



US00D879849S

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

(10) **Patent No.:** **US D879,849 S**

(45) **Date of Patent:** **** Mar. 31, 2020**

(54) **CONTROLLER FOR SOLDERING IRON**

(71) Applicant: **HAKKO CORPORATION**, Osaka-shi,
Osaka (JP)

(72) Inventor: **Toshiyuki Kita**, Osaka (JP)

(73) Assignee: **HAKKO CORPORATION**, Osaka
(JP)

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

(21) Appl. No.: **29/670,023**

(22) Filed: **Nov. 13, 2018**

(30) **Foreign Application Priority Data**

May 23, 2018 (JP) 2018-011273

(51) **LOC (12) Cl.** **15-09**

(52) **U.S. Cl.**
USPC **D15/144.2; D8/30**

(58) **Field of Classification Search**
USPC D8/29.1, 29.2, 30; D15/144, 144.1,
D15/144.2

CPC B23K 3/027; B23K 3/033; B23K 3/03;
B23K 3/0478

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D274,882 S *	7/1984	Rittmann	.....	D15/144
D277,636 S *	2/1985	Rittmann	.....	D15/144
D415,435 S *	10/1999	Yoshimura	.....	D10/50
D490,448 S *	5/2004	Ishihara	.....	D15/144
6,833,531 B1 *	12/2004	Masaki	.....	B23K 3/033 116/294
D530,349 S *	10/2006	Ishihara	.....	D15/144.2
D576,459 S *	9/2008	Mochizuki	.....	D8/30
D590,853 S *	4/2009	Yokoyama	.....	D15/144.2
D620,328 S	7/2010	Masaki		

7,886,954 B2 *	2/2011	Mochizuki	.....	B23K 3/033 219/229
D678,373 S *	3/2013	Kita	.....	D15/144.2
D703,715 S *	4/2014	Kita	.....	D15/144
D762,254 S	7/2016	Kita		
D762,754 S *	8/2016	Kita	.....	D15/144.2
D780,241 S *	2/2017	Teraoka	.....	D15/144.2
D790,613 S *	6/2017	Fischer	.....	D15/144.2
D829,790 S *	10/2018	Gou	.....	D15/144
D829,791 S *	10/2018	Fischer	.....	D15/144.2
2005/0121495 A1 *	6/2005	Yokoyama	.....	B23K 3/0478 228/9
2015/0083707 A1 *	3/2015	Miyazaki	.....	B23K 3/0353 219/238

(Continued)

FOREIGN PATENT DOCUMENTS

CN 3468409 8/2005

Primary Examiner — Philip S Hyder

(74) *Attorney, Agent, or Firm* — Squire Patton Boggs
(US) LLP

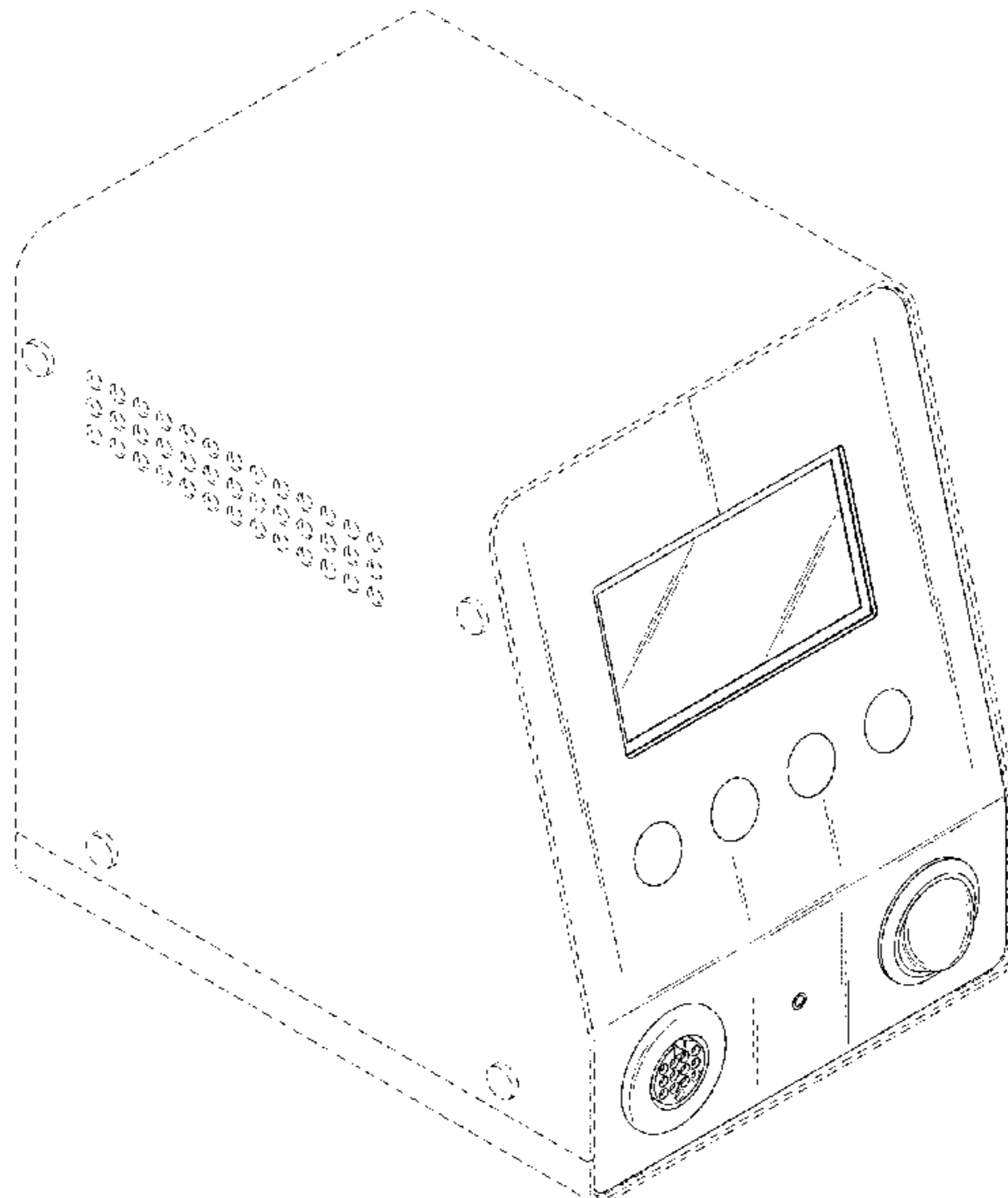
(57) **CLAIM**

The ornamental design for a controller for soldering iron, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a controller for soldering iron;
 FIG. 2 is a front view thereof;
 FIG. 3 is a left side view thereof;
 FIG. 4 is a right side view thereof;
 FIG. 5 is a top view thereof; and
 FIG. 6 is a bottom view thereof; and,
 FIG. 7 is a cross-sectional view taken along line 7-7 in FIG. 2 thereof, in which the internal mechanism is omitted.
 The broken lines depict portions of the controller for soldering iron in which the design is embodied that are not considered part of the claimed design.

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2016/0175959 A1* 6/2016 Mochizuki B23K 1/0016
228/20.5

* cited by examiner

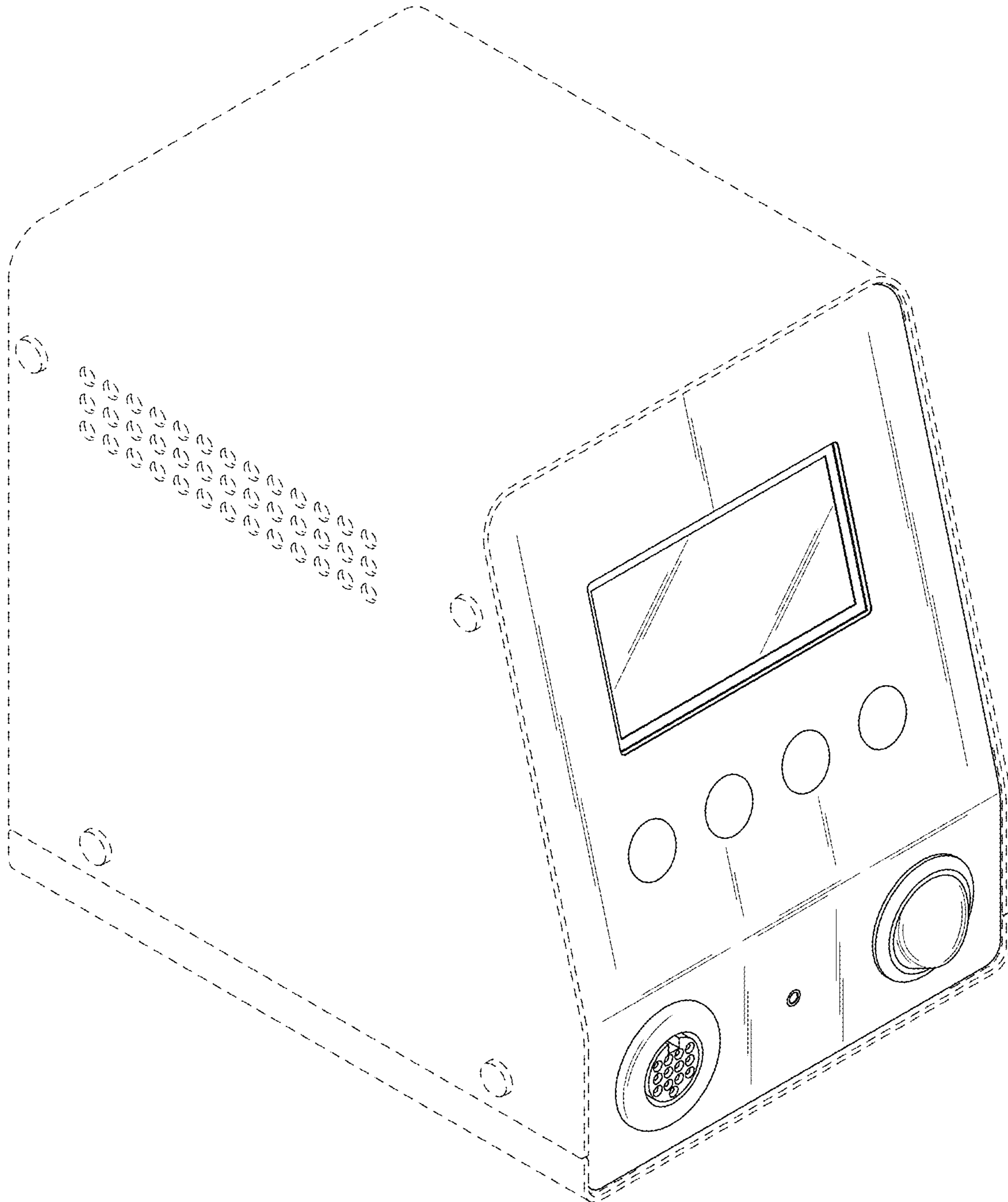


FIG. 1

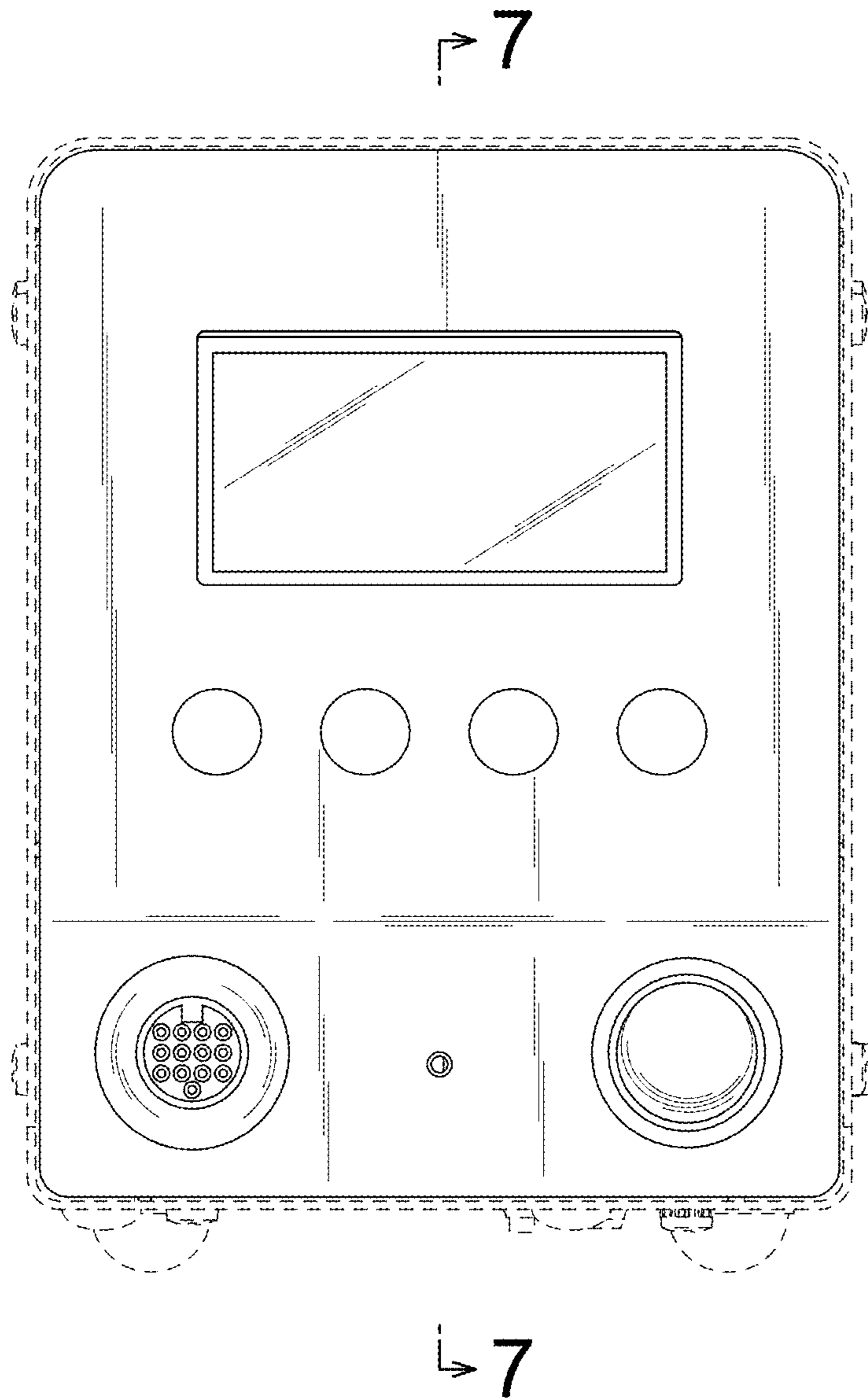


FIG.2

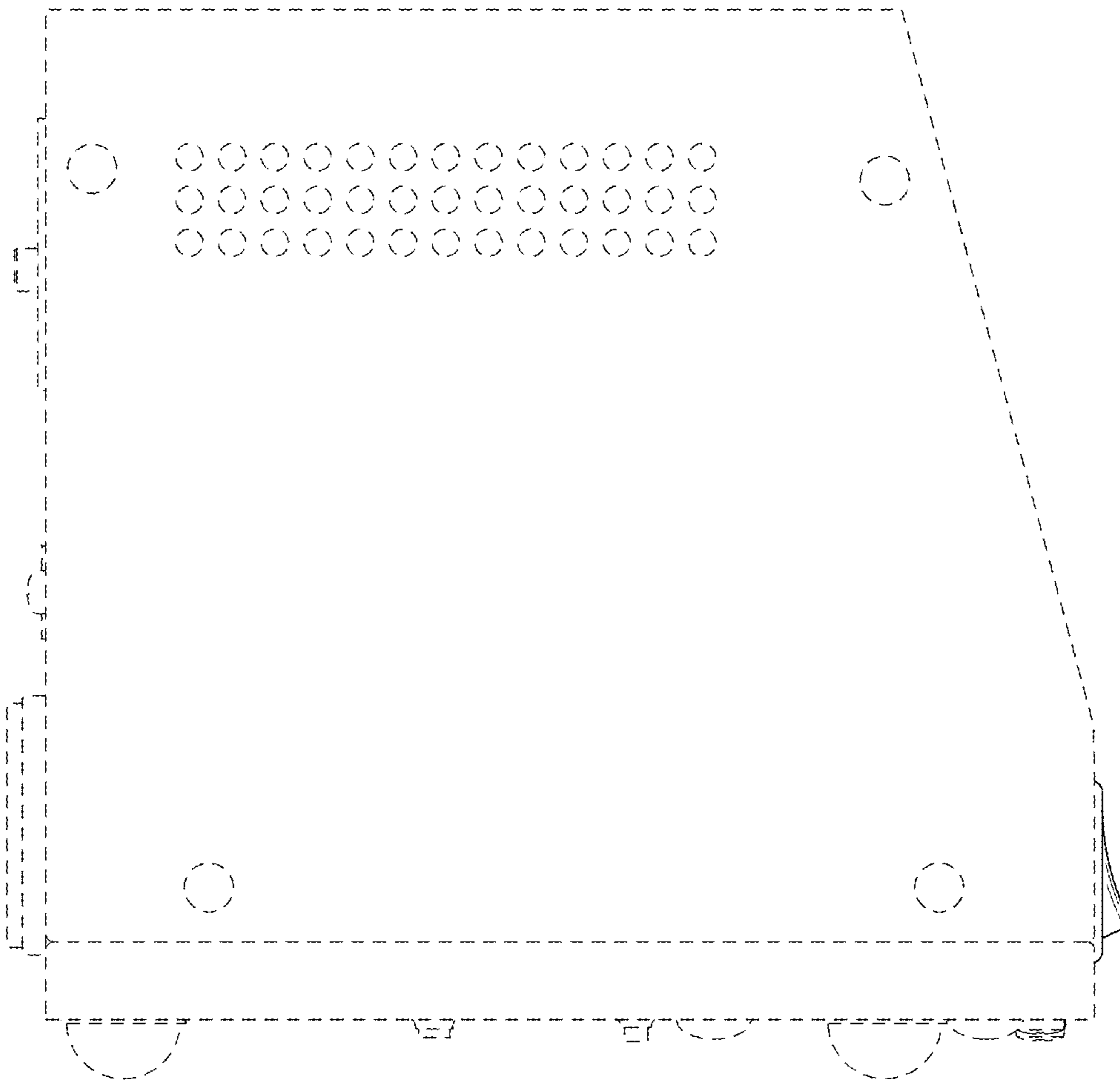


FIG.3

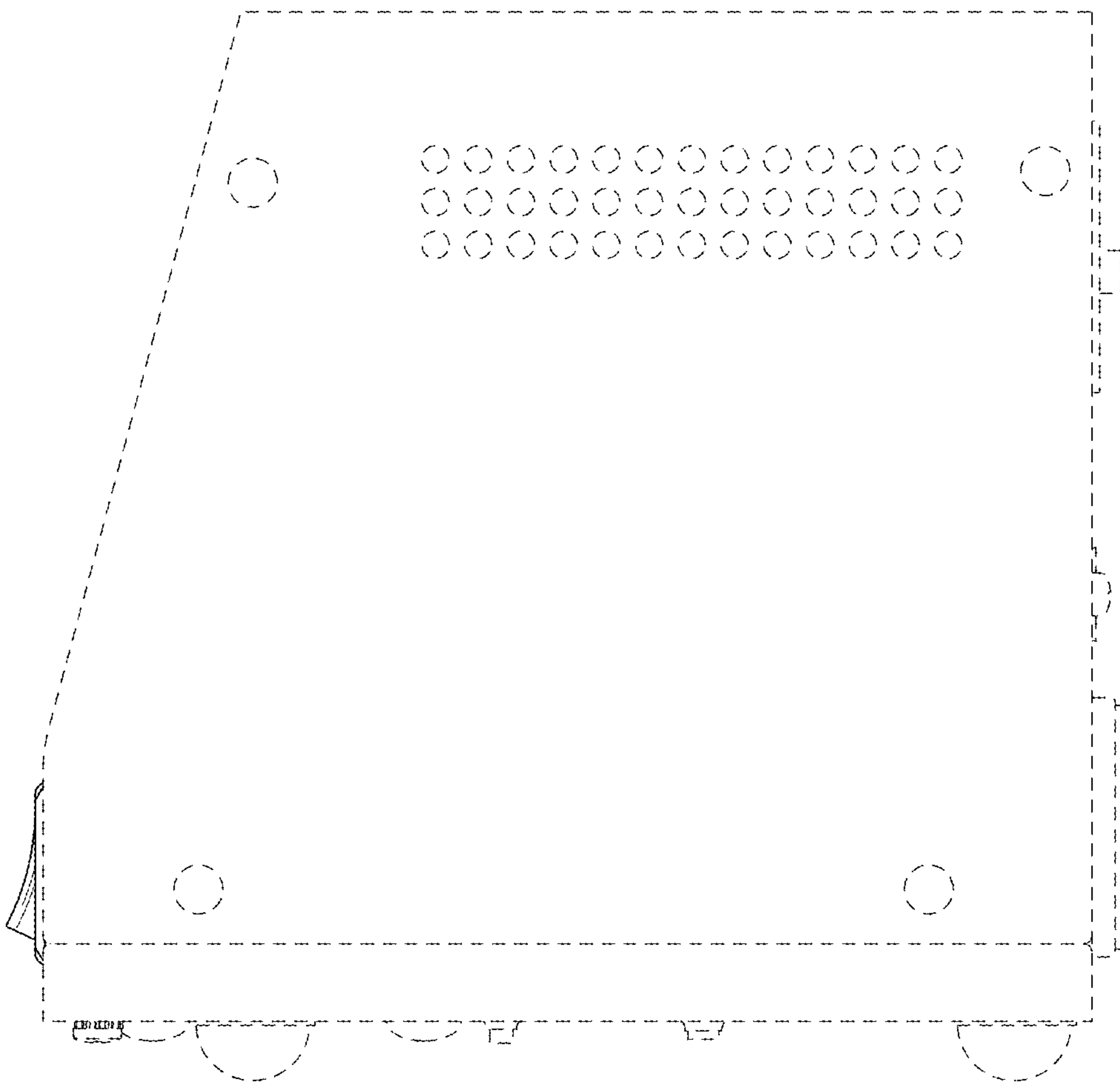


FIG.4

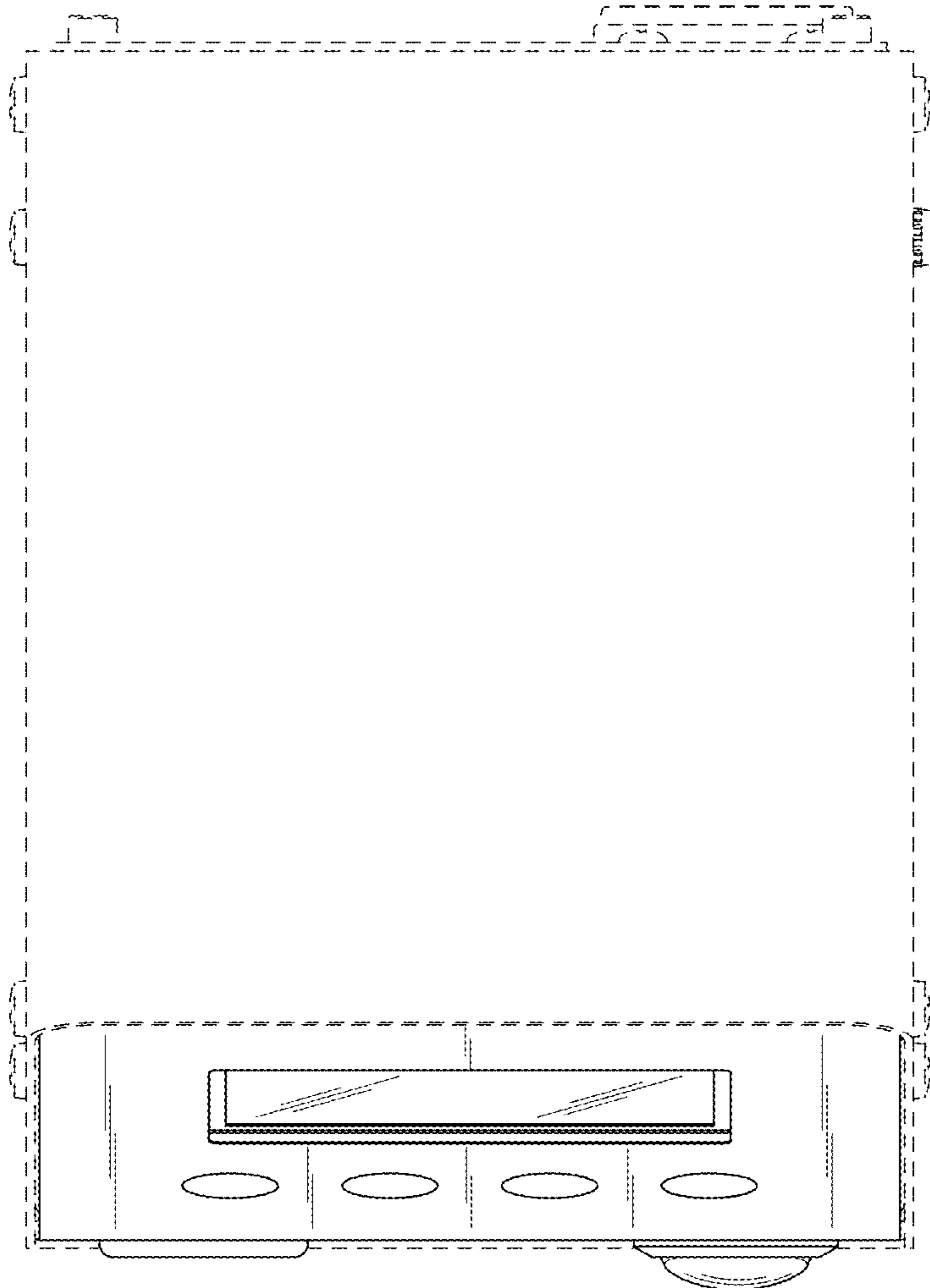


FIG.5

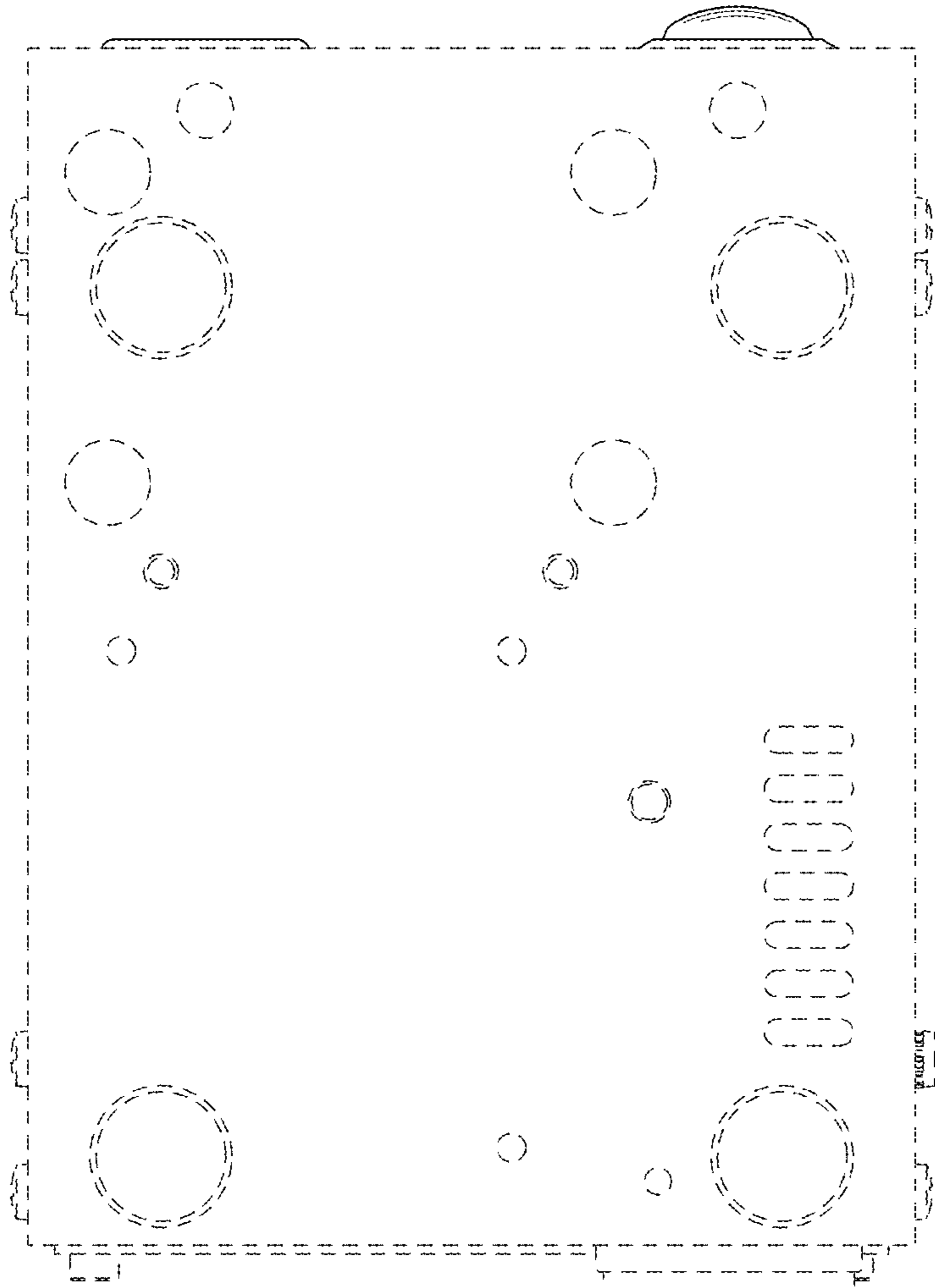


FIG.6

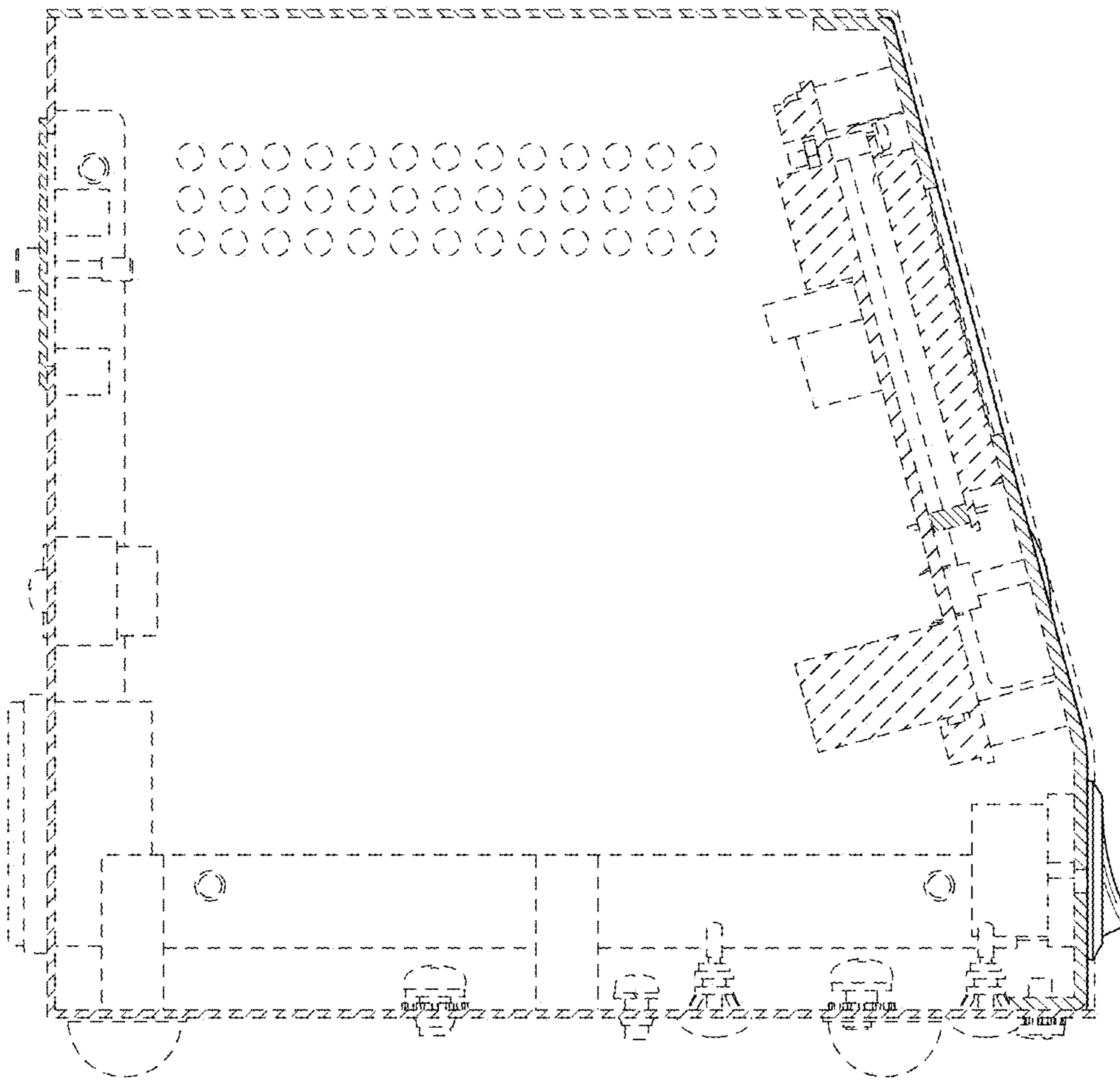


FIG.7