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

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(54) **ELECTRICAL PLUG-IN CONNECTOR**
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(**) Term: **15 Years**

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

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(Continued)

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Related U.S. Application Data

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Foreign Application Priority Data

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(51) **LOC (10) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/137.1**

(58) **Field of Classification Search**
USPC D13/137.1–137.4, 133, 152–155, 147,
D13/146; 439/295, 282, 188, 357, 271, 680,
439/45, 439, 411, 296, 834, 752.5, 418;
338/195; 119/792; 174/541
CPC H01R 13/4223; H01R 13/64; H01R 13/62;
H01R 13/641; H01R 13/6272; H01R 13/5219;
H01R 13/44; H01R 13/582; G02B 6/3831;
G01L 19/0084; A01K 27/002; H01A 4/4836;
H01A 12/53; H01A 4/2433; 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

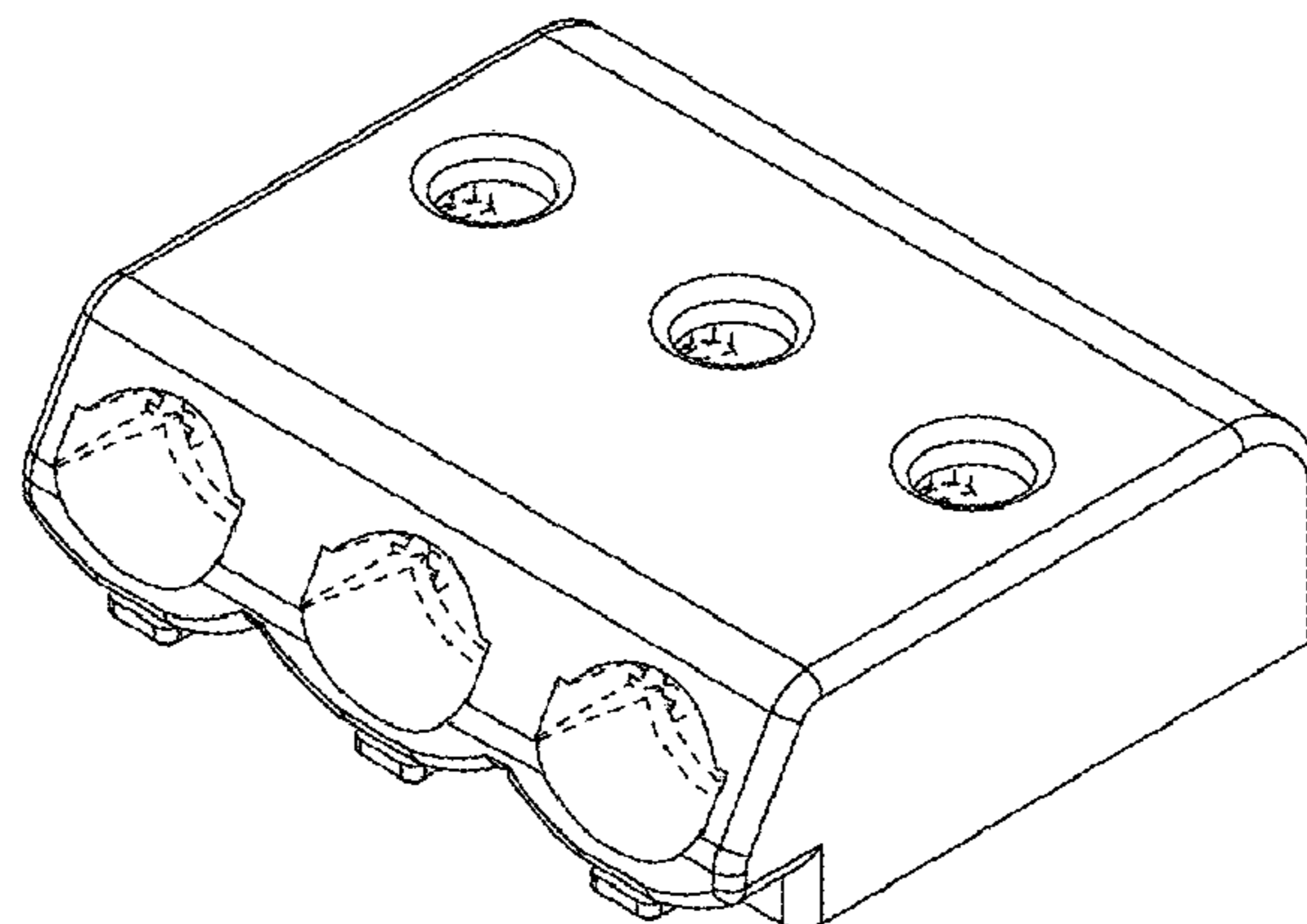
(57) **CLAIM**

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

DESCRIPTION

FIG. 1 is a front perspective view of an embodiment of the
electrical plug-in connector.
FIG. 2 is a rear perspective view of the electrical plug-in
connector of FIG. 1.
FIG. 3 is a top-view of the electrical plug-in connector of FIG.
1.
FIG. 4 is a bottom-view of the electrical plug-in connector of
FIG. 1.
FIG. 5 is a front-view of the electrical plug-in connector of
FIG. 1.
FIG. 6 is a rear-view of the electrical plug-in connector of
FIG. 1; and,
FIG. 7 is a left side-view of the electrical plug-in connector of
FIG. 1 a right side-view being a mirror image thereof.
In the drawings, the broken lines are for the purpose of illus-
trating environment only and form no part of the claimed
design.

1 Claim, 1 Drawing Sheet



(56)

References Cited

U.S. PATENT DOCUMENTS

6,383,011 B2 *	5/2002	Chen	.....	H01R 13/6272 439/357	D650,749 S	12/2011	Smith et al.
D467,872 S *	12/2002	Yeh	.....	D13/133	D650,751 S	12/2011	Smith et al.
6,994,595 B2 *	2/2006	Baker	.....	H01R 13/44 439/680	D655,677 S	3/2012	Gouhl et al.
7,004,795 B2 *	2/2006	Mancini	.....	H01R 13/582 439/459	D663,694 S	7/2012	Fu et al.
D558,674 S *	1/2008	Lin	.....	D13/133	D663,695 S	7/2012	Zhang et al.
D558,678 S *	1/2008	Han	.....	D13/133	D665,748 S	8/2012	Baker et al.
D561,101 S *	2/2008	Sakamoto	.....	D13/133	D666,971 S	9/2012	Sekine et al.
7,326,074 B1 *	2/2008	Lim	.....	H01R 13/629 439/352	D669,857 S	10/2012	Nakabayashi et al.
7,384,319 B2 *	6/2008	Kirstein	.....	H01R 4/4818 439/439	D670,250 S	11/2012	Nakabayashi et al.
D574,772 S *	8/2008	Sutter	.....	D13/133	D670,653 S	11/2012	Severing
D574,773 S *	8/2008	Sutter	.....	D13/133	D673,117 S *	12/2012	Gassauer D13/133
D577,677 S *	9/2008	Li	.....	D13/133	8,328,586 B2 *	12/2012	Bies H01R 12/53 439/725
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 13/64 439/441
D597,956 S	8/2009	Sakamoto			8,512,068 B2 *	8/2013	Gassauer H01R 9/2491 439/411
D597,957 S	8/2009	Sakamoto			D693,303 S *	11/2013	Bies D13/133
D597,958 S	8/2009	Sakamoto			8,591,271 B2 *	11/2013	Bies H01R 4/4836 439/725
D599,297 S	9/2009	Chen			8,714,992 B2 *	5/2014	Truemper H01R 4/2433 439/275
D603,338 S	11/2009	Wang et al.			D708,146 S	7/2014	Soni
D604,248 S	11/2009	Sakamoto			D719,913 S *	12/2014	Bies D13/133
D604,249 S	11/2009	Mancini			8,998,634 B2 *	4/2015	Koellmann H01R 9/26 439/441
7,695,308 B2	4/2010	Allwood et al.			2004/0214464 A1 *	10/2004	Fukushima H01R 13/5219 439/271
D616,820 S *	6/2010	Gong	.....	D13/133	2011/0250775 A1 *	10/2011	Bies H01R 12/53 439/296
D624,503 S	9/2010	Severing			2011/0250803 A1 *	10/2011	Bies H01R 4/4836 439/752.5
D626,509 S	11/2010	Severing			2013/0157520 A1 *	6/2013	Koellmann H01R 4/4836 439/834
D632,252 S *	2/2011	Guo	.....	D13/147	2013/0341083 A1 *	12/2013	Binner H05K 5/0247 174/541
D641,320 S *	7/2011	Huang	.....	D13/133			
D641,700 S	7/2011	Ohkuma					
D646,223 S	10/2011	Gouhl et al.					
D647,857 S	11/2011	Huang et al.					

* cited by examiner

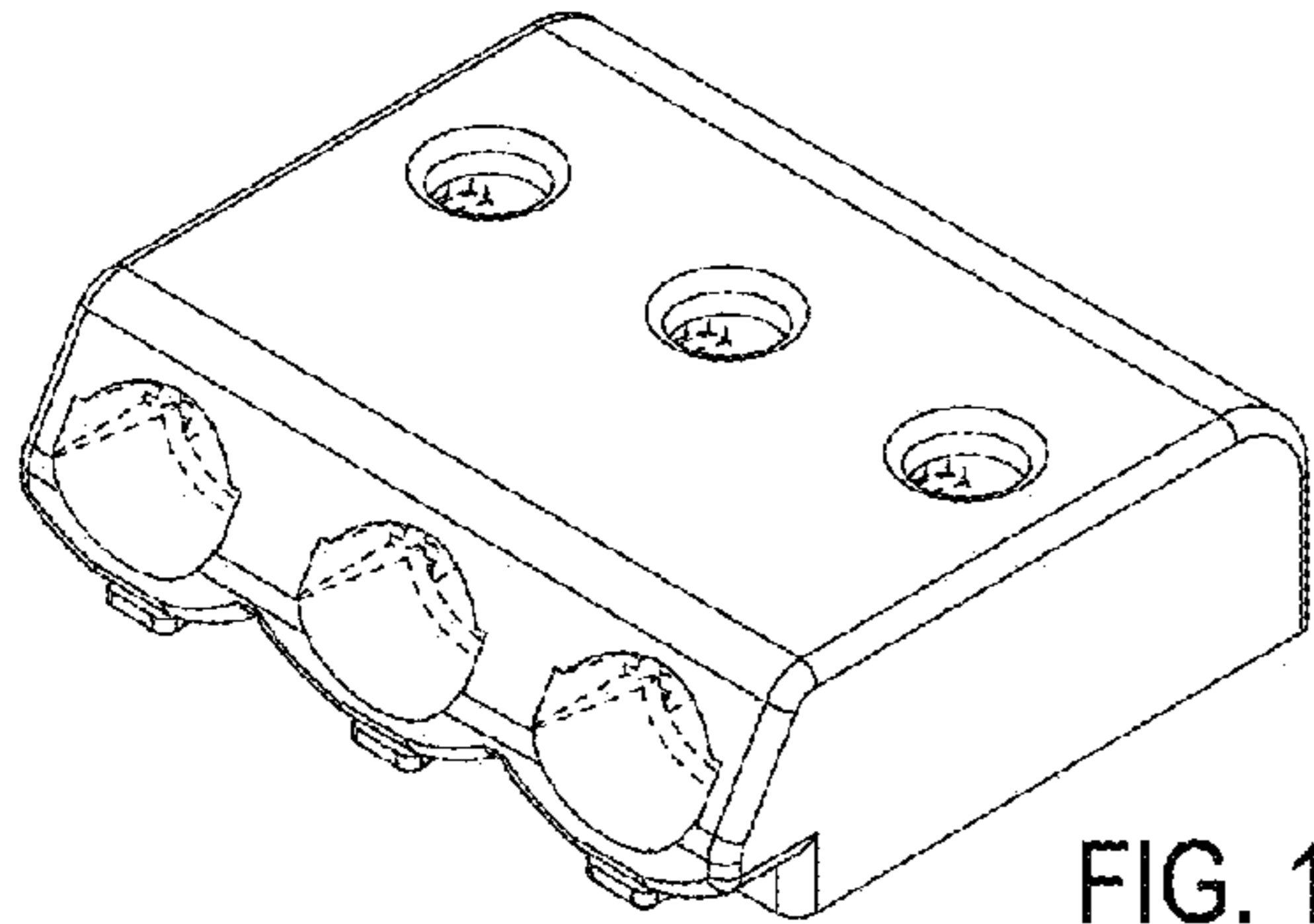


FIG. 1

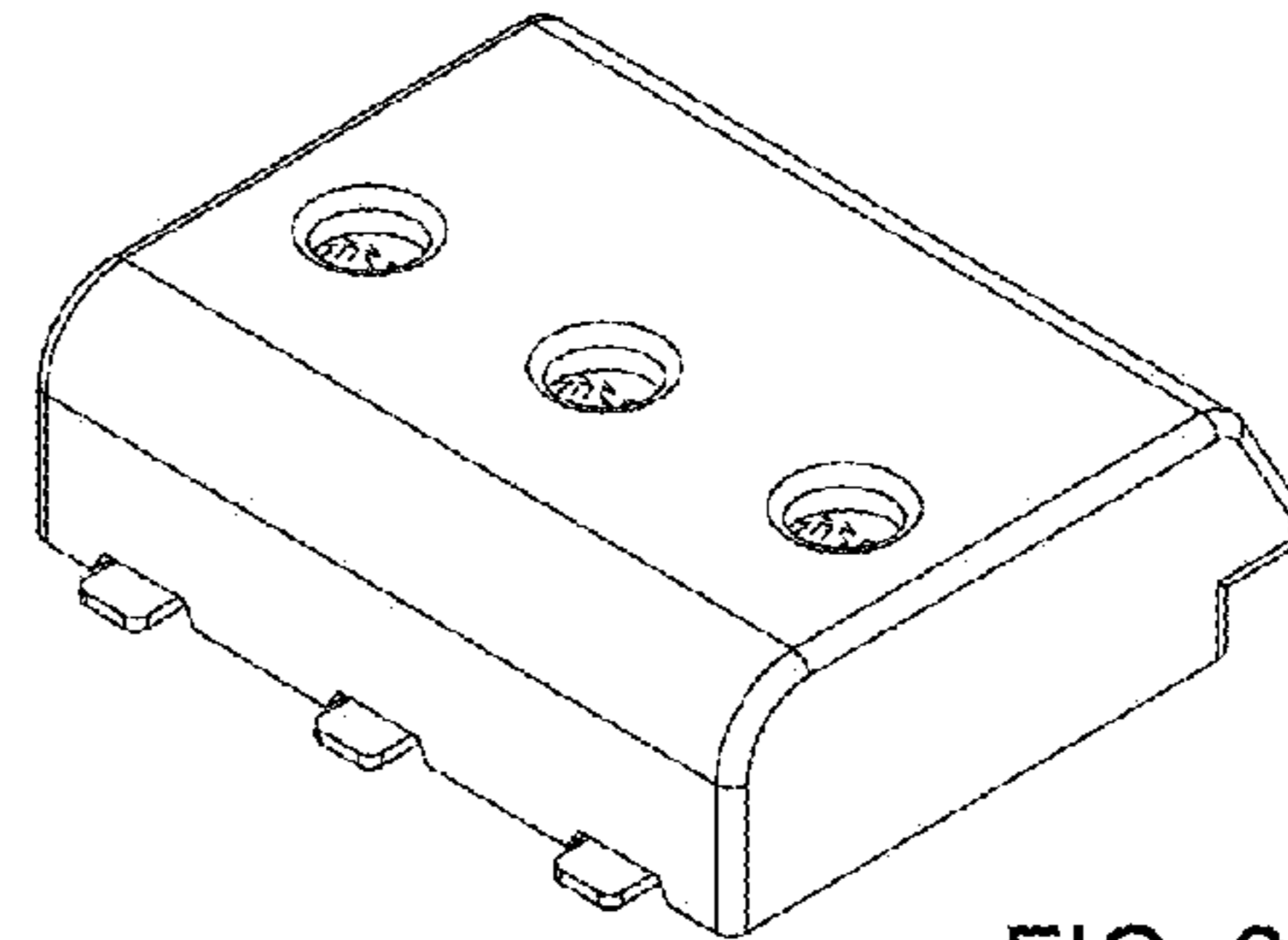


FIG. 2

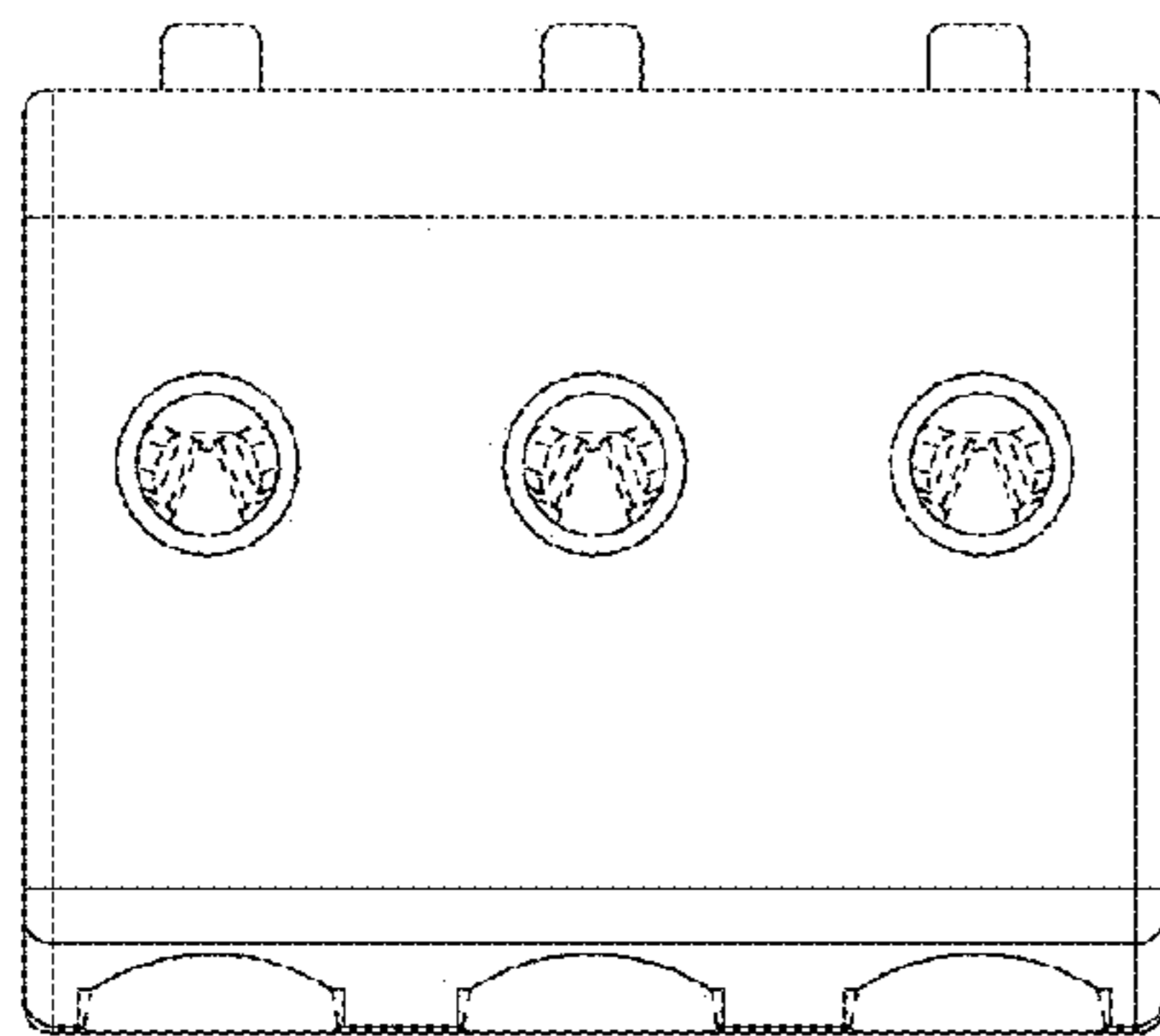


FIG. 3

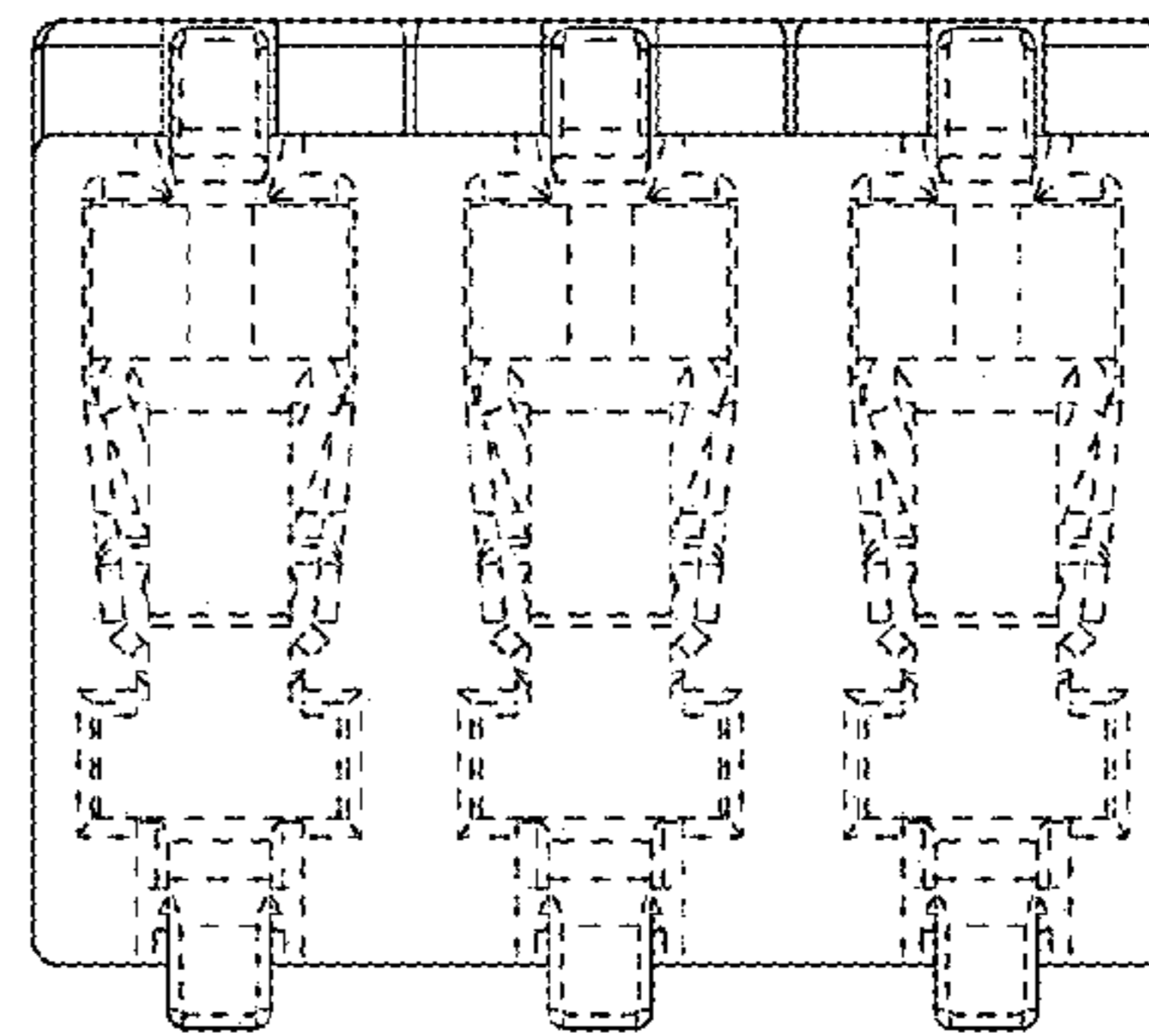


FIG. 4

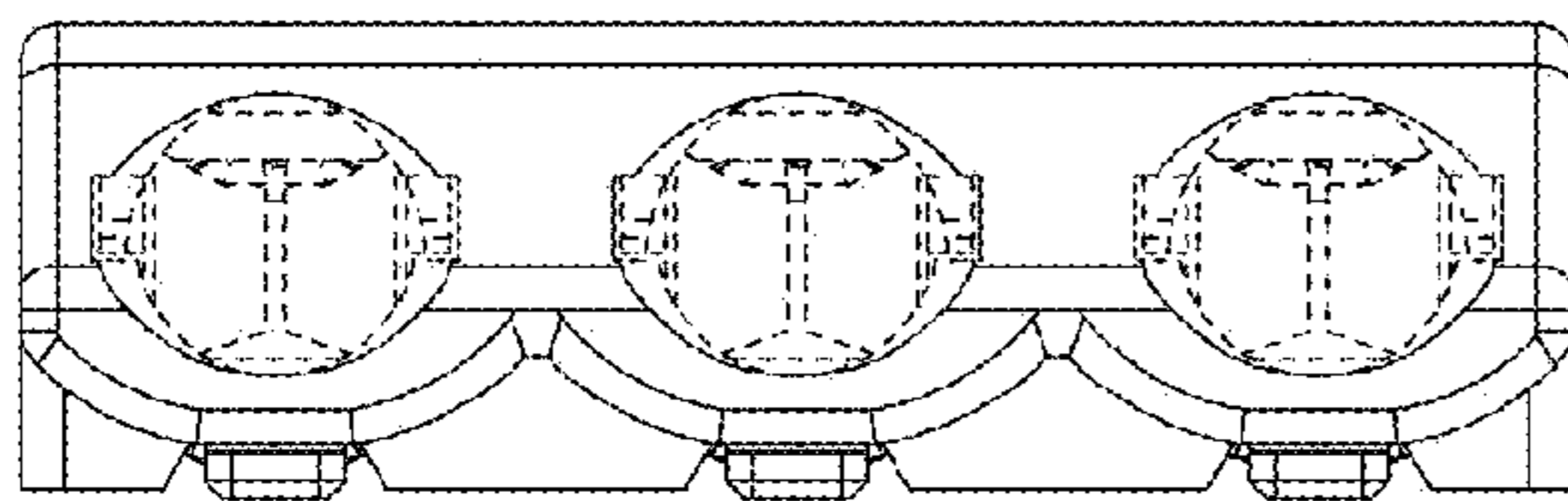


FIG. 5

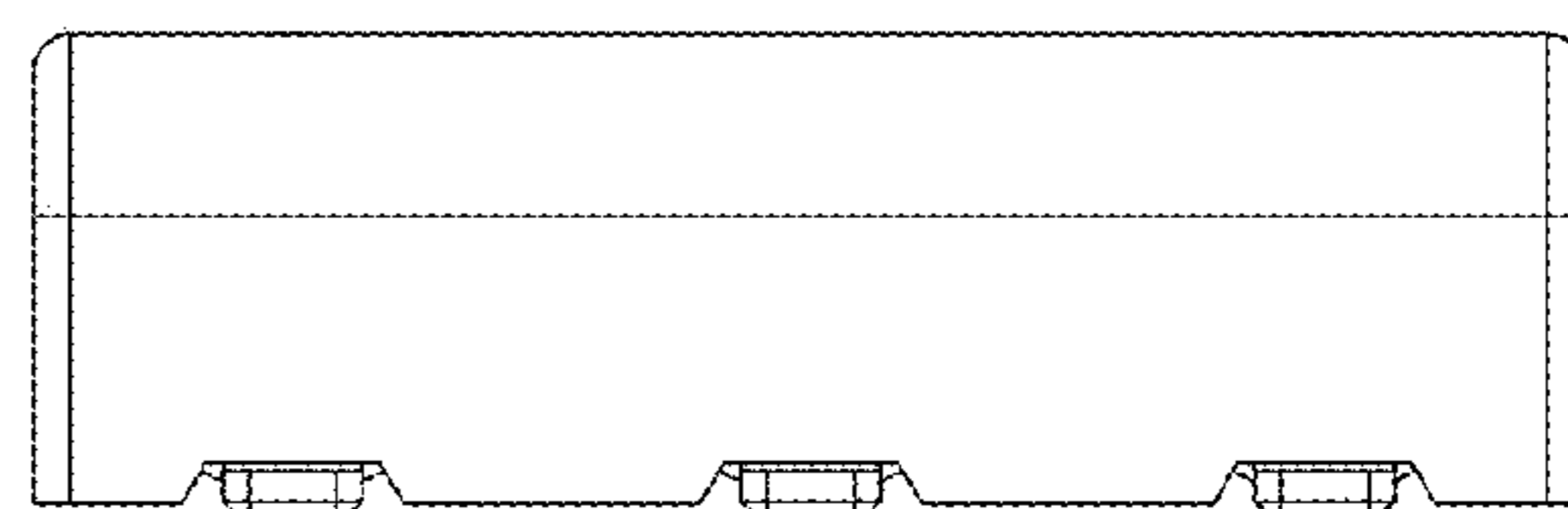


FIG. 6

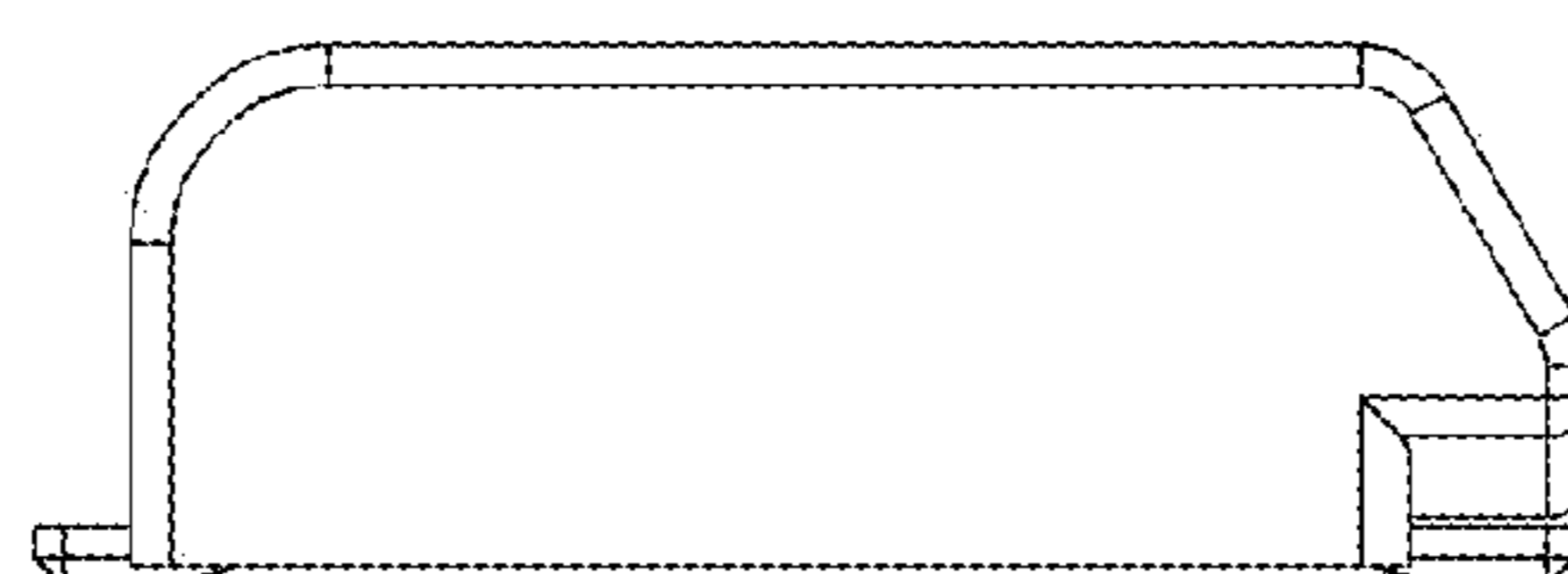


FIG. 7