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

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(54) **SEMICONDUCTOR DEVICE**

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(52) **U.S. Cl.**  
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(58) **Field of Classification Search**  
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361/772, 775, 783, 820; 174/250, 253;  
438/15, 25, 26, 51, 55, 63, 64, 106  
CPC . H01L 21/00; H01L 2224/42; H01L 2224/43;  
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H05K 1/026

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,408,128 A \* 4/1995 Furnival ..... H01L 23/49811  
257/690  
5,410,450 A \* 4/1995 Iida ..... H01L 23/49575  
174/533  
D364,383 S \* 11/1995 Yamada ..... D13/146  
D364,384 S \* 11/1995 Shimizu ..... D13/146  
D364,385 S \* 11/1995 Shimizu ..... D13/146

(Continued)

FOREIGN PATENT DOCUMENTS

JP 1411990 S 4/2011  
JP 1412318 S 4/2011

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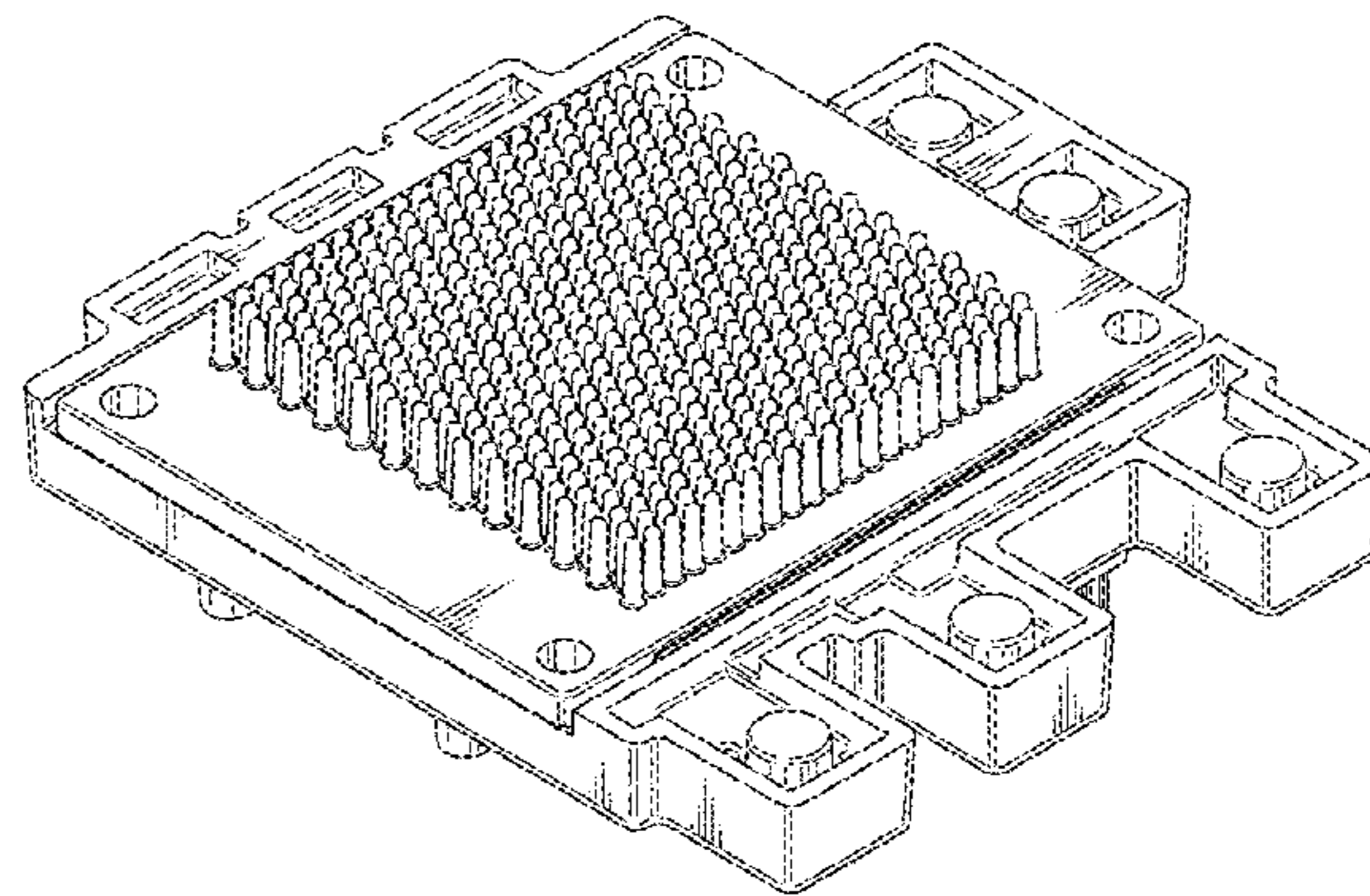
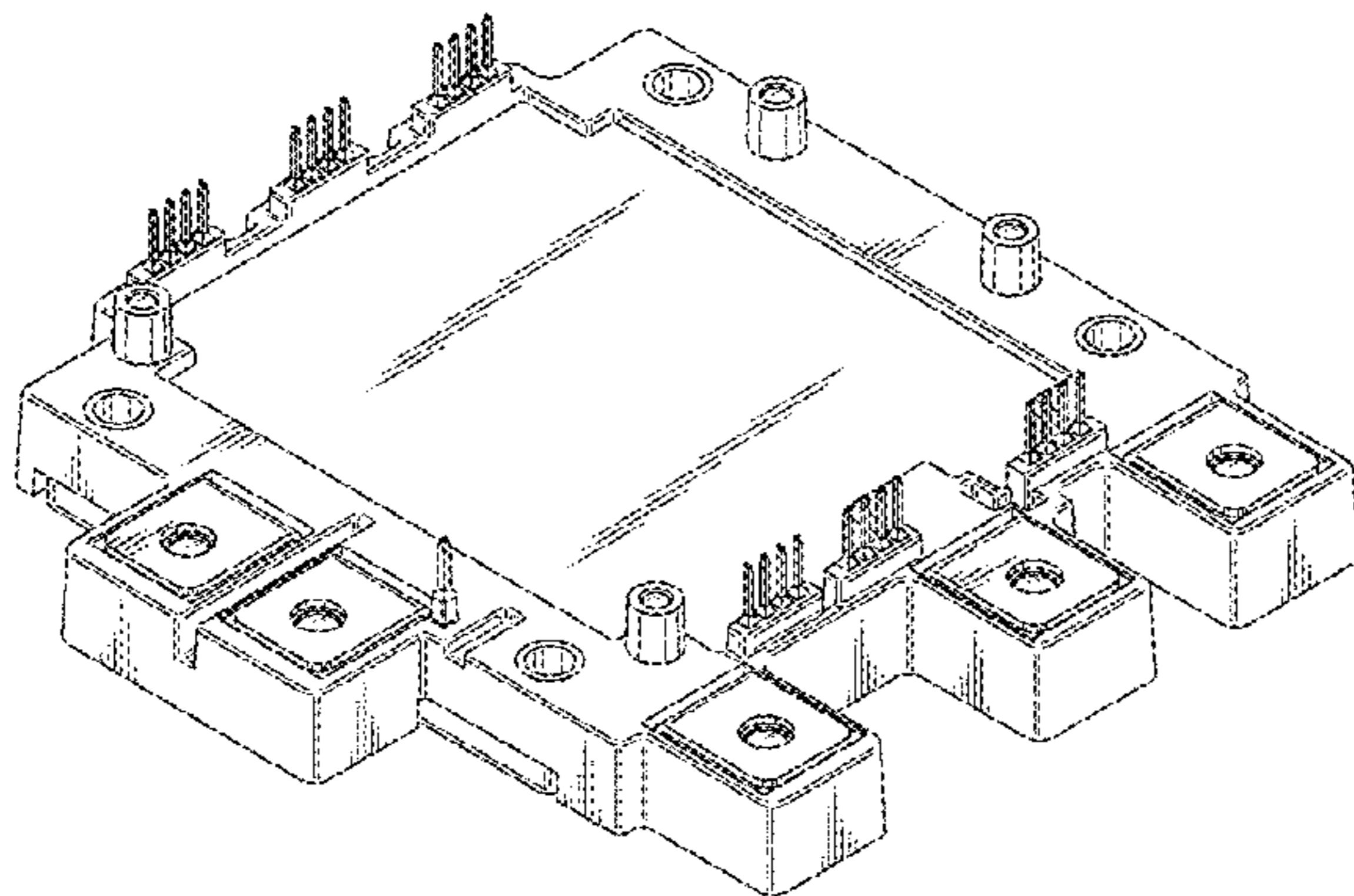
(57) **CLAIM**

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

**DESCRIPTION**

FIG. 1 is a top, right and rear side perspective view of a  
semiconductor device, showing my new design;  
FIG. 2 is a front, right and bottom side perspective view  
thereof;  
FIG. 3 is a front elevational view thereof;  
FIG. 4 is a rear elevational view thereof;  
FIG. 5 is a left side elevational view thereof;  
FIG. 6 is a right side elevational view thereof;  
FIG. 7 is a top plan view thereof;  
FIG. 8 is a bottom plan view thereof;  
FIG. 9 is another top, right, and rear side perspective view  
thereof, shown in a used condition; and,  
FIG. 10 is another rear elevational view thereof, shown in a  
used condition.  
The broken lines shown in the drawings represent portions of  
the semiconductor device that form no part of the claimed  
design.

**1 Claim, 8 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

6,078,501 A \* 6/2000 Catrambone ..... H02M 7/003  
174/50  
D441,726 S \* 5/2001 Sofue ..... D13/182  
D441,727 S \* 5/2001 Sekimoto ..... D13/182  
6,521,983 B1 \* 2/2003 Yoshimatsu ..... H01L 25/072  
257/678  
D476,959 S \* 7/2003 Yamada ..... D13/182  
D525,215 S \* 7/2006 Hisaishi ..... D13/182  
D539,761 S \* 4/2007 Takahashi ..... D13/182  
D548,202 S \* 8/2007 Takahashi ..... D13/182  
D548,203 S \* 8/2007 Takahashi ..... D13/182  
D587,662 S \* 3/2009 Soutome ..... D13/182  
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  
D674,760 S \* 1/2013 Mochizuki ..... D13/182  
D686,174 S \* 7/2013 Soyano ..... D13/182  
D689,446 S \* 9/2013 Soyano ..... D13/180  
8,526,199 B2 \* 9/2013 Matsumoto ..... H01L 23/04  
361/783  
D699,693 S \* 2/2014 Otsuka ..... D13/182  
D703,625 S \* 4/2014 Lim ..... D13/182  
D704,670 S \* 5/2014 Chen ..... D13/182  
D704,671 S \* 5/2014 Chen ..... D13/182  
D705,184 S \* 5/2014 Takahashi ..... D13/182  
D706,232 S \* 6/2014 Nakamura ..... 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

\* cited by examiner

Fig. 1

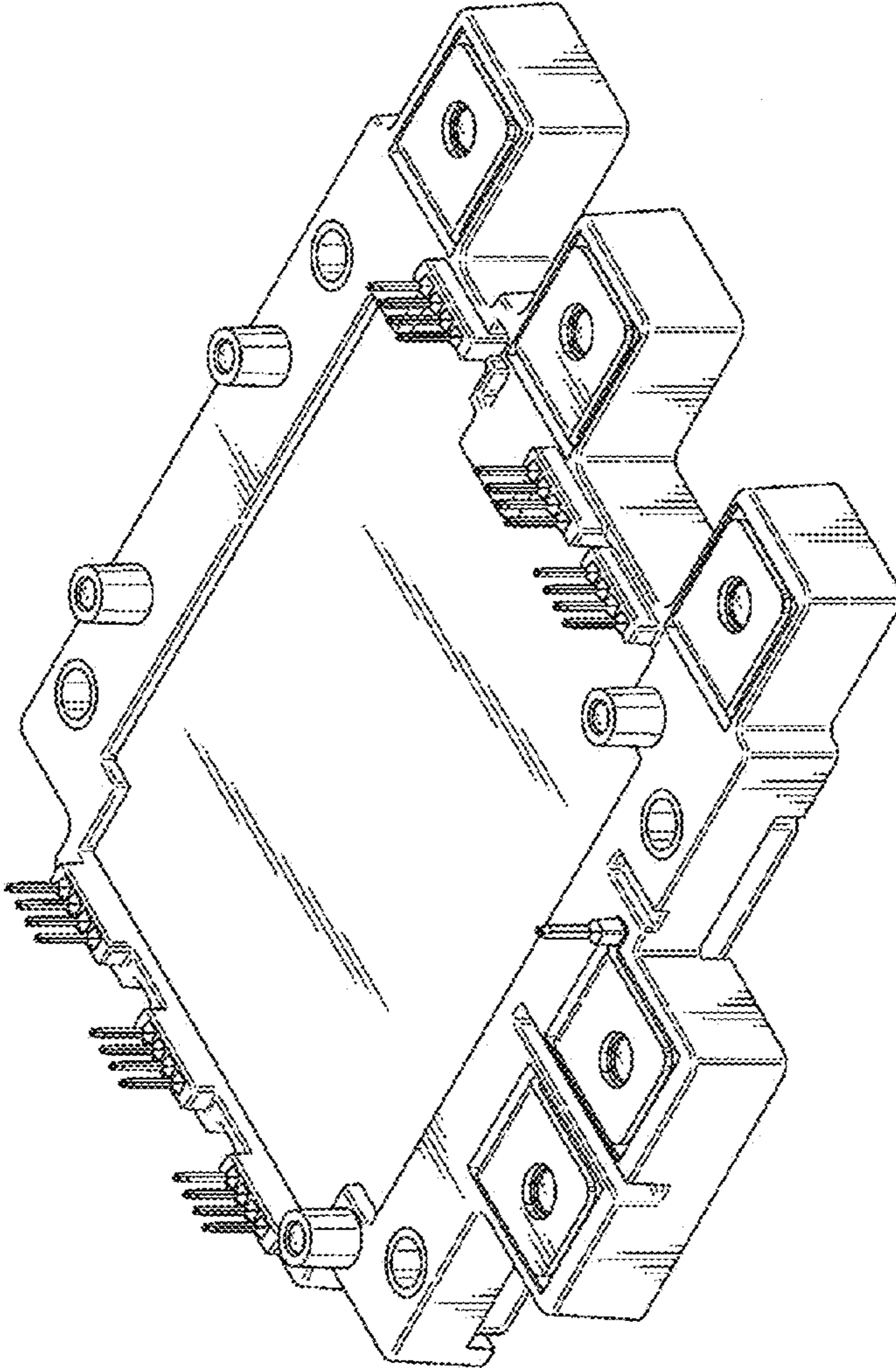


Fig. 2

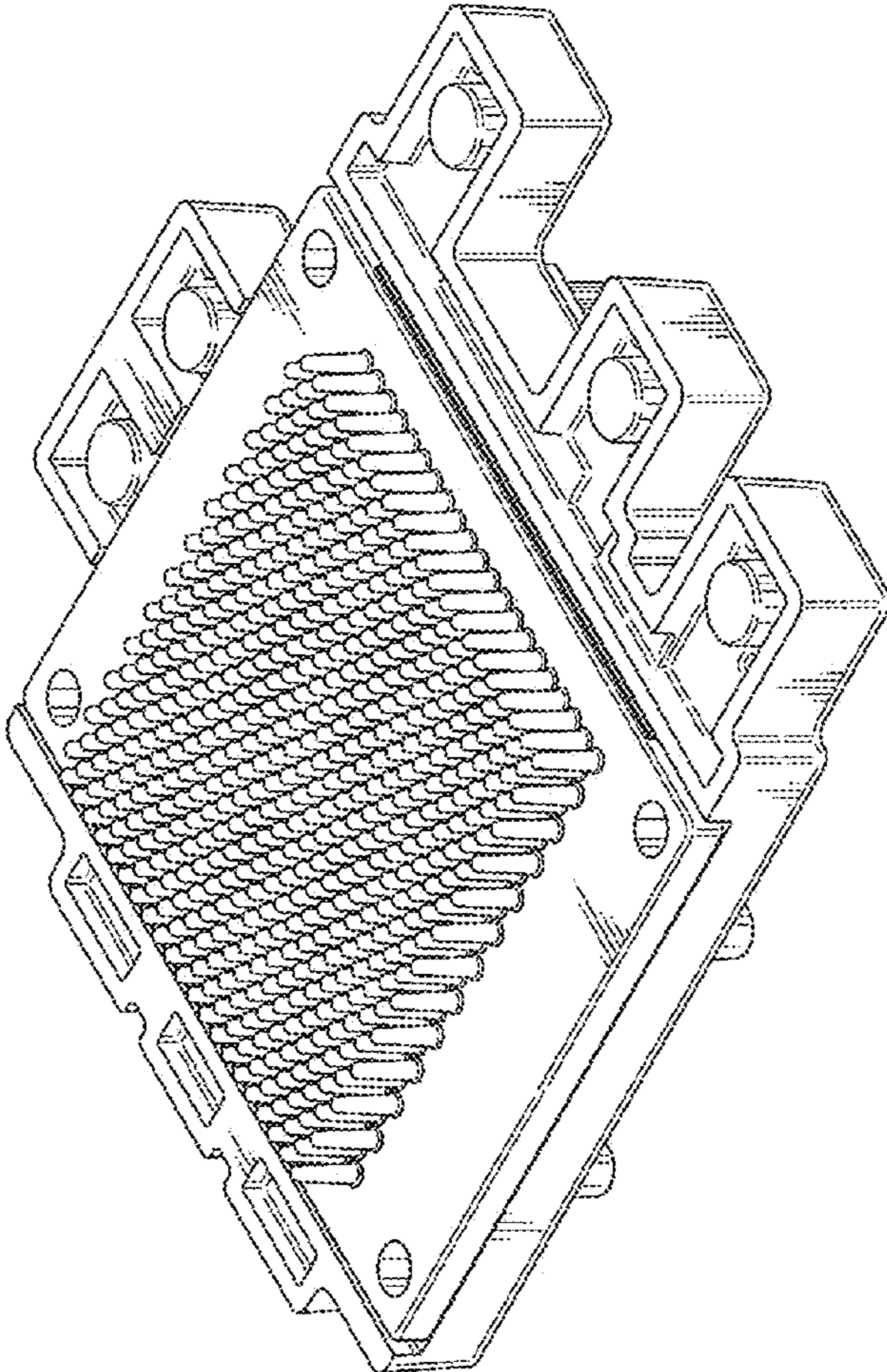


Fig. 3

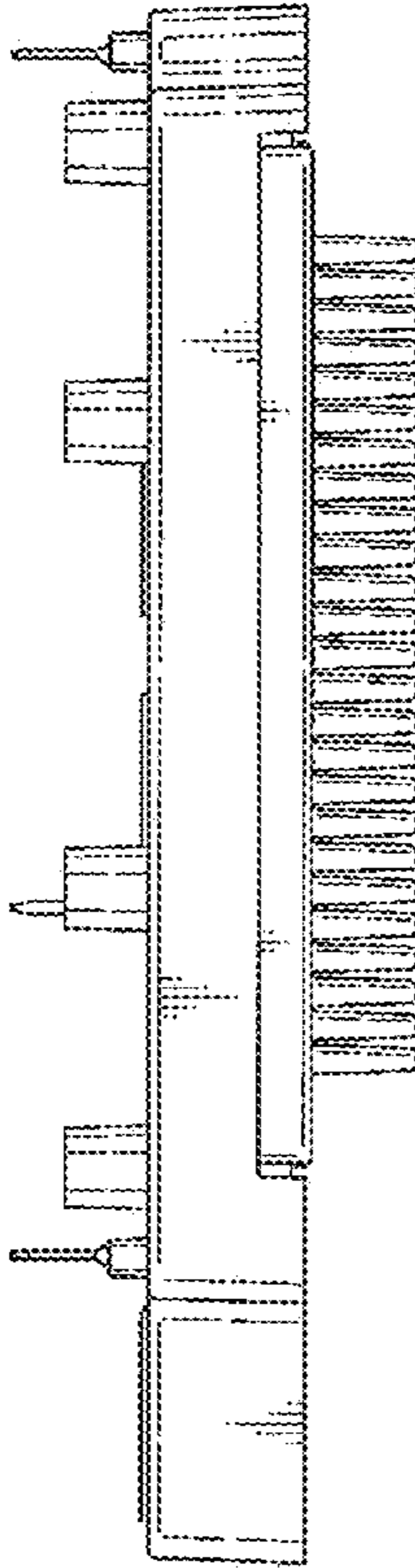


Fig. 4

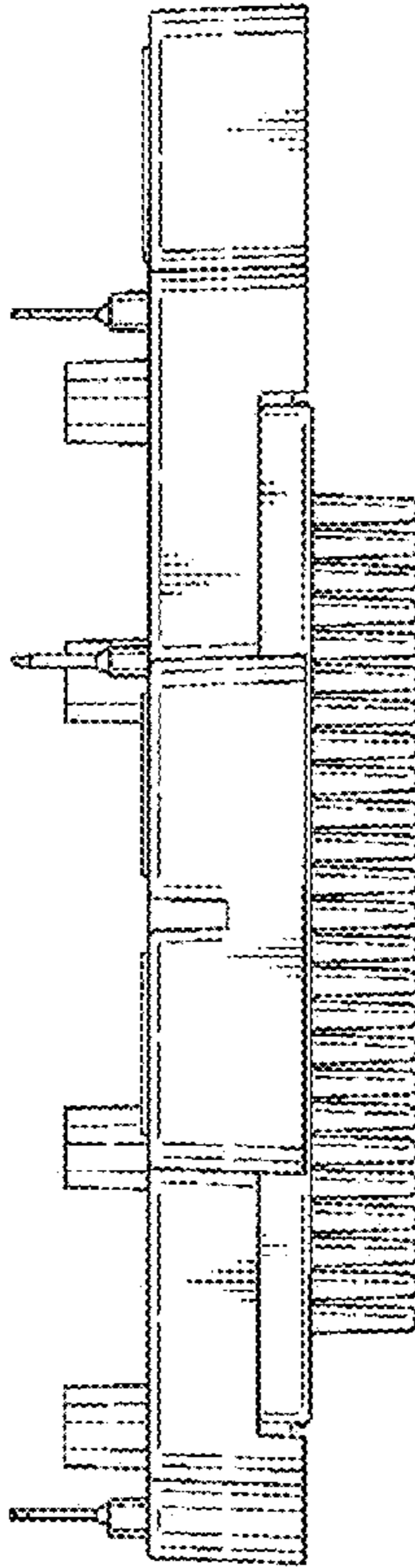


Fig. 5

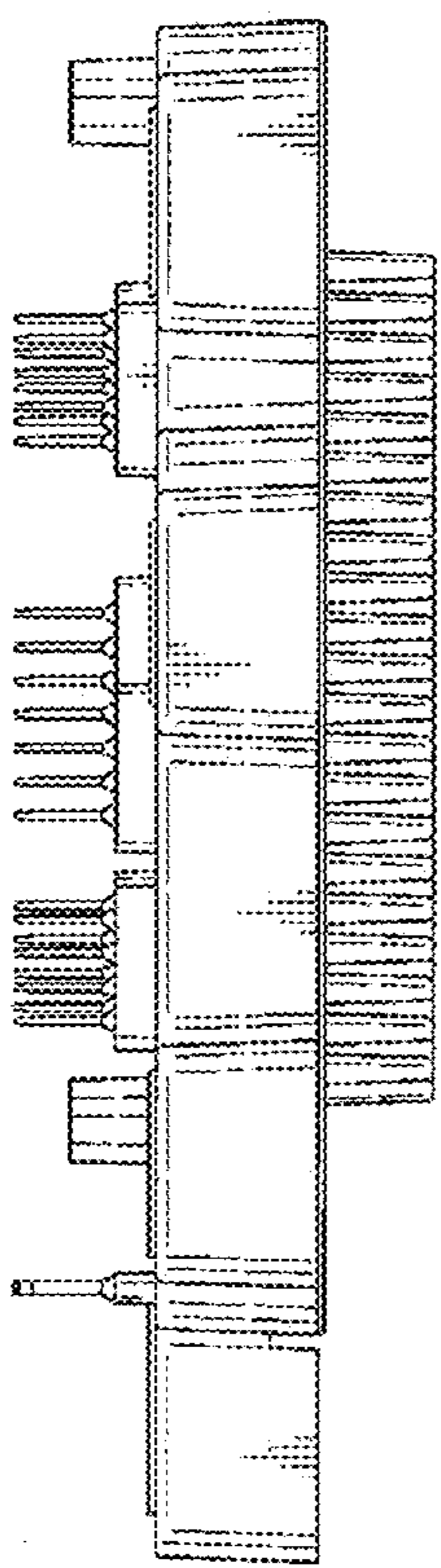
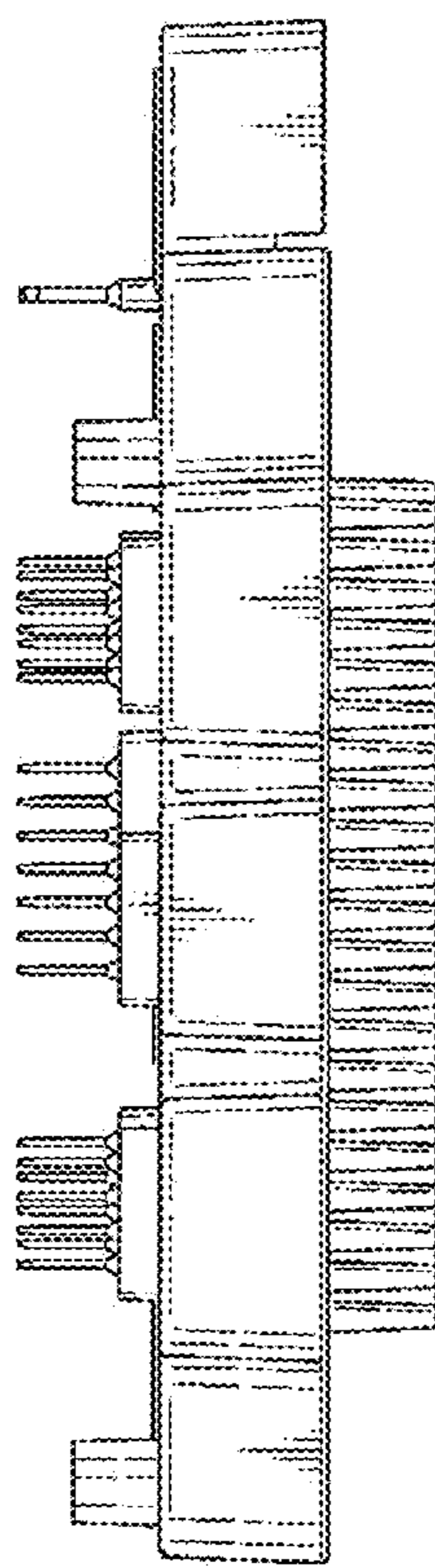
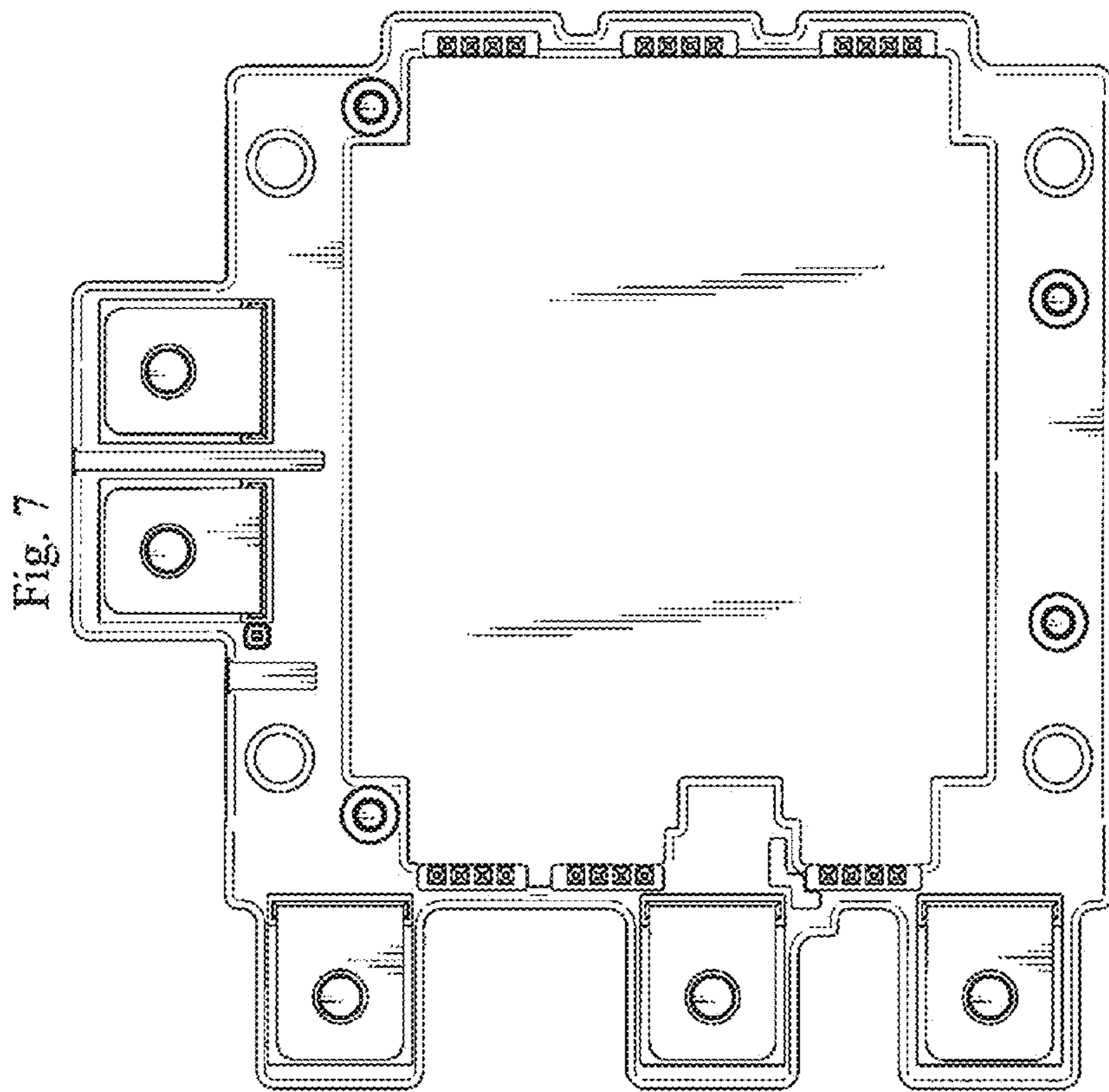
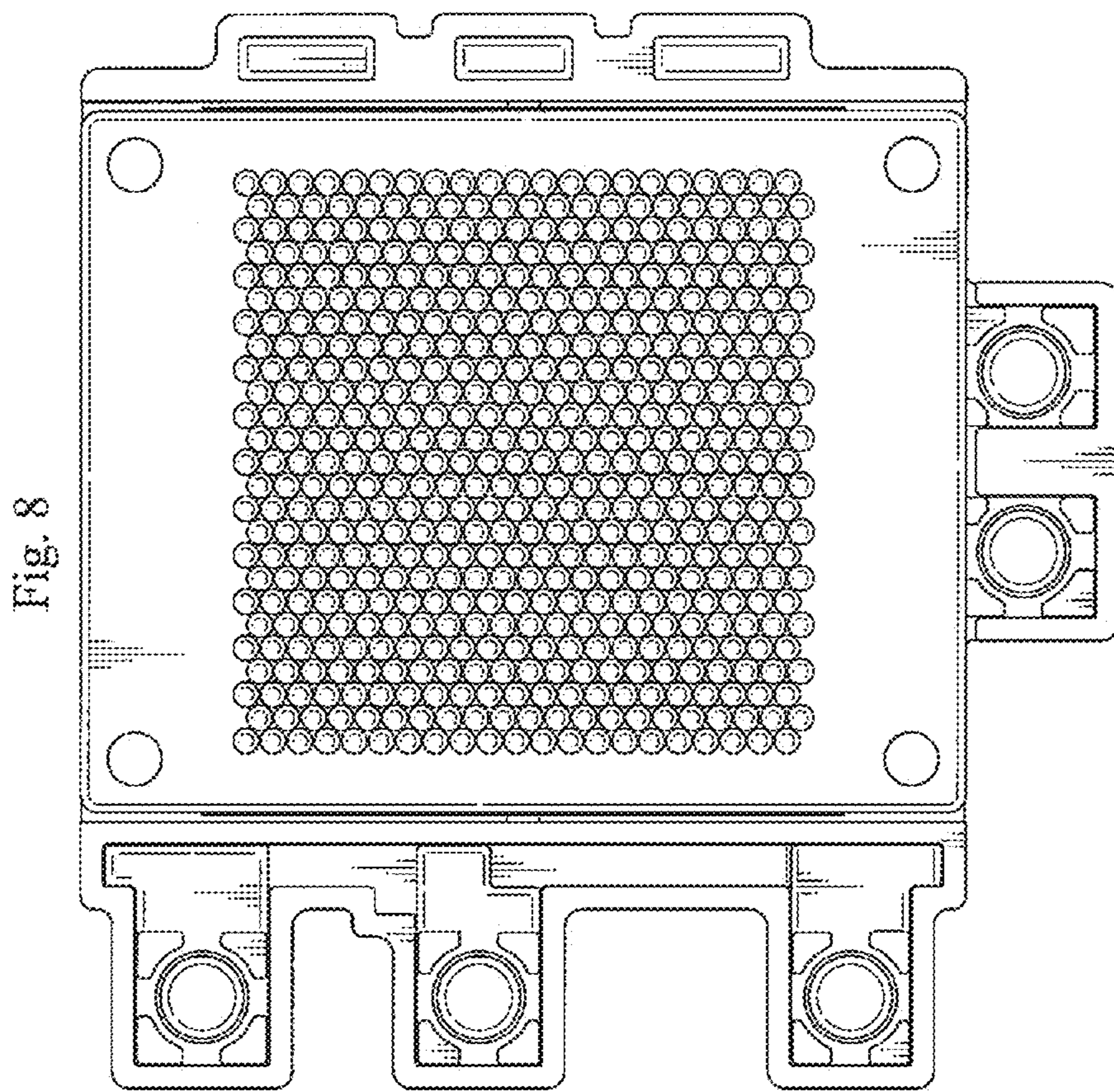


Fig. 6









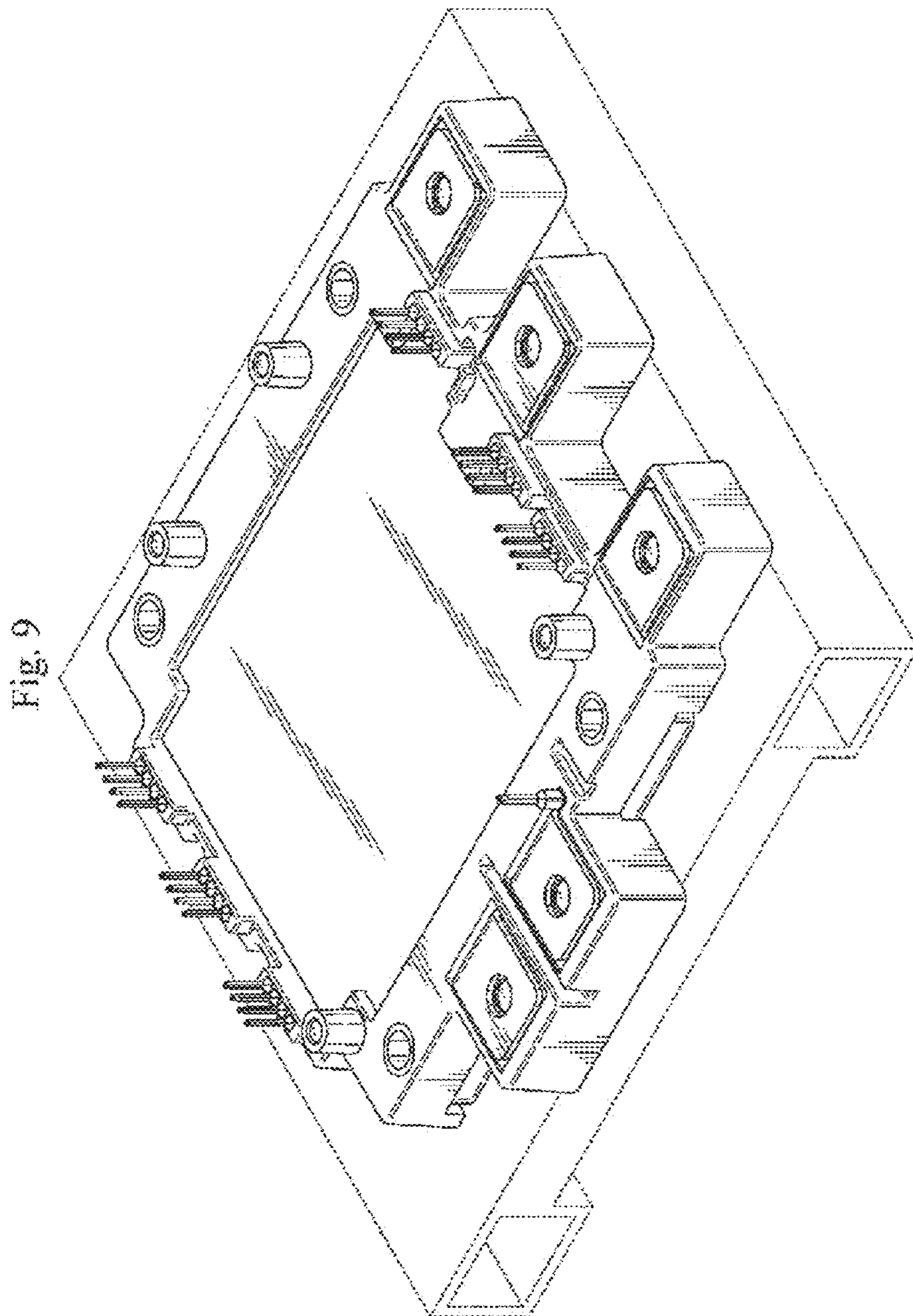


Fig. 10

