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(12) **United States Design Patent** (10) **Patent No.:** **US D773,413 S**  
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(54) **SEMICONDUCTOR DEVICE**

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

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(30) **Foreign Application Priority Data**

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

(52) **U.S. Cl.**  
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(58) **Field of Classification Search**

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CPC ..... H01L 21/00; H01L 21/02433; H01L 2224/42; H01L 2224/43; H01L 2021/00; H01L 2021/02; H01L 2021/04; H01L 21/4814; H01L 21/4846; H01L 21/4871; H01L 21/67144; H01L 23/12; H01L 23/13; H01L 23/14; H01L 23/147; H01L 2924/171; H01L 2924/1711; H01L 2924/17151; H01L 2924/181; H01L

2924/1811; H01L 2924/1815; H01L 2924/1905; H01L 29/04; H01L 2224/08054; H01L 23/58; H05B 41/14; H02B 6/4201; G02B 6/4256; G02B 6/4257; G02B 6/428; G02B 6/4281; H05K 1/14; H05K 1/141; H05K 1/142; H05K 1/144; H05K 1/18; H05K 1/181; H05K 1/182; H05K 1/026; H05K 1/0228; H05K 1/0245; H05K 1/0236; H05K 1/0263

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D357,672 S \* 4/1995 Terasawa ..... D13/182  
D396,450 S \* 7/1998 Nishiura ..... D13/182  
D441,726 S \* 5/2001 Sofue ..... D13/182  
6,521,983 B1 \* 2/2003 Yoshimatsu ..... H01L 24/49  
257/678  
D587,662 S \* 3/2009 Soutome ..... D13/182

(Continued)

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PC

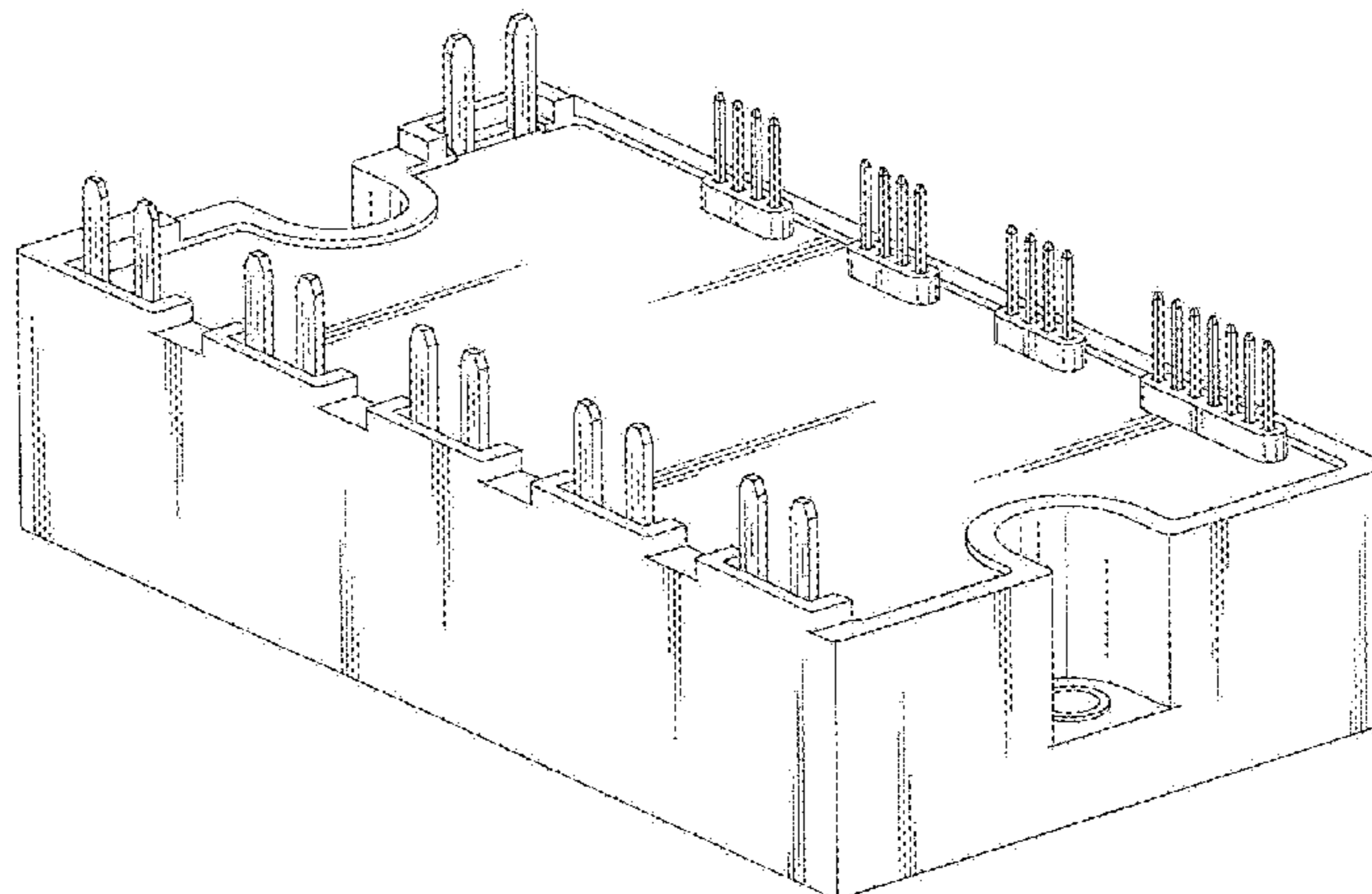
(57) **CLAIM**

The ornamental design for a semiconductor device, as shown and described.

**DESCRIPTION**

FIG. 1 is a front, top and right side perspective view of a semiconductor device, showing our new design;  
FIG. 2 is a front view thereof;  
FIG. 3 is a rear view thereof;  
FIG. 4 is a left side view thereof;  
FIG. 5 is a right side view thereof;  
FIG. 6 is a top view thereof; and,  
FIG. 7 is a bottom view thereof.

**1 Claim, 7 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D589,012	S	*	3/2009	Soyano	.....	D13/182
D606,951	S	*	12/2009	Soyano	.....	D13/182
D653,633	S	*	2/2012	Soyano	.....	D13/182
D653,634	S	*	2/2012	Soyano	.....	D13/182
D686,174	S	*	7/2013	Soyano	.....	D13/182
D689,446	S	*	9/2013	Soyano	.....	D13/180
D704,670	S	*	5/2014	Chen	.....	D13/182
D704,671	S	*	5/2014	Chen	.....	D13/182
D705,184	S	*	5/2014	Takahashi	.....	D13/182
D710,317	S	*	8/2014	Chen	.....	D13/182
D710,318	S	*	8/2014	Chen	.....	D13/182
D710,319	S	*	8/2014	Chen	.....	D13/182
D712,853	S	*	9/2014	Nakamura	.....	D13/182
D721,048	S	*	1/2015	Nakamura	.....	D13/182
D721,340	S	*	1/2015	Nakamura	.....	D13/182
D748,595	S	*	2/2016	Bertalan	.....	D13/182
2001/0038143	A1	*	11/2001	Sonobe	.....	H01L 24/49 257/690
2010/0149774	A1	*	6/2010	Matsumoto	.....	H01L 23/055 361/783

\* cited by examiner

Fig. 1

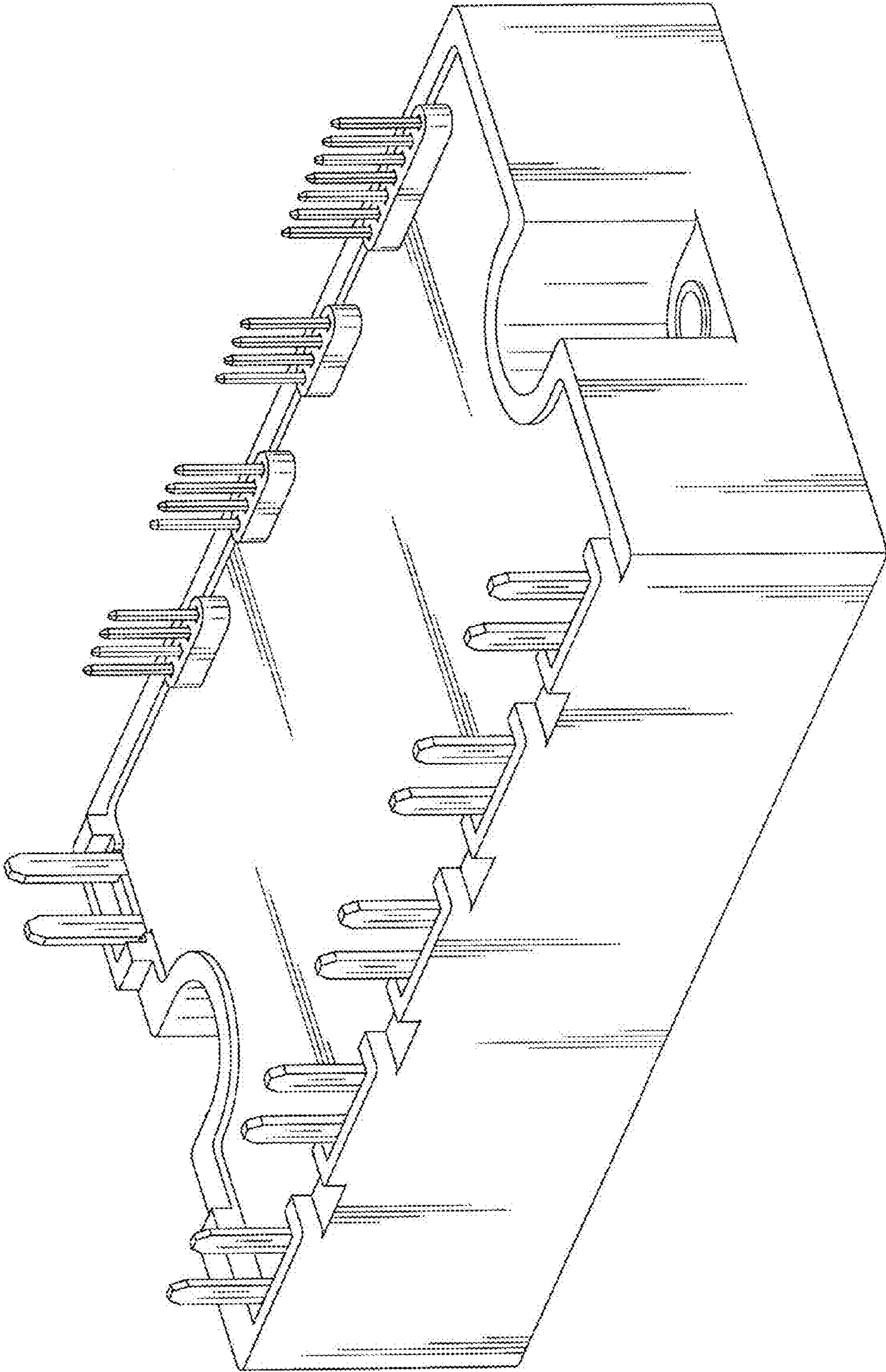


Fig. 2

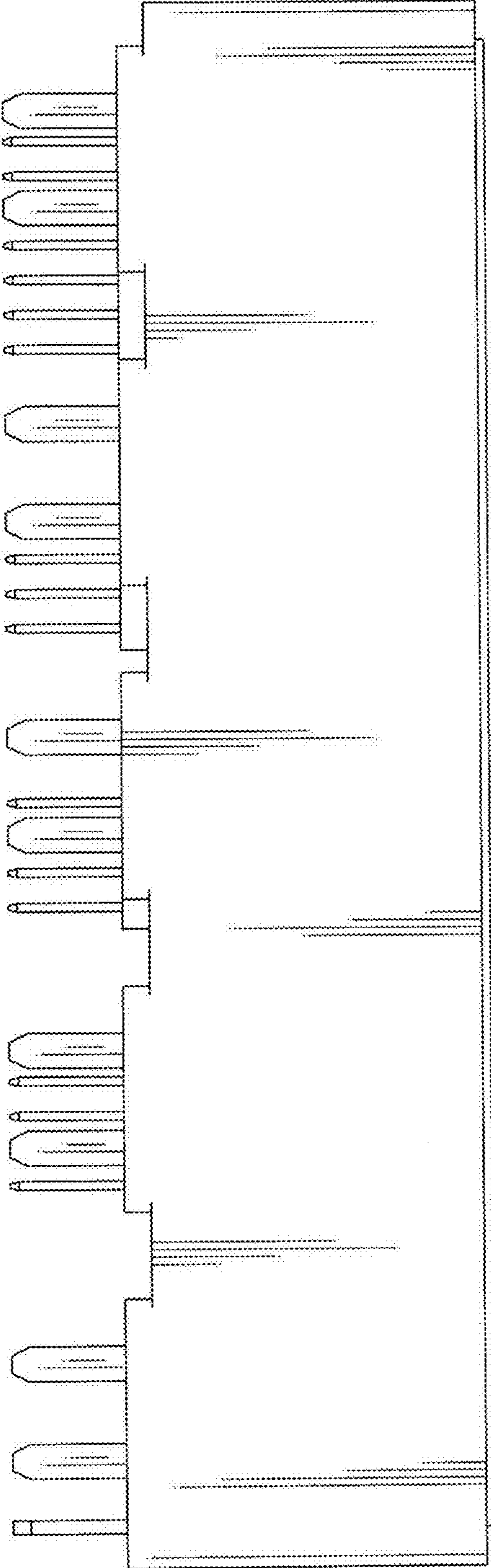




Fig. 3

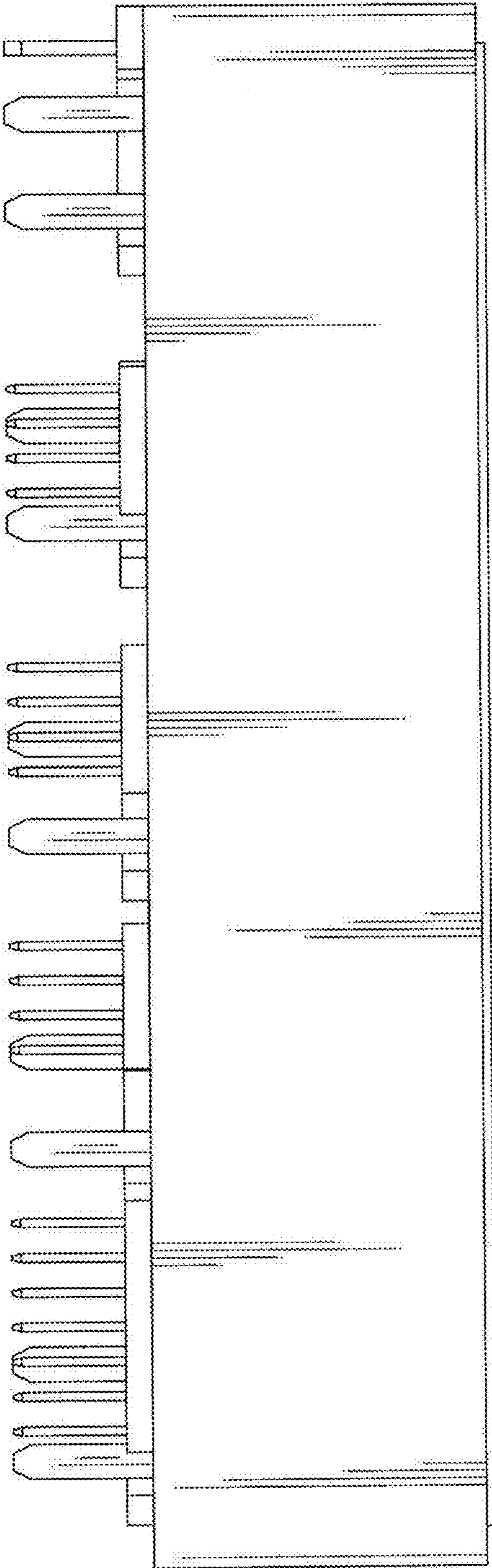


Fig. 4

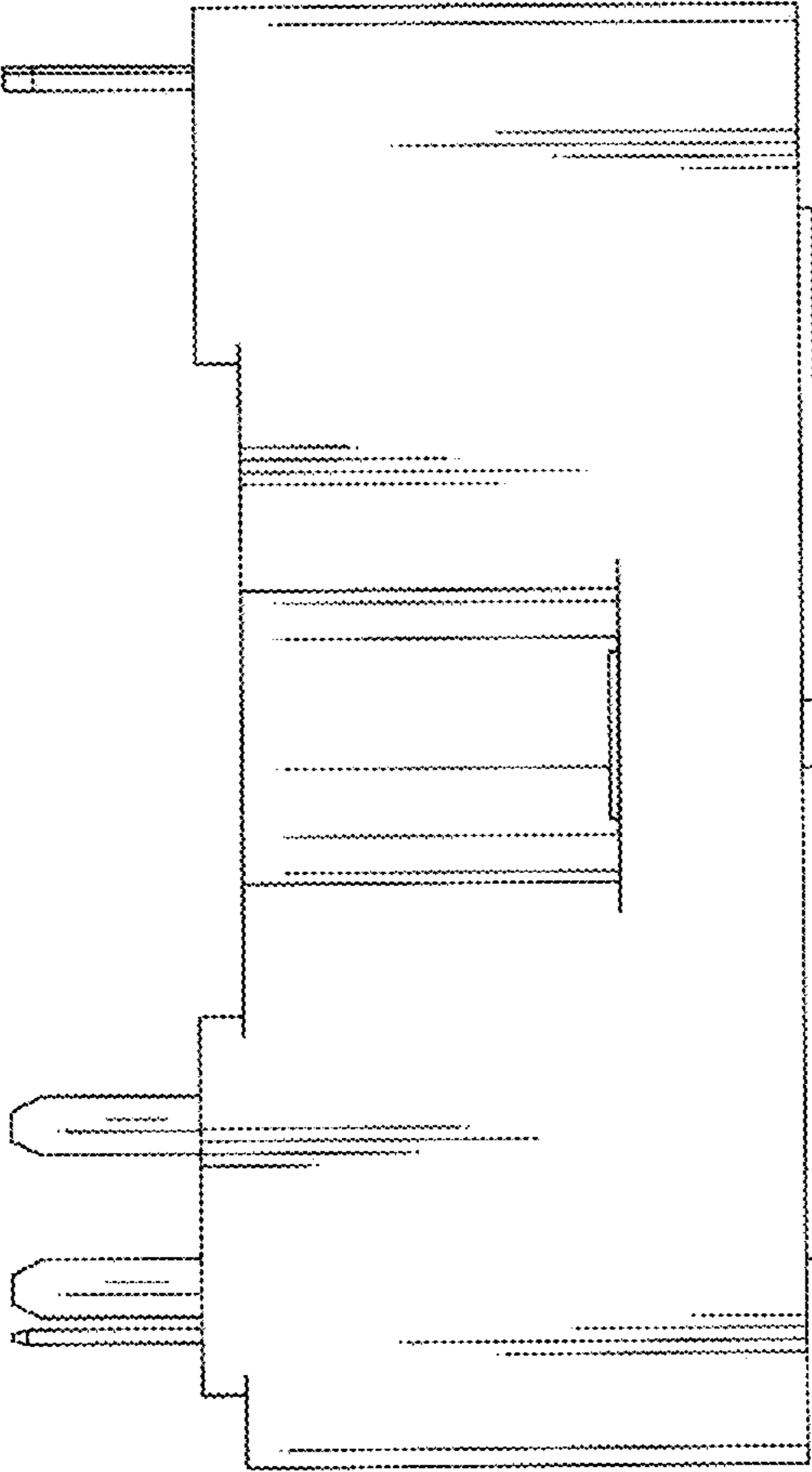


Fig. 5

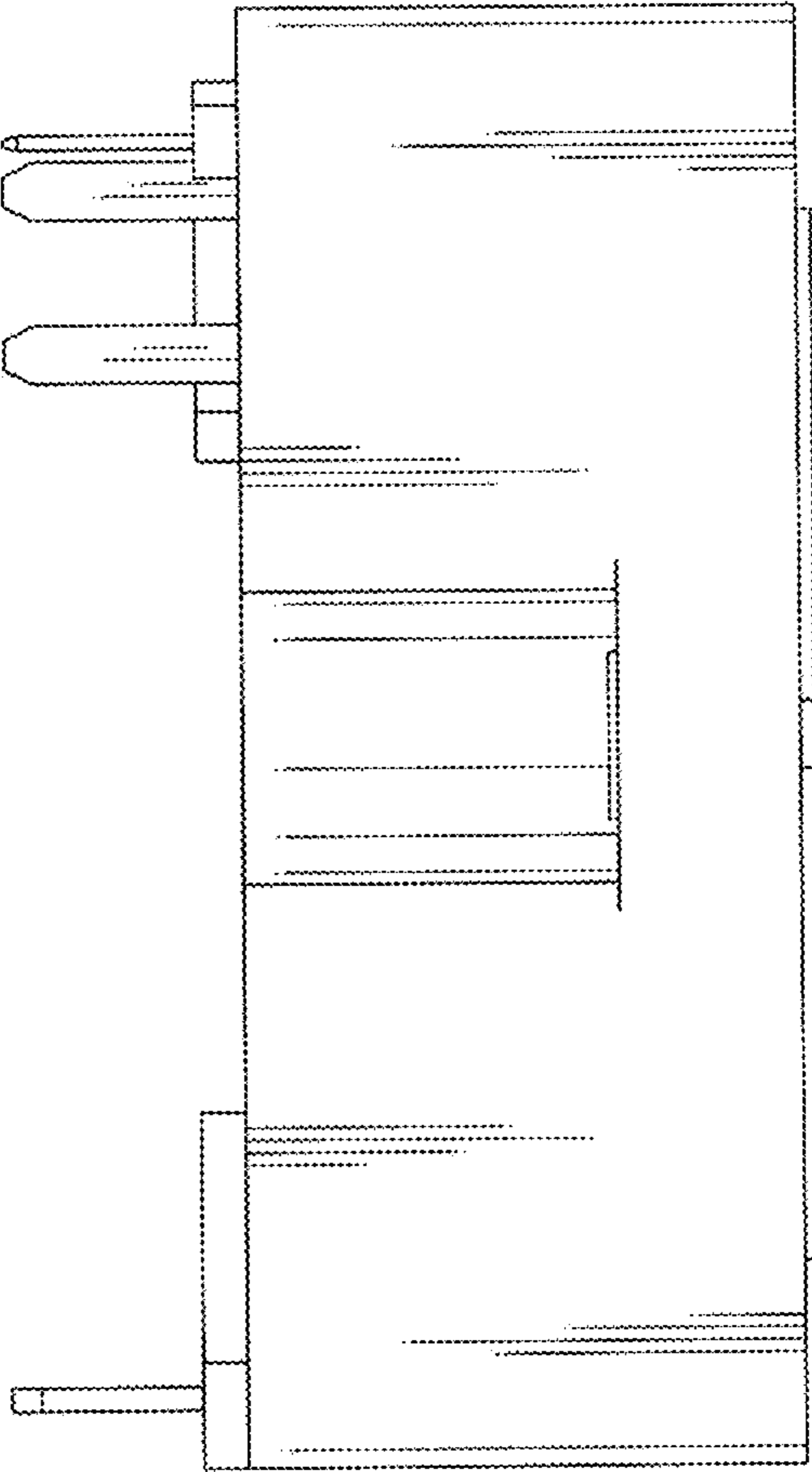


Fig. 6

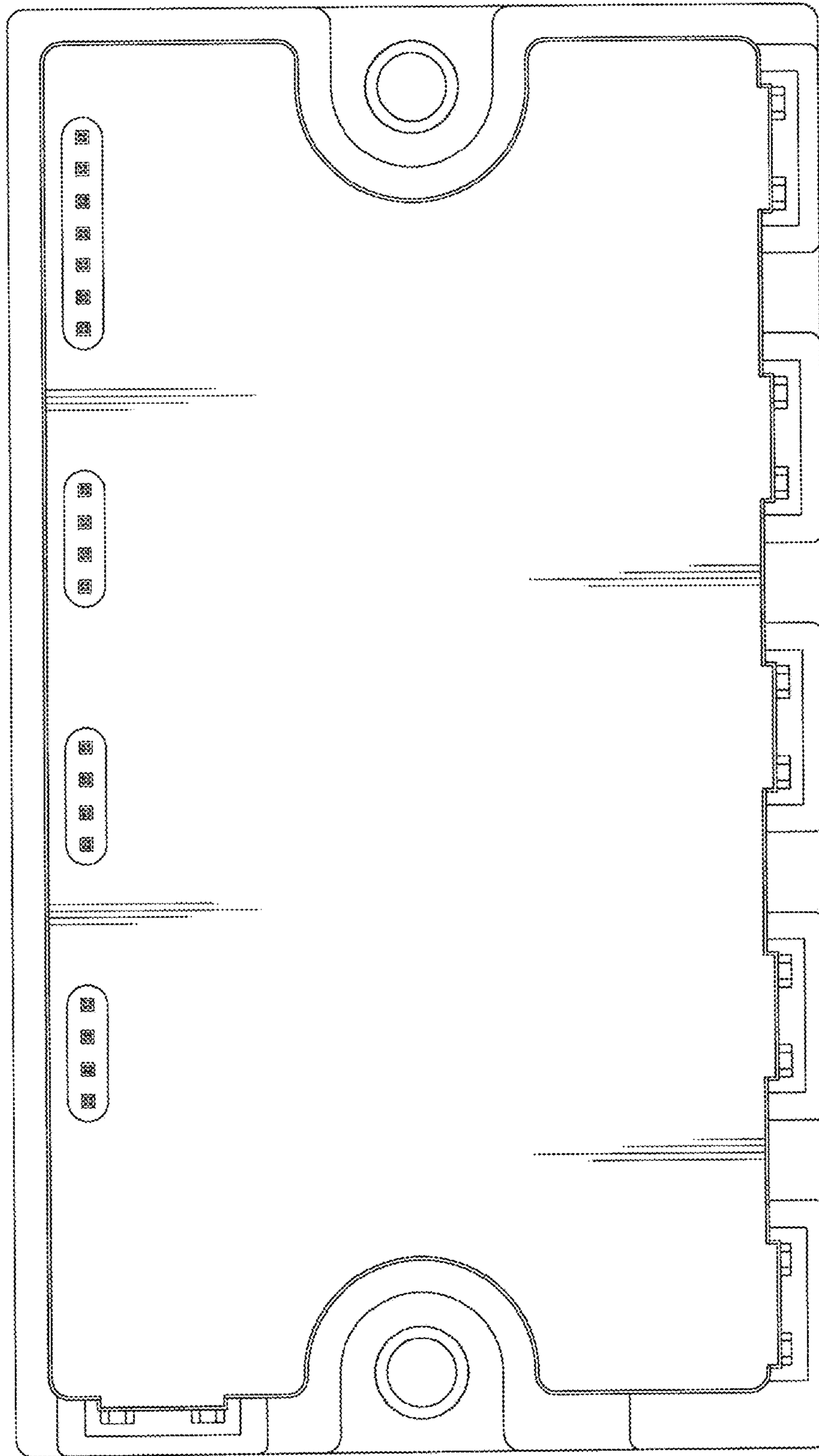




Fig. 7

