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(12) **United States Design Patent** (10) **Patent No.:** **US D874,411 S**  
**Kanda et al.** (45) **Date of Patent:** **\*\* Feb. 4, 2020**

(54) **SEMICONDUCTOR MODULE**

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

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(30) **Foreign Application Priority Data**

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Apr. 13, 2018	(JP)	.....	2018-008226

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

(52) **U.S. Cl.**  
 USPC ..... **D13/182**

(58) **Field of Classification Search**  
 USPC ..... D13/182

(Continued)

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(74) *Attorney, Agent, or Firm* — Hamre, Schumann, Mueller & Larson, P.C.

(57) **CLAIM**

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

**DESCRIPTION**

FIG. 1 is a front, top and right side perspective view of a first embodiment of a semiconductor module showing our new design;

FIG. 2 is a rear, bottom, and left side perspective view thereof;

FIG. 3 is a front view thereof;

FIG. 4 is a rear view thereof;

FIG. 5 is a top plan view thereof;

FIG. 6 is a bottom plan view thereof;

FIG. 7 is a right side view thereof;

FIG. 8 is a left side view thereof;

FIG. 9 is a cross-sectional view taken along line 9-9 in FIG. 5;

FIG. 10 is a cross-sectional view taken along line 10-10 in FIG. 5;

FIG. 11 is a front, top and right side perspective view of a second embodiment of a semiconductor module showing our new design;

FIG. 12 is a rear, bottom, and left side perspective view thereof;

FIG. 13 is a front view thereof;

FIG. 14 is a rear view thereof;

FIG. 15 is a top plan view thereof;

FIG. 16 is a bottom plan view thereof;

FIG. 17 is a right side view thereof;

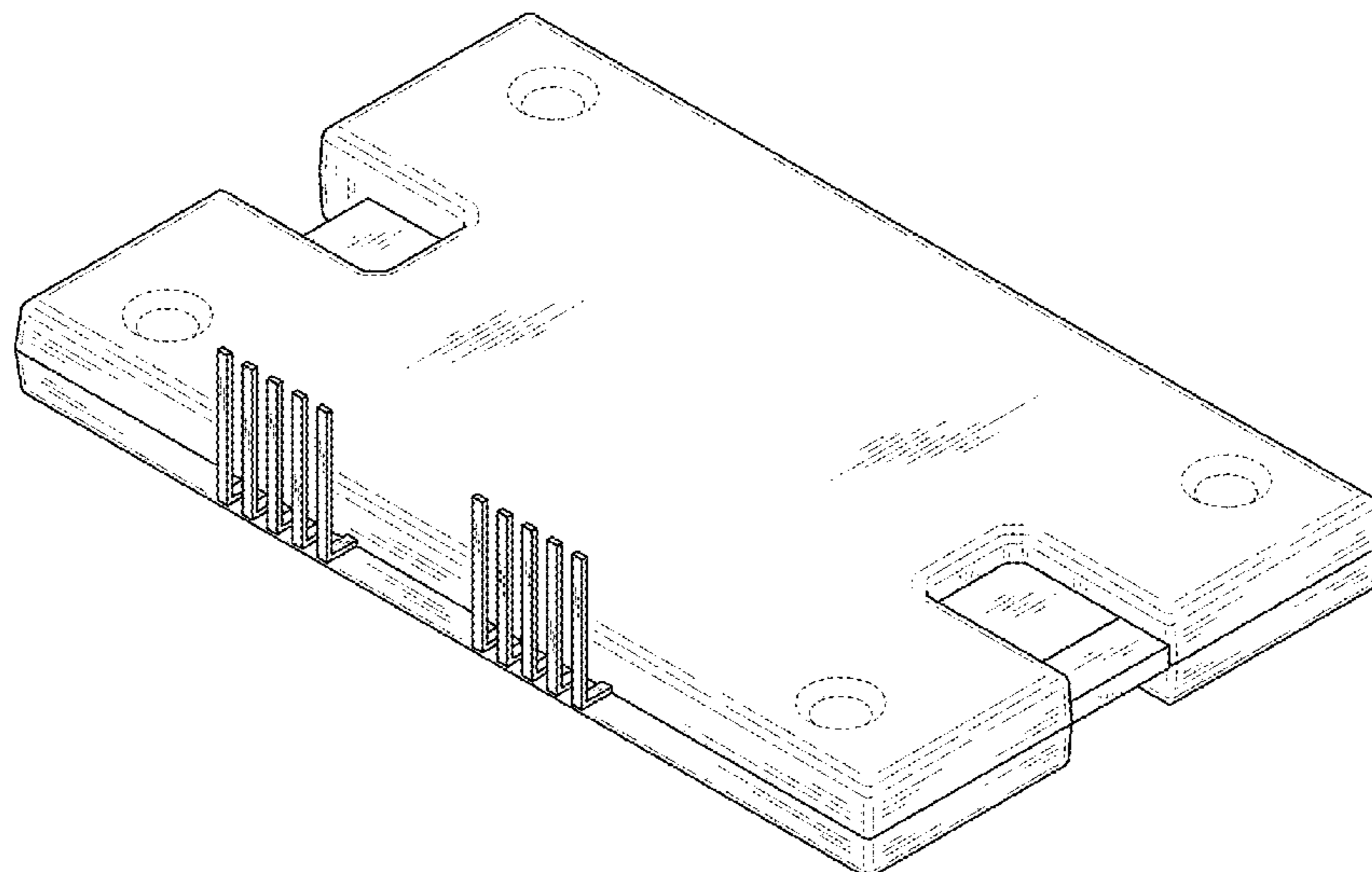
FIG. 18 is a left side view thereof;

FIG. 19 is a cross-sectional view taken along line 19-19 in FIG. 15; and,

FIG. 20 is a cross-sectional view taken along line 20-20 in FIG. 15.

The broken lines illustrate portions of the semiconductor module and form no part of the claimed design. The member illustrated with fine, diagonal, parallel lines in FIG. 2 and FIG. 6 is transparent.

**1 Claim, 20 Drawing Sheets**



**(58) Field of Classification Search**

CPC ..... H01L 21/02428; H01L 21/0243; H01L  
 21/02494; H01L 21/02496; H01L  
 21/02499; H01L 21/02502; H01L  
 21/02505; H01L 21/02507; H01L  
 21/0251; H01L 21/02513; H01L  
 21/02587; H01L 21/0259; H01L  
 21/02592; H01L 21/02595; H01L  
 21/02598; H01L 21/02603; H01L  
 21/02606; H01L 23/04; H01L 23/041;  
 H01L 23/043; H01L 23/045; H01L  
 23/047; H01L 23/049; H01L 23/051;  
 H01L 23/053; H01L 23/055; H01L  
 23/057; H01L 23/06; H01L 23/08; H01L  
 23/10; H01L 23/452; H01L 23/4922;  
 H01L 29/02; H01L 29/04; H01L 29/045;  
 H01L 29/06; H01L 29/0603; H01L  
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See application file for complete search history.

**(56)**

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D717,255	S	*	11/2014	Lim	.....	D13/182
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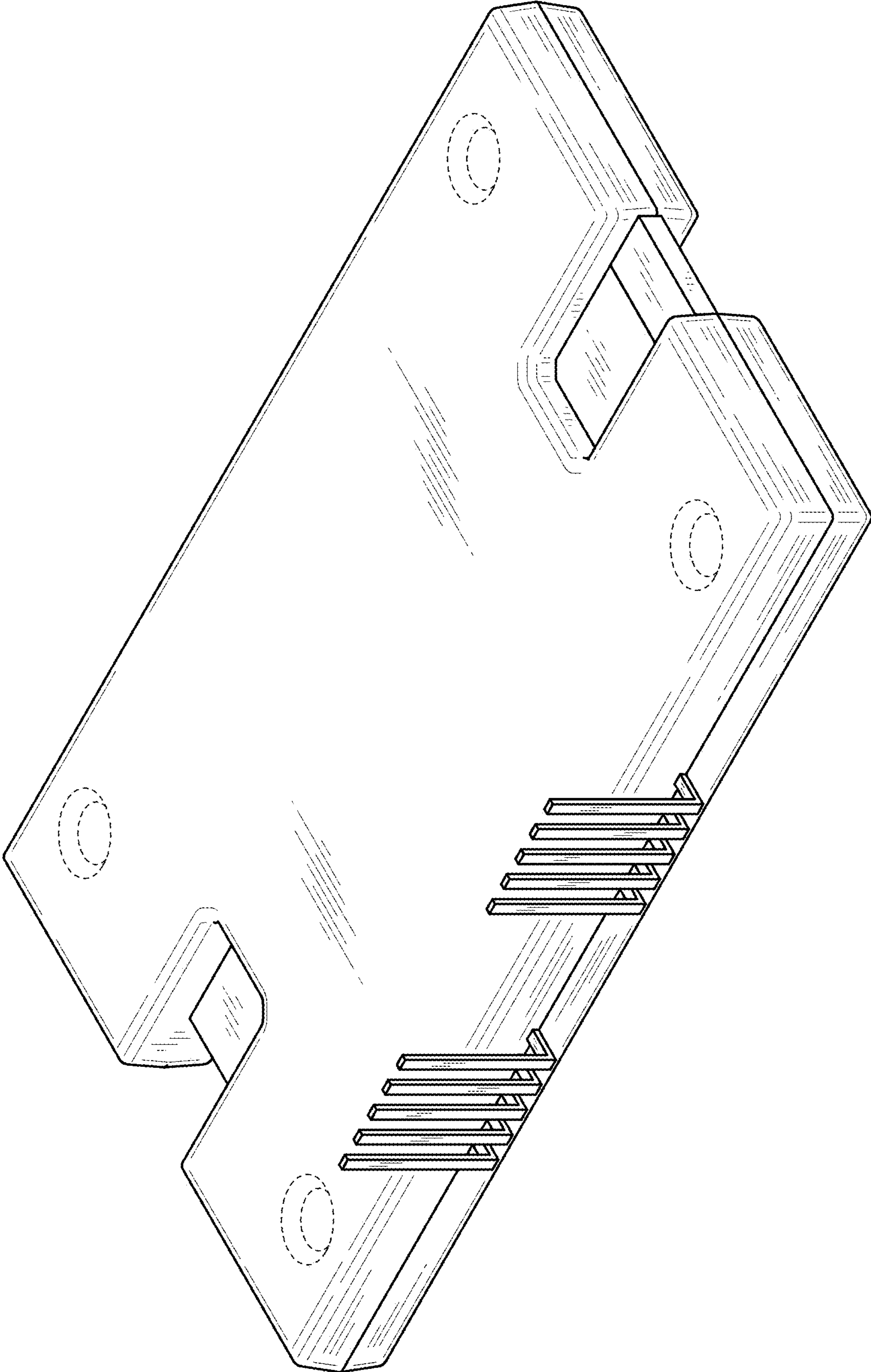


FIG.1

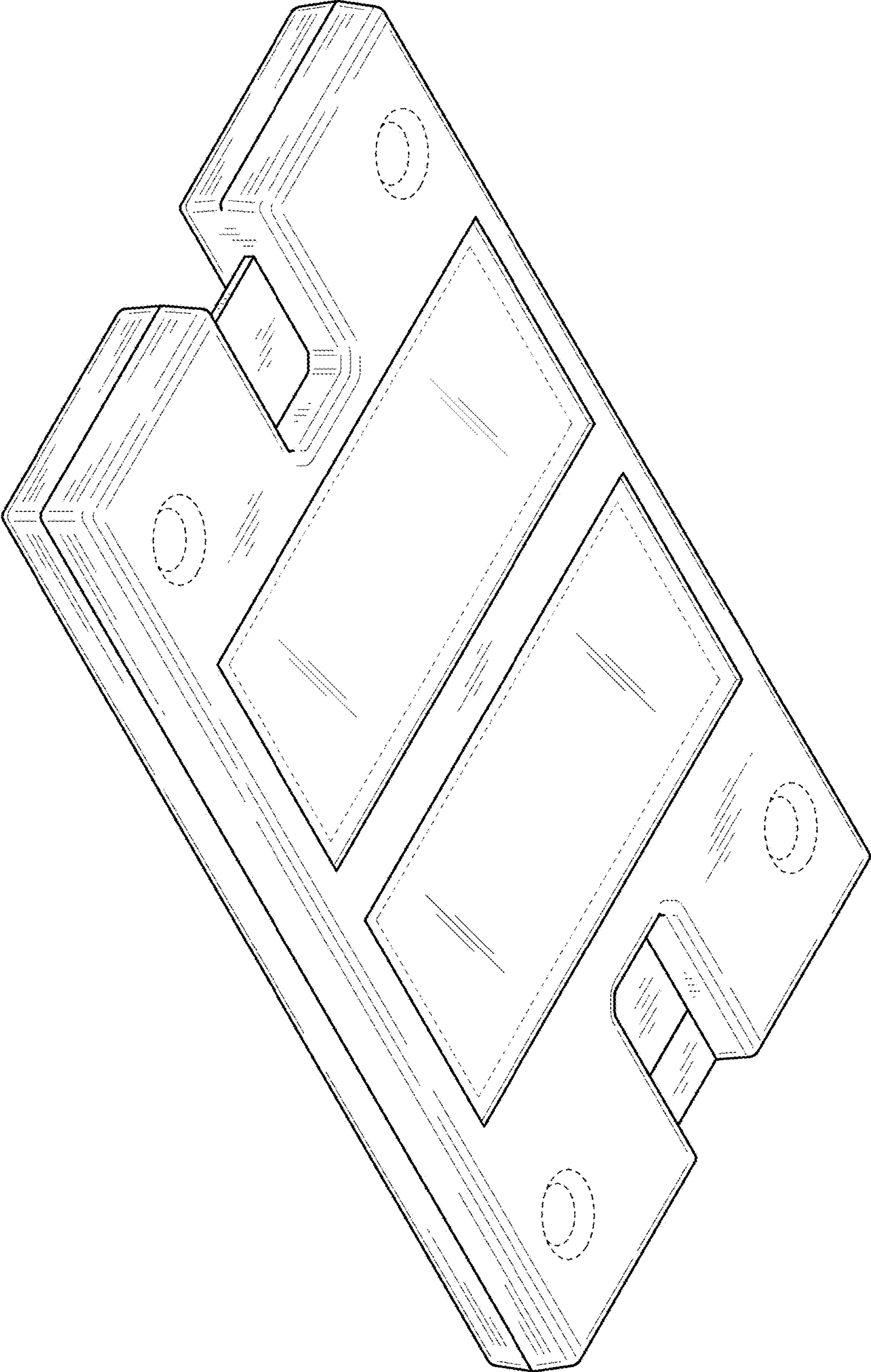


FIG.2

FIG.3

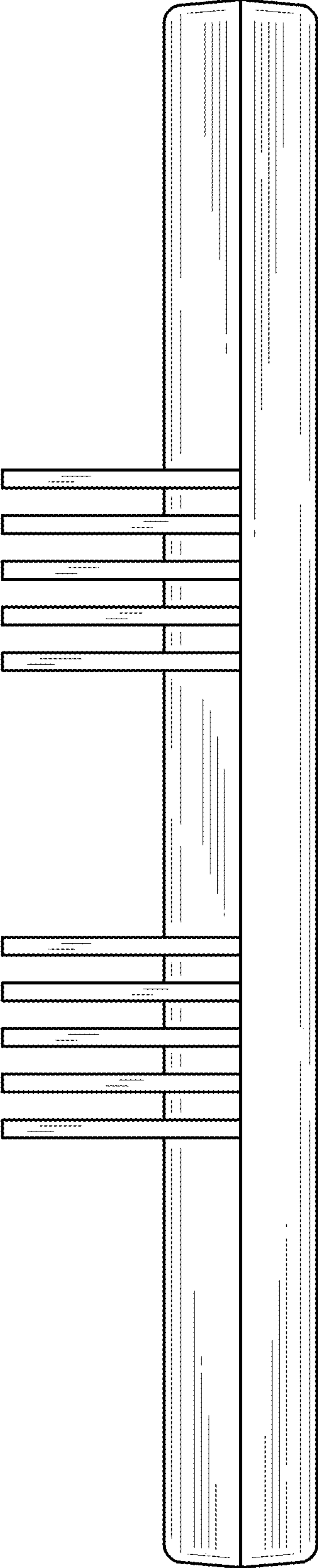


FIG.4

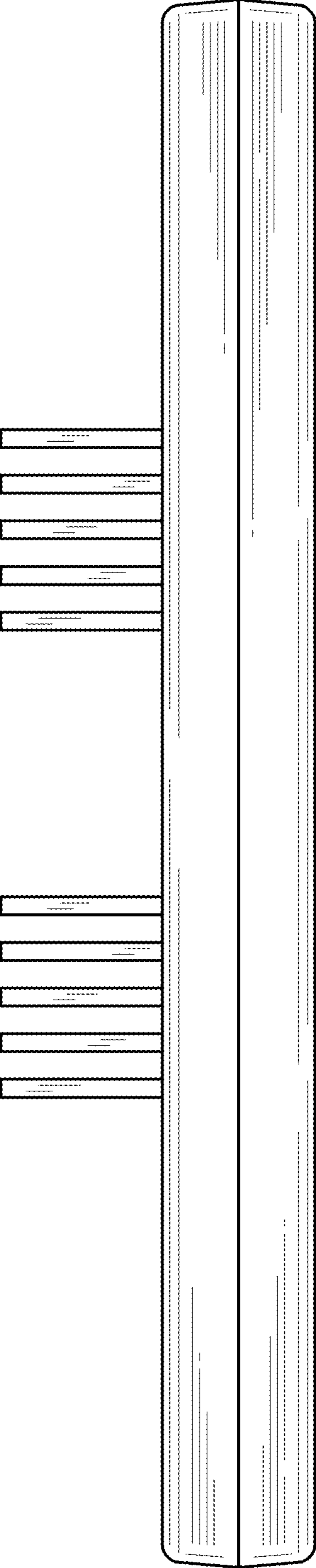


FIG.5

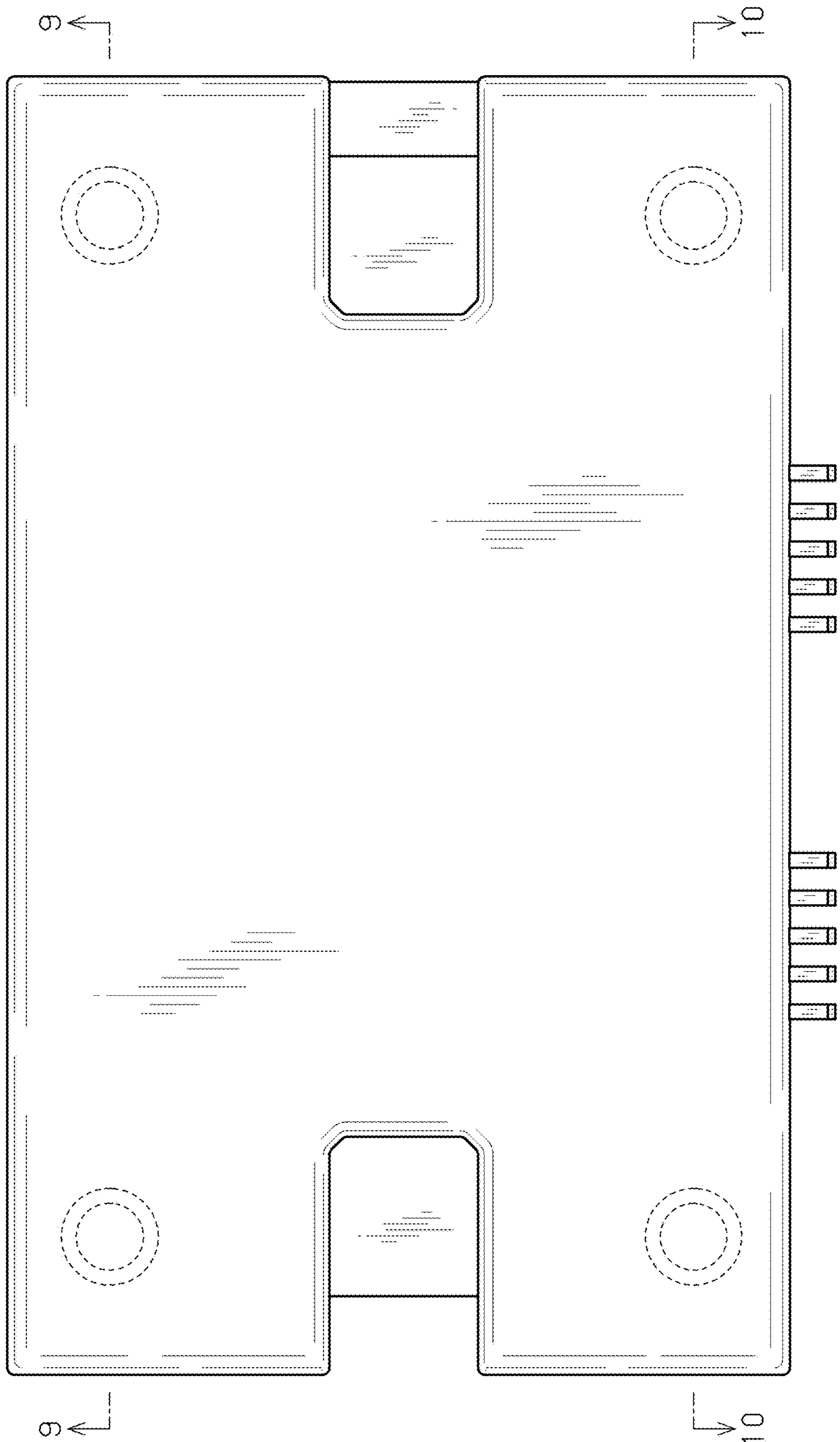


FIG.6

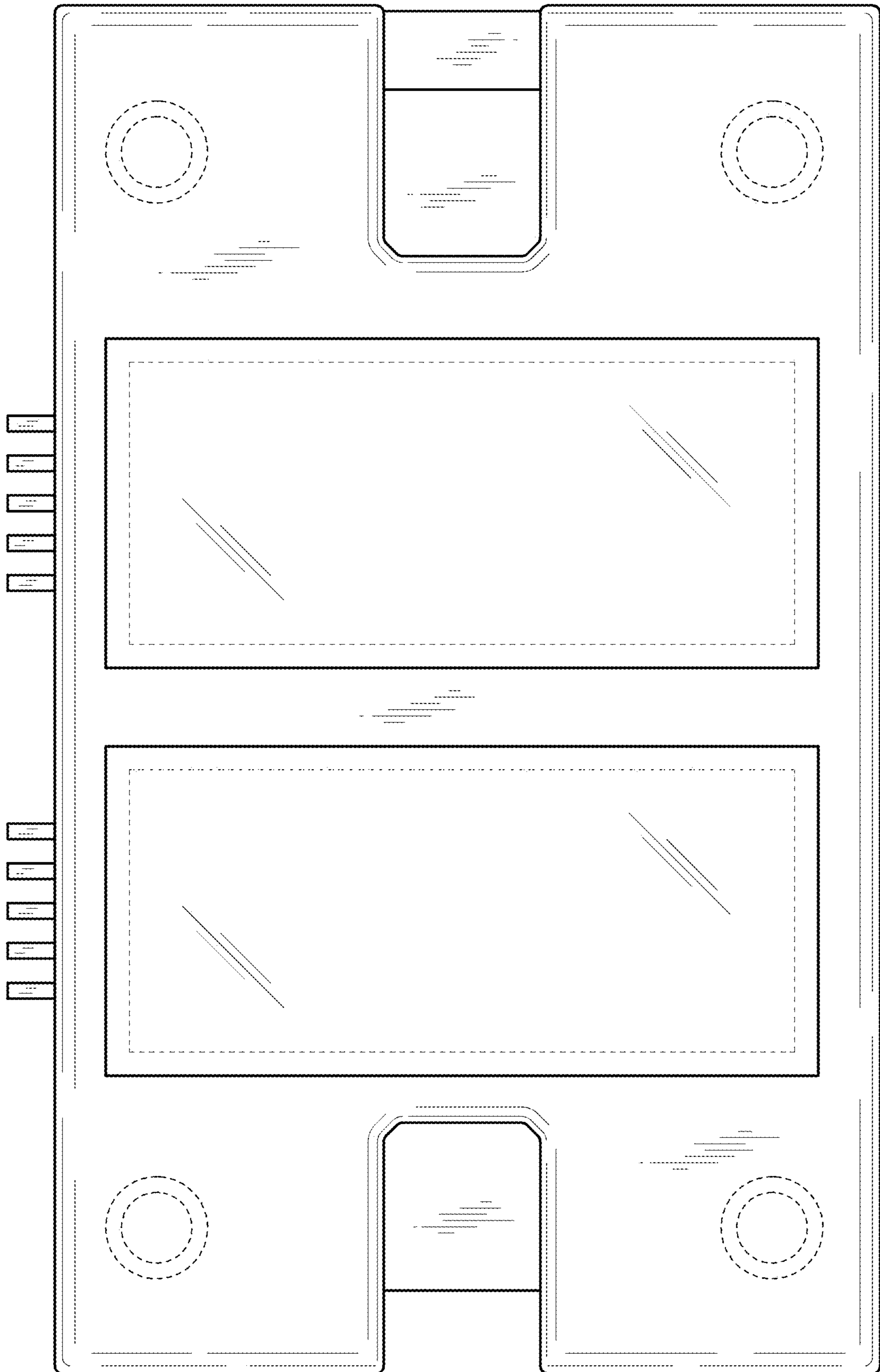
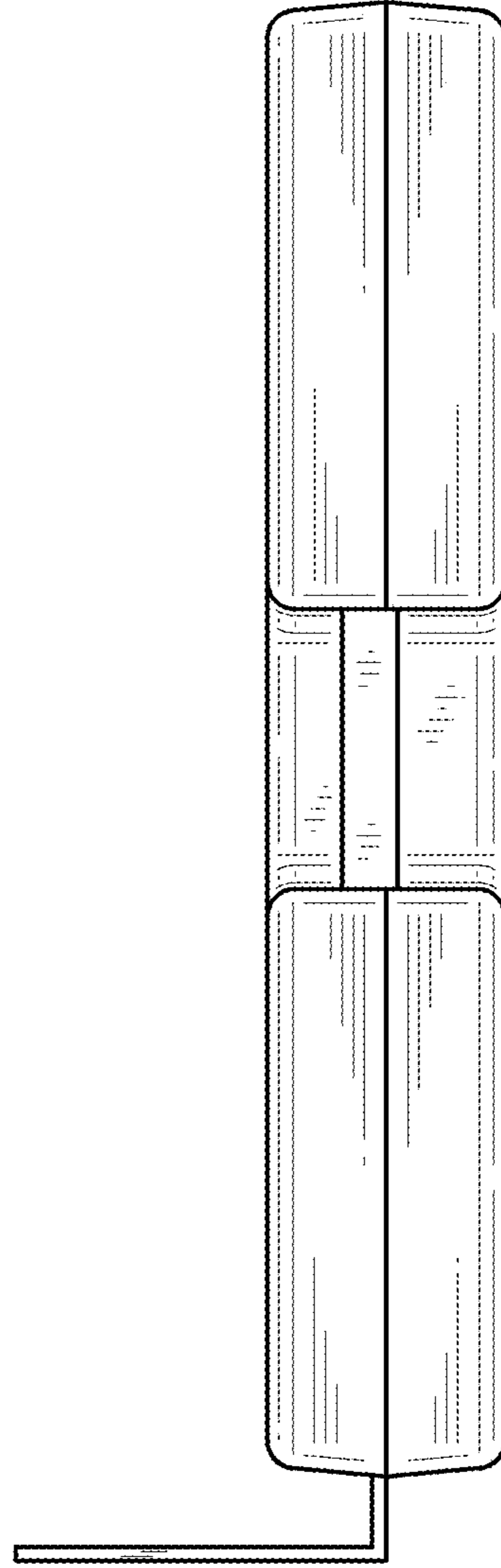




FIG. 7



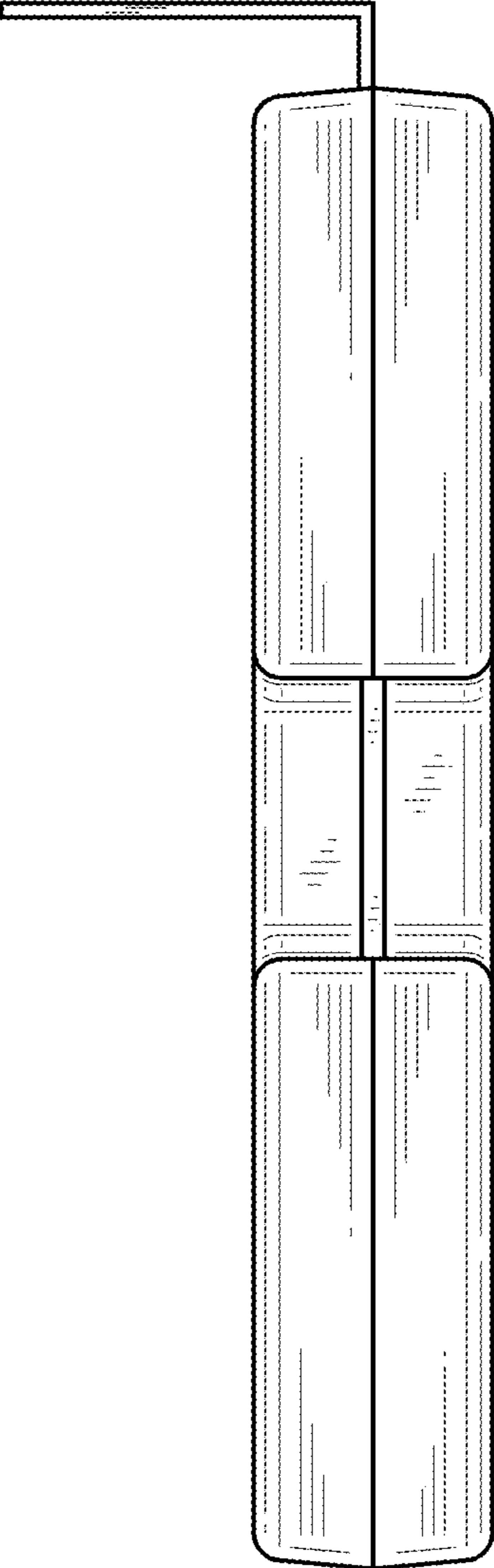
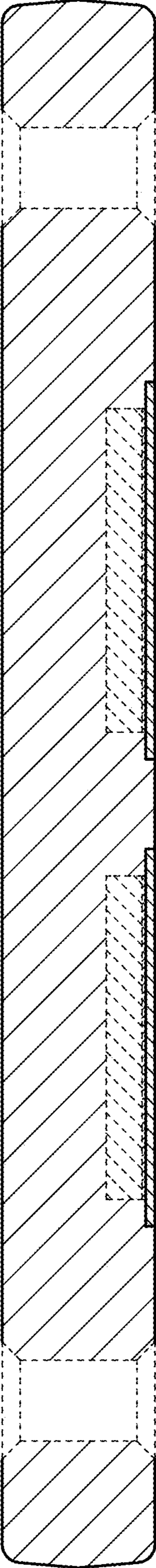


FIG. 8

FIG. 9



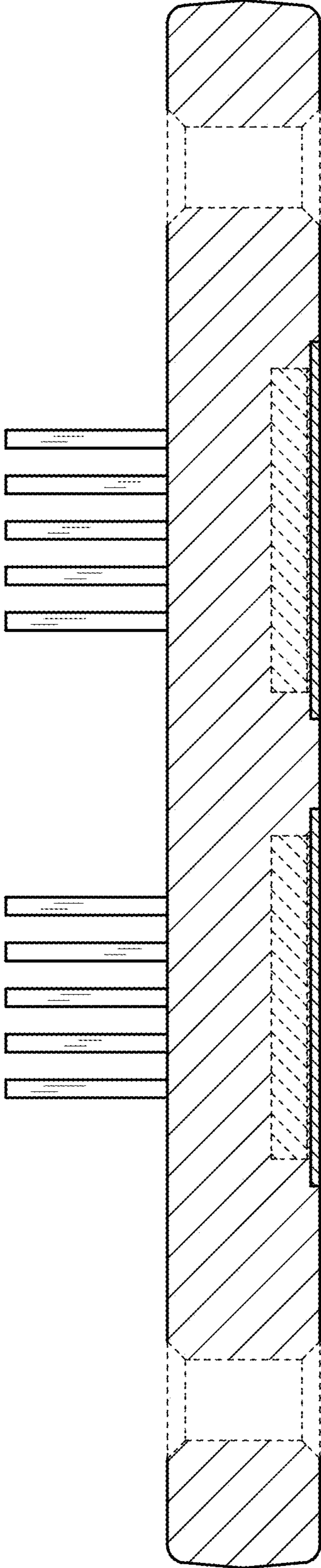


FIG.10

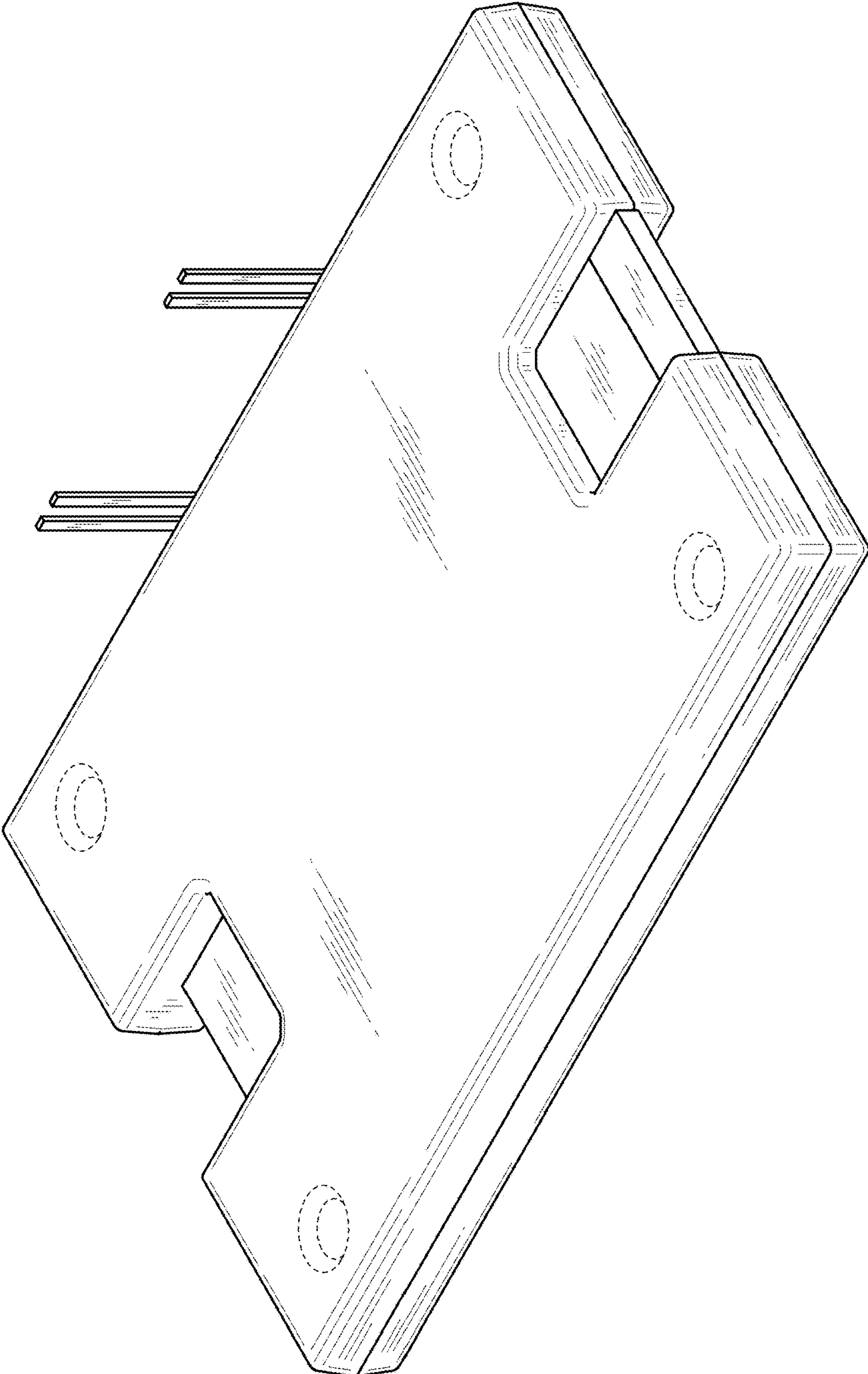


FIG.11

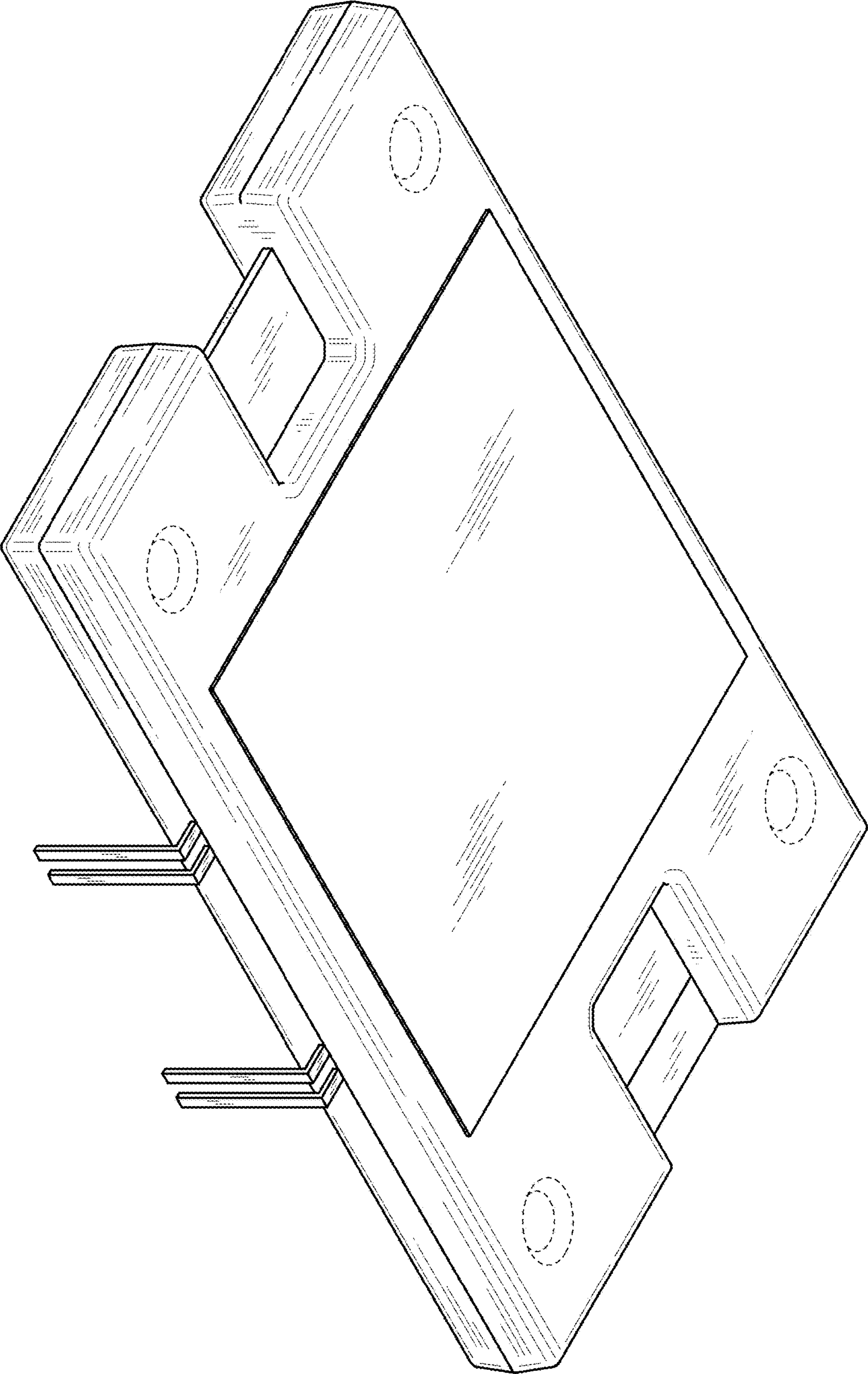


FIG.12

FIG.13

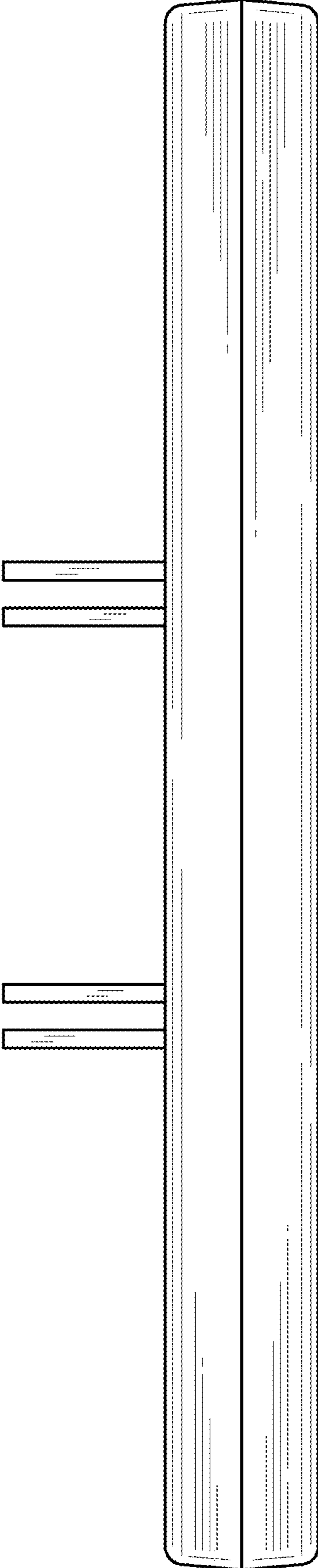


FIG.14

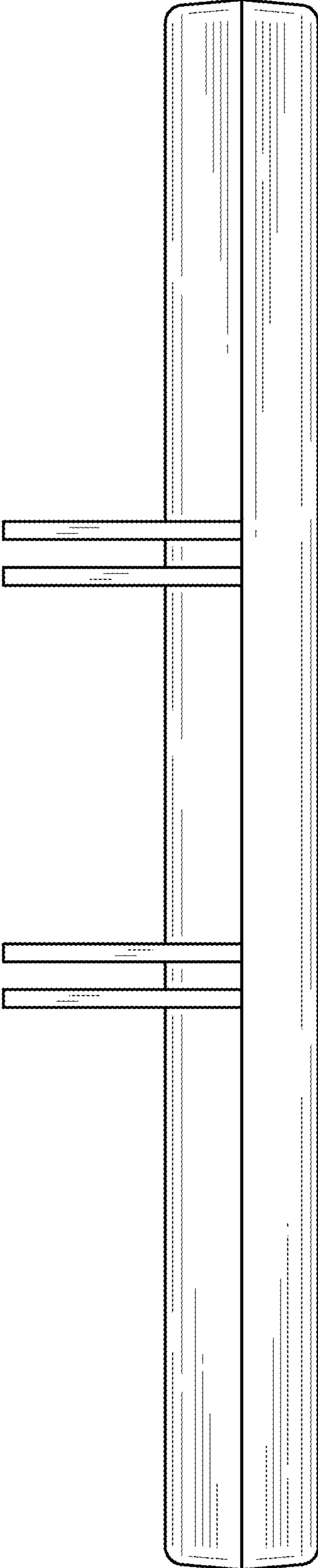
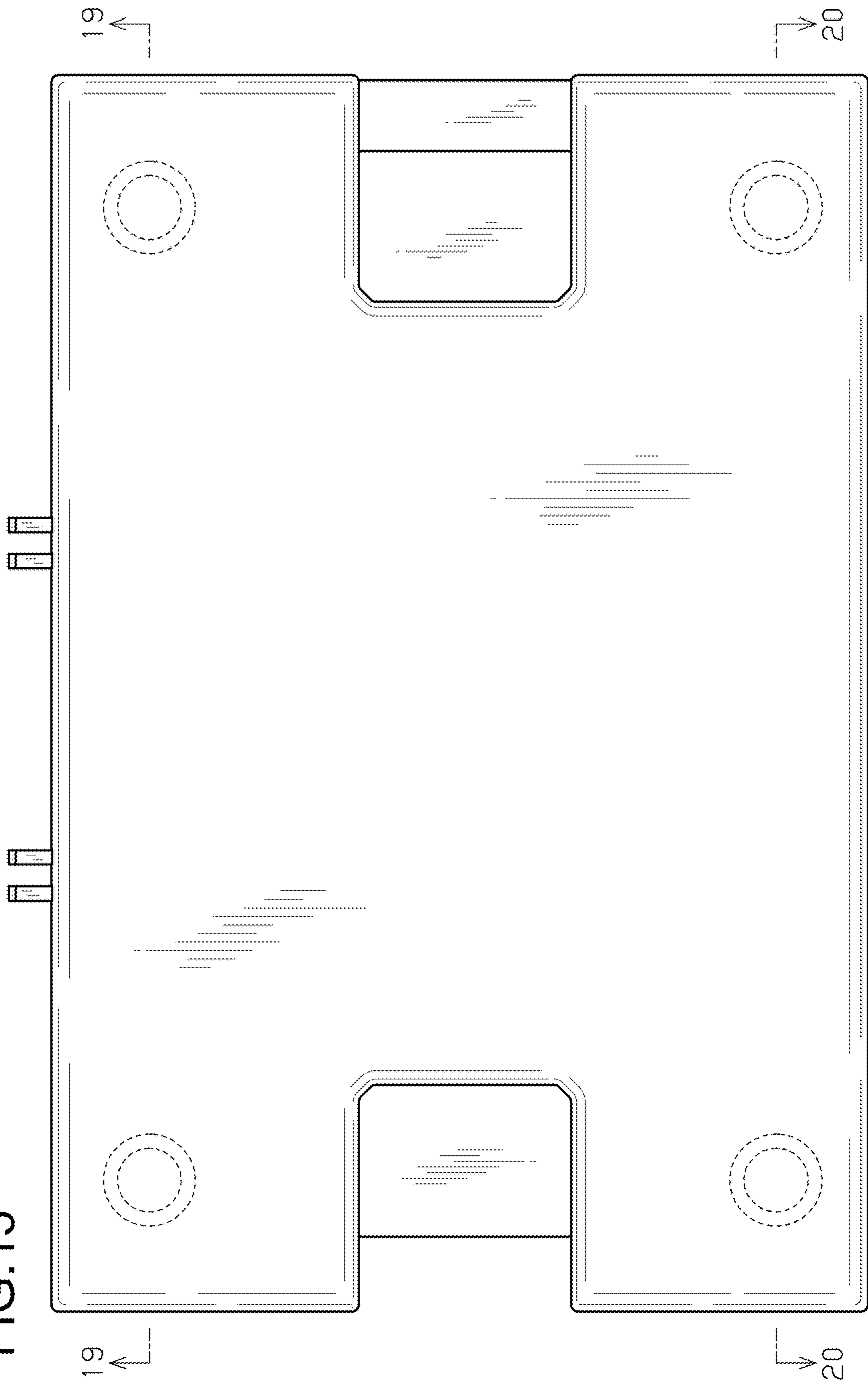




FIG.15



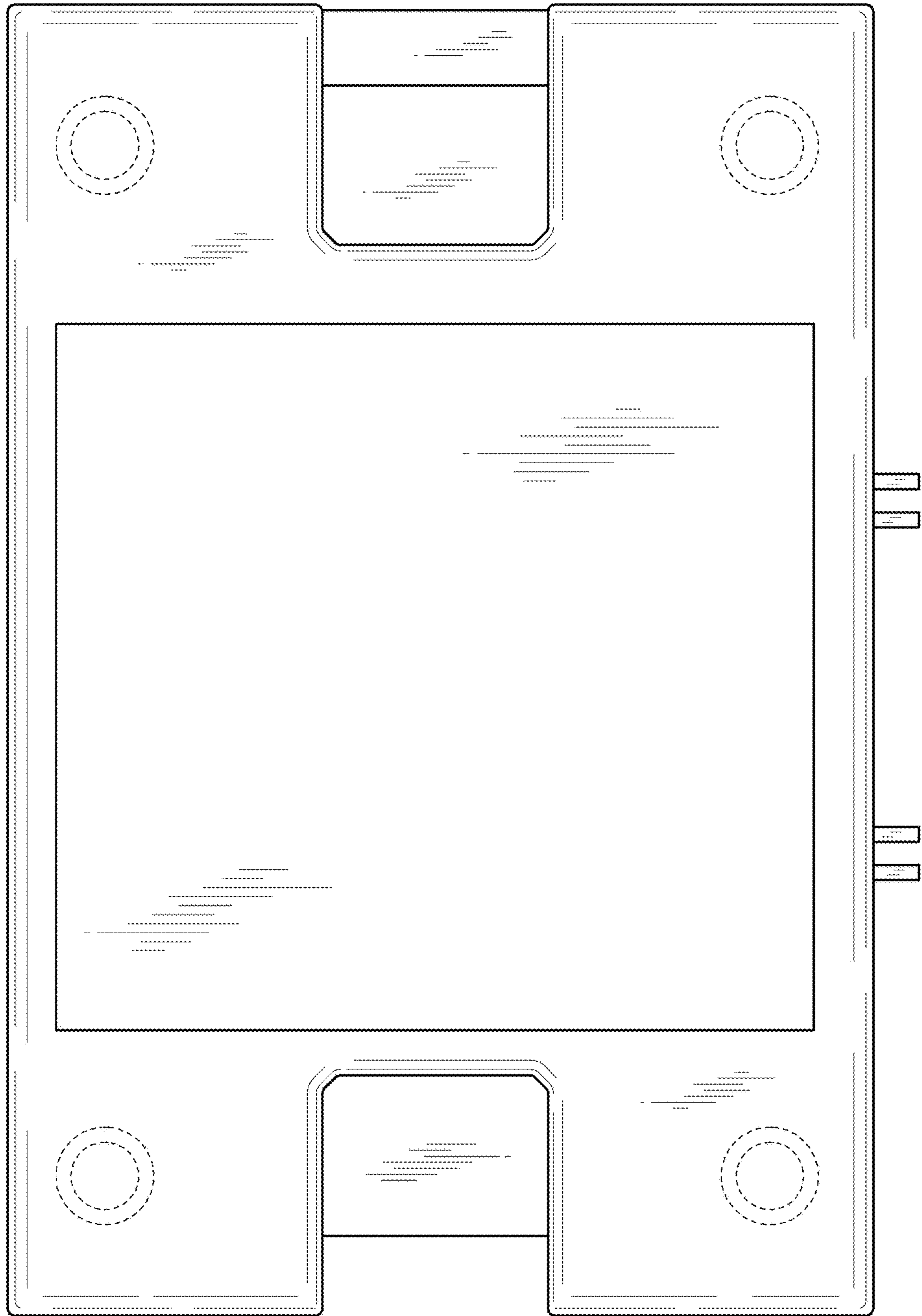


FIG.16

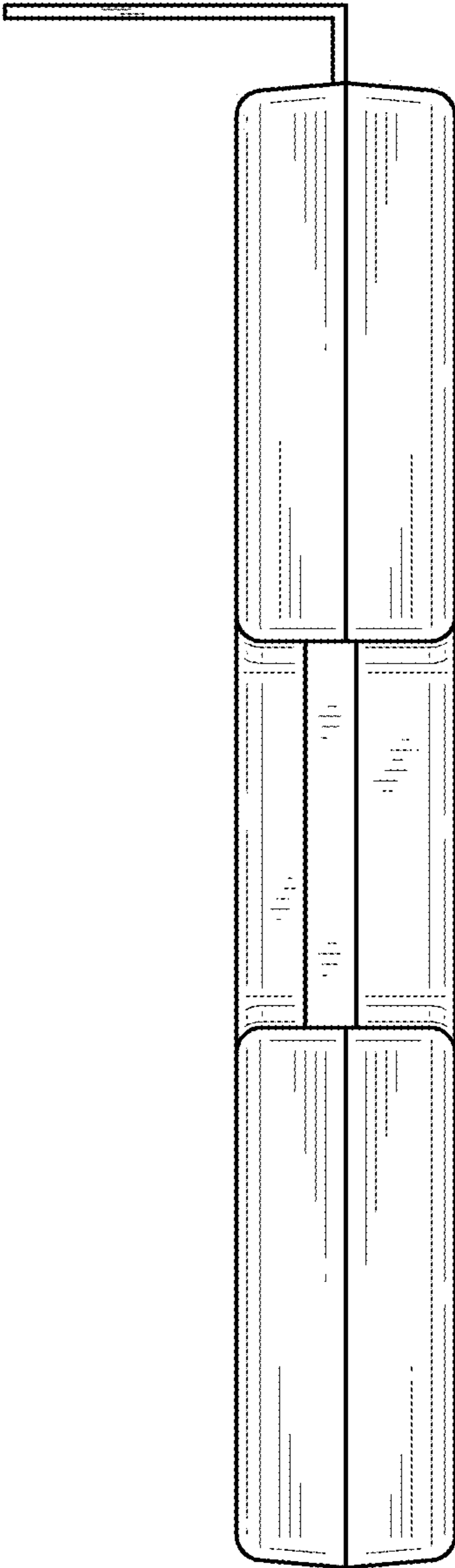


FIG.17

FIG.18

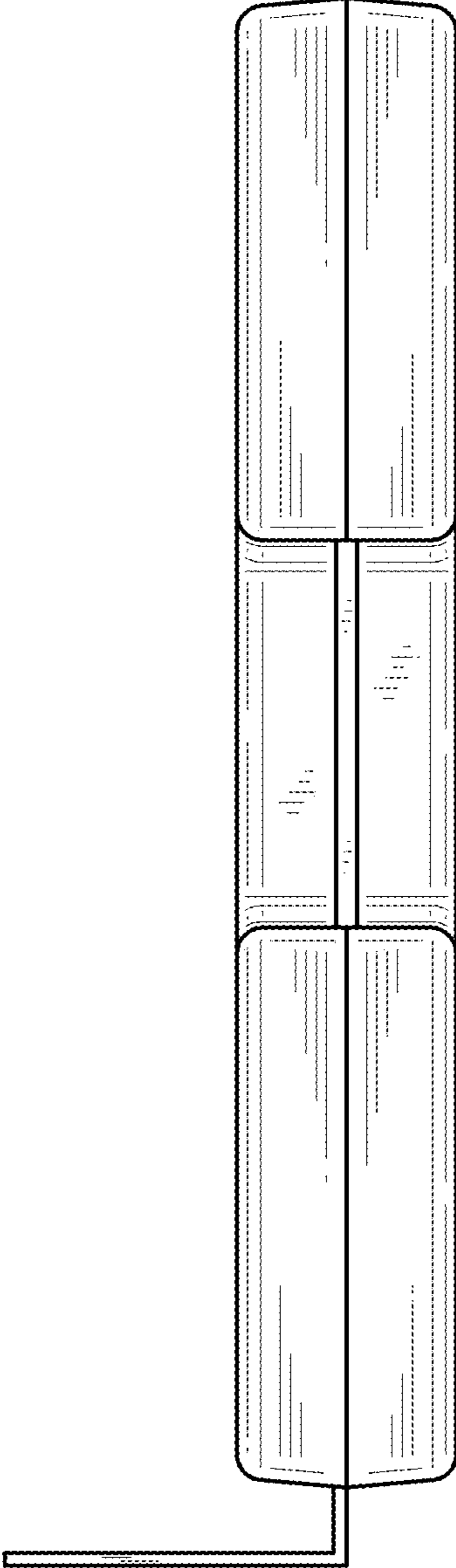


FIG.19

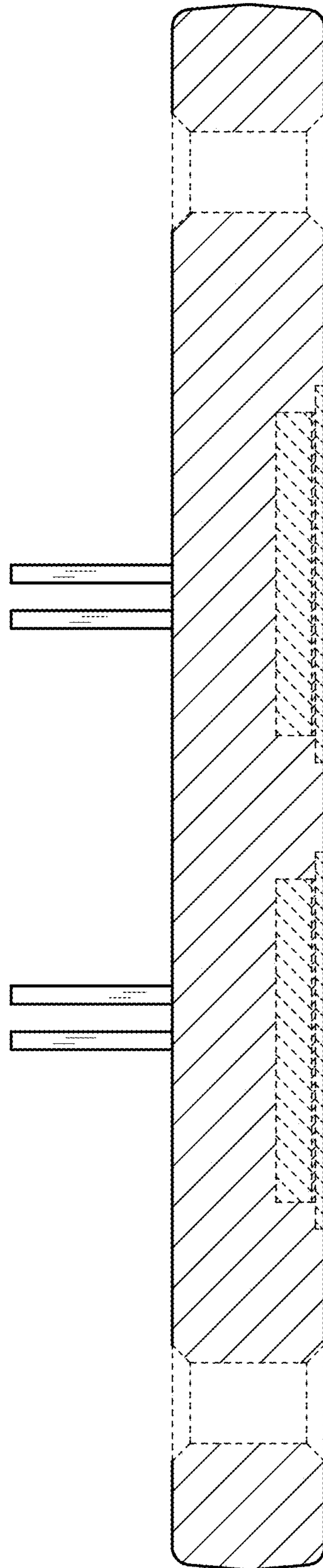


FIG.20

