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(12) **United States Design Patent**
Rice et al.

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(54) **MAINFRAME OF SUBSTRATE PROCESSING SYSTEM**

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

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(51) **LOC (13) Cl.** **15-09**

(52) **U.S. Cl.**
USPC **D15/141; D15/138**

(58) **Field of Classification Search**
USPC D13/118, 158, 162, 184; D15/141, 143, D15/148, 149, 199
CPC H01L 21/61709; H01L 21/68707
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,253,067	A *	1/1918	McGahan	.....	B65D 9/32
					217/65
D268,375	S *	3/1983	Dereks	.....	D99/1
5,171,079	A *	12/1992	Bayerle	.....	A62C 13/78
					312/409
D404,884	S *	1/1999	Salatin	.....	D99/8
D446,826	S *	8/2001	Dunn	.....	D21/499
D490,616	S *	6/2004	Ljahnicky	.....	D6/329
D527,751	S *	9/2006	Kondoh	.....	D15/144.1

D556,157	S *	11/2007	Kondoh	.....	D13/182
D616,045	S *	5/2010	Tervo	.....	D21/501
D677,723	S *	3/2013	Buel	.....	D18/59
D681,548	S *	5/2013	Zhang	.....	D13/102
D745,903	S *	12/2015	Armani	.....	D6/675
D760,306	S *	6/2016	Wolf	.....	D15/135
D857,015	S *	8/2019	O'Driscoll	.....	D14/371
D887,889	S *	6/2020	Khwaja	.....	D11/155
10,994,480	B2 *	5/2021	Wolf	.....	B29C 48/0255
2004/0069225	A1 *	4/2004	Fairbairn	.....	C23C 16/54
					156/345.31

(Continued)

FOREIGN PATENT DOCUMENTS

EP	1107288	A2 *	6/2001	H01L 21/00
WO	WO-2009154022	A1 *	12/2009	B28D 1/226

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(57) **CLAIM**

The ornamental design for a mainframe for a substrate processing system, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of a mainframe for a substrate processing system of the present design.

FIG. 2 is a side view thereof.

FIG. 3 is a side view thereof.

FIG. 4 is a front view thereof.

FIG. 5 is a rear view thereof.

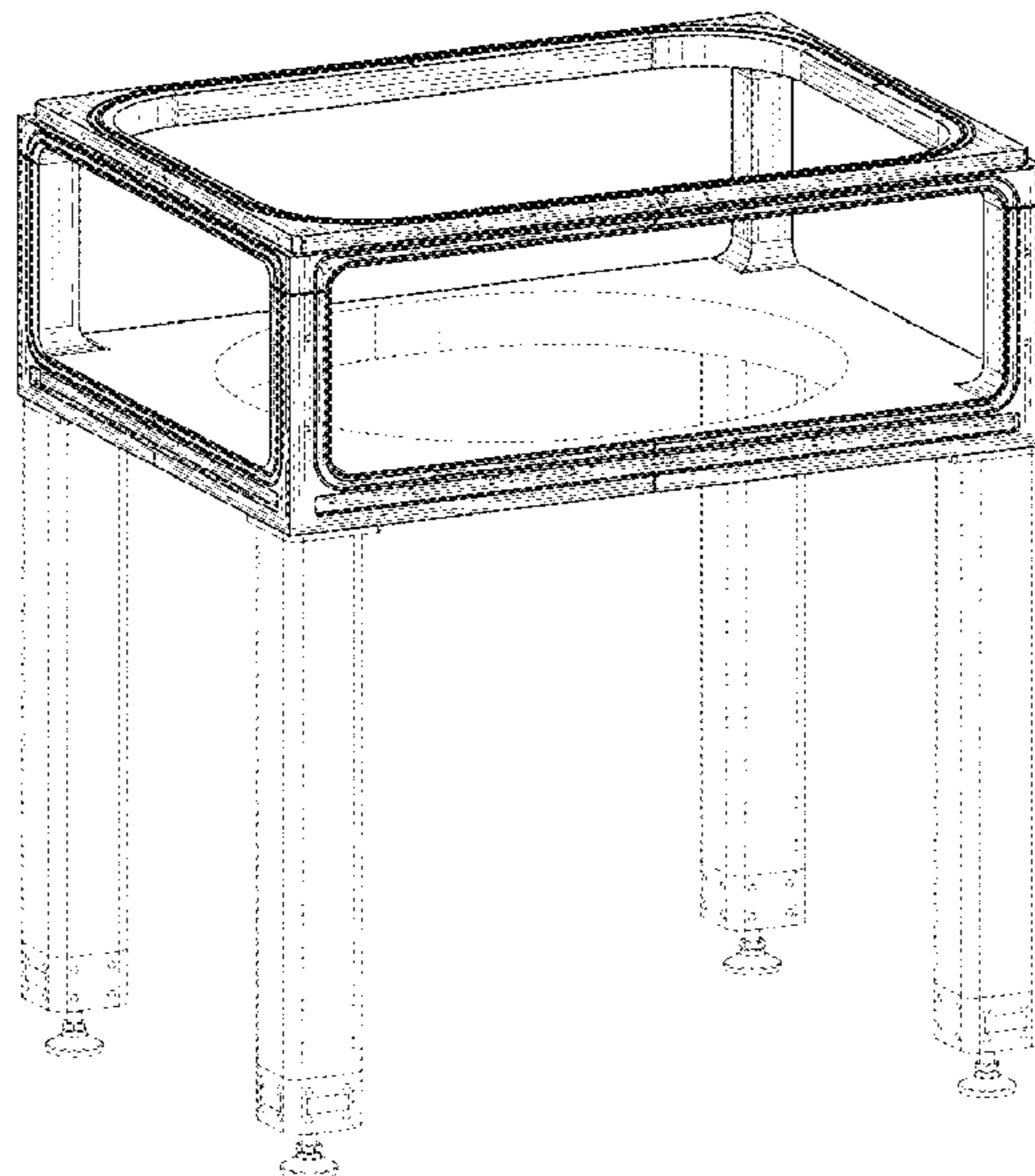
FIG. 6 is a top view thereof.

FIG. 7 is a bottom view thereof; and,

FIG. 8 is a top perspective view thereof, showing unclaimed components attached thereto.

The broken lines shown in the figures are directed to unclaimed portions of the mainframe and/or unclaimed components attached to the mainframe that are for illustrative purposes only and form no part of the claimed design.

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2004/0232145 A1* 11/2004 Antal, Sr. B65D 81/056
220/4.33
2008/0074013 A1* 3/2008 Ahlgrim F16B 12/46
312/257.1
2009/0186557 A1* 7/2009 Torii B24B 37/345
451/287
2010/0224446 A1* 9/2010 Bulley B25H 1/06
264/319
2015/0083330 A1* 3/2015 Madiwal C23C 16/4401
156/345.31
2015/0090341 A1* 4/2015 Ng H01L 21/00
137/583
2016/0314997 A1* 10/2016 Reuter H01L 21/67201
2018/0001440 A1* 1/2018 Aono H01L 21/67173
2019/0164796 A1* 5/2019 Yamaguchi H01L 21/67742
2019/0226198 A1* 7/2019 Morgan E04B 1/3483

* cited by examiner

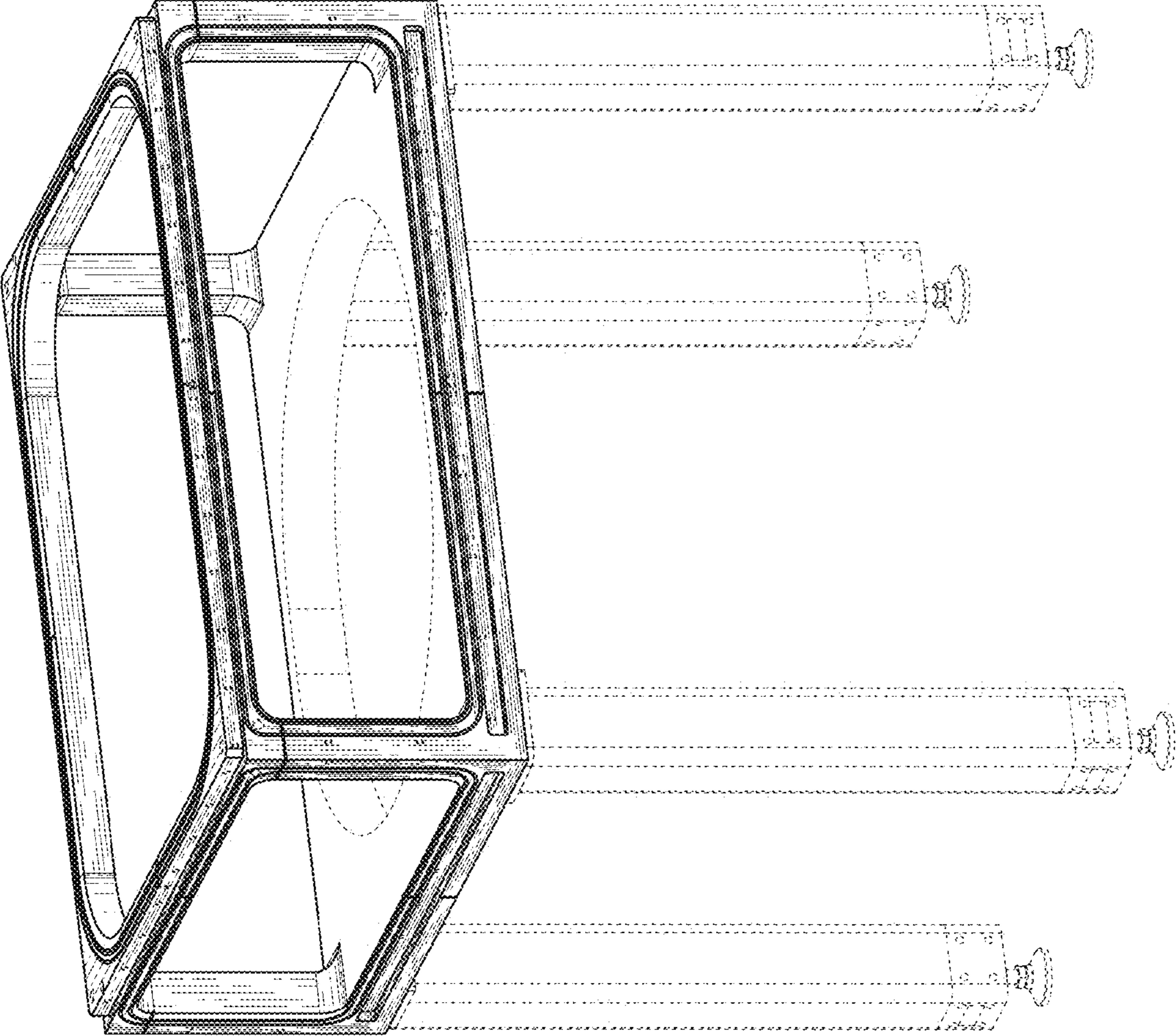


FIG. 1

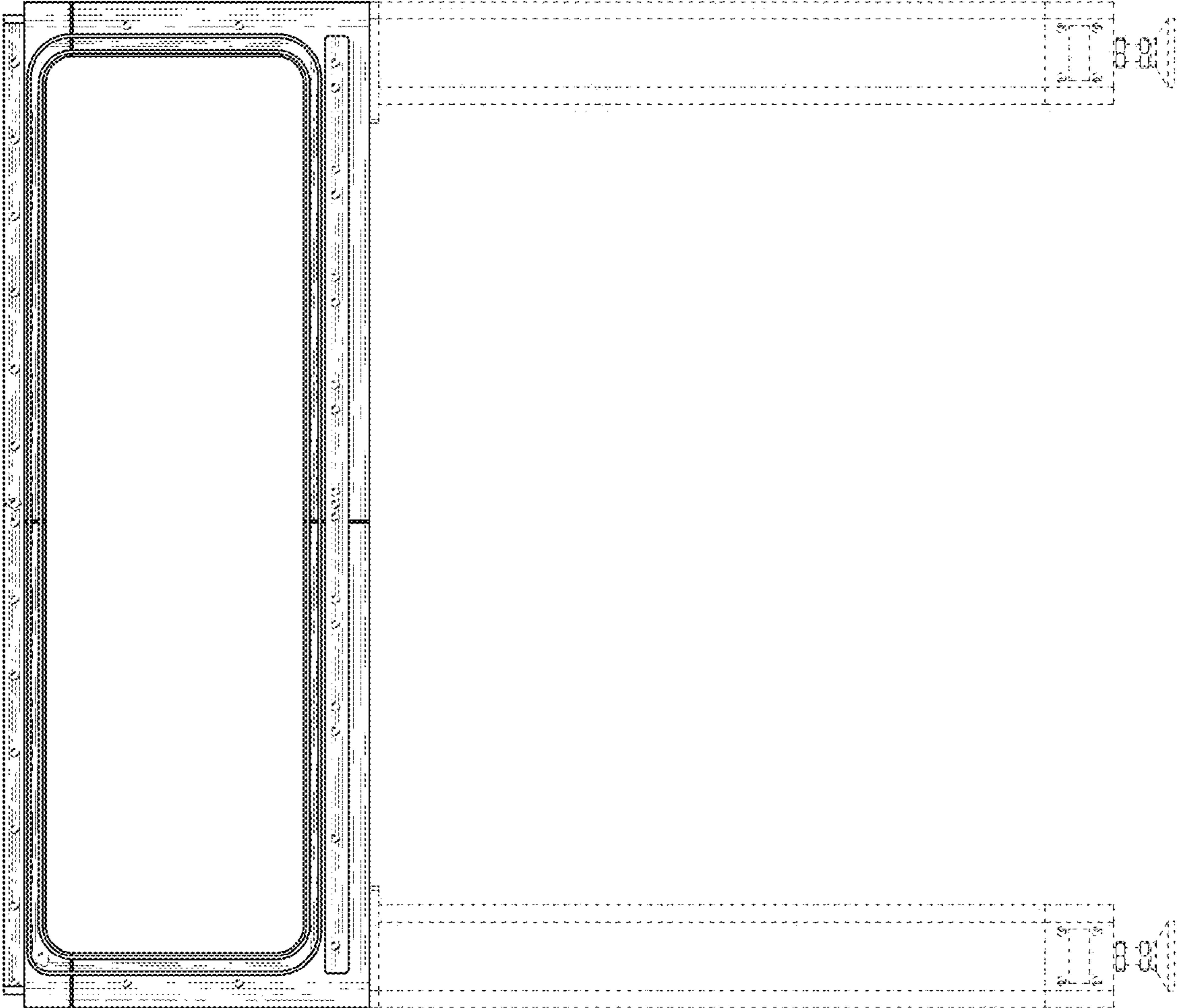


FIG. 2

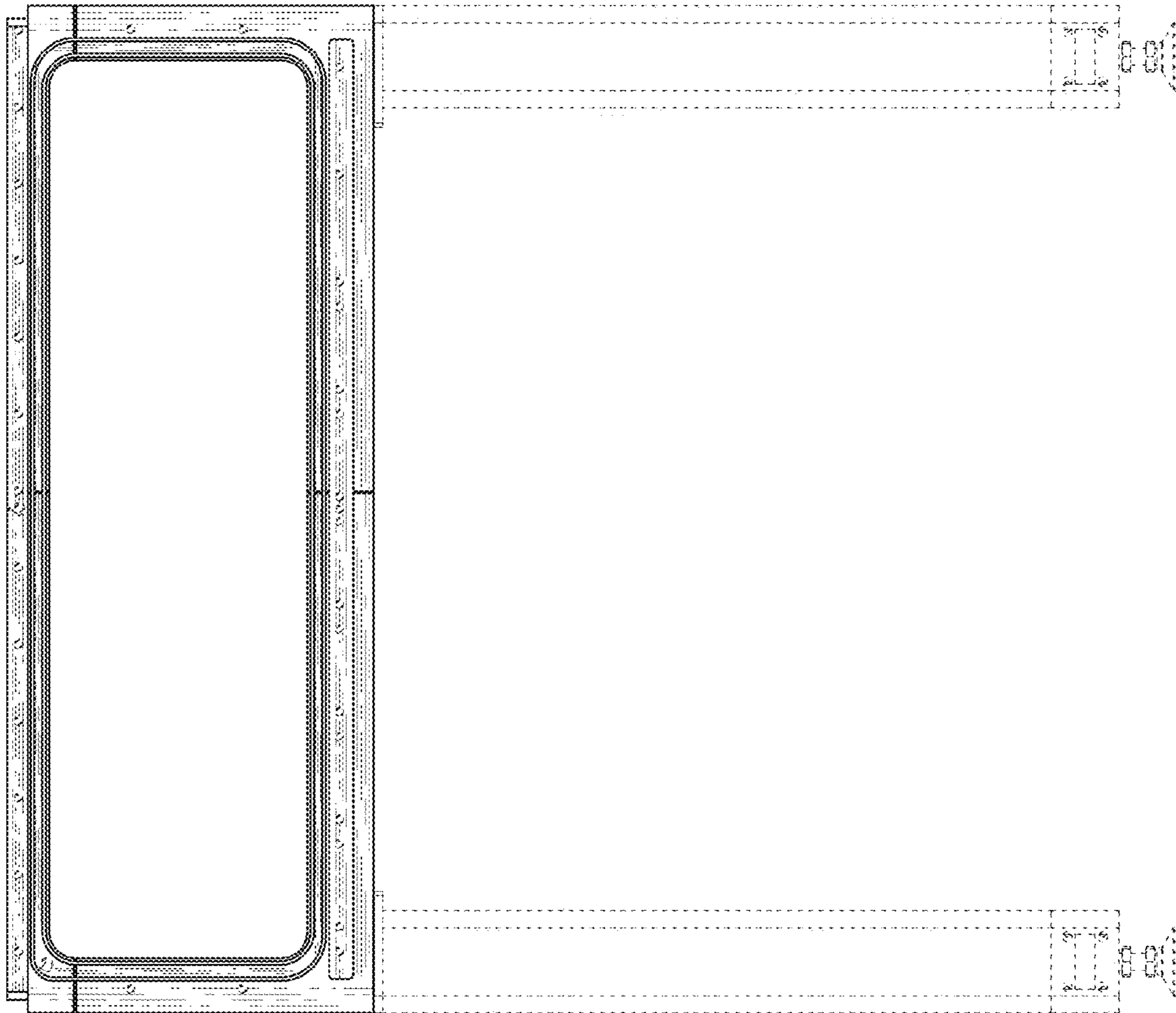


FIG. 3

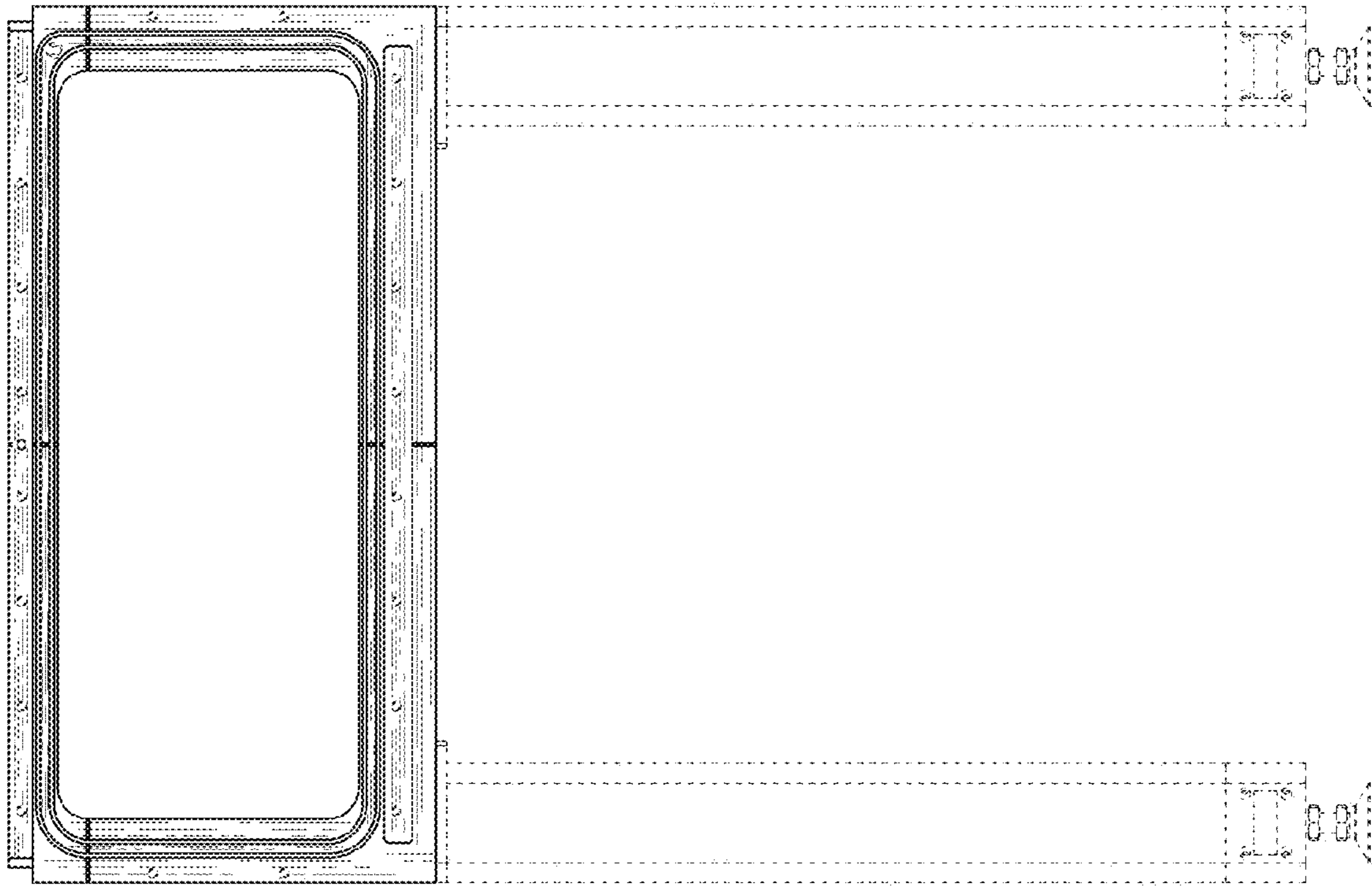


FIG. 5

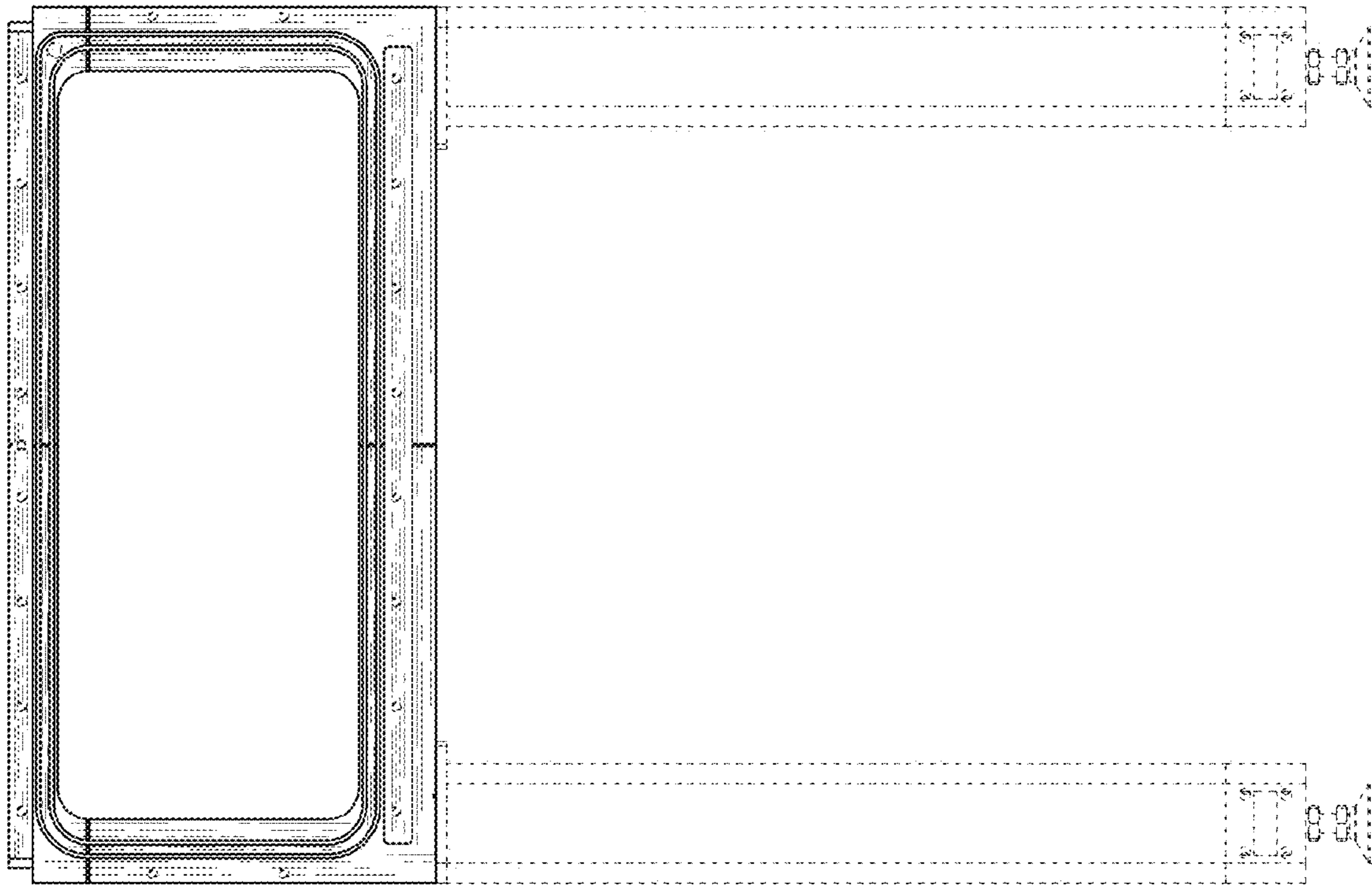


FIG. 4

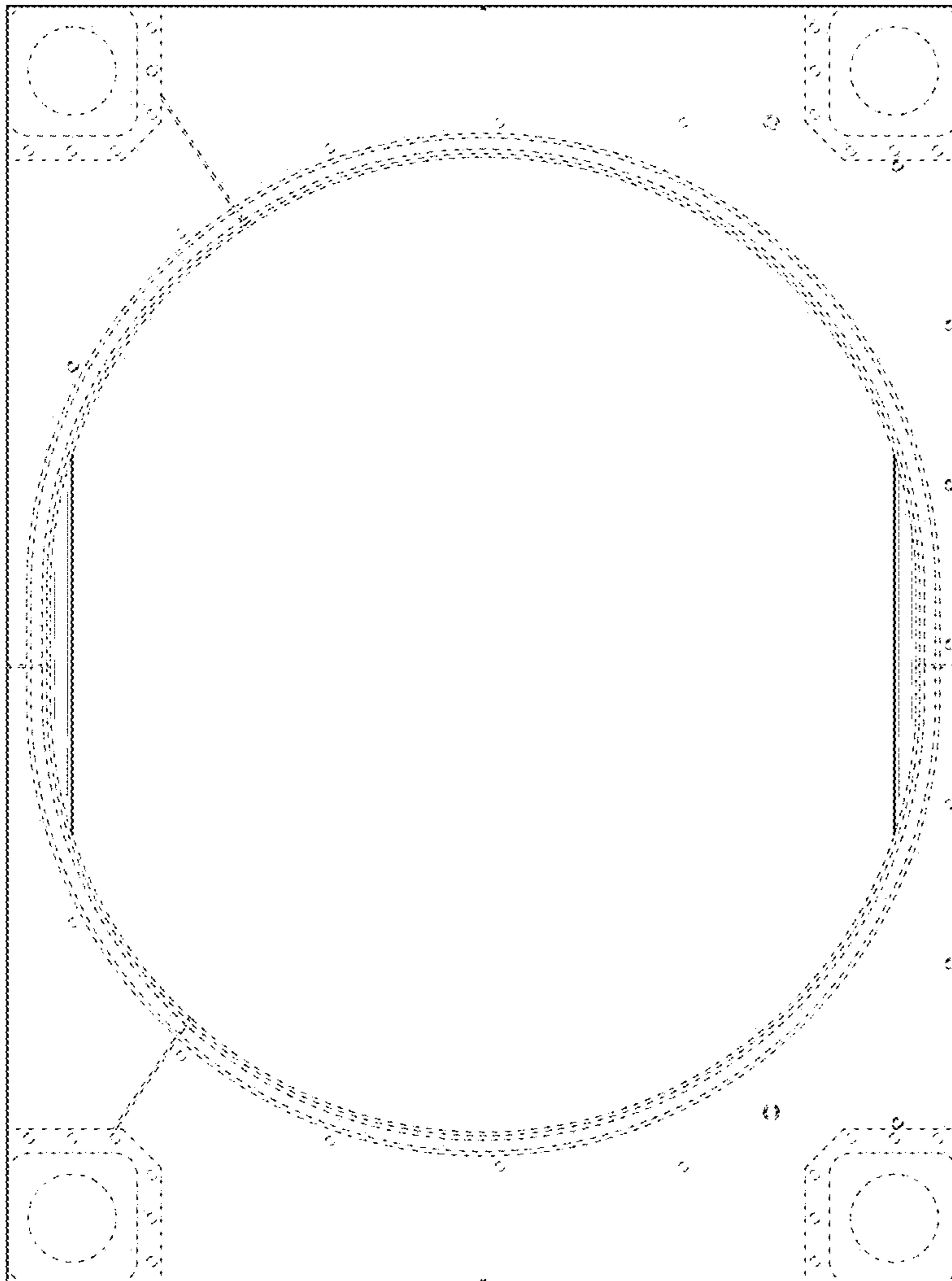


FIG. 6

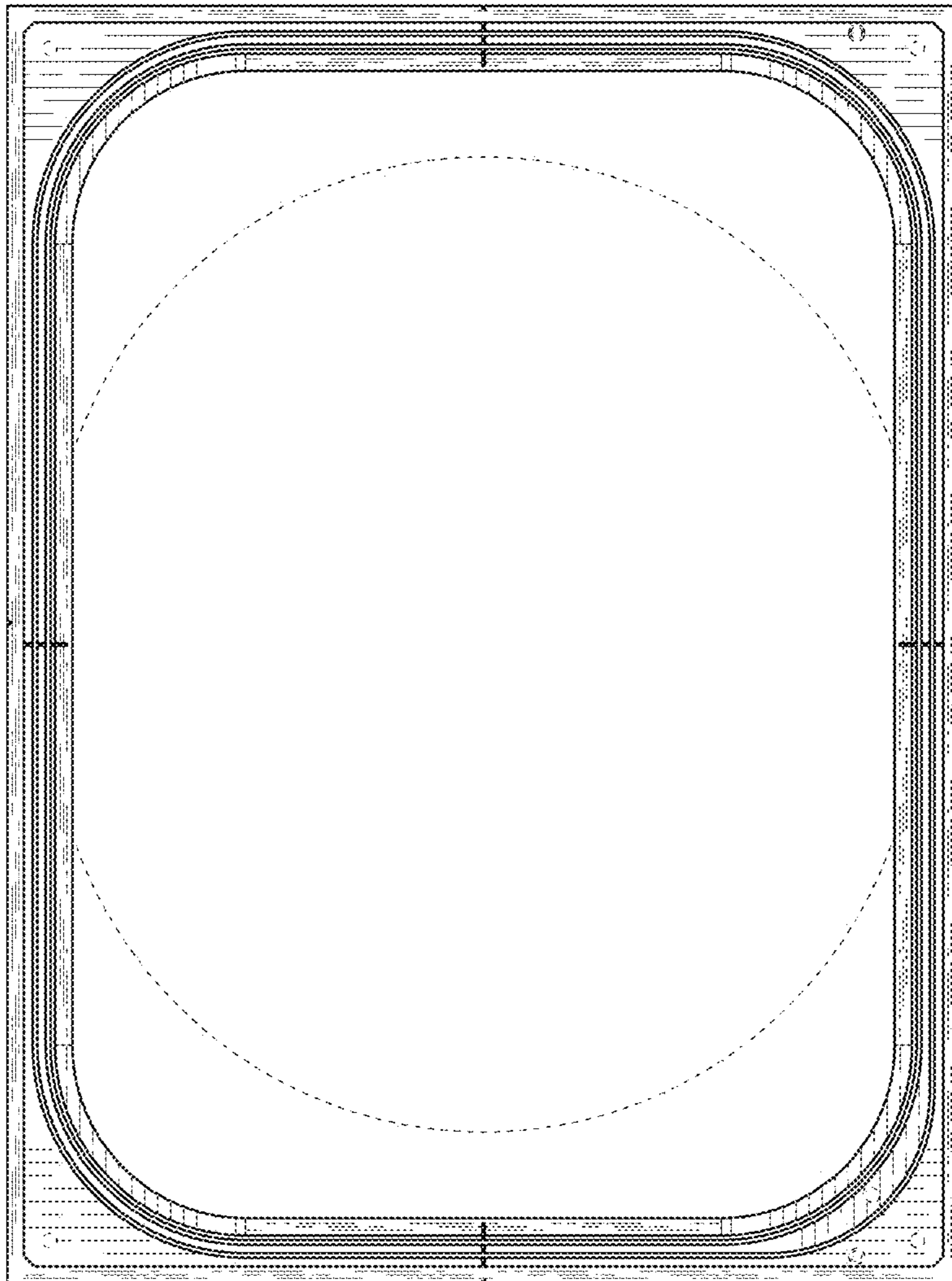


FIG. 7

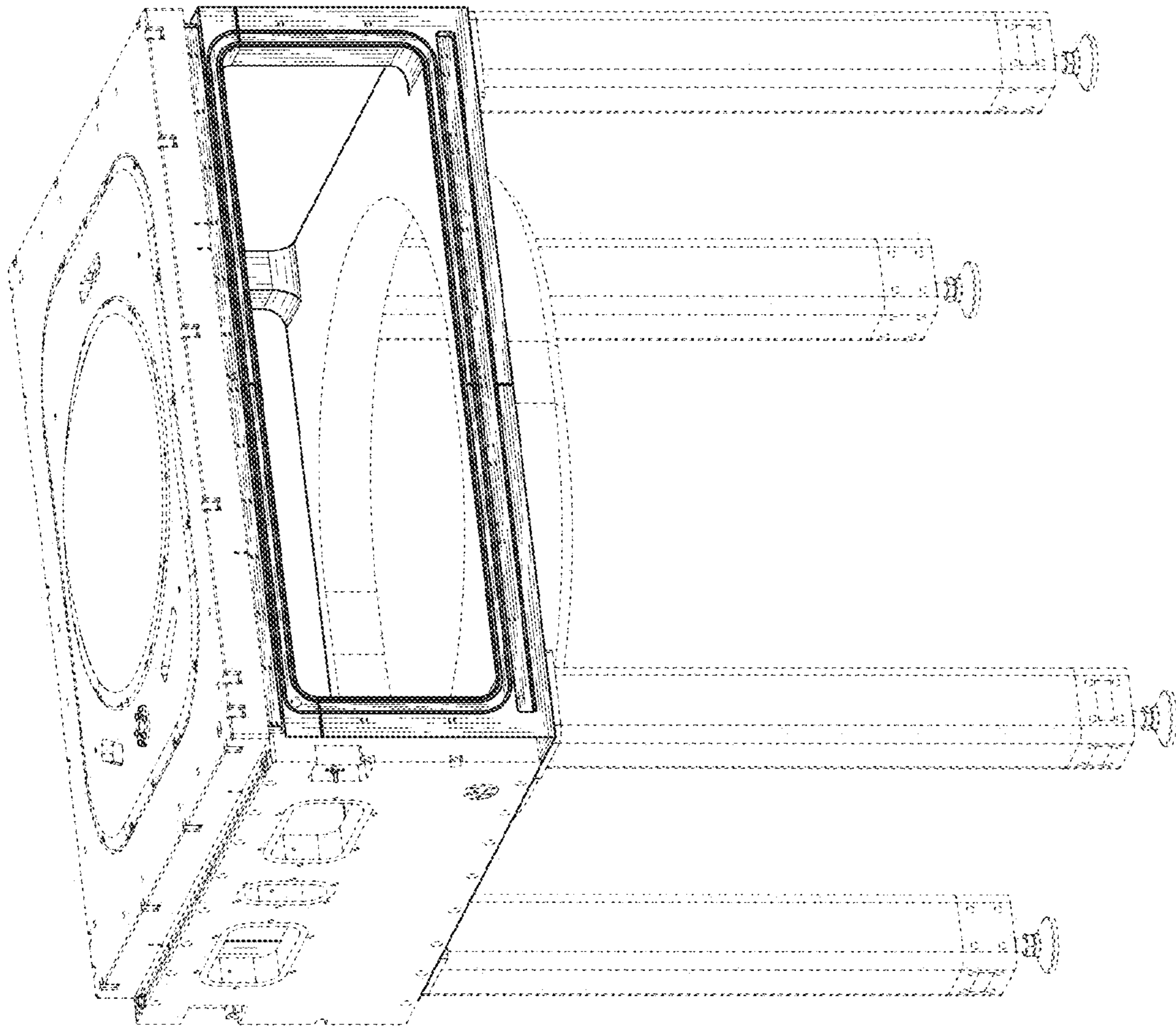


FIG. 8