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Lin et al.

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(54) **LIGHT-EMITTING DIODE LEAD-FRAME**

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(**) Term: **14 Years**

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Nov. 12, 2013 (TW) 102305195D01

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

(52) **U.S. Cl.**
USPC **D13/180**

(58) **Field of Classification Search**

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H01L 27/156; H01L 31/02; H01L 33/00;
H01L 33/04; H01L 33/08; H01L 33/10;
H01L 33/20; H01L 33/38; H01L 33/42;
H01L 33/48; H01L 33/483; H01L 33/486
USPC D13/180; D26/1; 257/79, 80, 81, 88,
257/89, 95, 98, 99, 100, E33.058; 313/483,
313/498, 500; 362/555, 800

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D627,310 S * 11/2010 Lin et al. D13/180

D656,106 S * 3/2012 Hsu D13/180

D664,105 S * 7/2012 Hsu D13/180

(Continued)

(57) **CLAIM**

The ornamental design for a light emitting diode lead-frame, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of a light emitting diode lead-frame in accordance with a first embodiment;

FIG. 2 is a rear perspective view thereof in accordance with the first embodiment;

FIG. 3 is a front view thereof in accordance with the first embodiment;

FIG. 4 is a rear view thereof in accordance with the first embodiment;

FIG. 5 is a left side view thereof in accordance with the first embodiment;

FIG. 6 is a right side view thereof in accordance with the first embodiment;

FIG. 7 is a top plan view thereof in accordance with the first embodiment;

FIG. 8 is a bottom plan view thereof in accordance with the first embodiment;

FIG. 9 is a front perspective view of a light emitting diode lead-frame in accordance with a second embodiment;

FIG. 10 is a rear perspective view thereof in accordance with the second embodiment;

FIG. 11 is a front view thereof in accordance with the second embodiment;

FIG. 12 is a rear view thereof in accordance with the second embodiment;

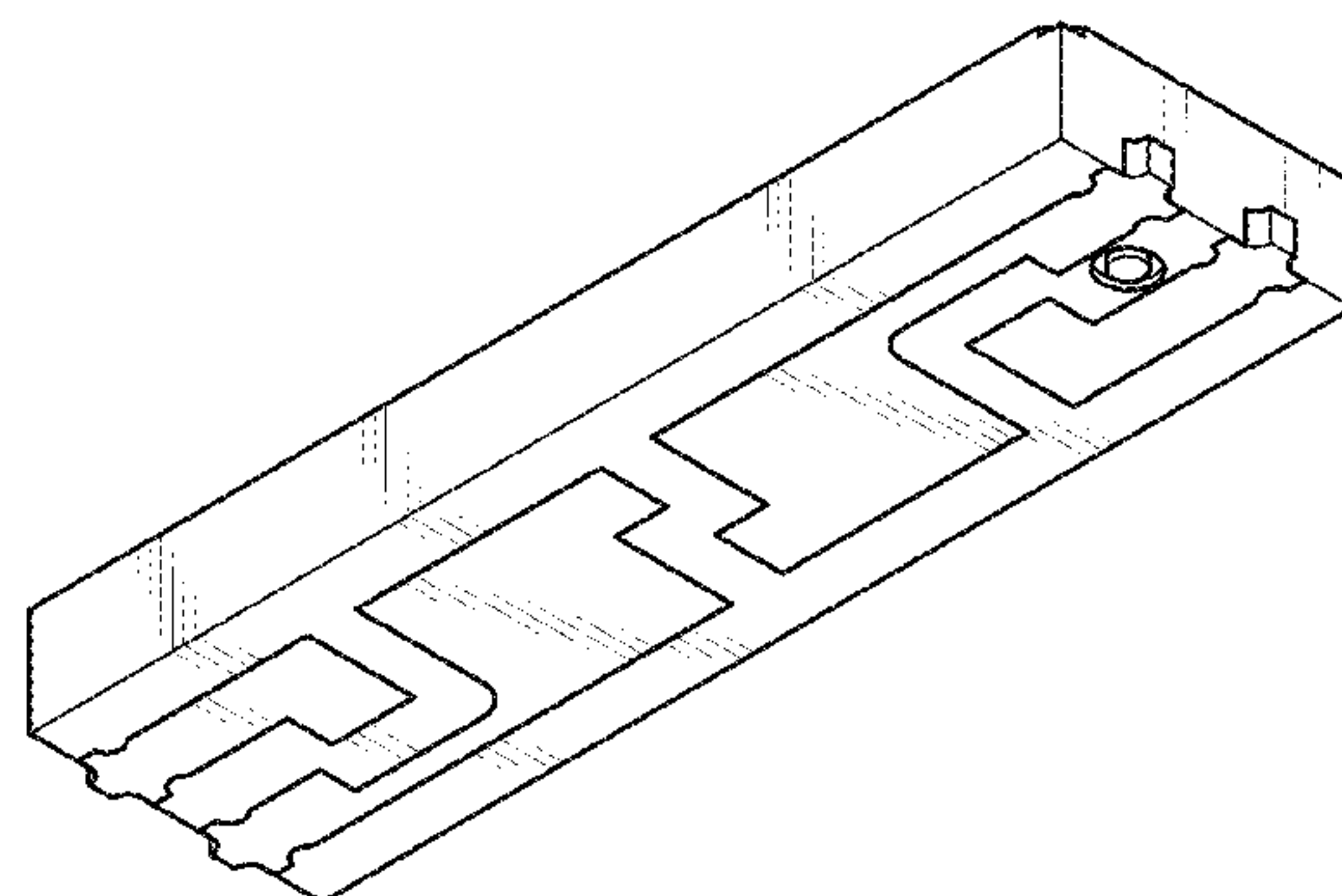
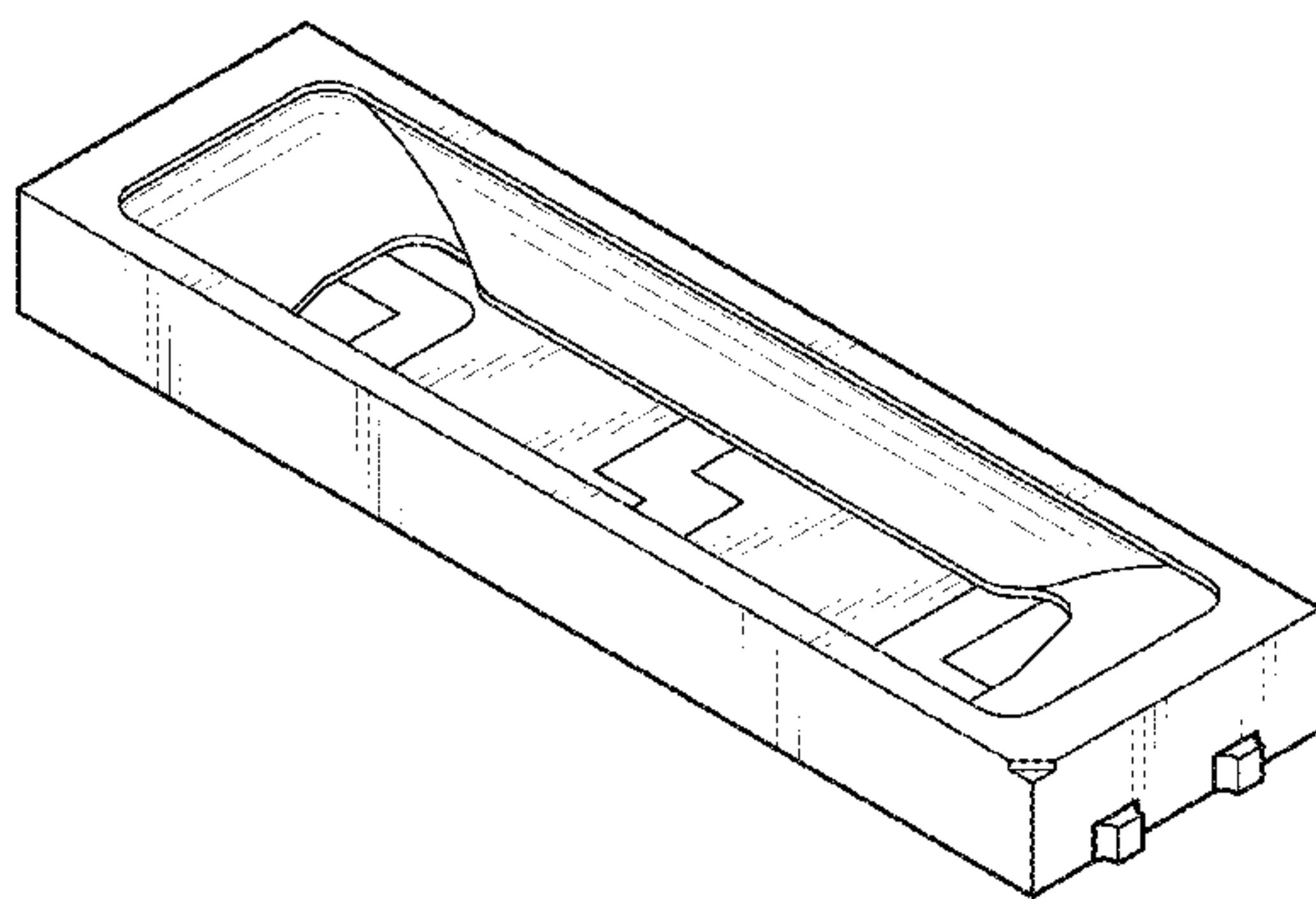
FIG. 13 is a left side view thereof in accordance with the second embodiment;

FIG. 14 is a right side view thereof in accordance with the second embodiment;

FIG. 15 is a top plan view thereof in accordance with the second embodiment; and,

FIG. 16 is a bottom plan view thereof in accordance with the second embodiment.

1 Claim, 16 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D664,108 S * 7/2012 Wang D13/180
D664,109 S * 7/2012 Wang D13/180
D670,661 S * 11/2012 Chang D13/180
D670,663 S * 11/2012 Ko D13/180
D679,666 S * 4/2013 Hsu et al. D13/180

D697,876 S * 1/2014 Hsu et al. D13/180
D712,851 S * 9/2014 Cai et al. D13/180
D719,111 S * 12/2014 Lo et al. D13/180
2010/0102348 A1* 4/2010 Lin 257/98
2011/0127566 A1* 6/2011 Yoon 257/99
2012/0074451 A1* 3/2012 Lin 257/99
2012/0161180 A1* 6/2012 Komatsu et al. 257/98

* cited by examiner

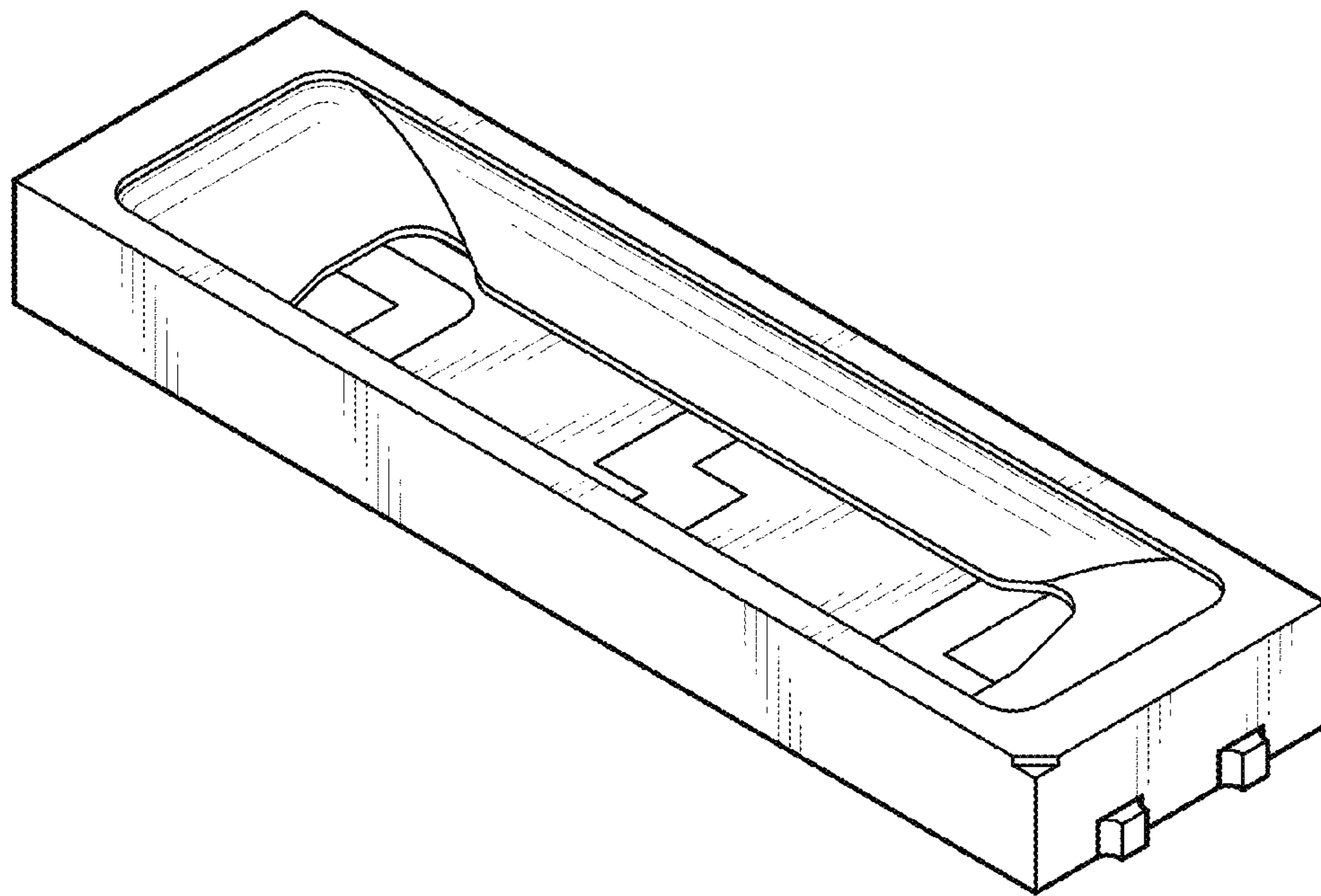


FIG. 1

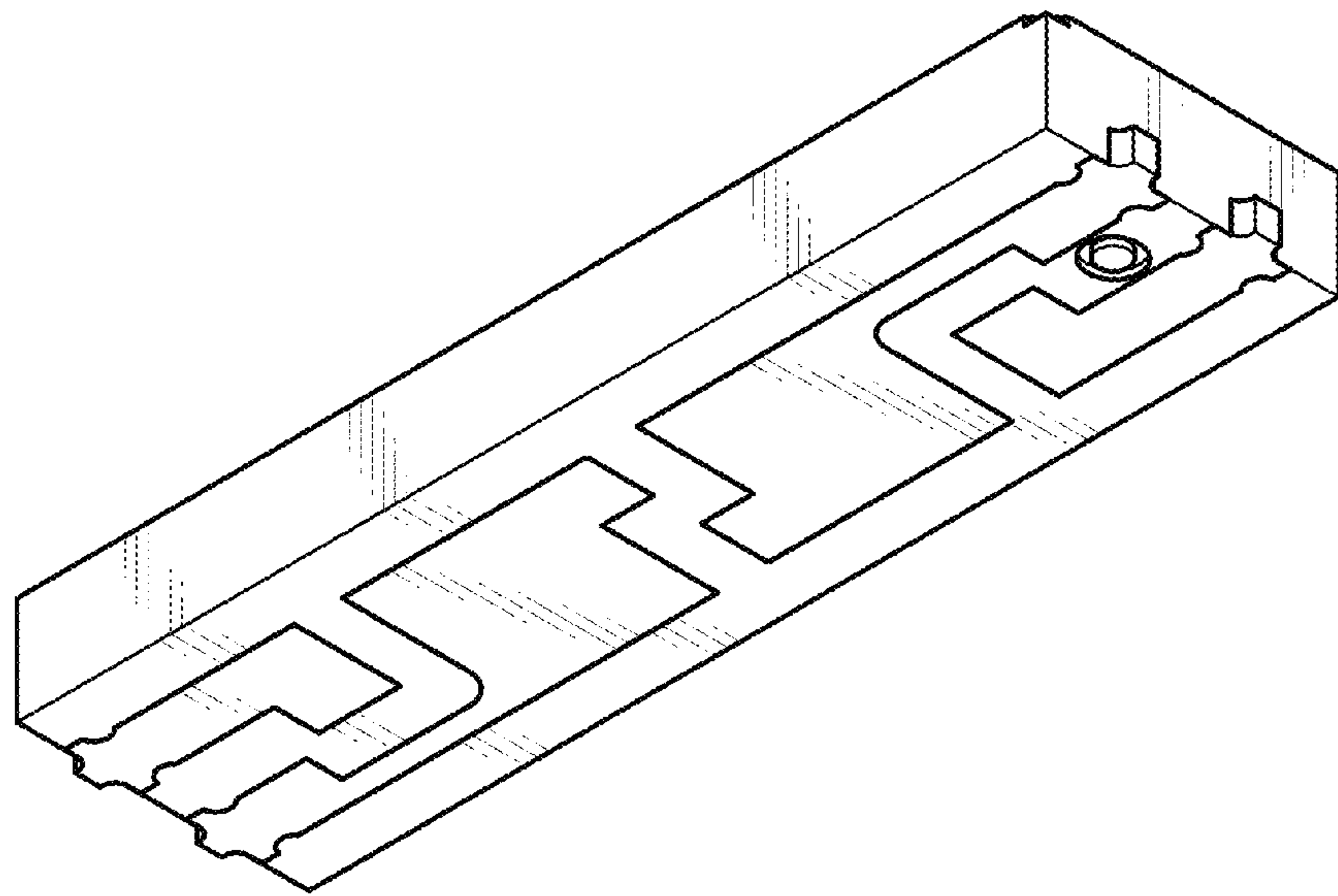


FIG. 2



FIG. 3



FIG. 4

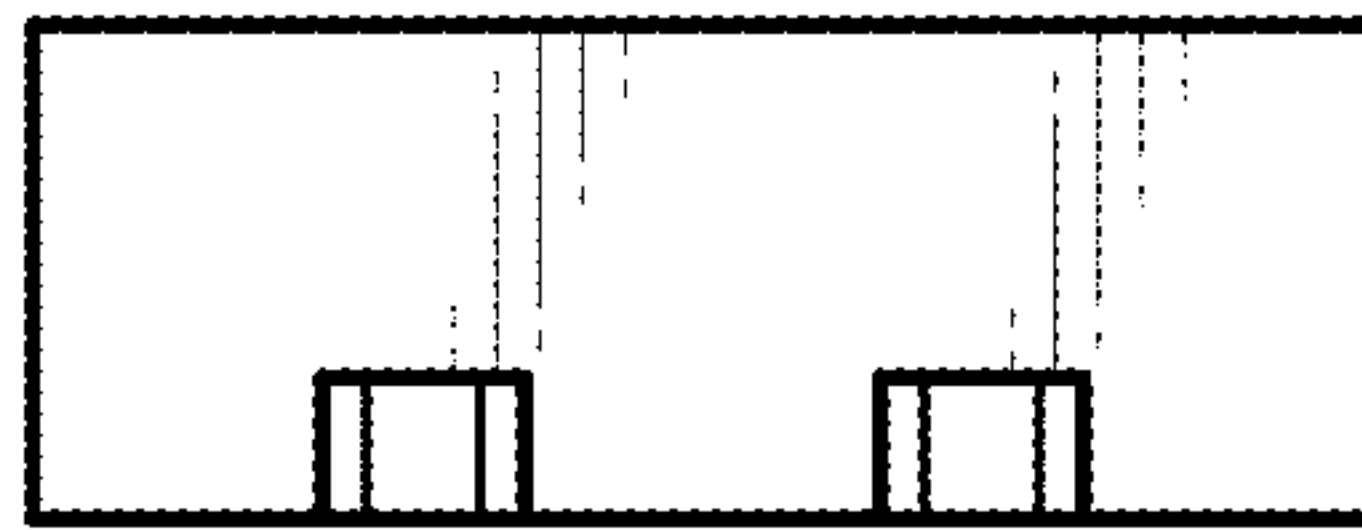


FIG. 5

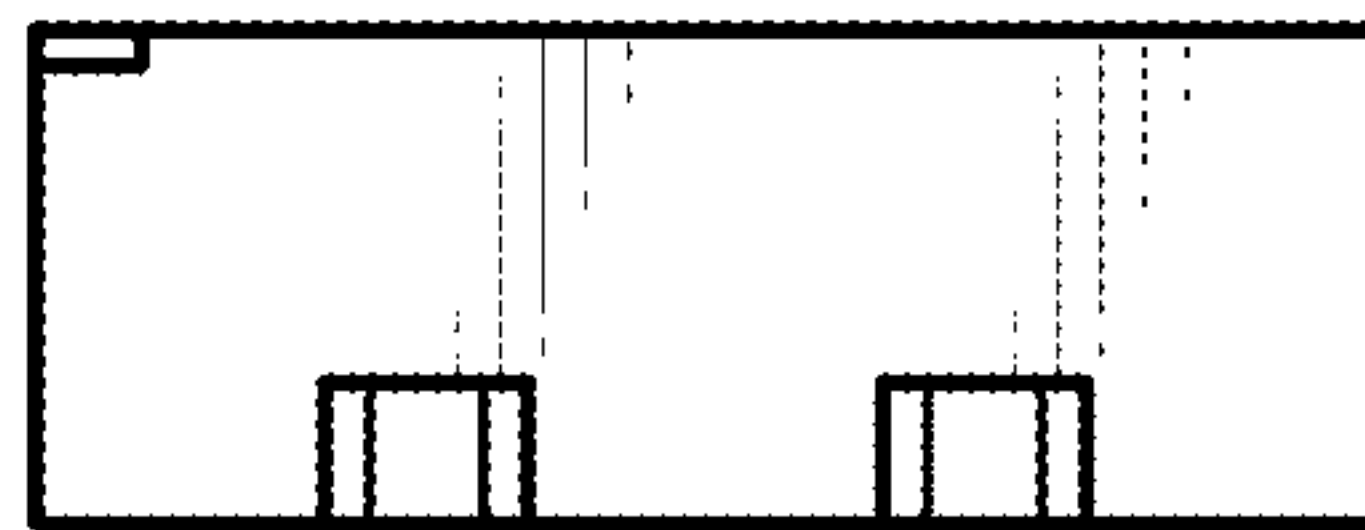


FIG. 6

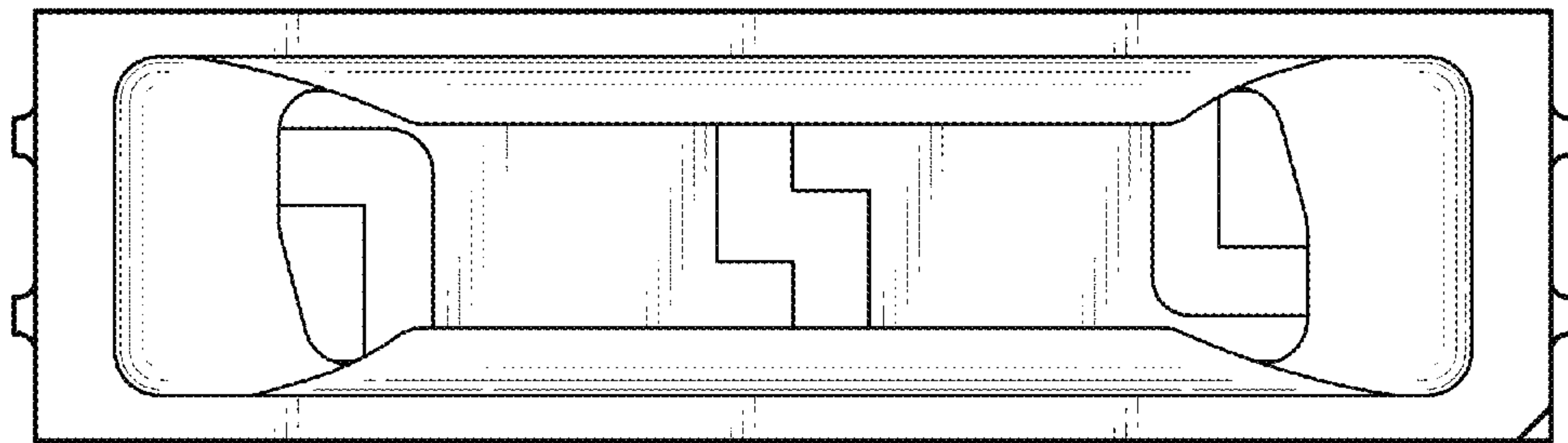


FIG. 7

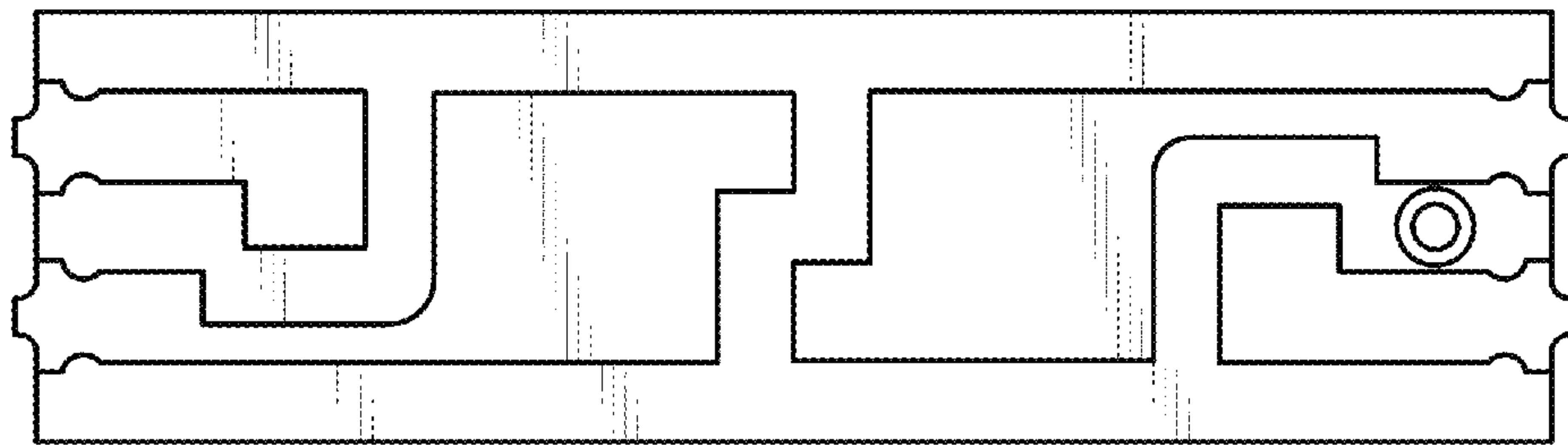


FIG. 8

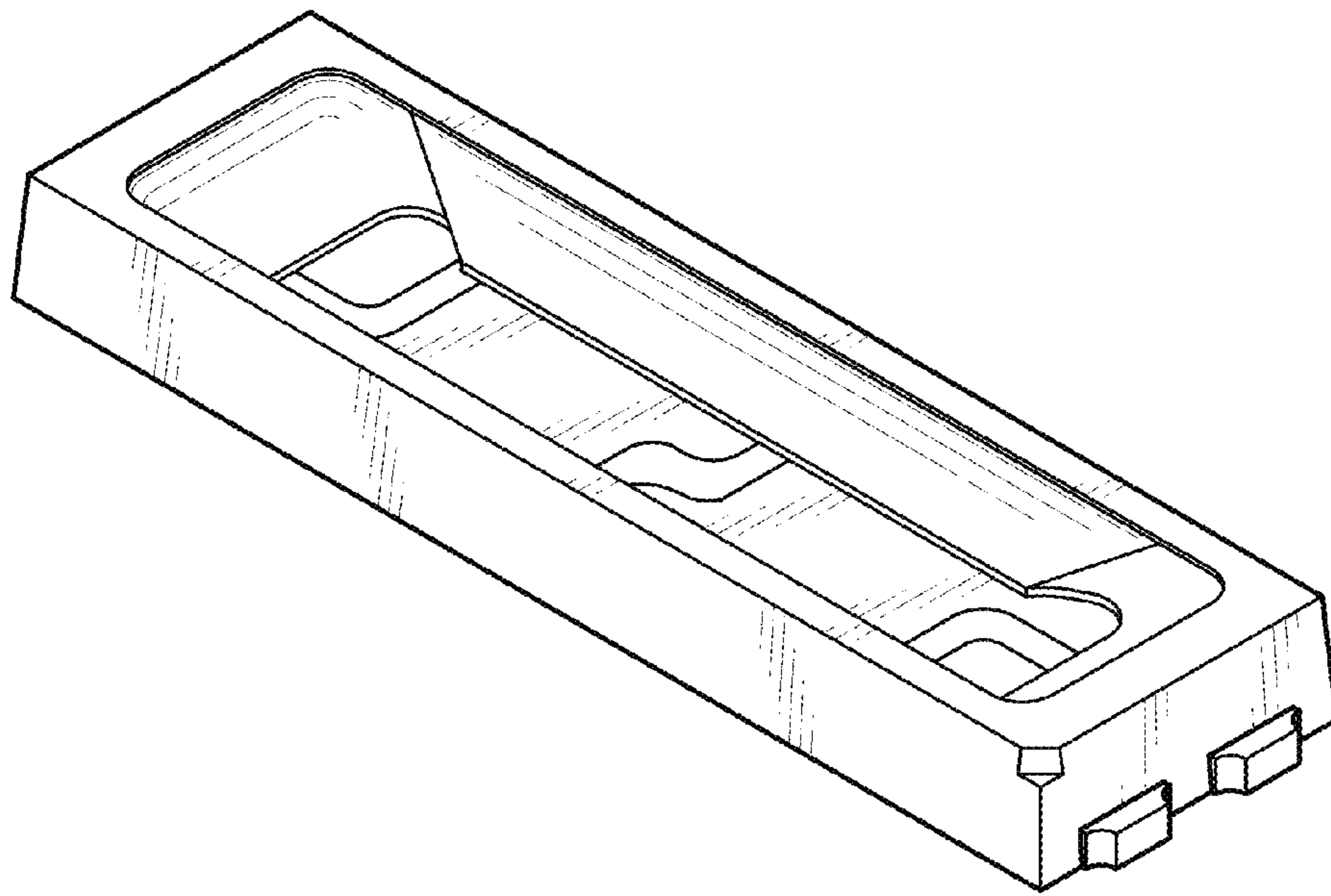


FIG. 9

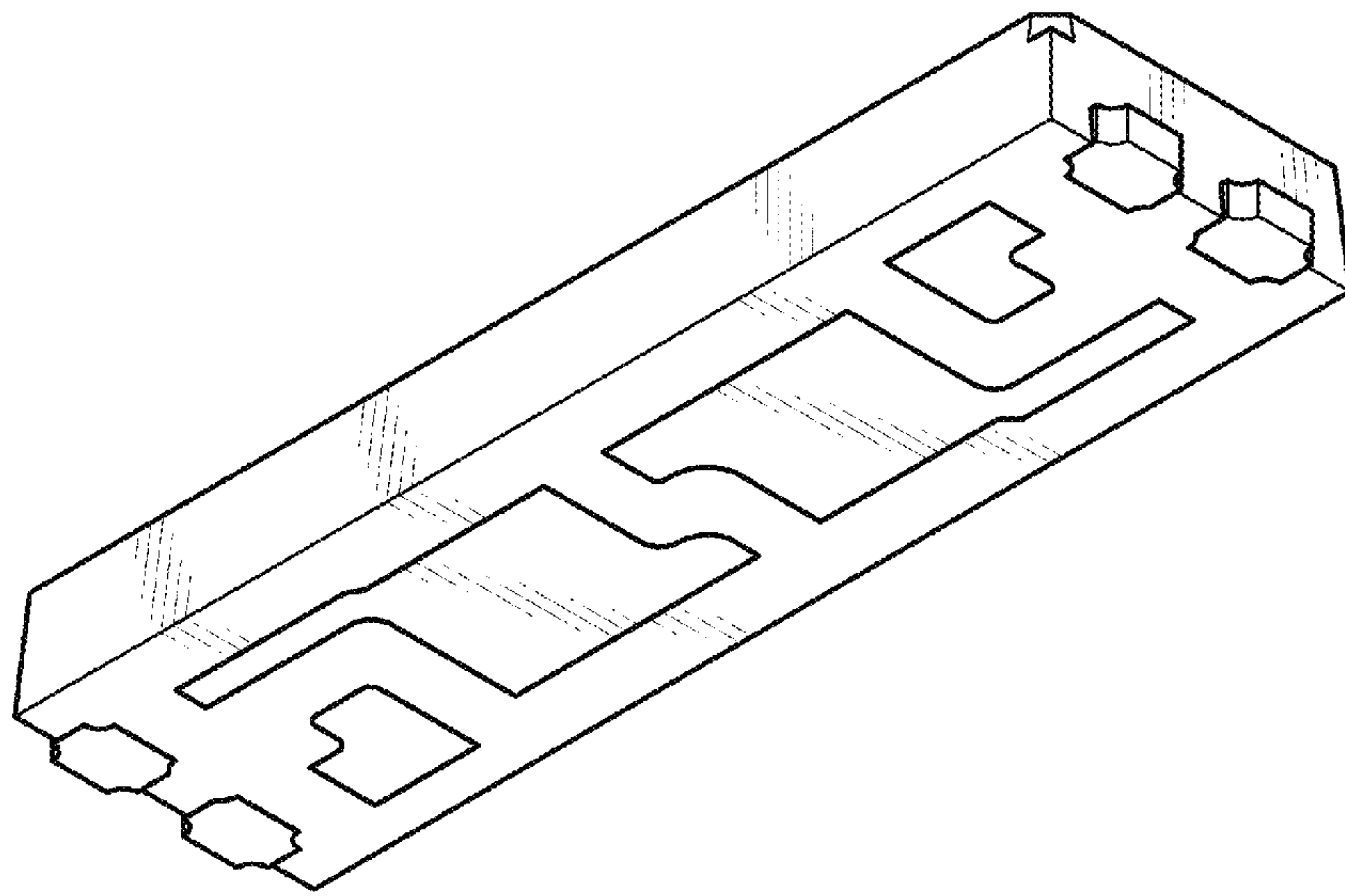


FIG. 10



FIG. 11



FIG. 12

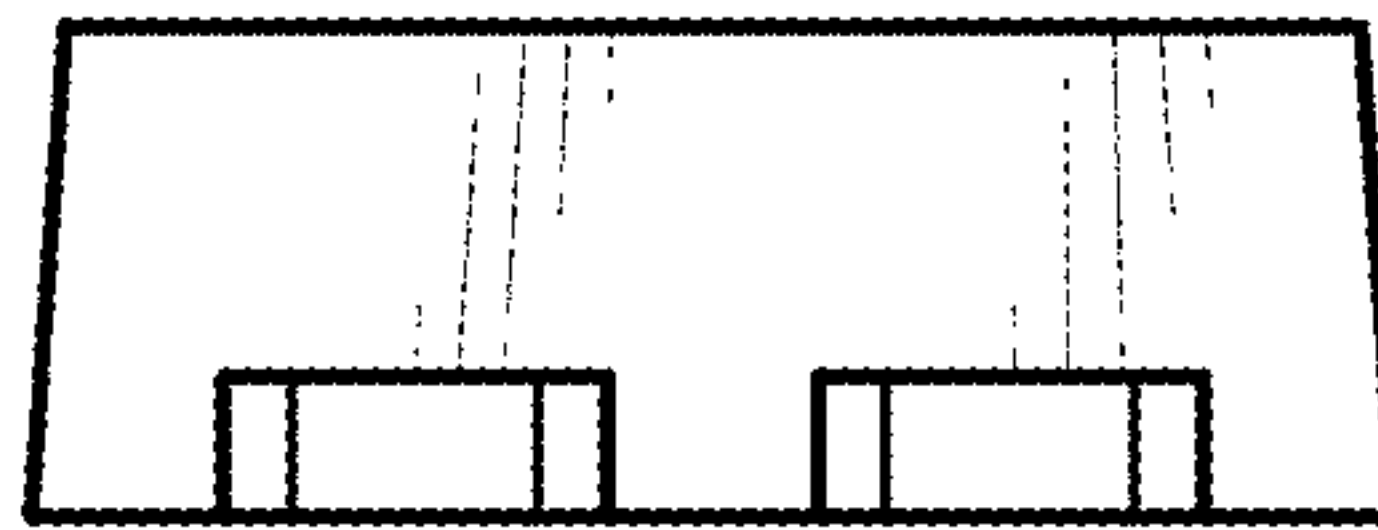


FIG. 13

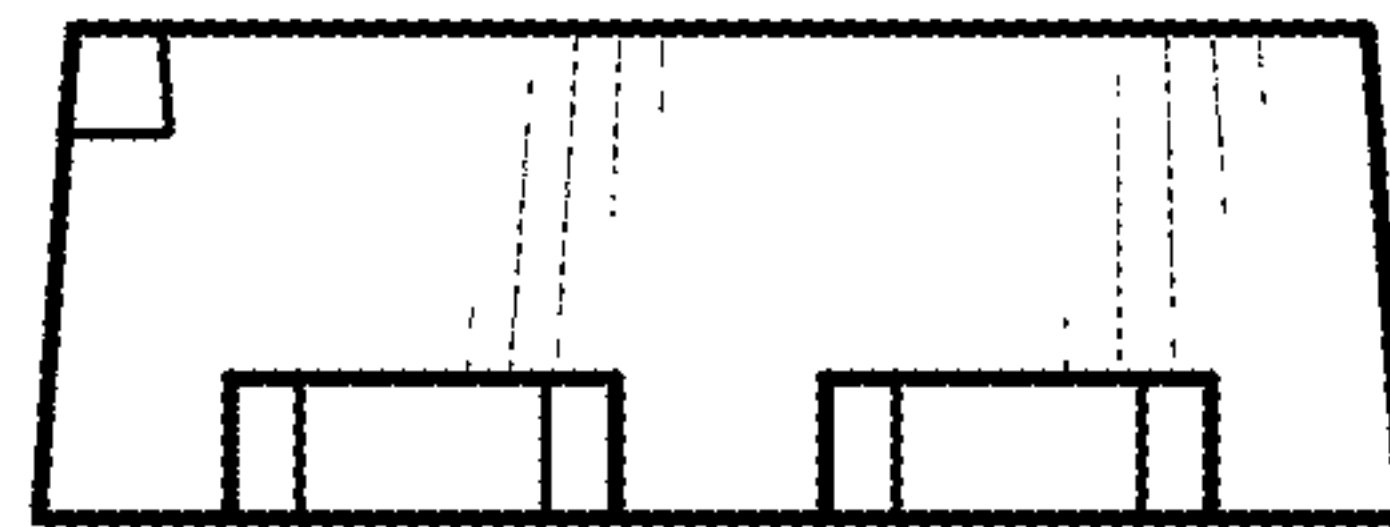


FIG. 14

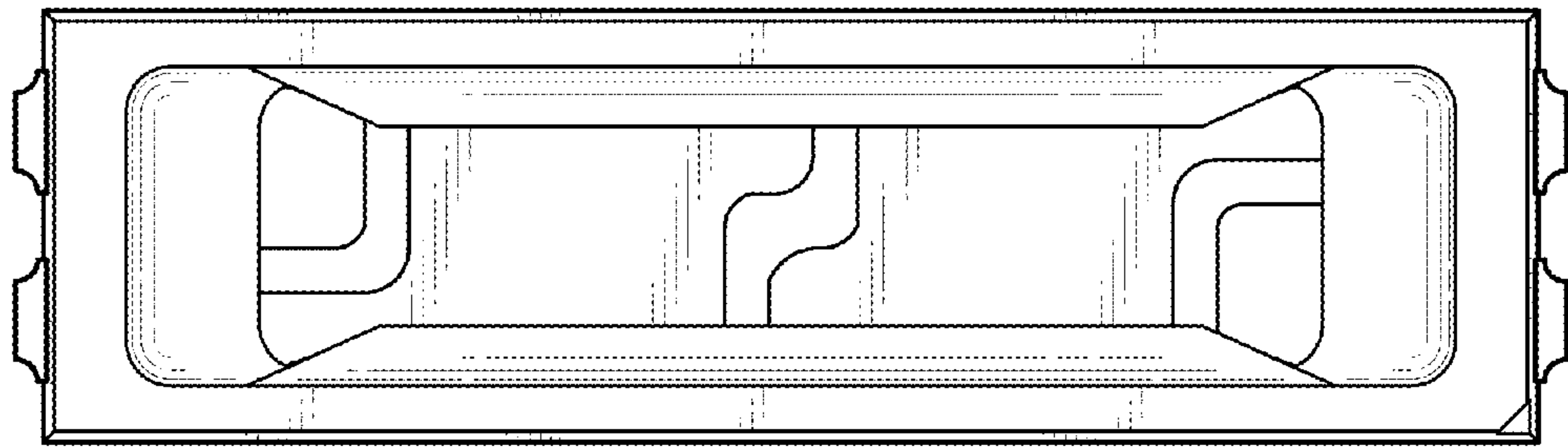


FIG. 15

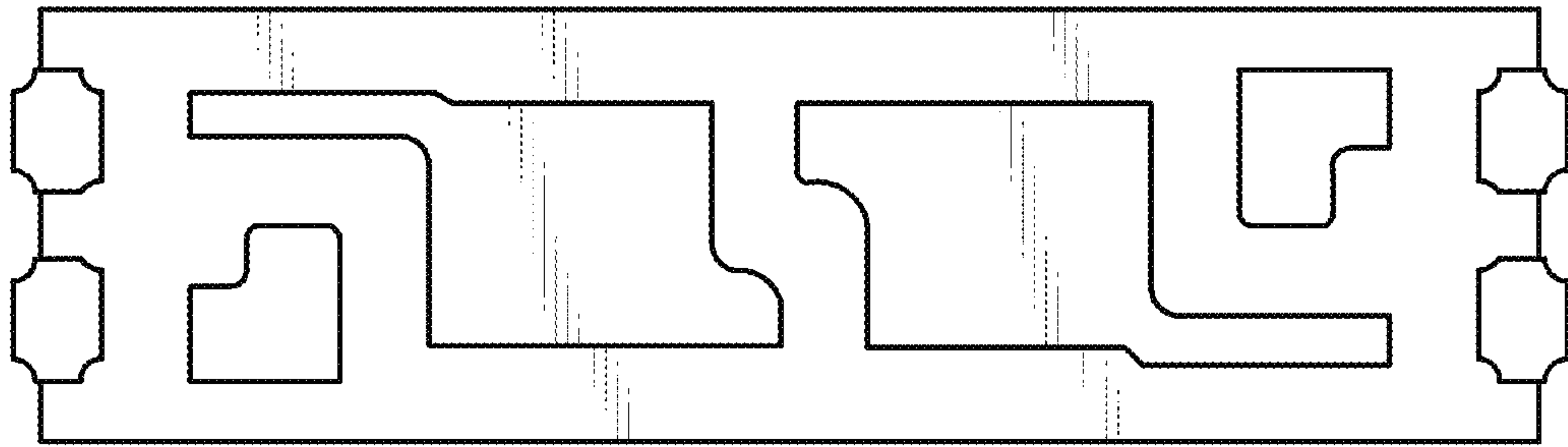


FIG. 16