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(12) **United States Design Patent**  
**Tanaka et al.**

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(54) **ELECTROMAGNETIC RELAY**

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(73) Assignee: **EM Devices Corporation**, Shiroishi-shi (JP)

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

(21) Appl. No.: **29/615,299**

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(30) **Foreign Application Priority Data**

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(51) **LOC (11) Cl.** ..... **13-03**

(52) **U.S. Cl.**  
USPC ..... **D13/159**

(58) **Field of Classification Search**

USPC ..... D13/103, 107, 110, 112, 118-123, 154, D13/156, 158-161, 173, 177, 178, 182, D13/184, 199

CPC ..... H01H 9/02; H01H 9/30; H01H 45/00; H01H 45/08; H01H 50/08; H01H 50/64; H01H 50/56; H01H 51/22; H01H 1/06; H01H 1/20; H01H 3/32; H01H 9/28; H01H 21/04; H01H 21/22; H01H 33/02; H01H 33/08; H01H 33/10; H01H 33/18; H01H 36/00; H01H 47/00; H01H 50/14; H01H 50/16; H01H 50/02; H01H 50/023; H01H

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D400,496 S \* 11/1998 Barber ..... D13/103  
D404,006 S \* 1/1999 Clowers ..... D13/107  
D516,018 S \* 2/2006 Ohsako ..... D13/103

(Continued)

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(57) **CLAIM**

The ornamental design for an electromagnetic relay, as shown and described.

**DESCRIPTION**

FIG. 1 is a front view of a design for an electromagnetic relay according to the present disclosure.

FIG. 2 is a rear view of the electromagnetic relay of FIG. 1.

FIG. 3 is a left side view of the electromagnetic relay of FIG. 1.

FIG. 4 is a right side view of the electromagnetic relay of FIG. 1.

FIG. 5 is a plane view of the electromagnetic relay of FIG. 1.

FIG. 6 is a bottom view of the electromagnetic relay of FIG. 1.

FIG. 7 is an enlarged view of the electromagnetic relay of FIG. 1 at the intersection of 7-7 in FIG. 1.

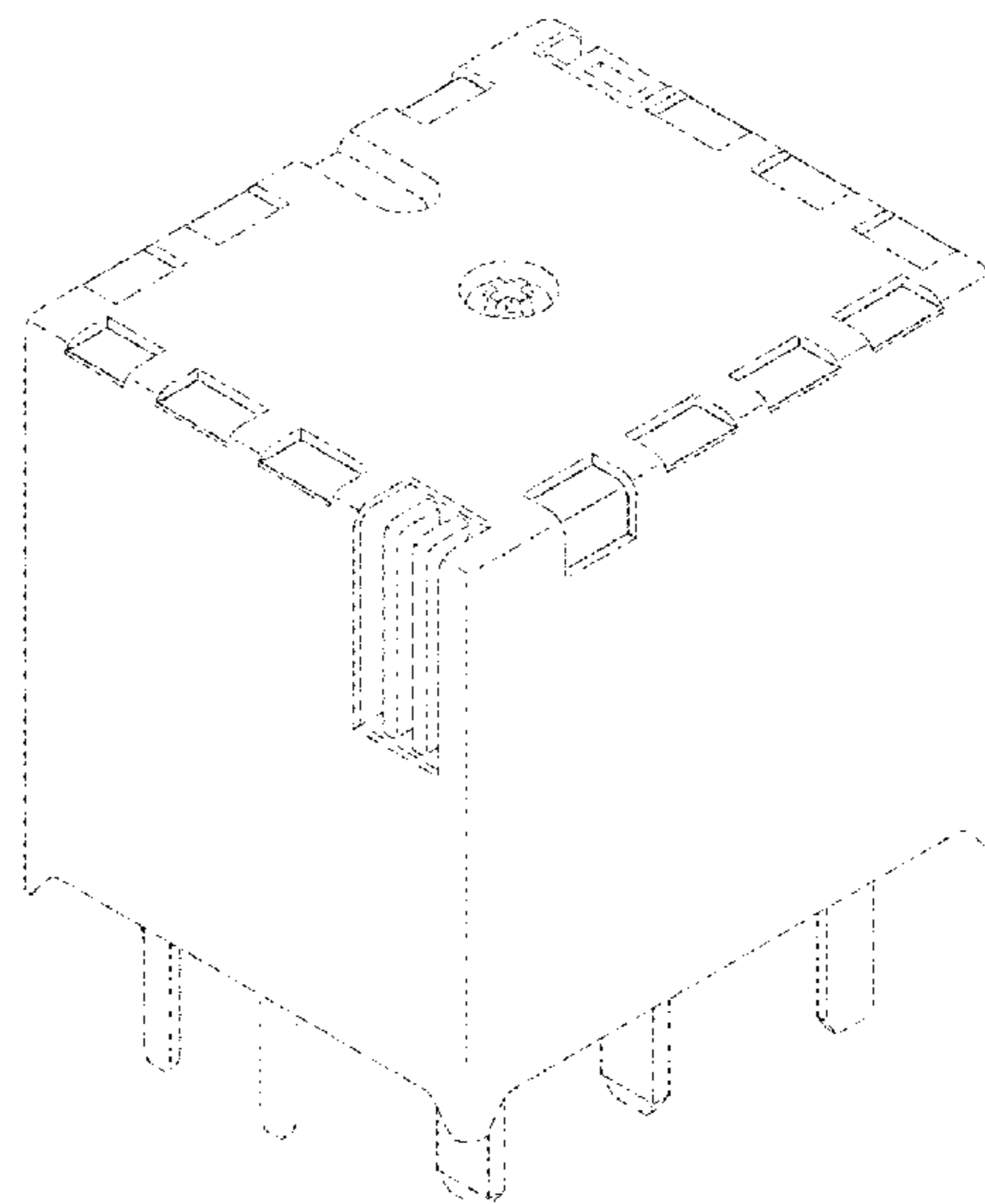
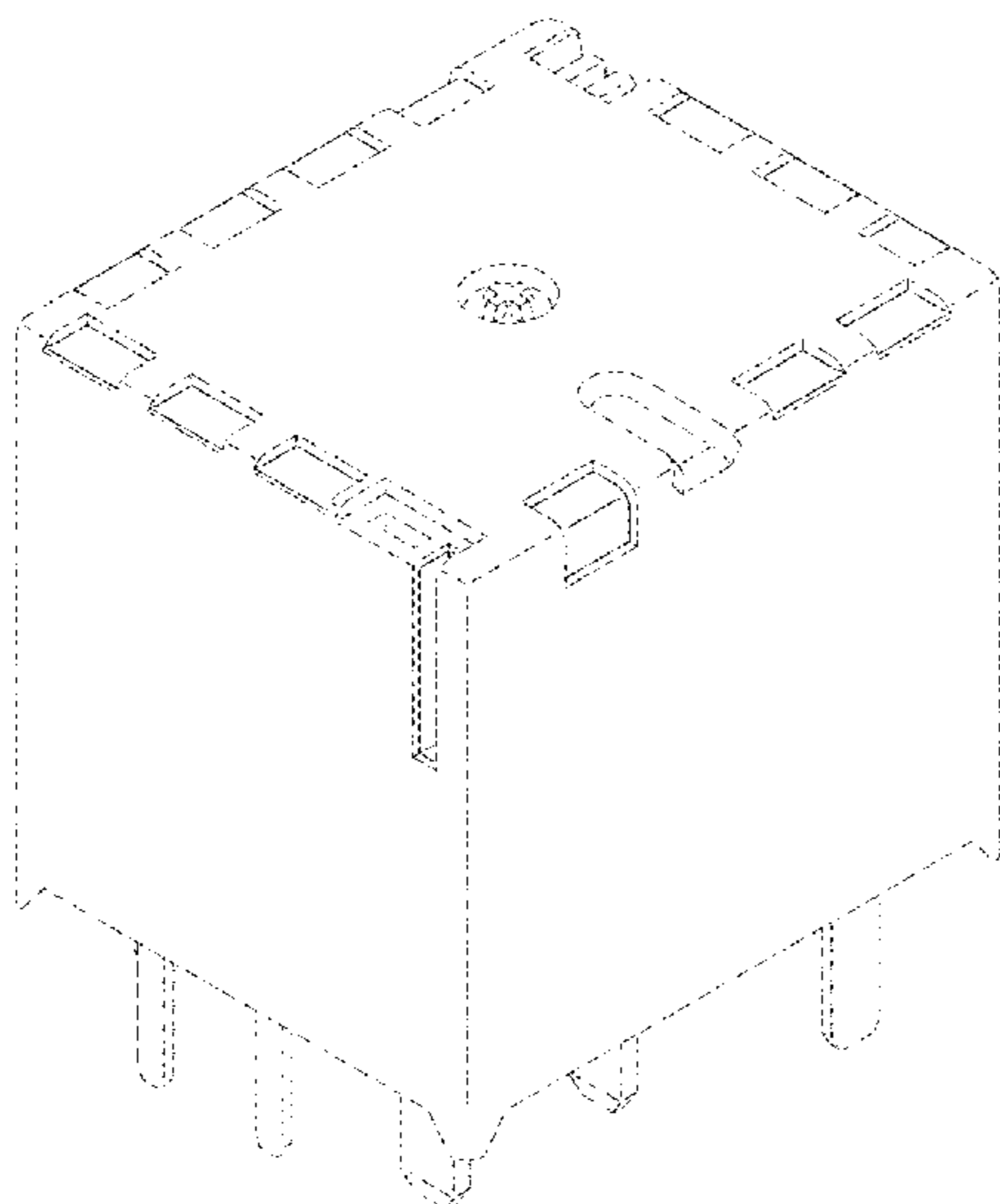
FIG. 8 is an enlarged view of the electromagnetic relay of FIG. 1 at the intersection of 8-8 in FIG. 5.

FIG. 9 is a reference perspective view of the electromagnetic relay of FIG. 1; and,

FIG. 10 is a reference perspective view of the electromagnetic relay of FIG. 1.

The Dash-Dash broken line portion of the figure drawings is included to show portions of the electromagnetic relay that form no part of the claimed design. The Dash-Dot broken line portion of the figure drawings is included to show claim boundaries that form no part of the claimed design.

**1 Claim, 6 Drawing Sheets**



(58) **Field of Classification Search**

CPC .... 50/12; H02J 7/00; H01R 4/26; H01R 4/48;  
H01R 25/00

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D768,115 S \* 10/2016 Kazanchian ..... D13/182  
2005/0046527 A1\* 3/2005 Chida ..... H01H 50/002  
335/78  
2013/0241679 A1\* 9/2013 Kobayashi ..... H01H 45/12  
335/156  
2014/0225689 A1\* 8/2014 Masui ..... H01H 50/642  
335/194  
2015/0280379 A1\* 10/2015 Yan ..... H05K 7/1457  
439/224  
2017/0345597 A1\* 11/2017 Sasaki ..... H01H 50/64  
2018/0261413 A1\* 9/2018 Tanaka ..... H01H 9/043

\* cited by examiner

Fig. 1

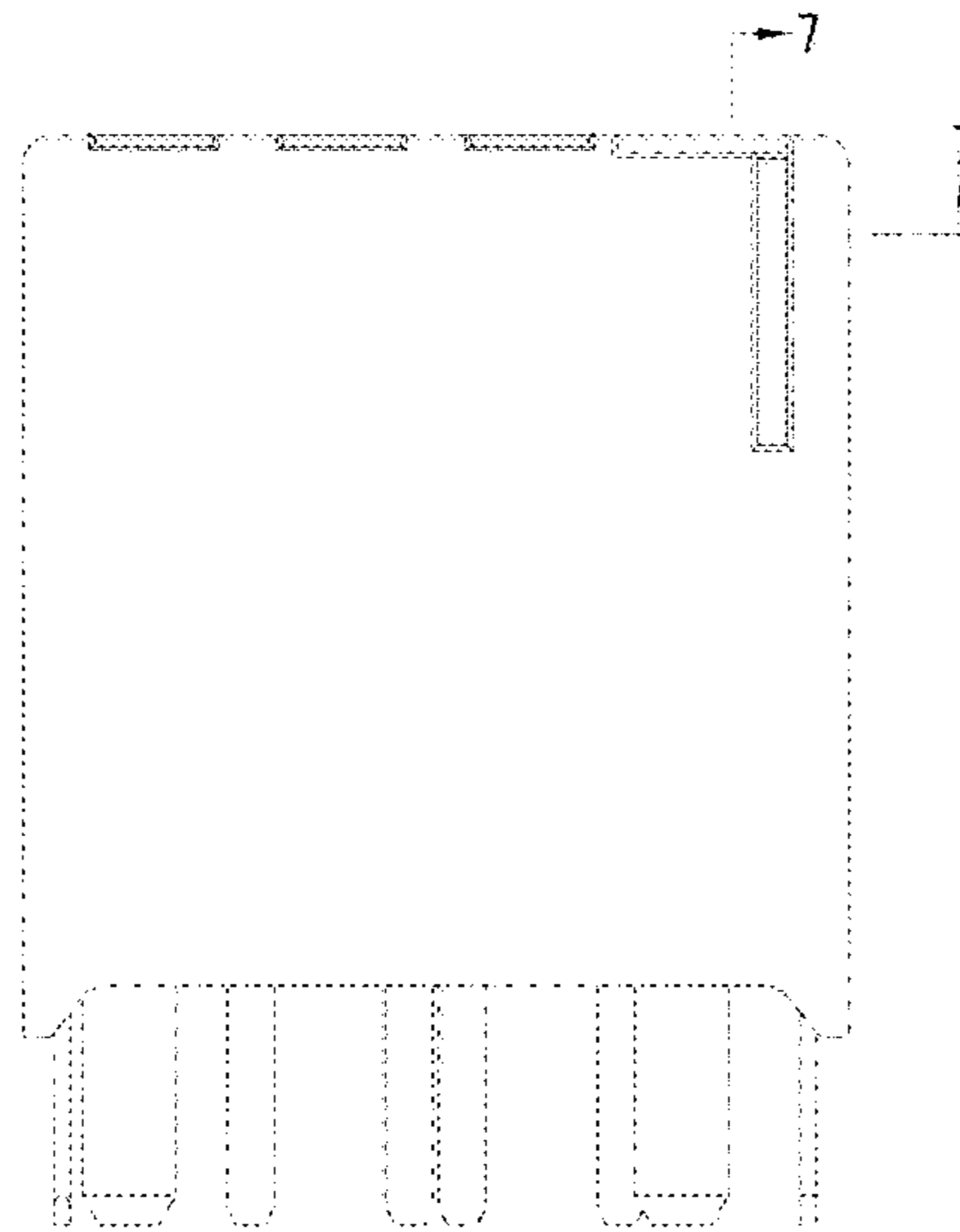


Fig. 2

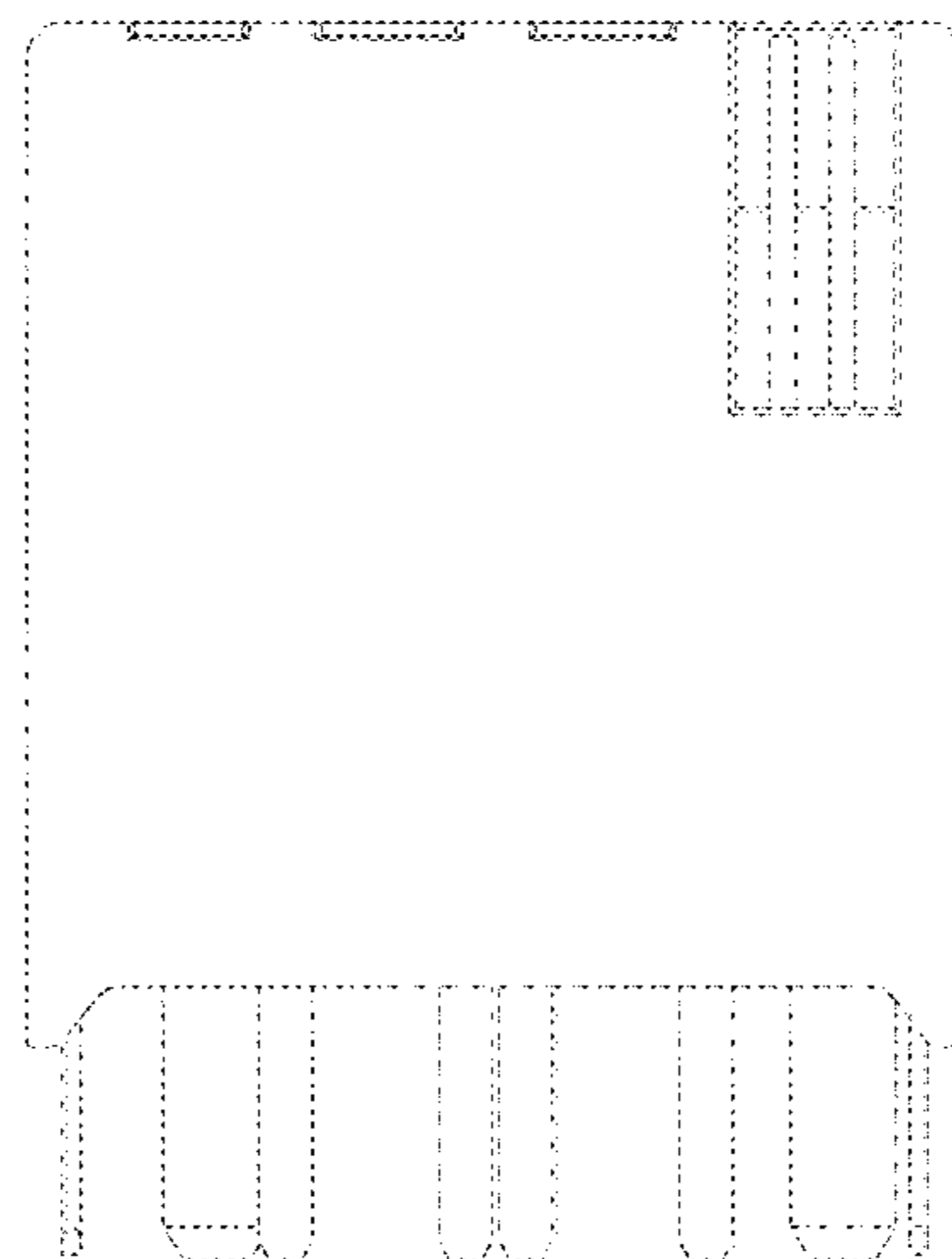


Fig. 3

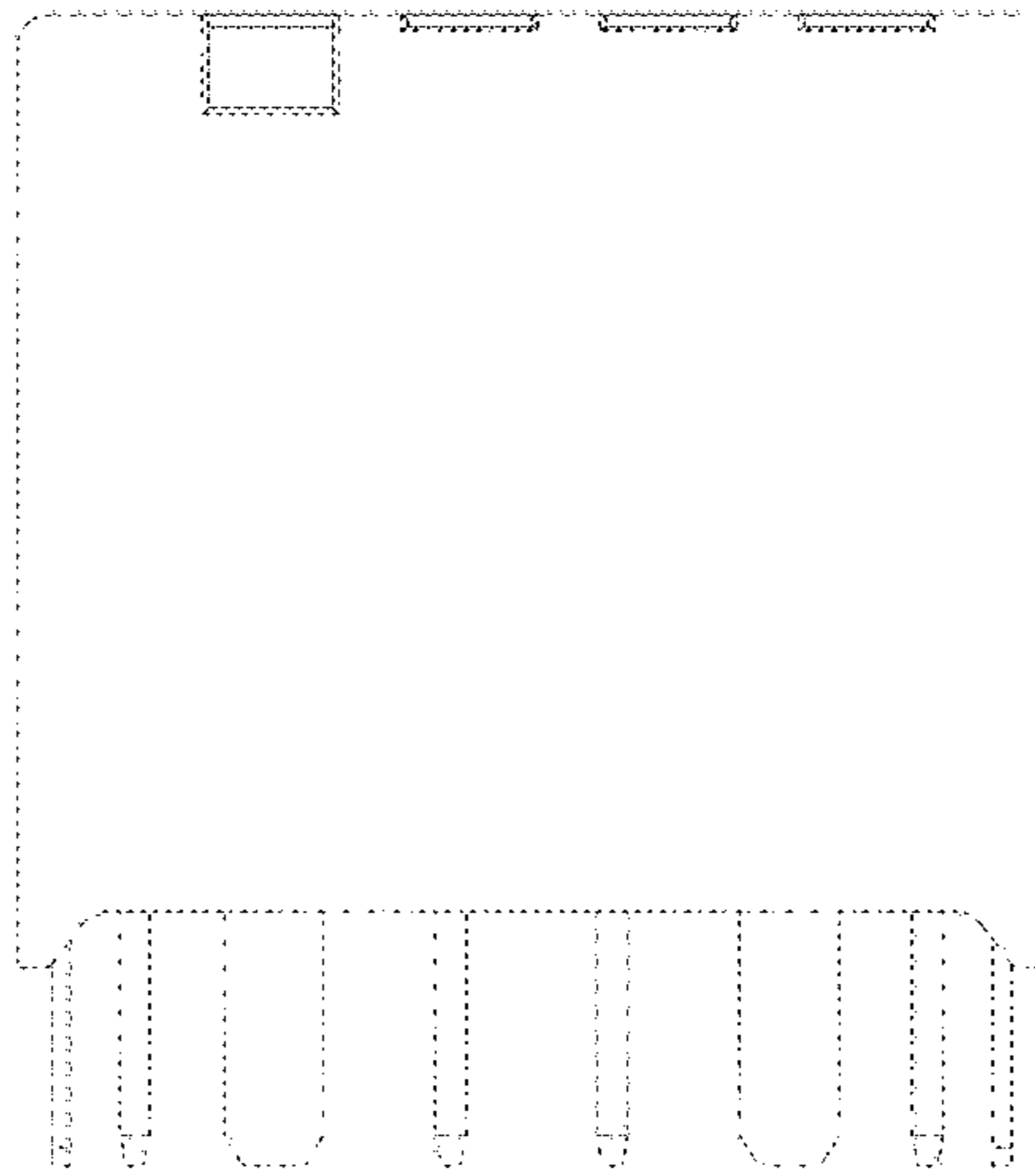


Fig. 4

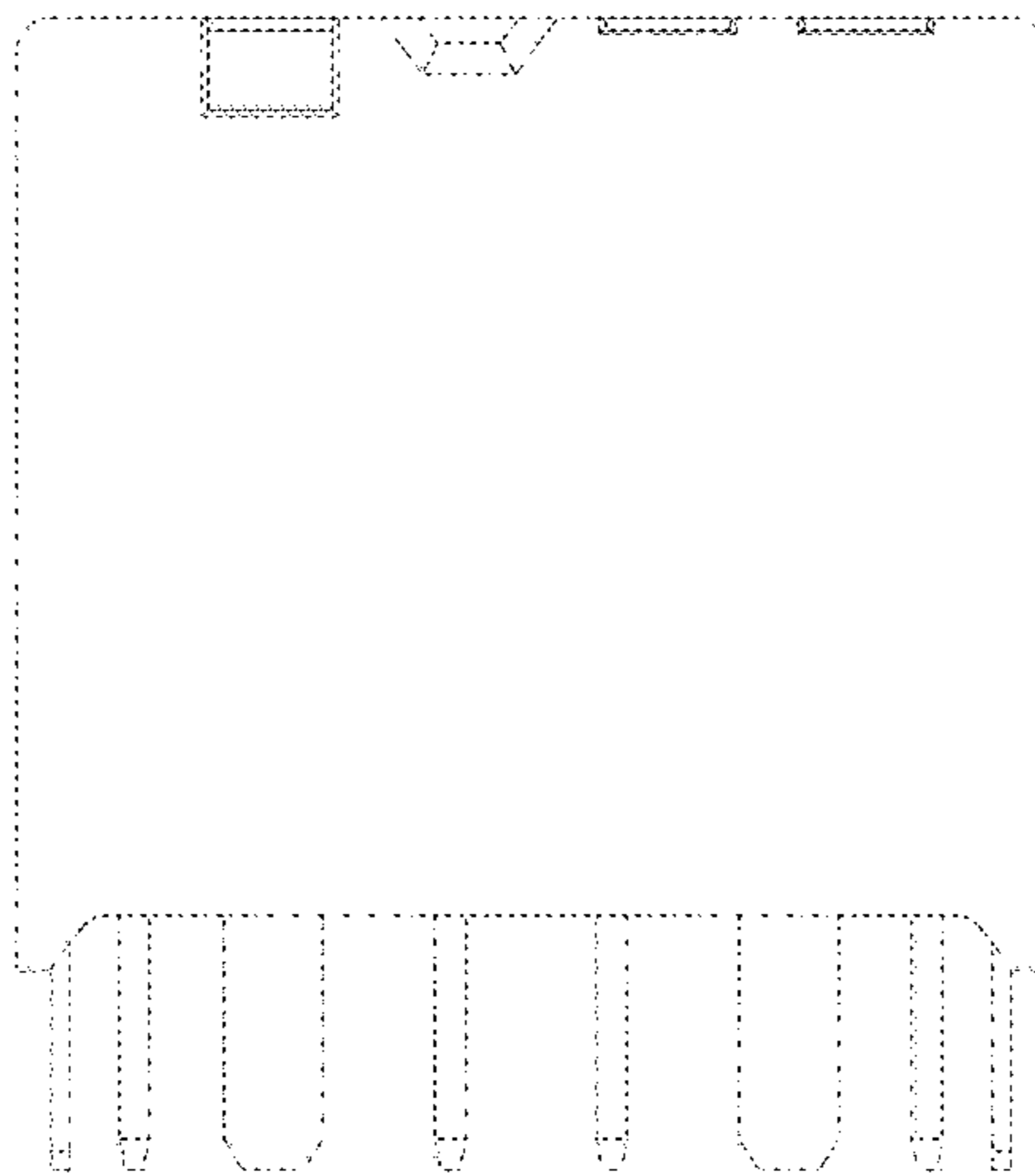


Fig. 5

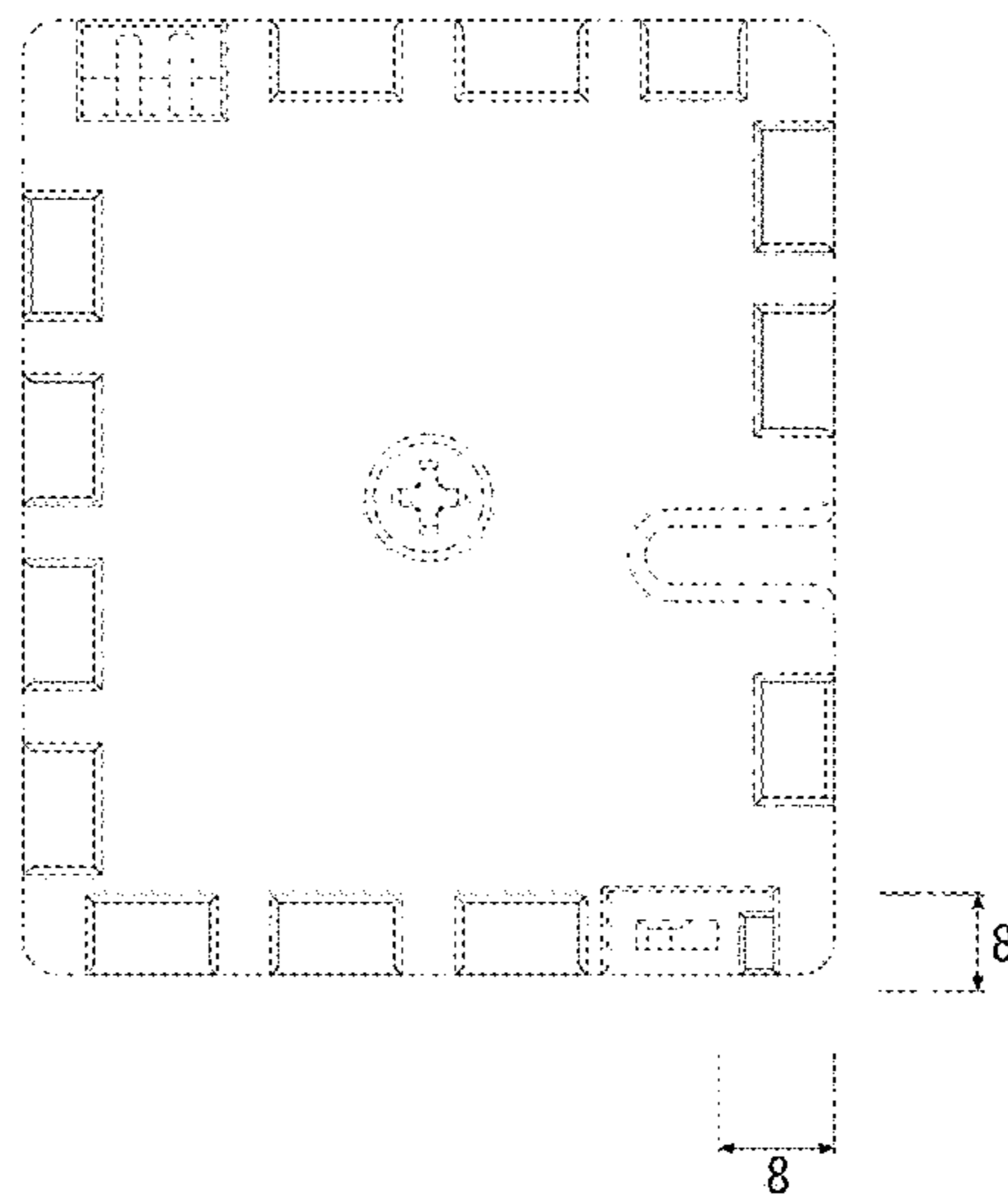


Fig. 6

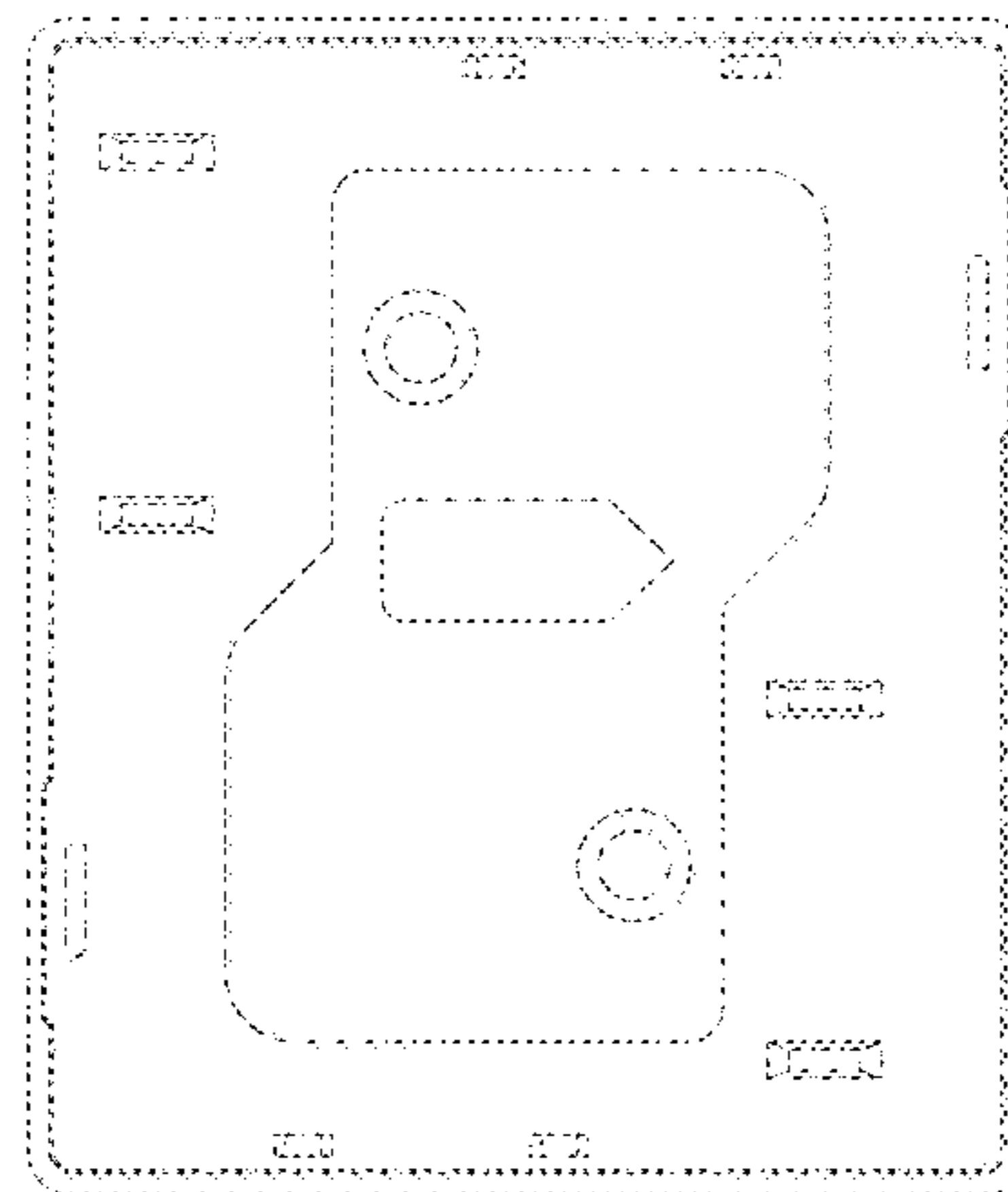


Fig. 7

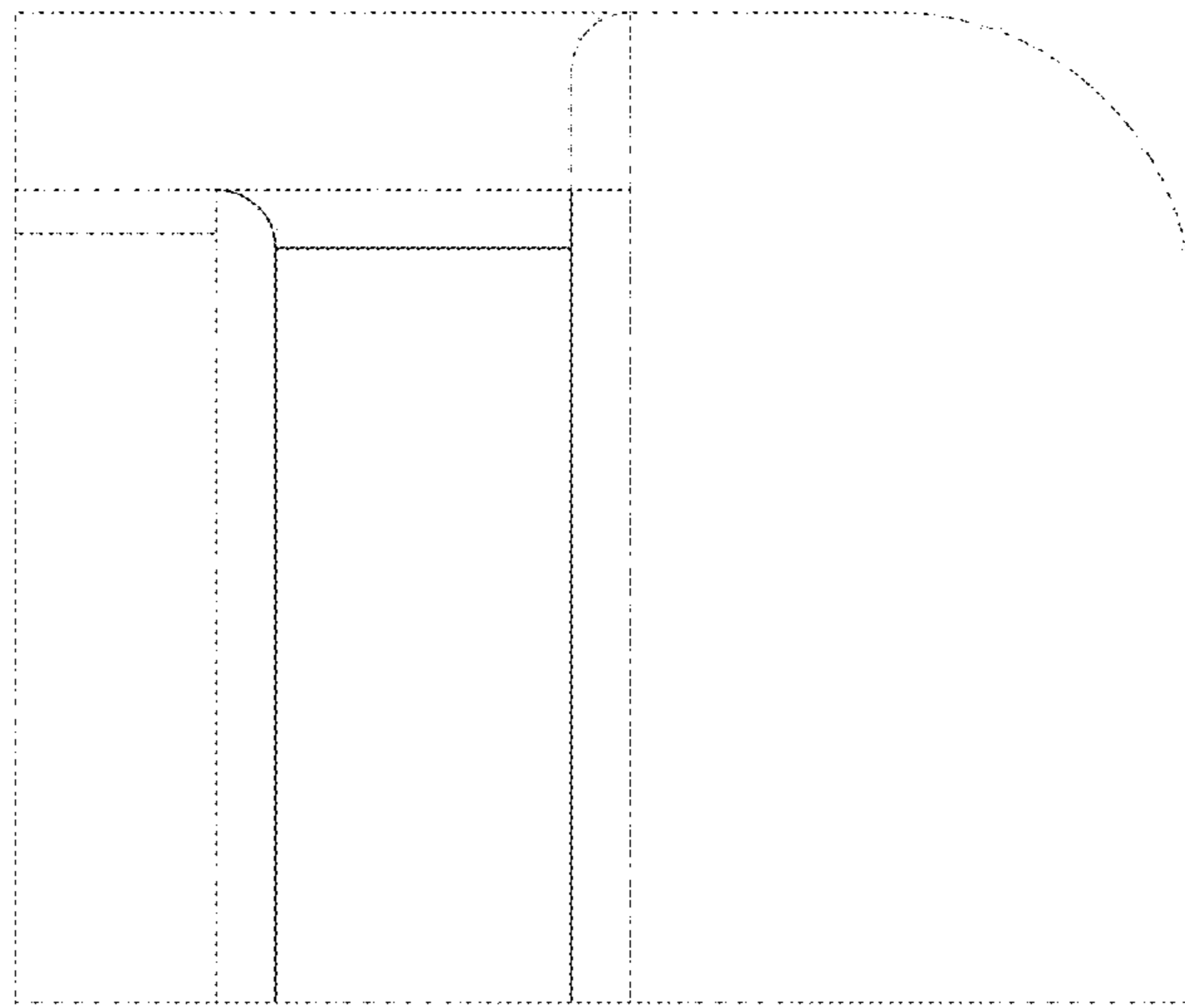


Fig. 8

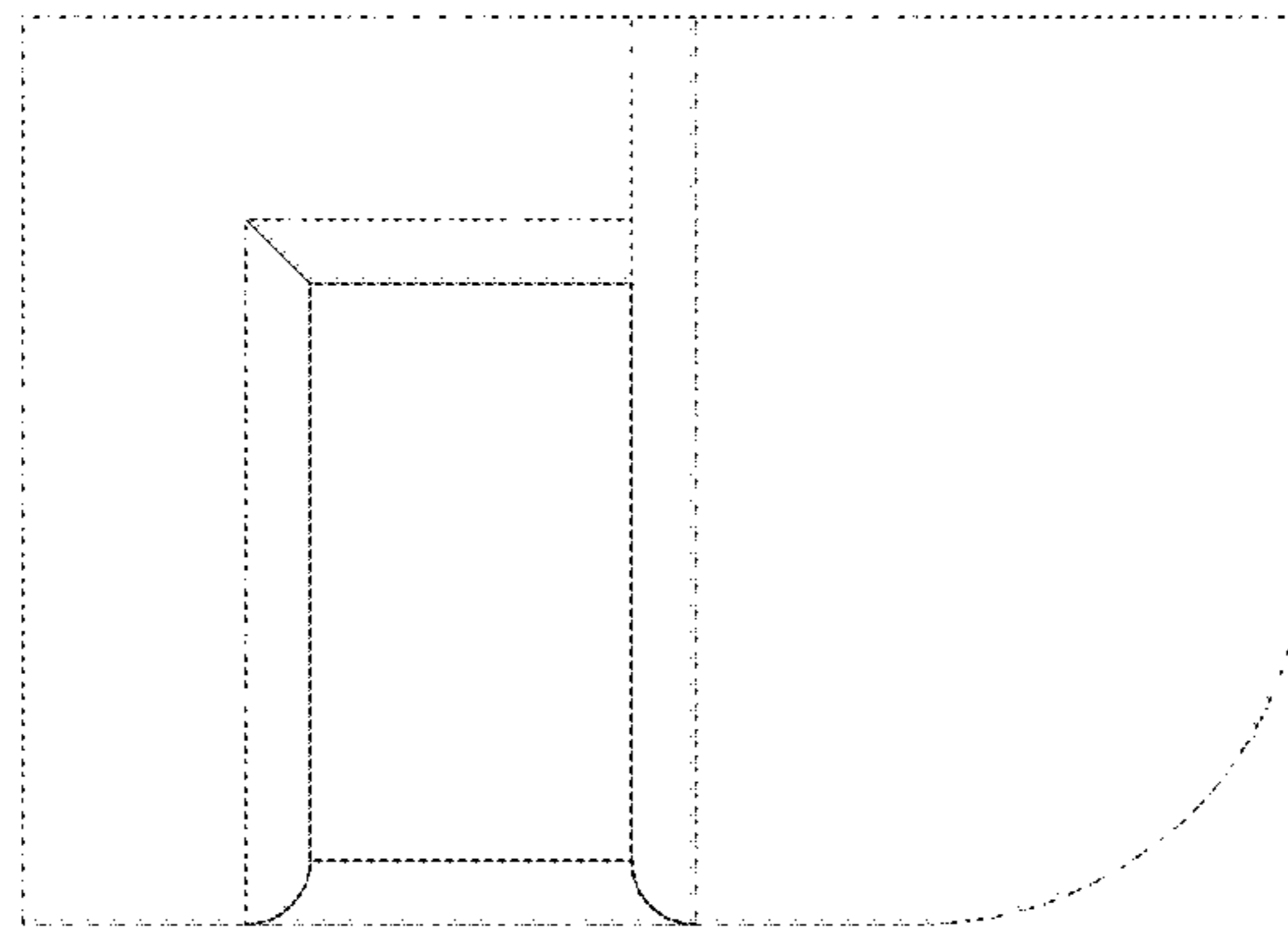


Fig. 9

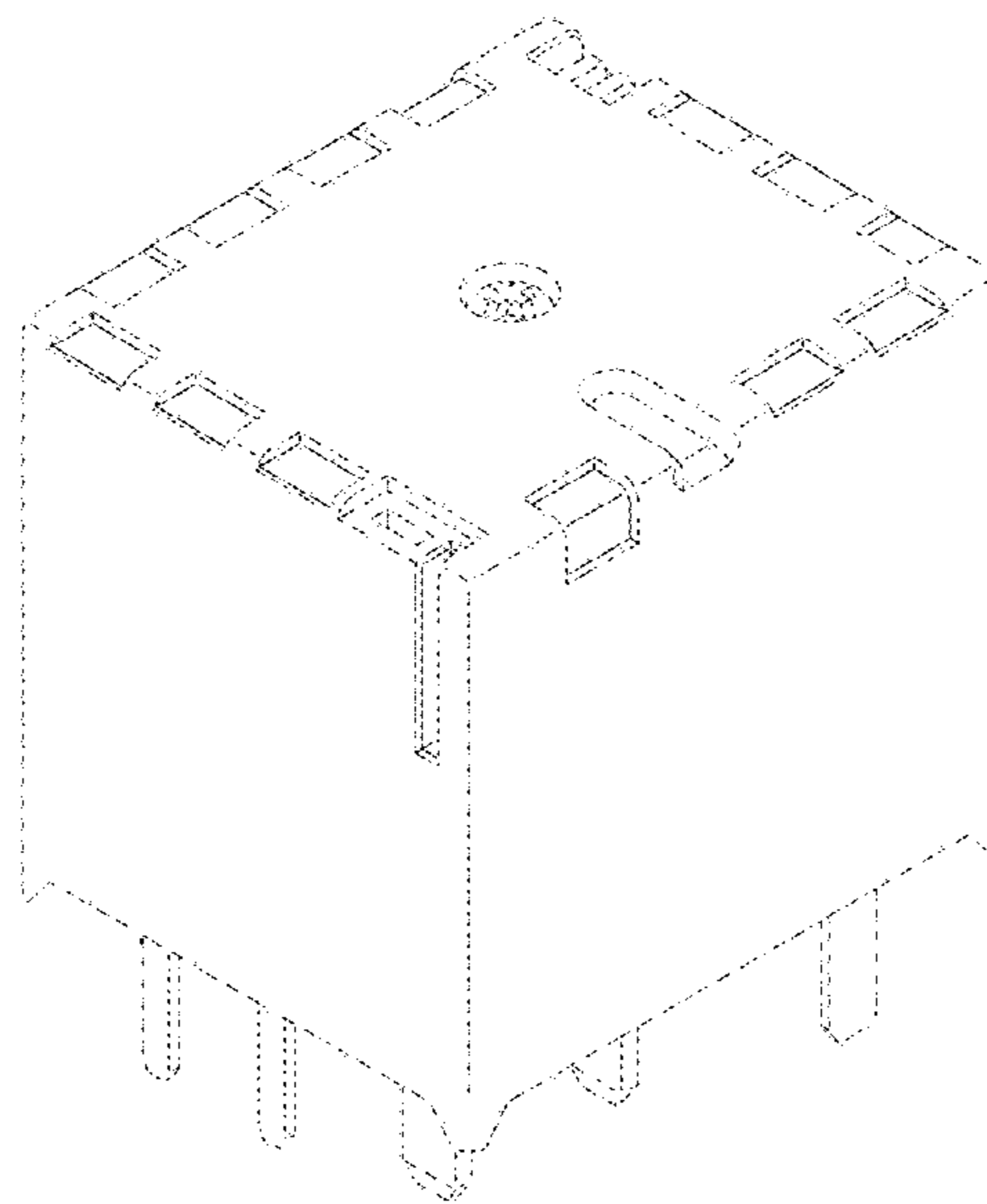


Fig. 10

