



US00D885346S

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

(10) **Patent No.:** **US D885,346 S**

(45) **Date of Patent:** **\*\* May 26, 2020**

(54) **ELECTRICAL CONNECTOR**

(71) Applicant: **SMK Corporation**, Tokyo (JP)

(72) Inventor: **Yoshiyasu Ishida**, Saitama (JP)

(73) Assignee: **SMK Corporation**, Tokyo (JP)

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

(21) Appl. No.: **29/668,139**

(22) Filed: **Oct. 28, 2018**

(30) **Foreign Application Priority Data**

May 11, 2018 (JP) ..... 2018-010207

(51) **LOC (12) Cl.** ..... **13-03**

(52) **U.S. Cl.**  
USPC ..... **D13/147**

(58) **Field of Classification Search**  
USPC ..... D13/118, 120, 123, 133, 146, 147, 154,  
D13/184, 199; D14/240, 242, 432-435,  
D14/435.1, 436-438; D9/456  
CPC ..... H01R 12/716; H01R 13/426  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D695,742 S *	12/2013	Yang	.....	D14/432
D696,651 S *	12/2013	Ohashi	.....	D14/240
D696,652 S *	12/2013	Ohashi	.....	D14/240
D719,919 S *	12/2014	Ashibu	.....	D13/147
D719,920 S *	12/2014	Choi	.....	D13/147
D719,921 S *	12/2014	Choi	.....	D13/147
D720,699 S *	1/2015	Watanabe	.....	D13/147
D721,040 S *	1/2015	Watanabe	.....	D13/147
D722,564 S *	2/2015	Yoshida	.....	D13/147
D733,058 S *	6/2015	Miyazaki	.....	D13/147

D742,833 S *	11/2015	Ashibu	.....	D13/147
D742,834 S *	11/2015	Kobuchi	.....	D13/147
D743,344 S *	11/2015	Kobuchi	.....	D13/147
D743,345 S *	11/2015	Kobuchi	.....	D13/147
D767,499 S *	9/2016	Goto	.....	D13/147
D774,463 S *	12/2016	Omodachi	.....	D13/147
D774,464 S *	12/2016	Takenaga	.....	D13/147
9,825,386 B2 *	11/2017	Lee	.....	H01R 12/73
D804,421 S *	12/2017	Sasaki	.....	D13/147
D839,832 S *	2/2019	Yanase	.....	D13/147

(Continued)

**OTHER PUBLICATIONS**

Japan Bullet. Smk to Release Connectors for High—Voltage Solar Plants. Mar. 21, 2014. <https://www.japanbullet.com/technology/smk-to-release-connectors-for-high-voltage-solar-plants> (Year: 2014).\*

(Continued)

*Primary Examiner* — Darcey E Gottschalk

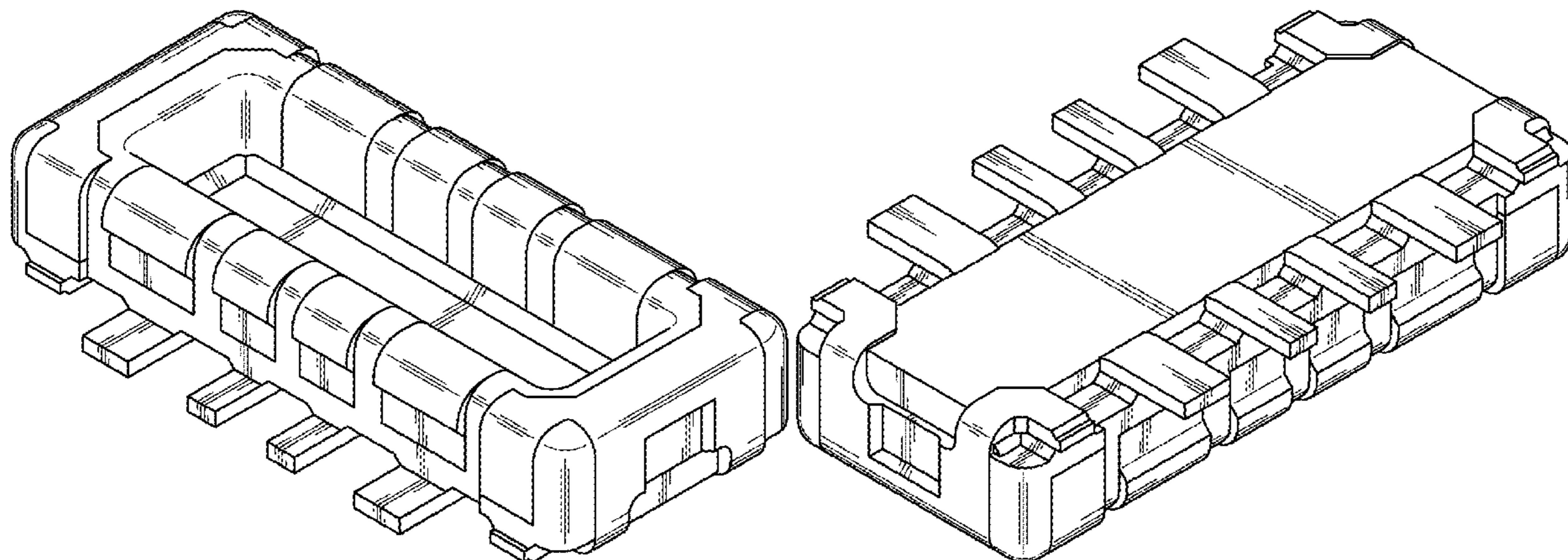
(57) **CLAIM**

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

**DESCRIPTION**

FIG. 1 is a front elevation view of an electrical connector, showing our new design;  
FIG. 2 is a top plan view thereof;  
FIG. 3 is a bottom plan view thereof;  
FIG. 4 is a 1<sup>st</sup> side view thereof;  
FIG. 5 is a 2<sup>nd</sup> side view thereof;  
FIG. 6 is a rear elevation view thereof;  
FIG. 7 is a 1<sup>st</sup> perspective view thereof; and,  
FIG. 8 is a 2<sup>nd</sup> perspective view thereof.  
The shading in the figures shows contour of surface, and not surface ornamentation.

**1 Claim, 8 Drawing Sheets**



(56)

**References Cited**

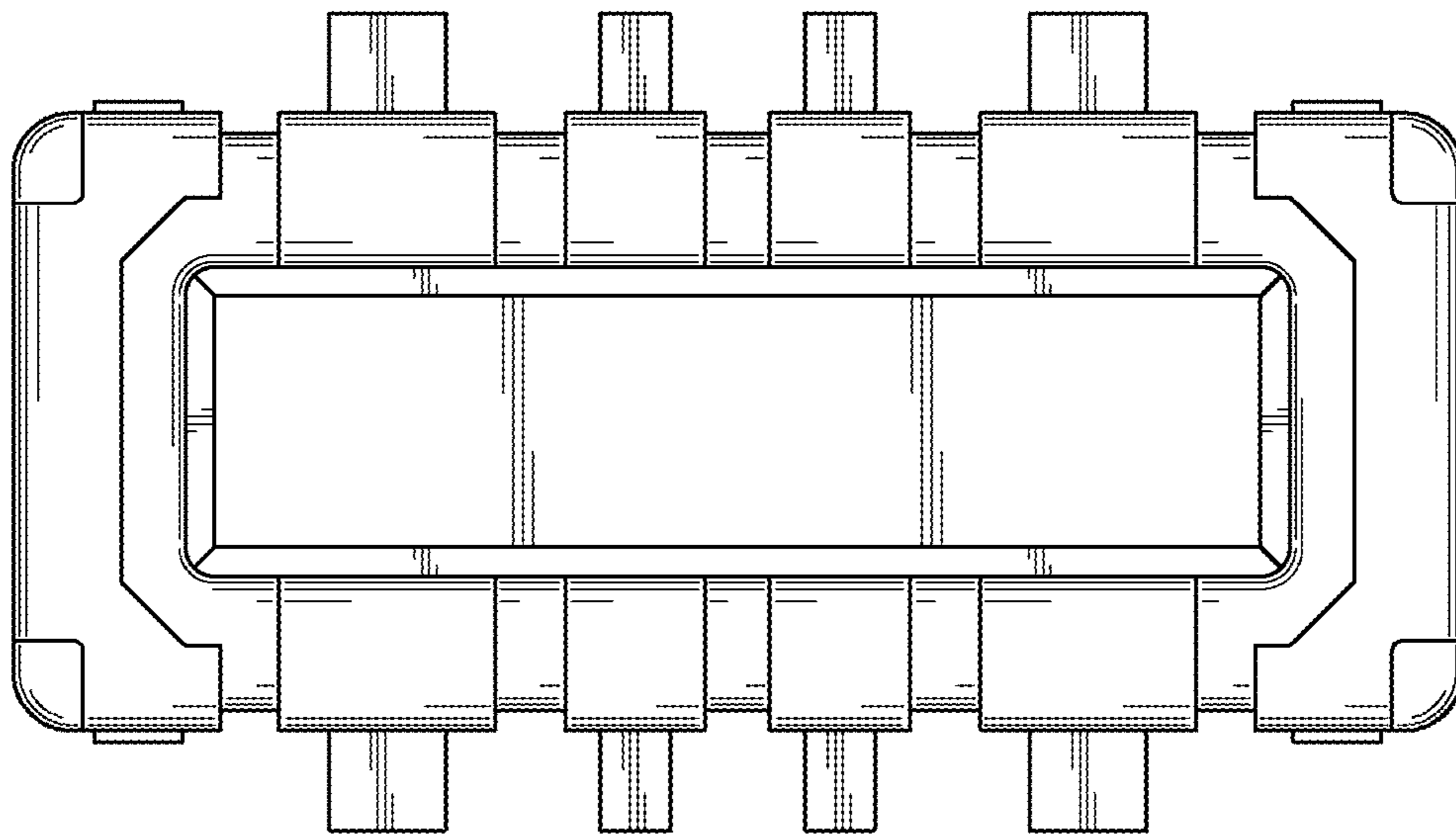
U.S. PATENT DOCUMENTS

D870,674 S \* 12/2019 Ashibu ..... D13/147  
2020/0044374 A1 \* 2/2020 Ishida ..... H01R 12/721

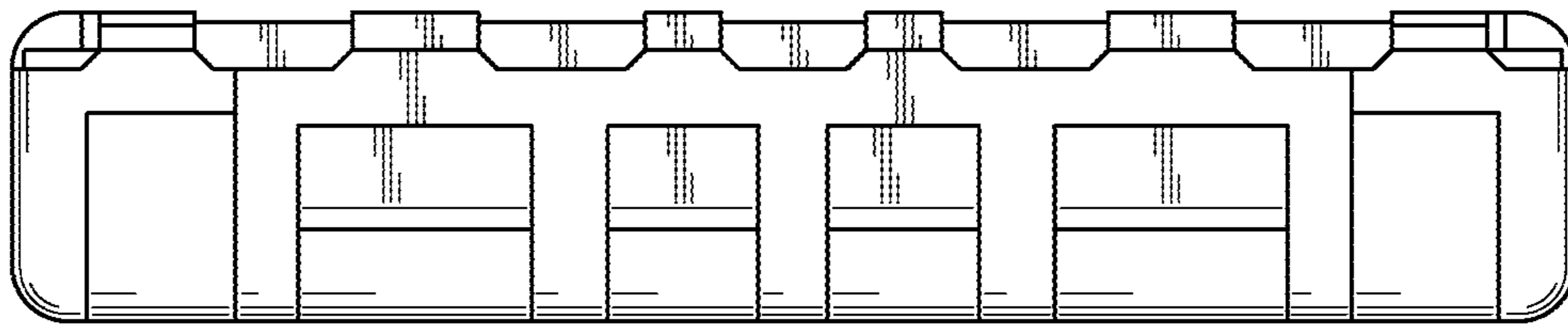
OTHER PUBLICATIONS

Connector Supplier. Battery Connectors Evolve to Stay in Charge.  
Apr. 17, 2018. <https://www.connectorsupplier.com/battery-connectors-evolve-to-stay-in-charge/> (Year: 2018).\*

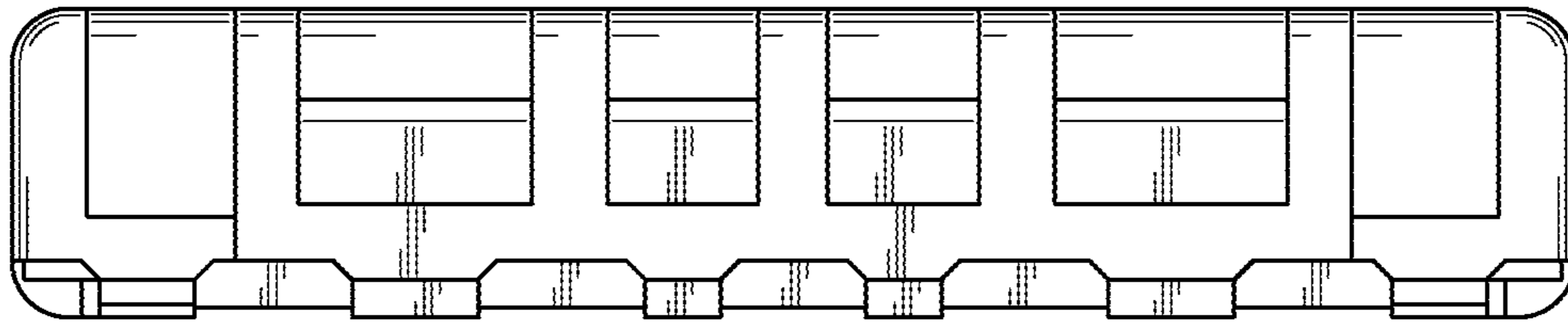
\* cited by examiner



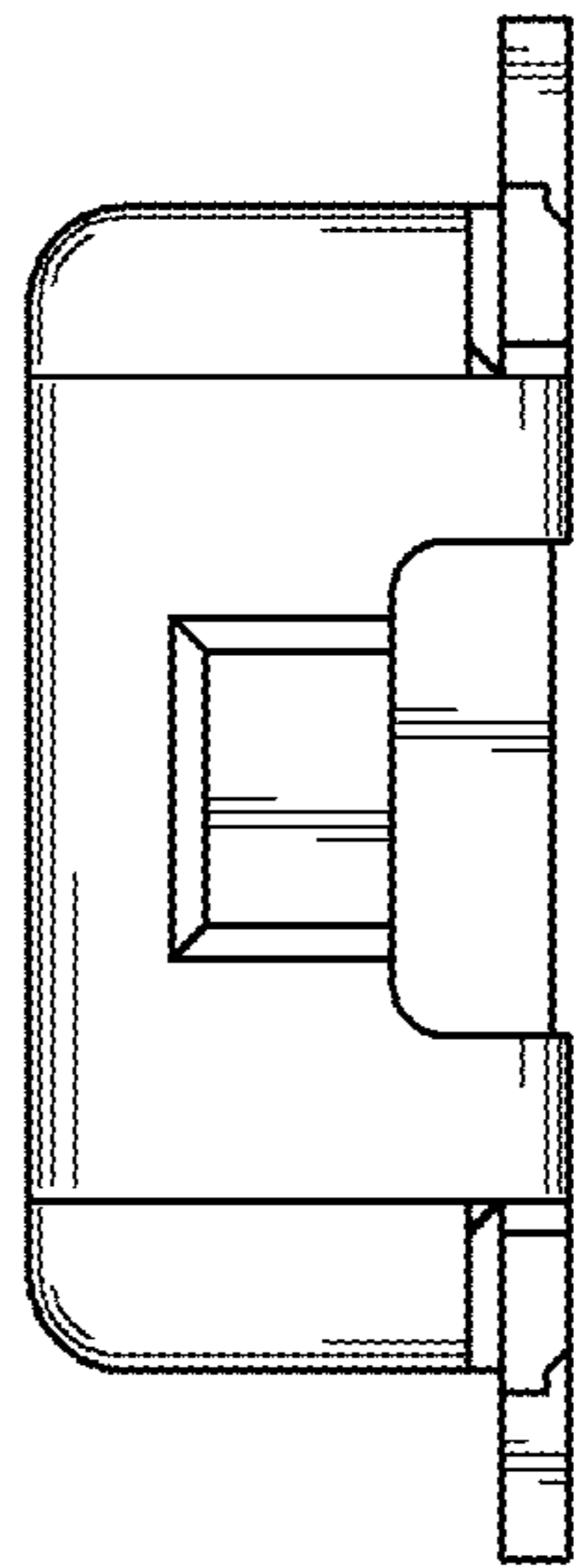
*Fig. 1*



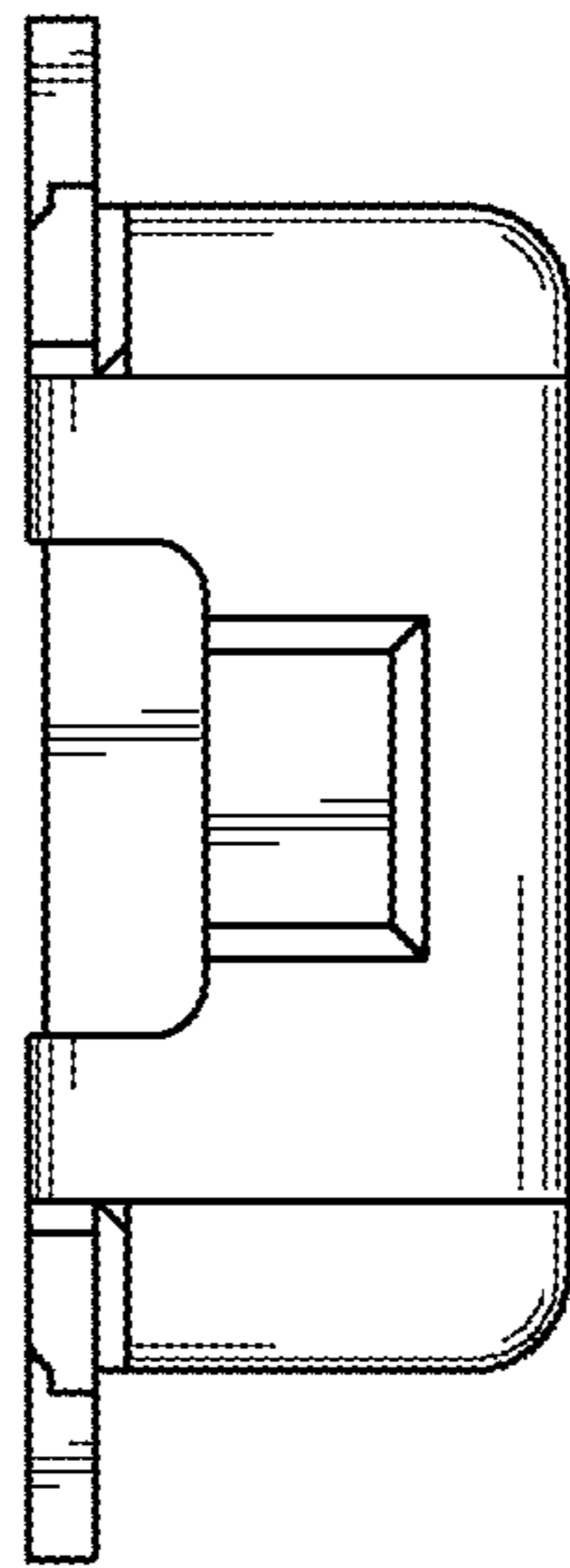
*Fig.2*



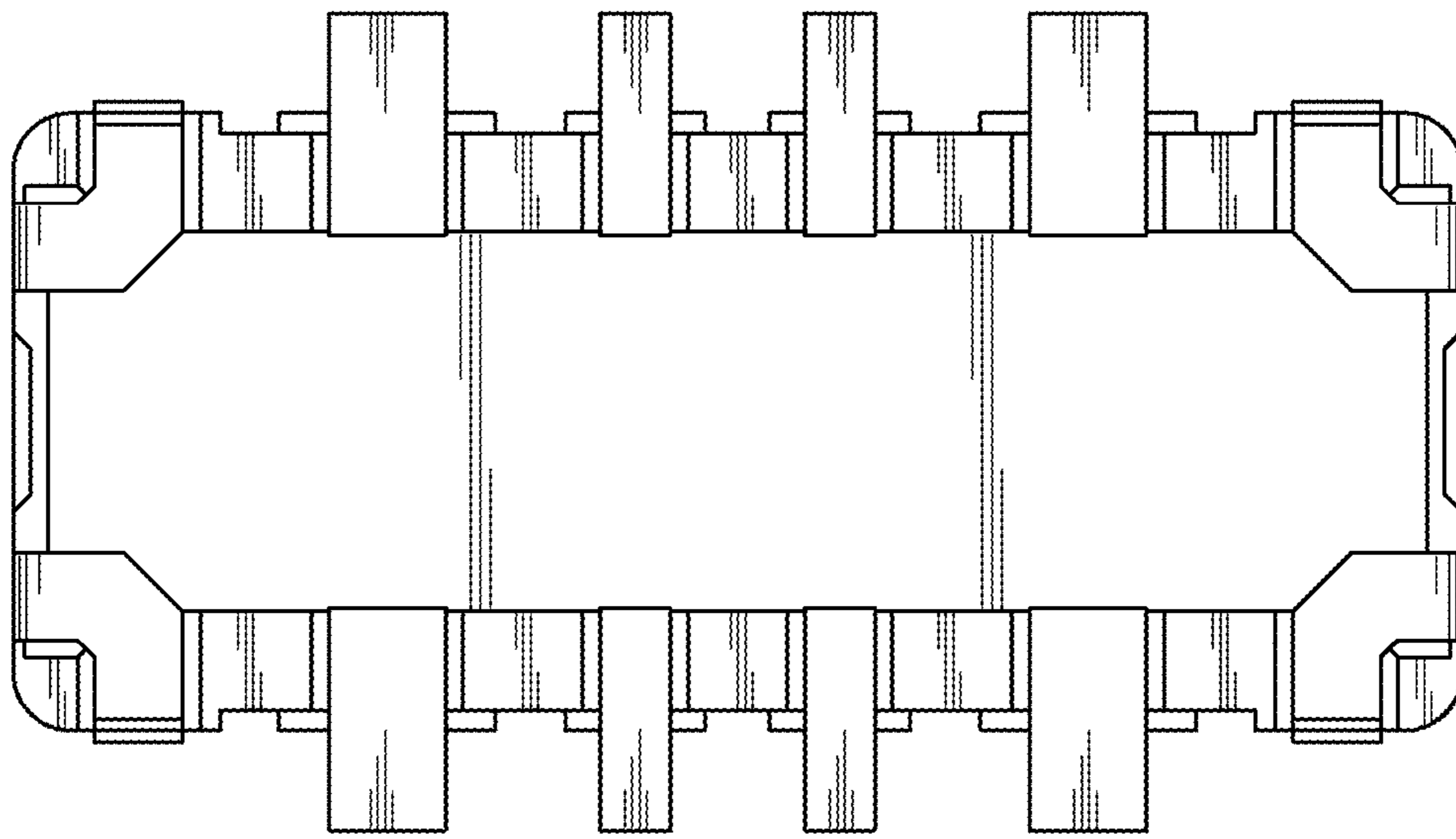
*Fig.3*



*Fig.4*

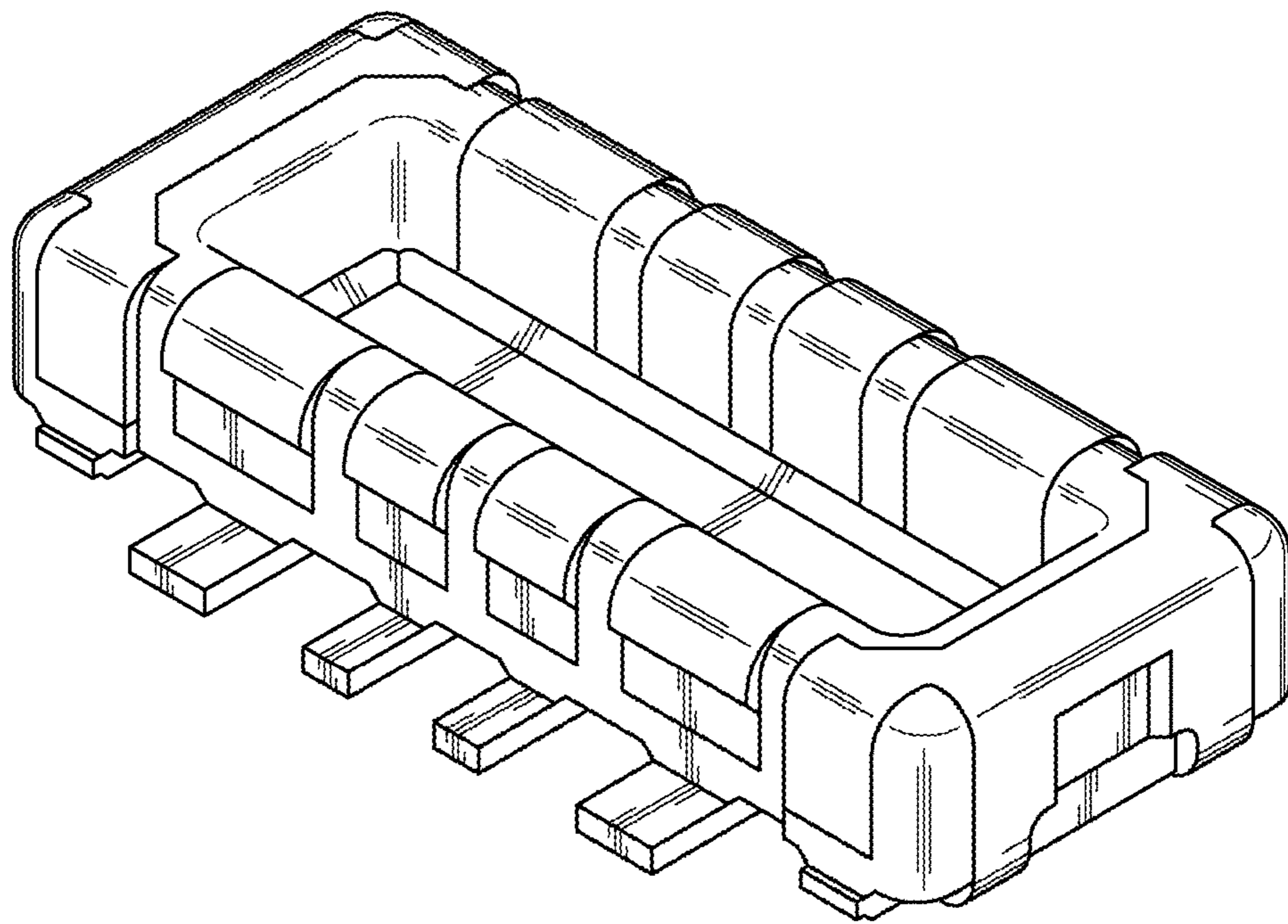


*Fig.5*

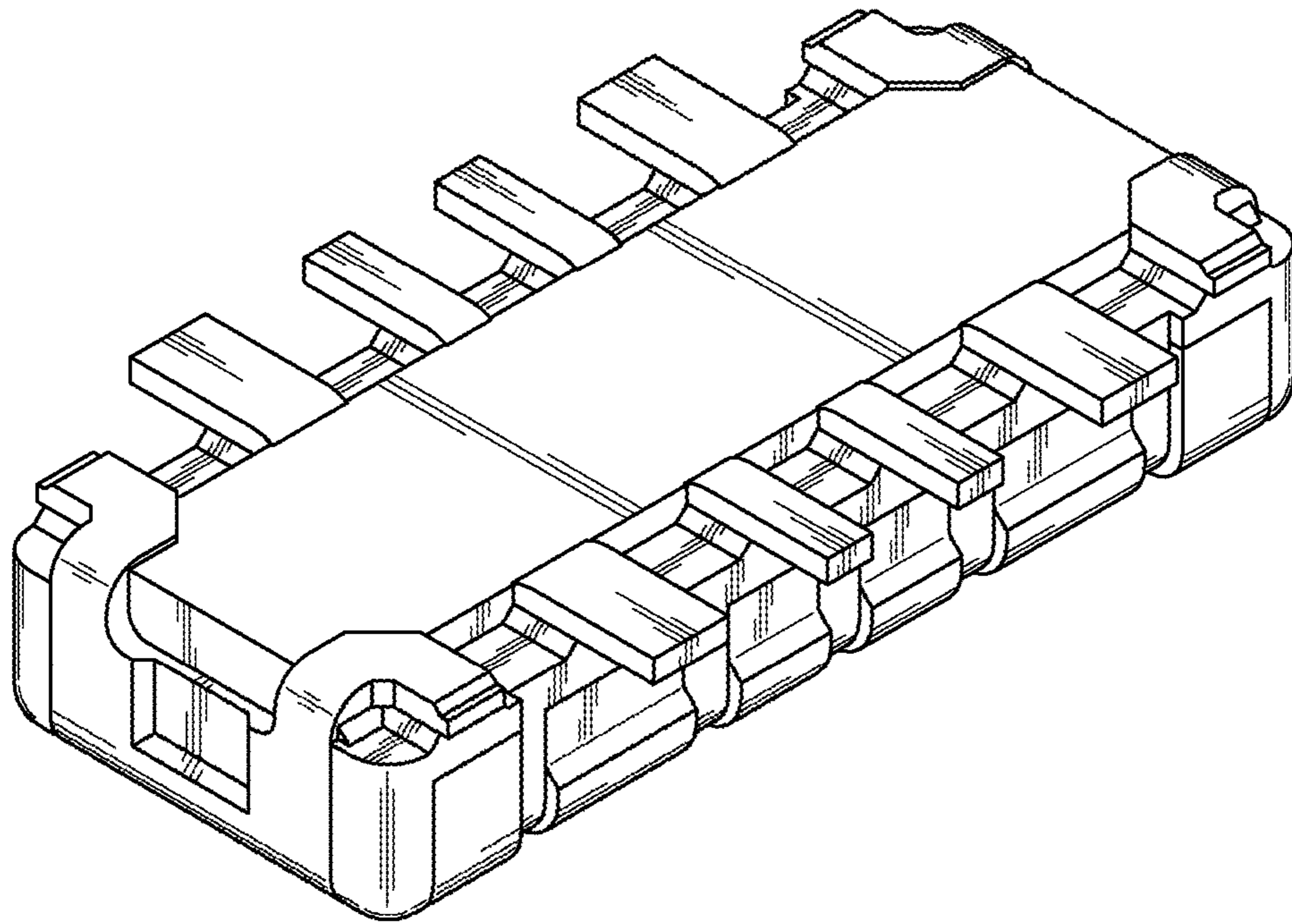


*Fig.6*





*Fig. 7*



*Fig. 8*