



US00D753597S

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

(10) **Patent No.:** **US D753,597 S**
(45) **Date of Patent:** **** Apr. 12, 2016**

- (54) **ELECTRICAL PLUG-IN CONNECTOR**
- (71) Applicant: **WAGO Verwaltungsgesellschaft mbH**, Minden (DE)
- (72) Inventor: **Henryk Bies**, Sondershausen (DE)
- (73) Assignee: **WAGO Verwaltungsgesellschaft mbH**, Minden (DE)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/539,627**
- (22) Filed: **Sep. 16, 2015**

- 4,762,388 A * 8/1988 Tanaka G02B 6/3831 385/58
- 5,127,848 A * 7/1992 Taguchi H01R 13/641 439/188
- 5,660,146 A * 8/1997 Sporn A01K 27/002 119/792
- D431,528 S * 10/2000 Zhu D13/133
- 6,208,233 B1 * 3/2001 Stein, Sr. G01L 19/0084 338/195
- 6,383,011 B2 * 5/2002 Chen H01R 13/6272 439/357
- D467,872 S * 12/2002 Yeh D13/133
- 6,994,595 B2 * 2/2006 Baker H01R 13/44 439/680
- 7,004,795 B2 * 2/2006 Mancini H01R 13/582 439/459

(Continued)

Related U.S. Application Data

- (62) Division of application No. 29/476,797, filed on Dec. 17, 2013.

Foreign Application Priority Data

Jun. 17, 2013 (EM) 002256354

- (51) **LOC (10) Cl.** **13-03**
- (52) **U.S. Cl.**

USPC **D13/137.1**

(58) **Field of Classification Search**

USPC D13/137.1-137.8, 133, 154, 147;
439/295, 282, 188, 357, 271, 680, 45,
439/439, 752.5, 296, 725, 441, 834, 411;
119/792; 338/195; 174/541

CPC H01R 13/64; H01R 13/62; H01R 13/641;
H01R 13/6272; H01R 13/5219; H01R 13/44;
H01R 13/582; H01R 13/629; G02B 6/3831;
G01L 19/0084; A01K 27/002; H05K 5/0247

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 3,654,586 A * 4/1972 Winkler H01R 13/64 439/295
- 3,824,524 A * 7/1974 Glover H01R 13/62 439/282

Primary Examiner — Holly Baynham

Assistant Examiner — Rhea Shields

(74) *Attorney, Agent, or Firm* — Renner, Otto, Boisselle & Sklar, LLP

(57) **CLAIM**

The ornamental design for an electrical plug-in connector, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of an electrical plug-in connector showing my new design.

FIG. 2 is a front-view of the electrical plug-in connector of FIG. 1.

FIG. 3 is a rear-view of the electrical plug-in connector of FIG. 1.

FIG. 4 is a top-view of the electrical plug-in connector of FIG. 1.

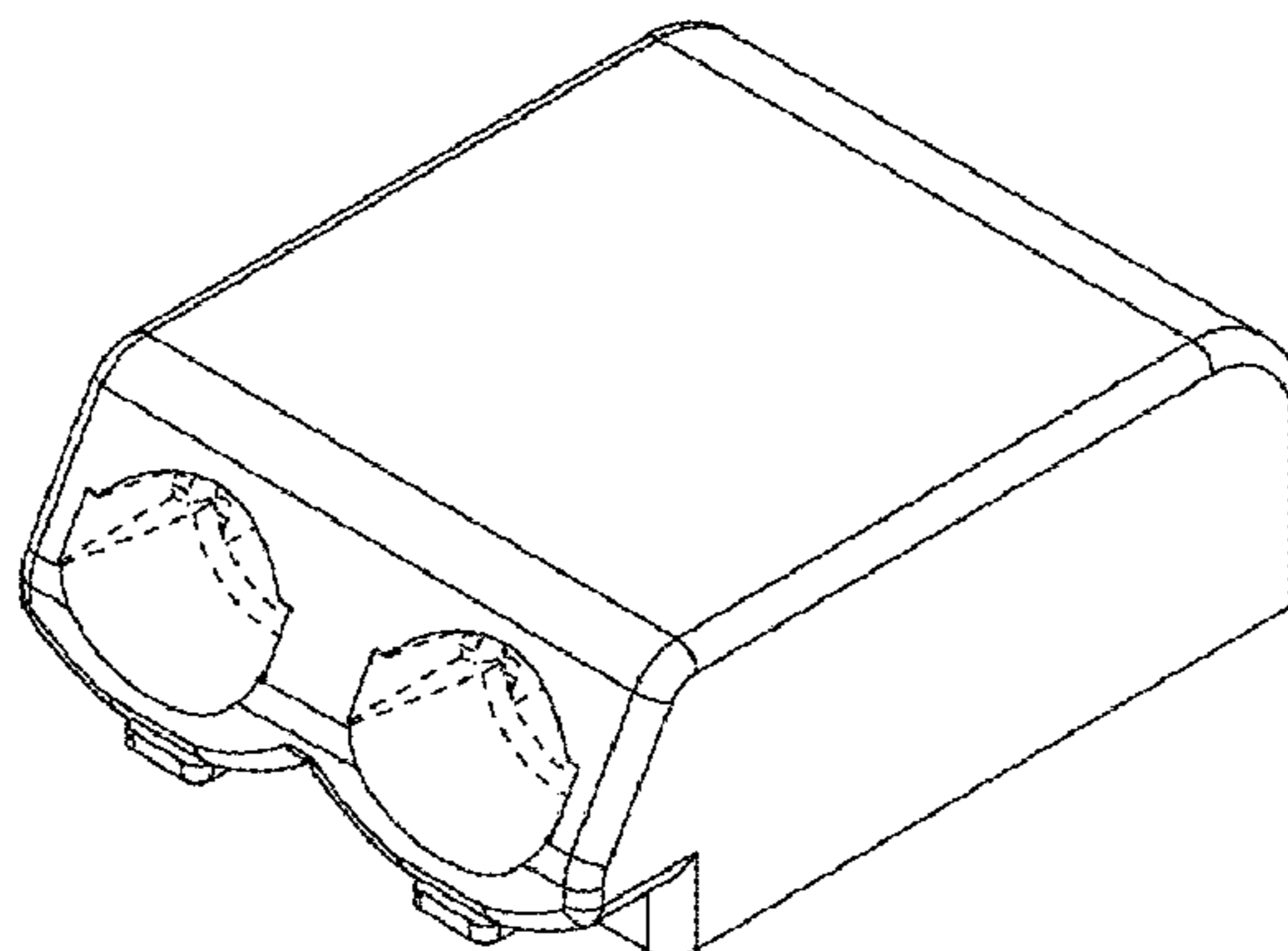
FIG. 5 is a bottom-view of the electrical plug-in connector of FIG. 1.

FIG. 6 is a left side-view of the electrical plug-in connector of FIG. 1; and,

FIG. 7 is a right side-view of the electrical plug-in connector of FIG. 1.

In the drawings, the broken lines are for the purpose of illustrating environment only and form no part of the claimed design.

1 Claim, 1 Drawing Sheet



(56)

References Cited

U.S. PATENT DOCUMENTS

D558,674 S *	1/2008	Lin	.....	D13/133	D663,694 S	7/2012	Fu et al.	
D558,678 S *	1/2008	Han	.....	D13/133	D663,695 S	7/2012	Zhang et al.	
D561,101 S *	2/2008	Sakamoto	.....	D13/133	D665,748 S	8/2012	Baker et al.	
7,326,074 B1 *	2/2008	Lim	.....	H01R 13/629	D666,971 S	9/2012	Sekine et al.	
				439/352	D669,857 S	10/2012	Nakabayashi et al.	
7,384,319 B2 *	6/2008	Kirstein	.....	H01R 4/4818	D670,250 S	11/2012	Nakabayashi et al.	
				439/439	D670,653 S	11/2012	Severing	
D574,772 S *	8/2008	Sutter	.....	D13/133	D673,117 S *	12/2012	Gassauer	..... D13/133
D574,773 S *	8/2008	Sutter	.....	D13/133	8,328,586 B2 *	12/2012	Bies	..... H01R 12/53
D577,677 S *	9/2008	Li	.....	D13/133				439/725
D578,065 S	10/2008	Baker et al.			D674,344 S *	1/2013	Bies	..... D13/133
D578,487 S *	10/2008	Han	.....	D13/154	D674,785 S	1/2013	Kyriakides	
D585,024 S	1/2009	Kudo			D676,386 S *	2/2013	Gassauer	..... D13/133
D594,414 S	6/2009	Ogata et al.			D676,391 S *	2/2013	Gassauer	..... D13/147
D597,491 S	8/2009	Sakamoto			D676,392 S *	2/2013	Gassauer	..... D13/147
D597,492 S	8/2009	Sakamoto			8,430,697 B2 *	4/2013	Gassauer	..... H01R 13/64
D597,956 S	8/2009	Sakamoto						439/441
D597,957 S	8/2009	Sakamoto			8,512,068 B2 *	8/2013	Gassauer	..... H01R 9/2491
D597,958 S	8/2009	Sakamoto						439/411
D599,297 S	9/2009	Chen			D693,303 S *	11/2013	Bies	..... D13/133
D603,338 S	11/2009	Wang et al.			8,591,271 B2 *	11/2013	Bies	..... H01R 4/4836
D604,248 S	11/2009	Sakamoto						439/725
D604,249 S	11/2009	Mancini			8,714,992 B2 *	5/2014	Truemper	..... H01R 4/2433
7,695,308 B2	4/2010	Allwood et al.						439/275
D616,820 S *	6/2010	Gong	.....	D13/133	D708,146 S	7/2014	Soni	
D624,503 S	9/2010	Severing			D719,913 S *	12/2014	Bies	..... D13/133
D626,509 S	11/2010	Severing			8,998,634 B2 *	4/2015	Koellmann	..... H01R 9/26
D632,252 S *	2/2011	Guo	.....	D13/147				439/441
D641,320 S *	7/2011	Huang	.....	D13/133	2004/0214464 A1 *	10/2004	Fukushima	..... H01R 13/5219
D641,700 S	7/2011	Ohkuma						439/271
D646,223 S	10/2011	Gouhl et al.			2011/0250775 A1 *	10/2011	Bies	..... H01R 12/53
D647,857 S	11/2011	Huang et al.						439/296
D650,749 S	12/2011	Smith et al.			2011/0250803 A1 *	10/2011	Bies	..... H01R 4/4836
D650,751 S	12/2011	Smith et al.						439/752.5
D655,677 S	3/2012	Gouhl et al.			2013/0157520 A1 *	6/2013	Koellmann	..... H01R 4/4836
								439/834
					2013/0341083 A1 *	12/2013	Lars	..... H05K 5/0247
								174/541

* cited by examiner

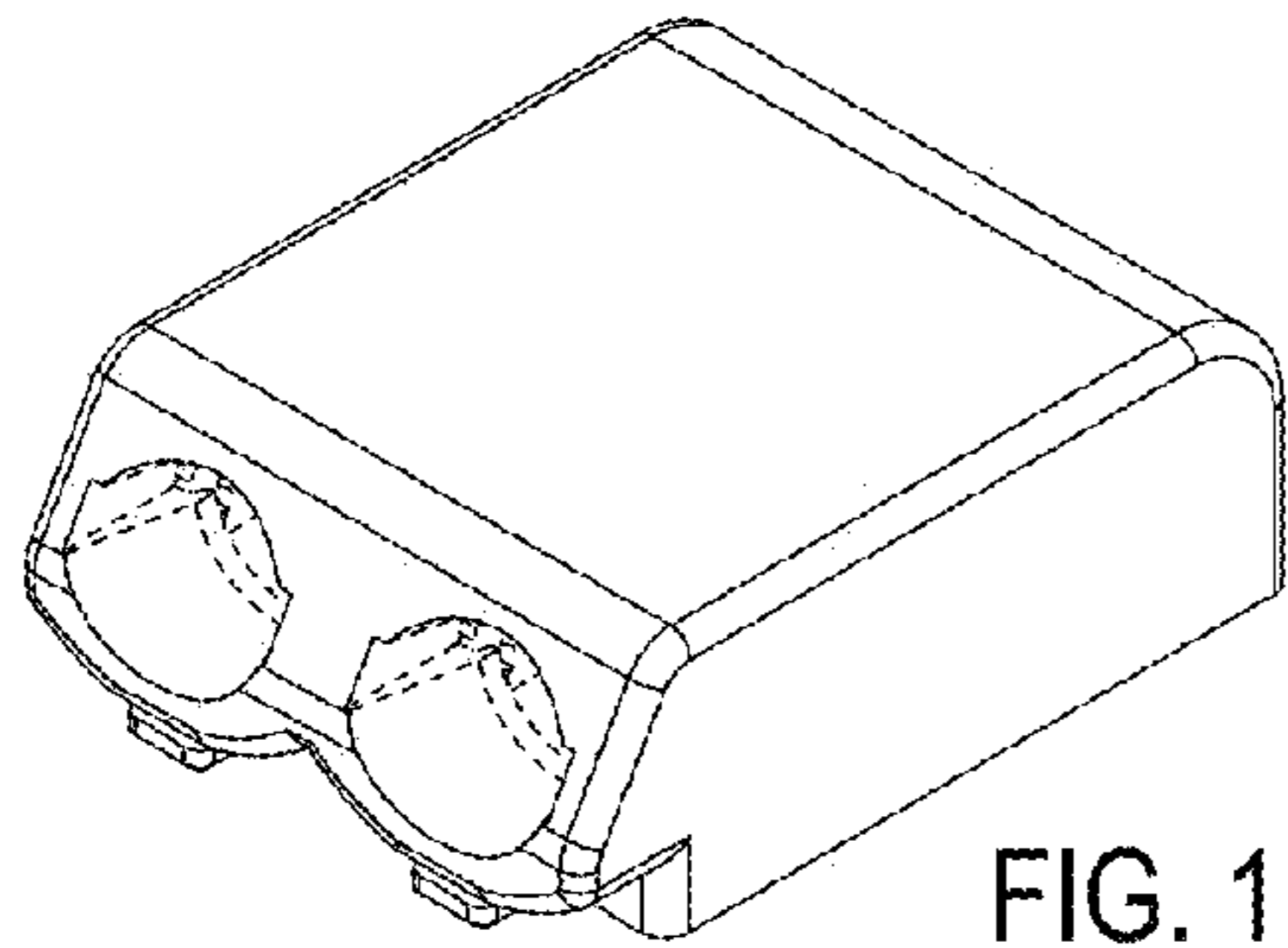


FIG. 1

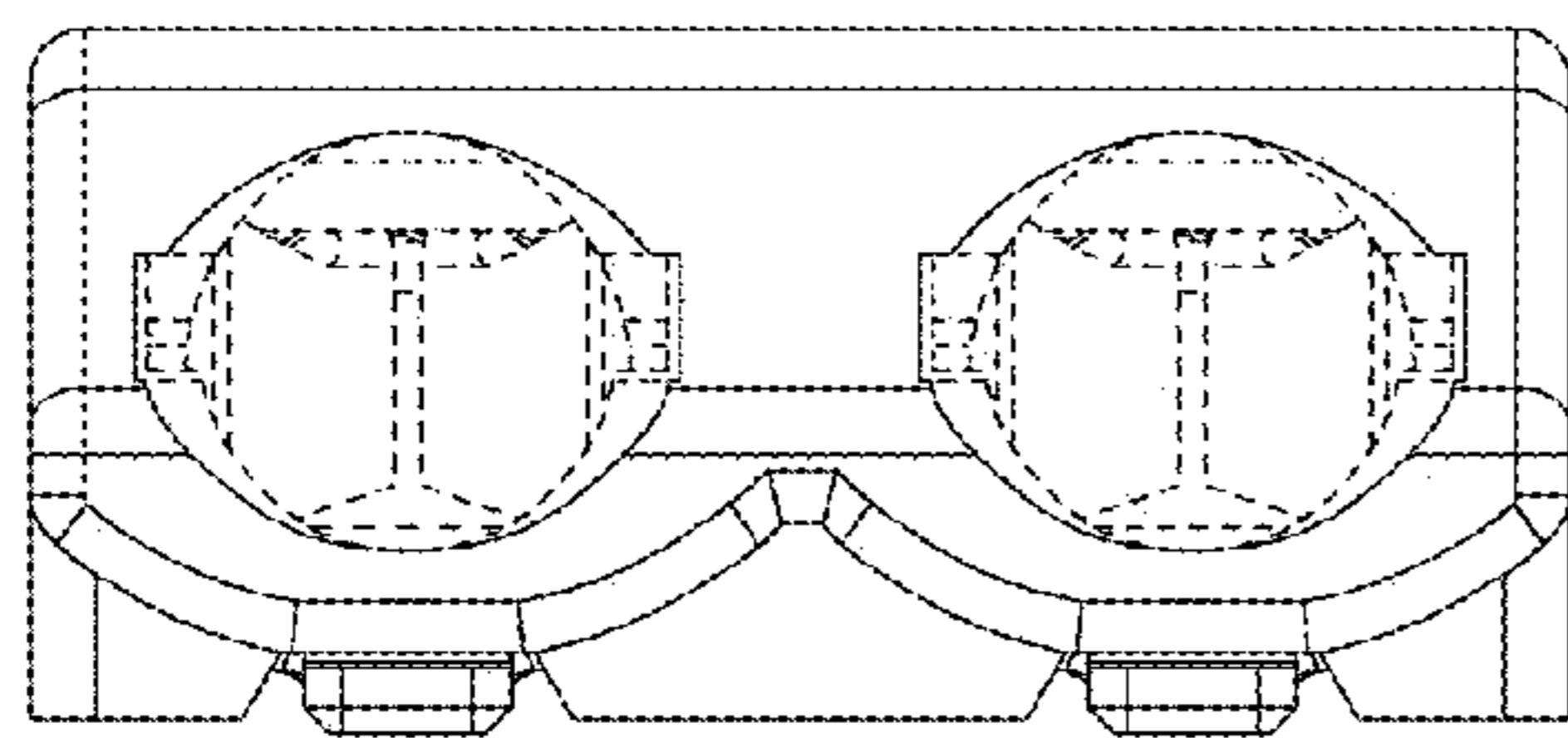


FIG. 2

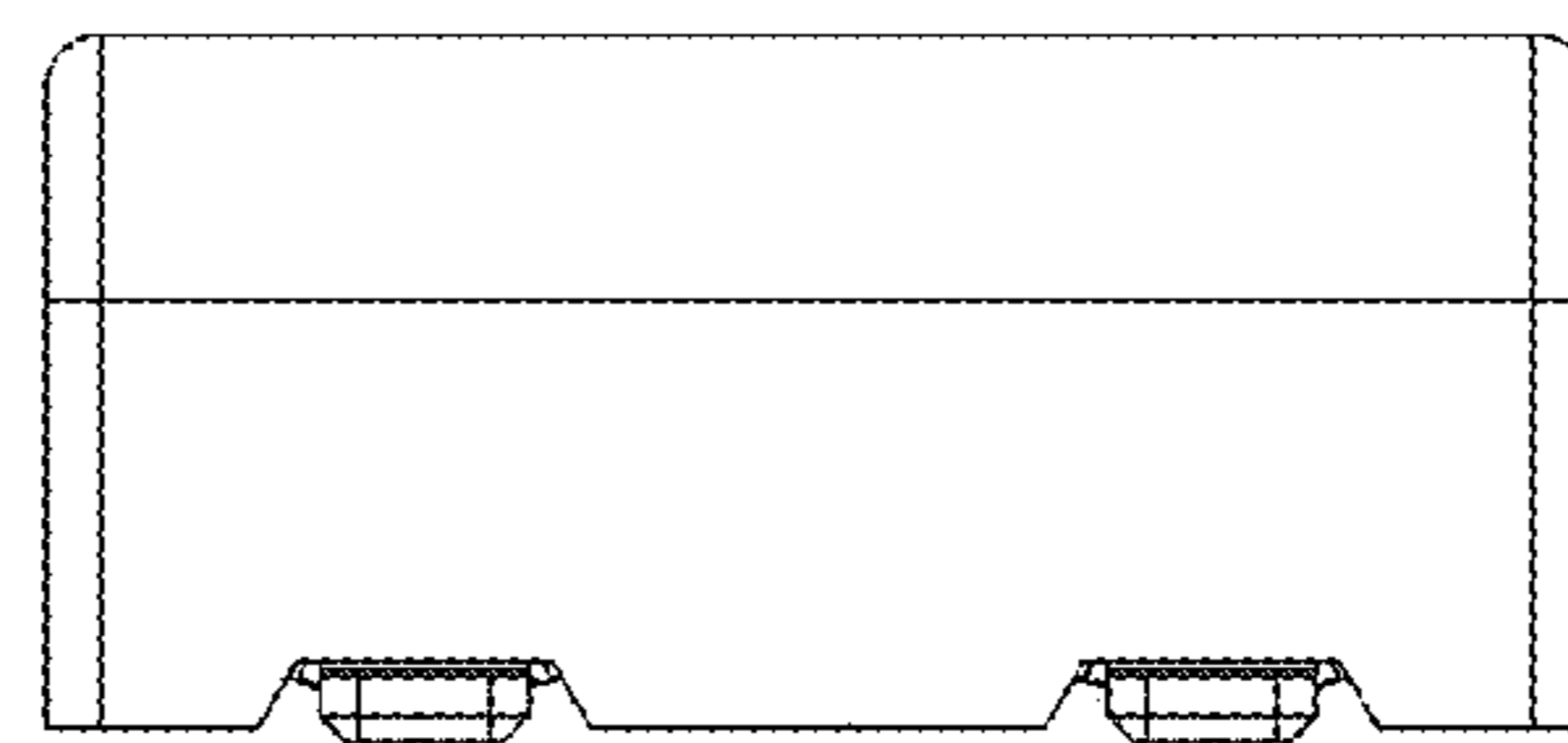


FIG. 3

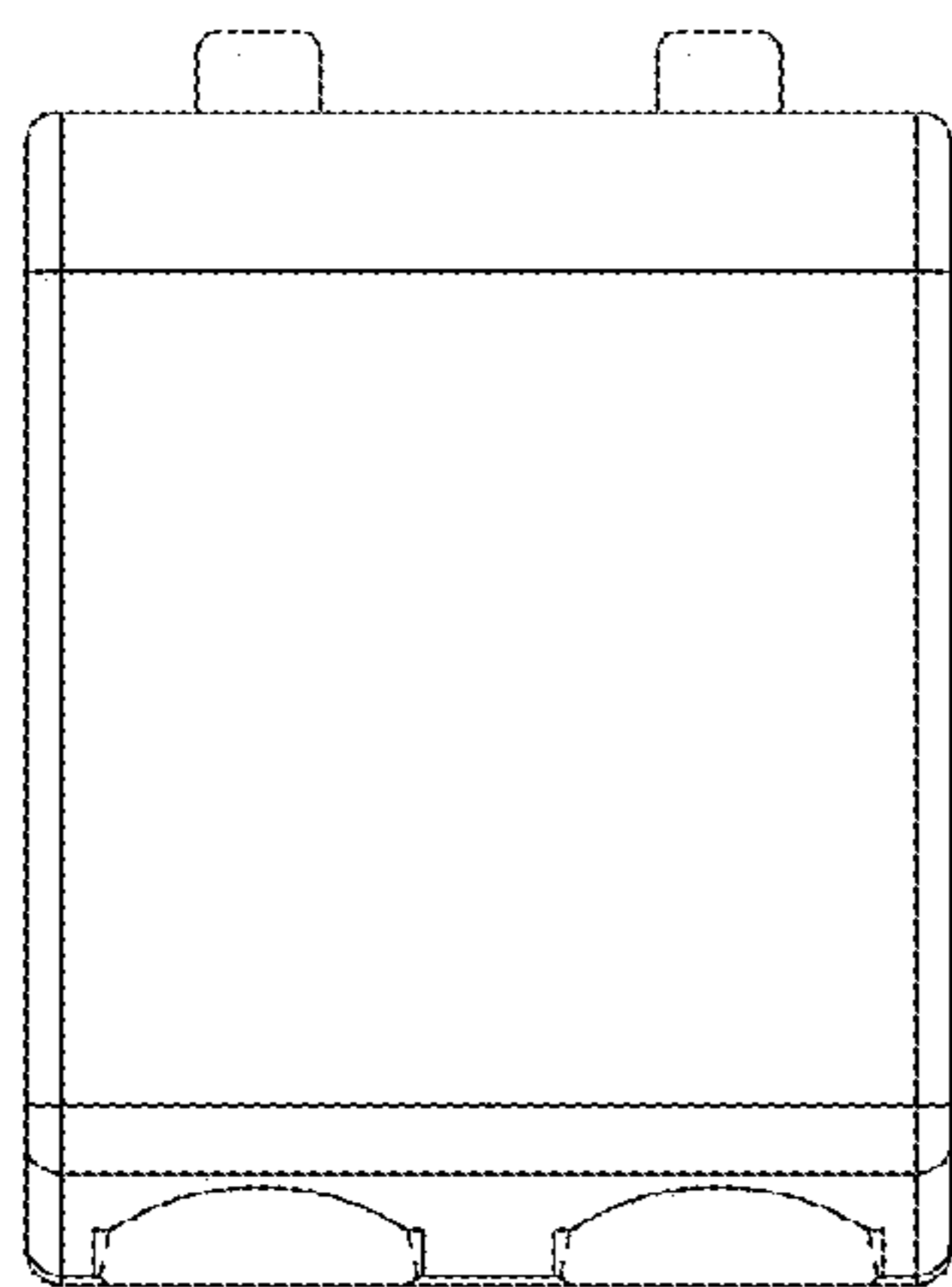


FIG. 4

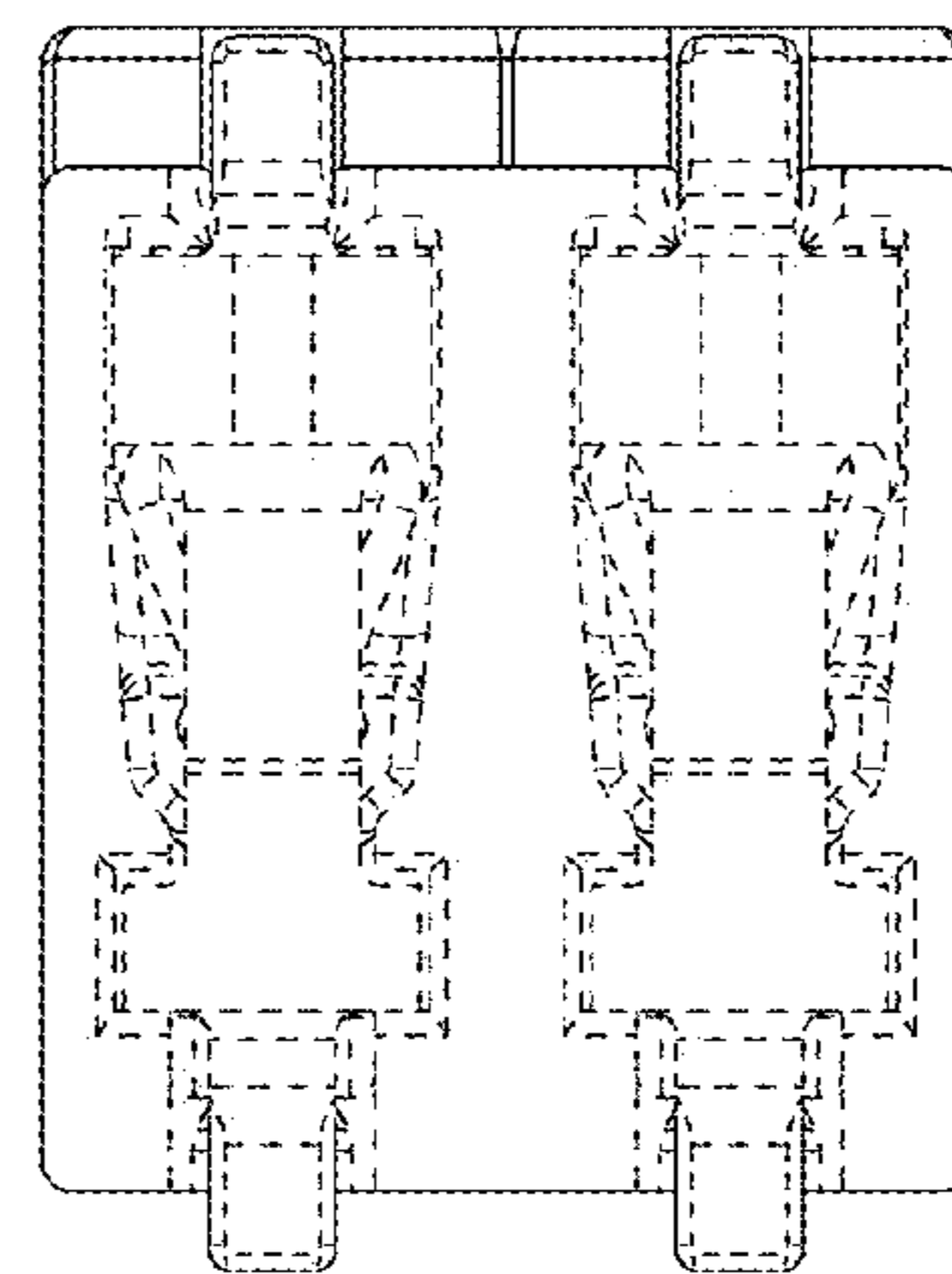


FIG. 5

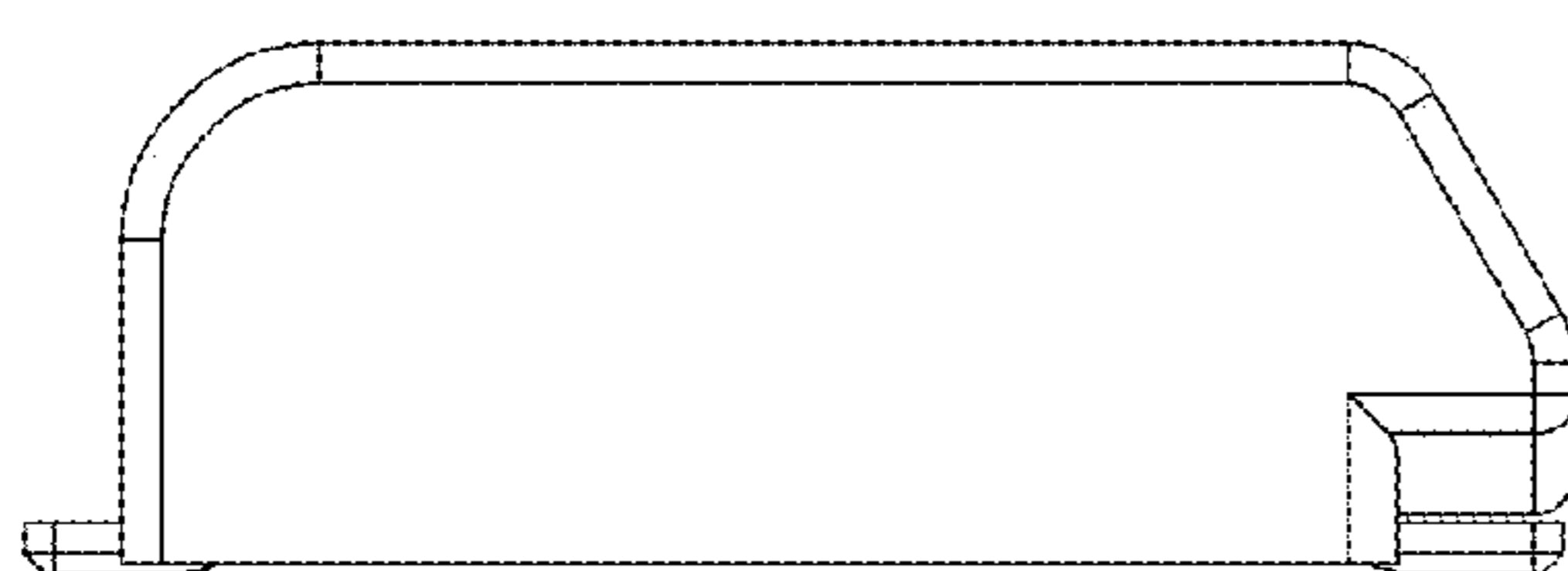


FIG. 6

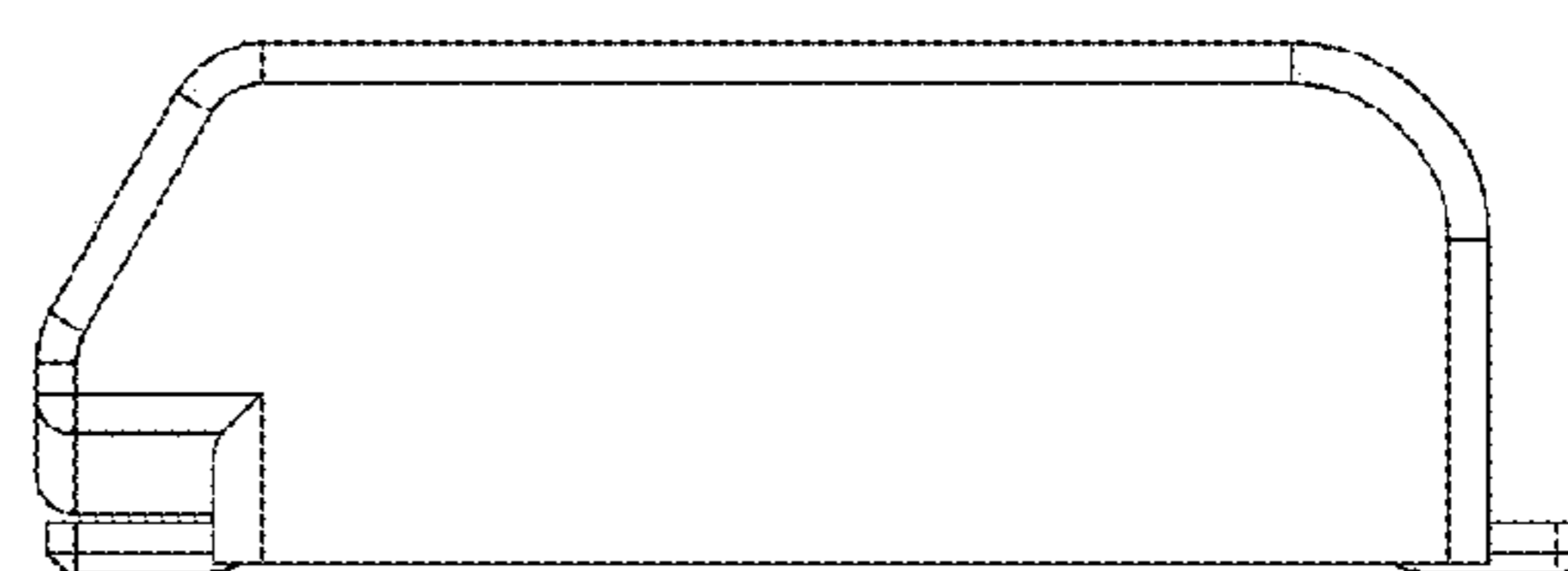


FIG. 7