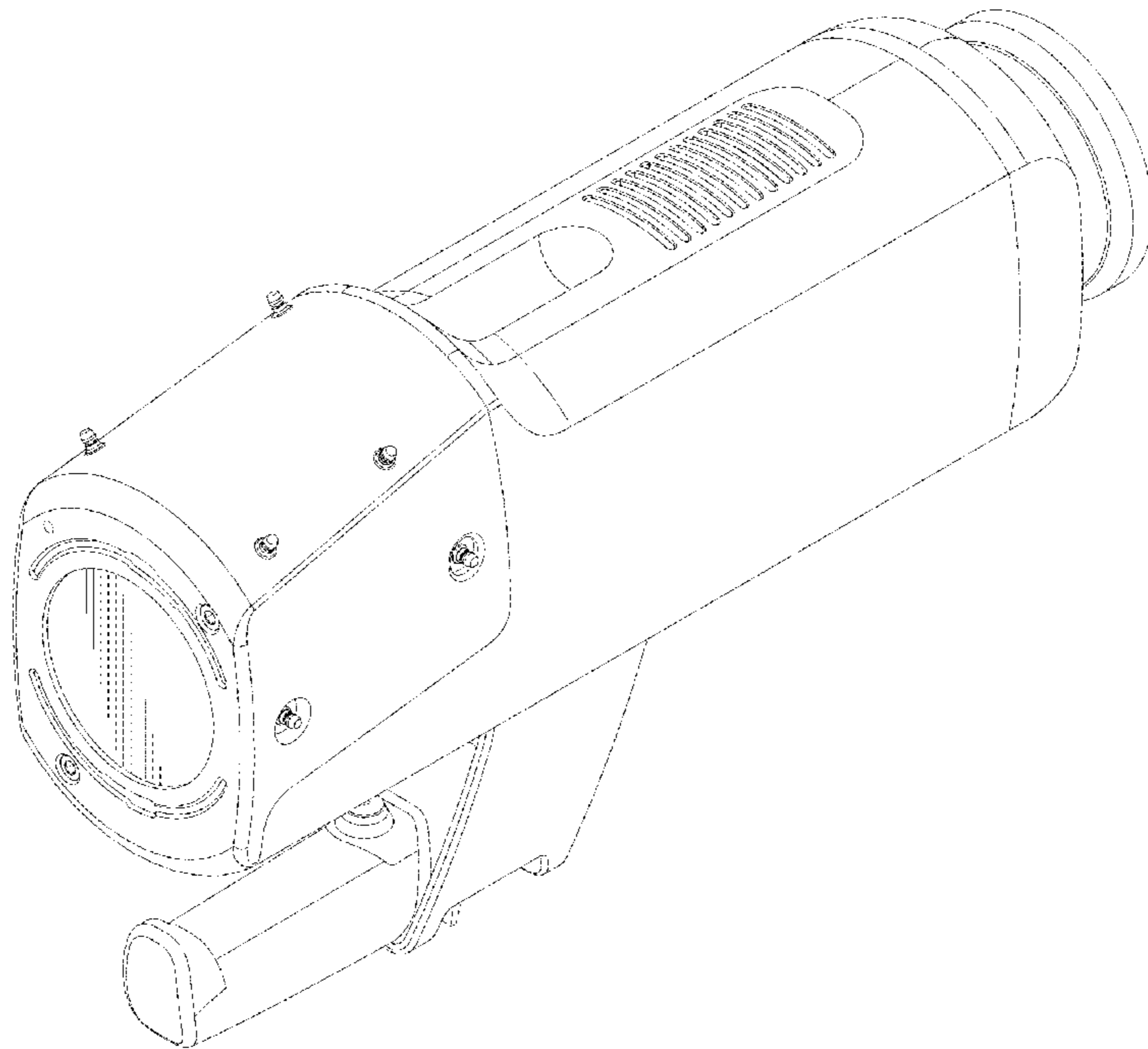
(57) **CLAIM**

We claim the ornamental design for an end effector, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of an end effector;
FIG. 2 is a front elevation view thereof;
FIG. 3 is a rear elevation view thereof;
FIG. 4 is a front plan view thereof;
FIG. 5 is a rear plan view thereof;
FIG. 6 is a left-side elevation view thereof; and,
FIG. 7 is a right-side elevation view thereof.
The broken lines in the drawings depict unclaimed environmental subject matter.

1 Claim, 7 Drawing Sheets



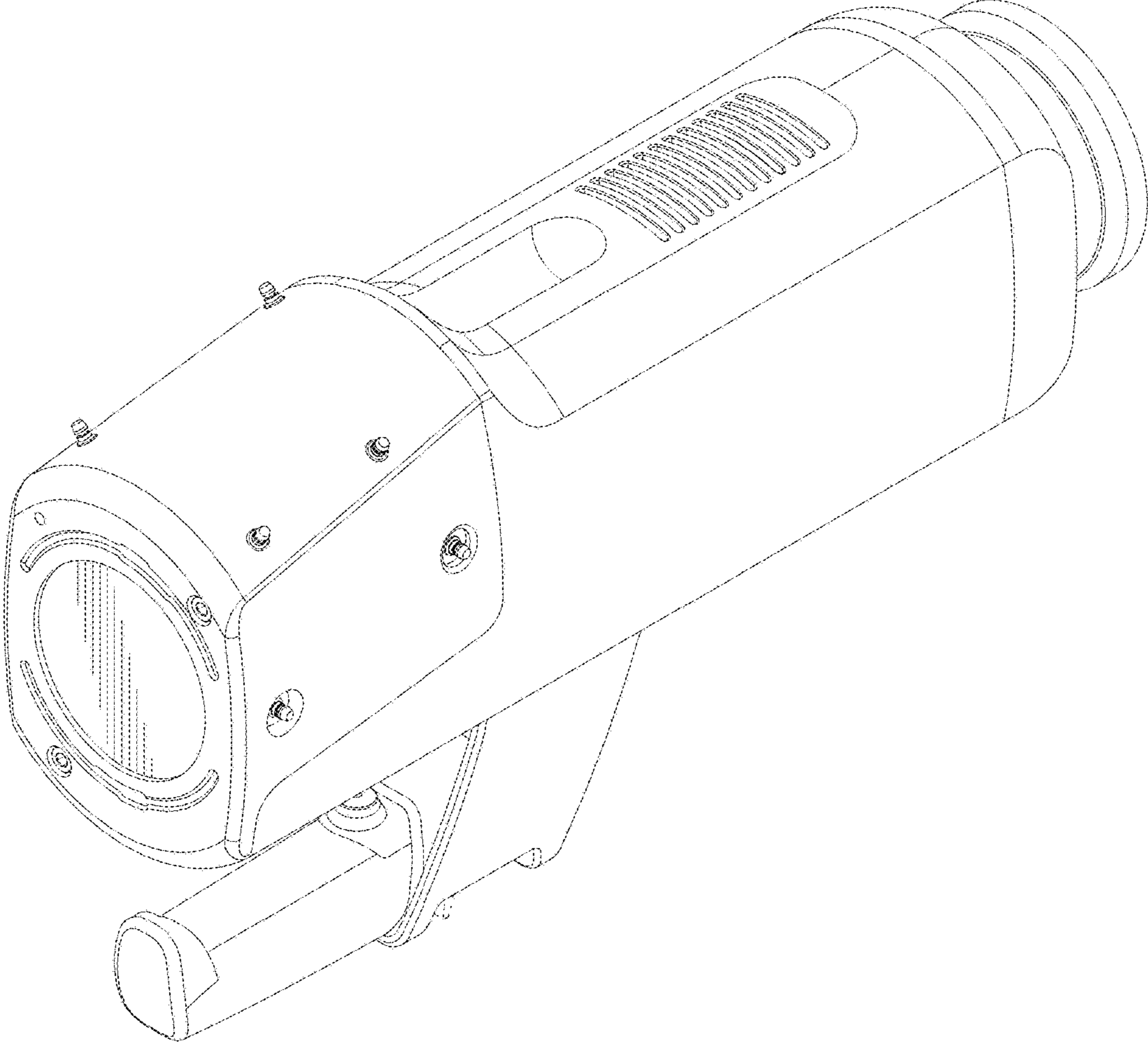


FIG. 1

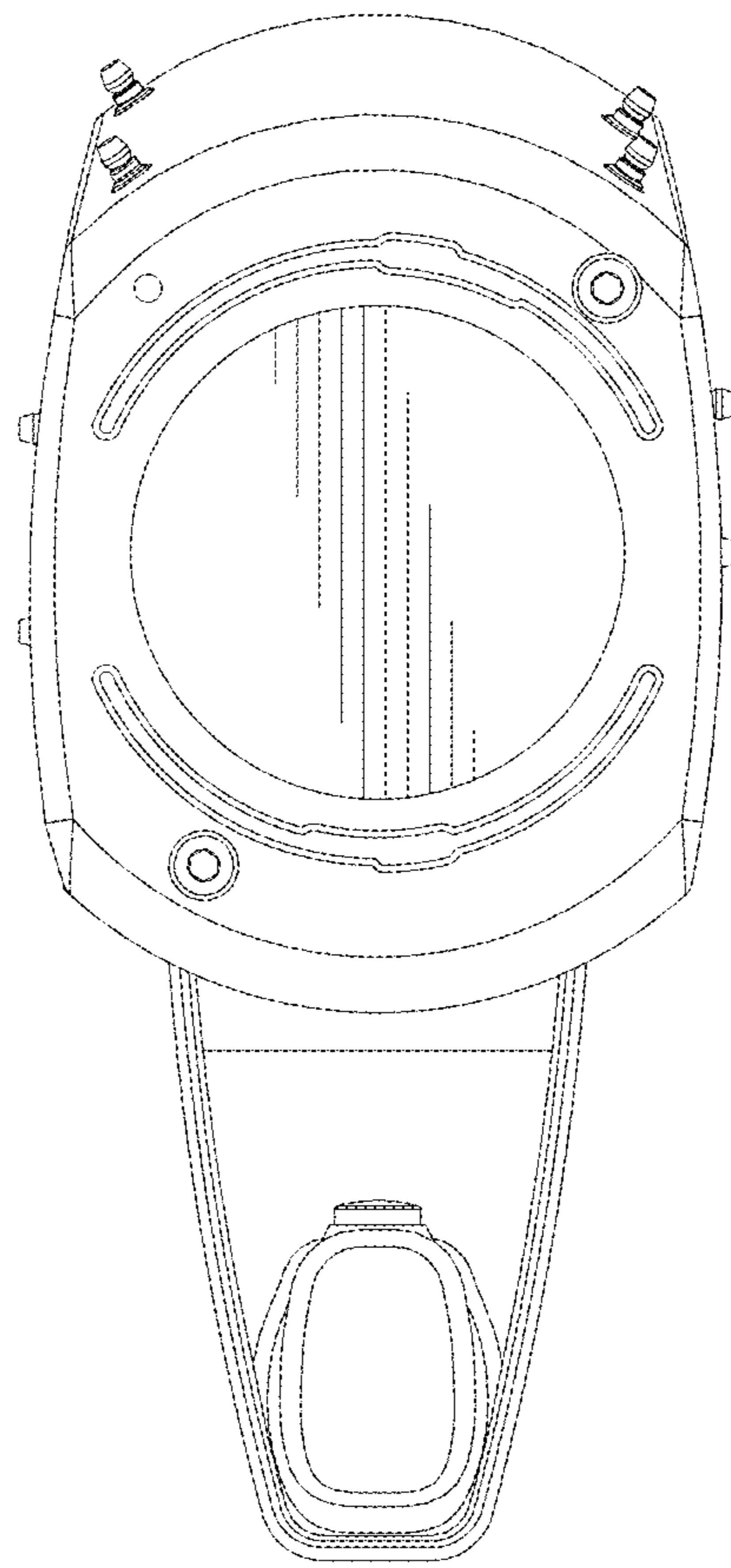


FIG. 2

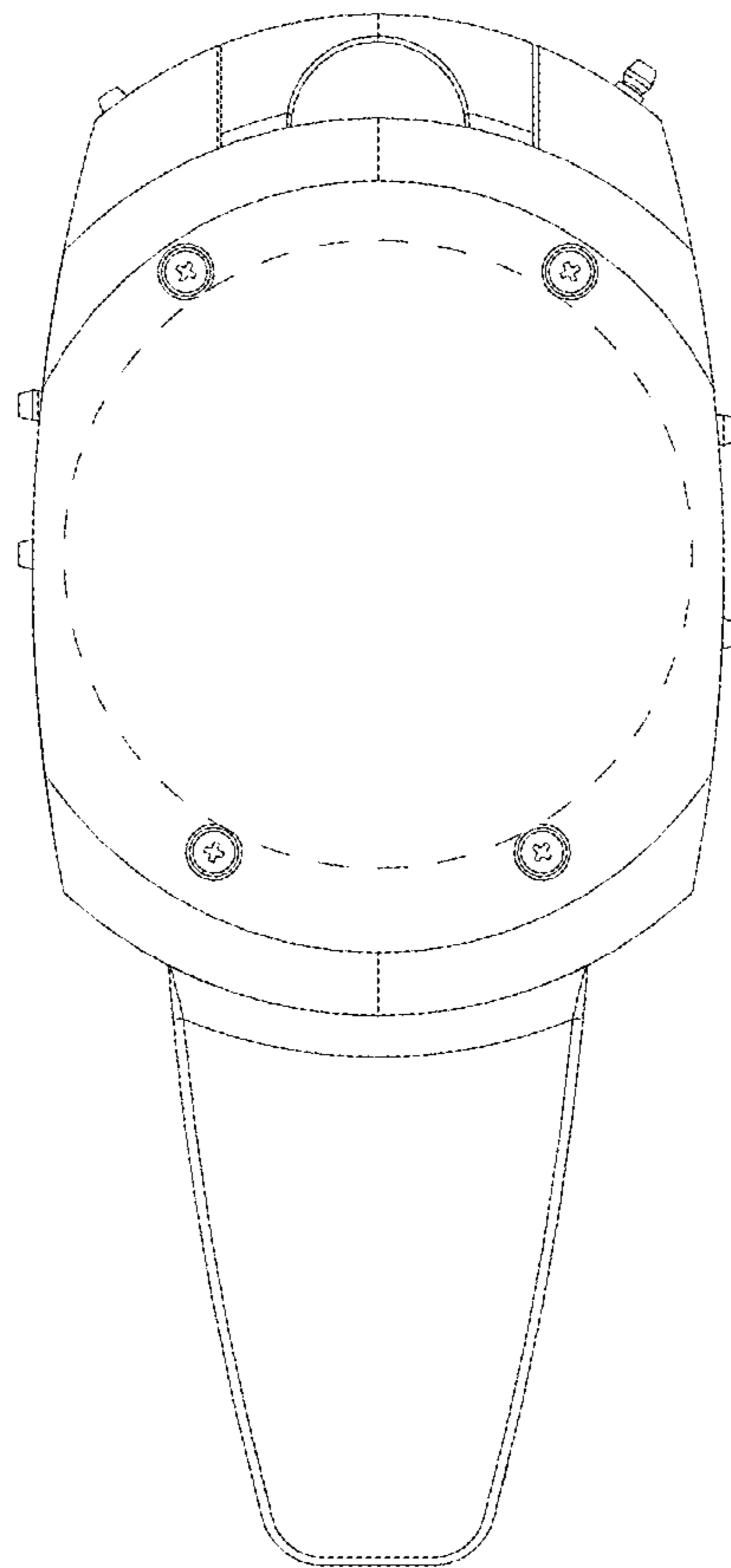


FIG. 3

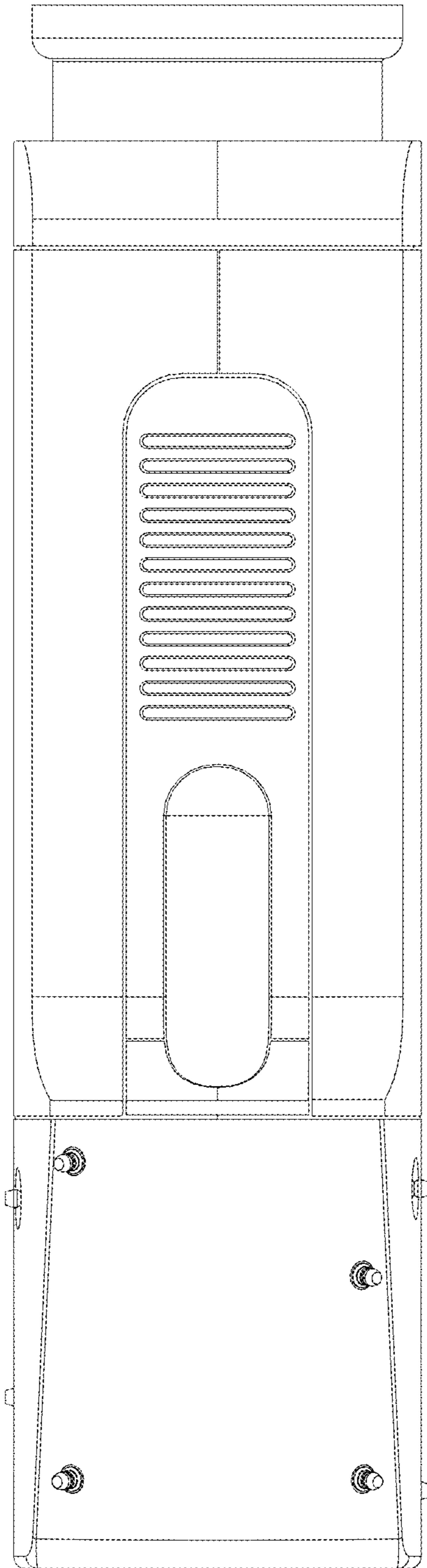


FIG. 4

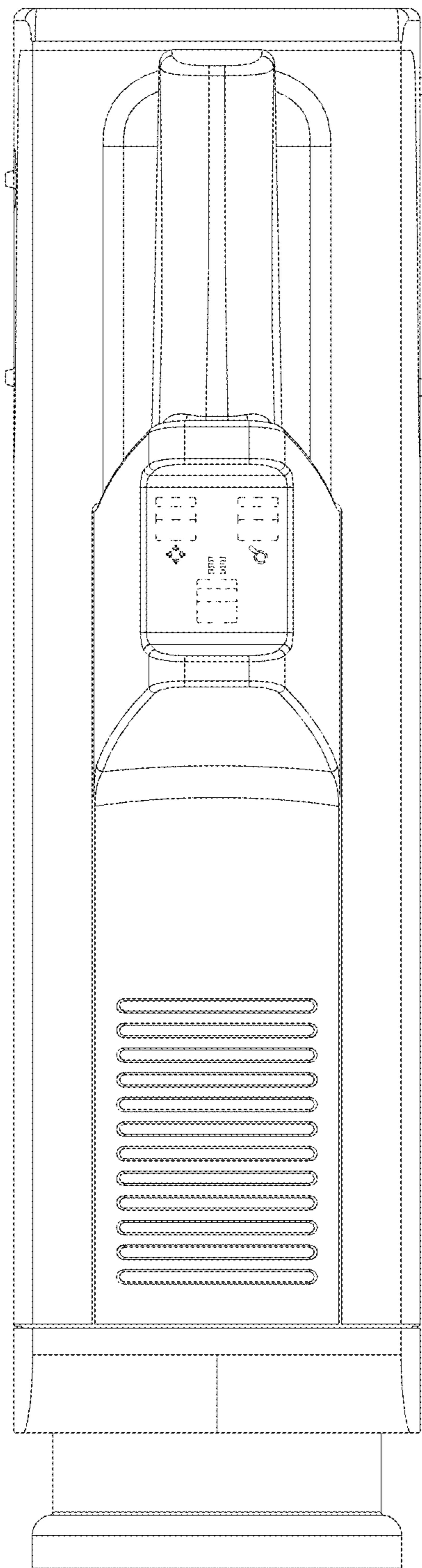


FIG. 5

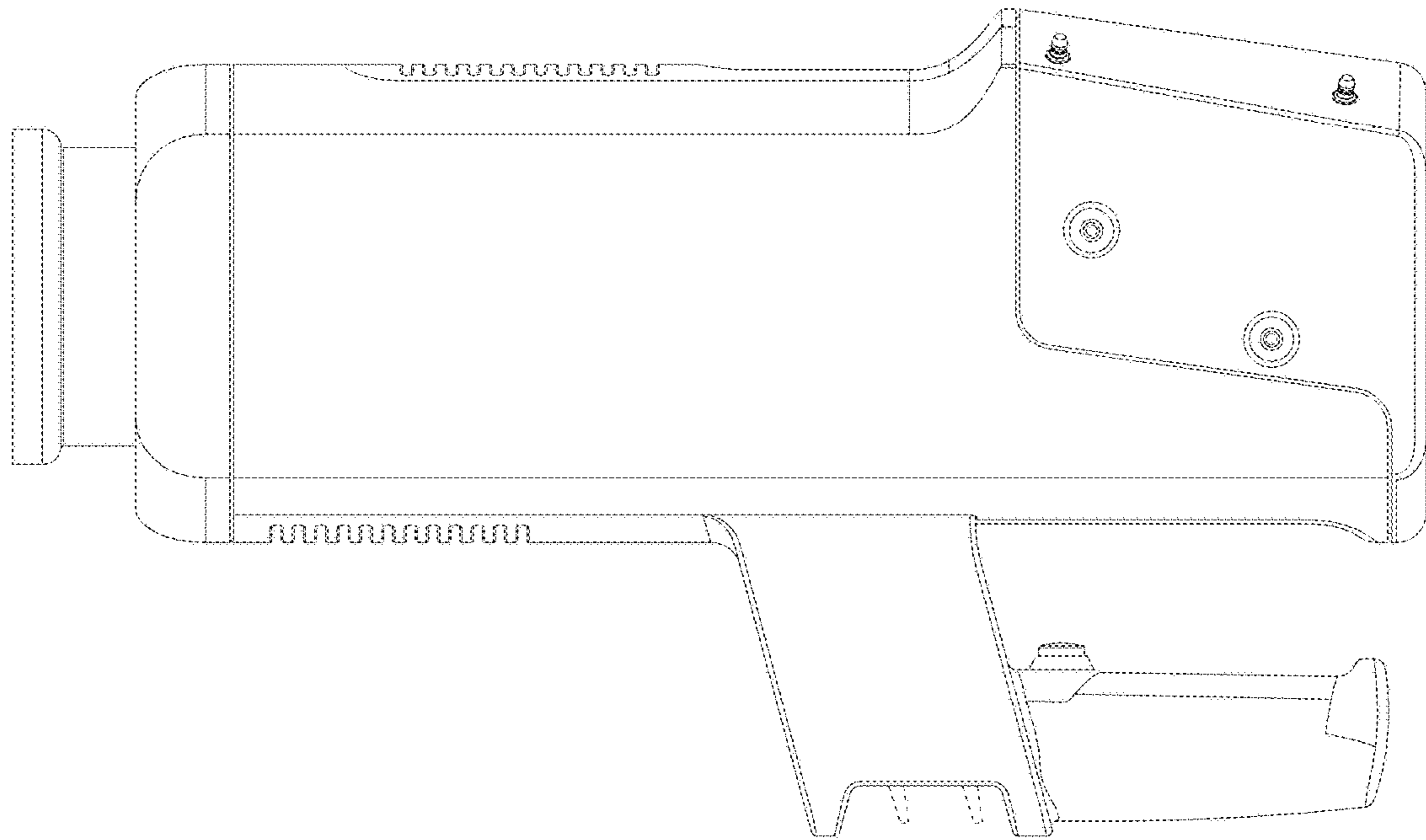


FIG. 6

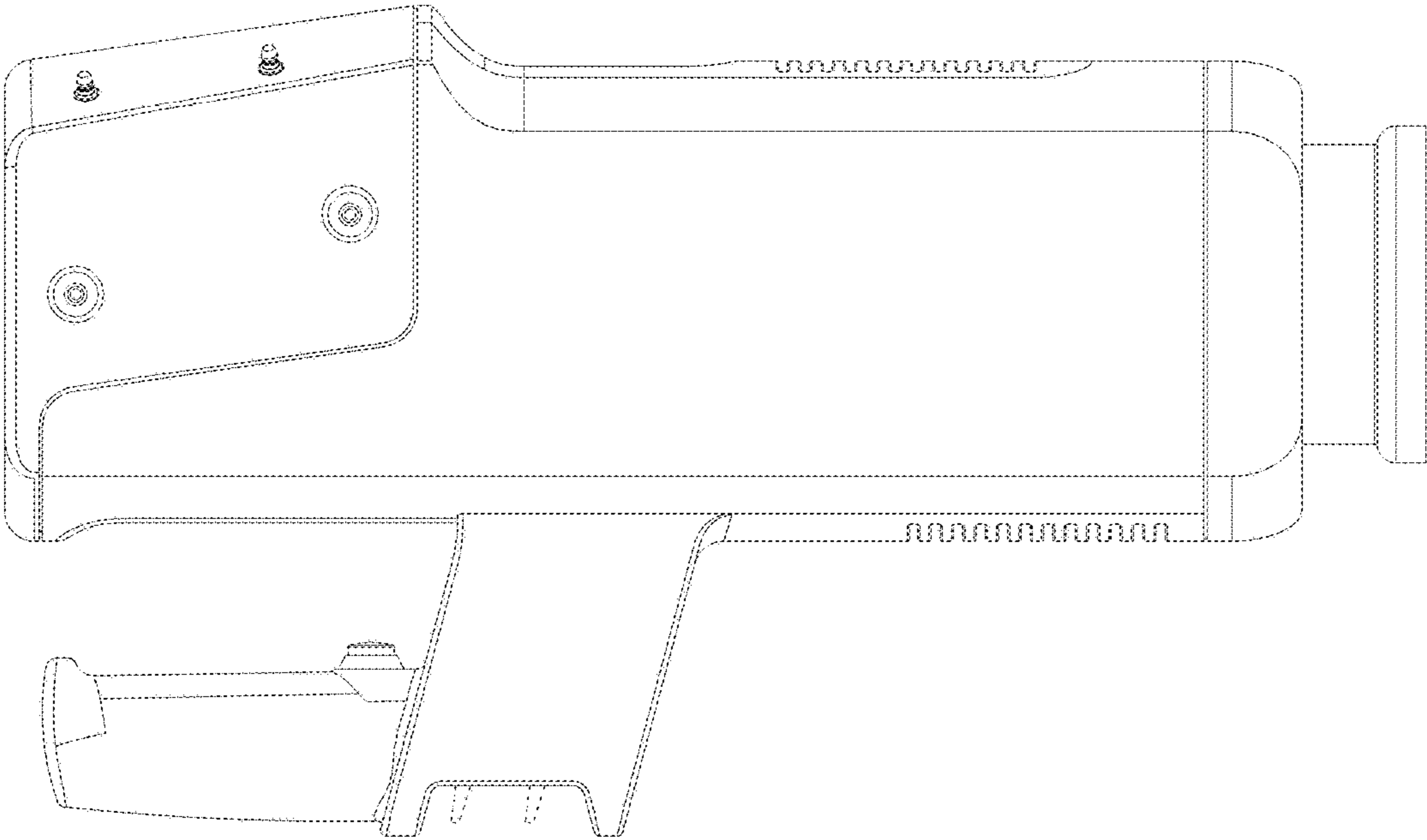


FIG. 7