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(12) **United States Design Patent** (10) **Patent No.:** **US D772,173 S**
Takano et al. (45) **Date of Patent:** **** Nov. 22, 2016**

(54) **I/O MODULE UNIT**

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

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(30) **Foreign Application Priority Data**

Jun. 26, 2015 (JP) 2015-014209

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

(52) **U.S. Cl.**
USPC **D13/162**

(58) **Field of Classification Search**
USPC D13/110, 162.1
CPC G05B 19/00; G05B 19/02; G05B 19/04;
G05B 19/042; G05B 19/0423; G05B 19/05;
G05B 19/054; G05B 19/056; H05K 7/1465;
H05K 7/1468; H05K 7/1479; H02J 13/0006
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D309,446 S * 7/1990 Russell D13/162.1
D329,844 S * 9/1992 Ishida D13/162
5,483,229 A * 1/1996 Tamura H05K 7/1468
340/691.7
5,493,194 A * 2/1996 Damiano G05B 19/414
307/71
5,984,734 A * 11/1999 Piper H01R 29/00
439/715
6,104,616 A * 8/2000 Benson, Jr. H05K 7/1461
312/223.2

6,147,877 A * 11/2000 Strandberg H01R 9/2408
361/679.4
D456,782 S * 5/2002 Nagai D13/162
D527,349 S * 8/2006 Lee D13/162.1
D609,195 S * 2/2010 Yamashita D13/162
8,189,350 B2 * 5/2012 Gaub G05B 19/042
361/823
2001/0039649 A1 * 11/2001 Boggs G06F 1/025
717/128
2001/0053619 A1 * 12/2001 Imoto G05B 19/0423
439/55
2004/0190232 A1 * 9/2004 Chang H05K 5/0021
361/679.02
2004/0267380 A1 * 12/2004 Lin G05B 19/05
700/1
2014/0048610 A1 * 2/2014 Abert G05D 23/01
236/93 R
2014/0118958 A1 * 5/2014 Hamada H05K 7/1474
361/728
2015/0017842 A1 * 1/2015 Jacobsson H01R 13/514
439/681
2015/0244107 A1 * 8/2015 Lostoski H01R 9/2408
439/352

* cited by examiner

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(57) **CLAIM**
 The ornamental design for an I/O module unit, as shown and described.

DESCRIPTION

FIG. 1 is a front, top and right perspective view of an I/O module unit showing our new design;
 FIG. 2 is a front, top and left perspective view thereof;
 FIG. 3 is a front view thereof;
 FIG. 4 is a rear view thereof;
 FIG. 5 is a top view thereof;
 FIG. 6 is a bottom view thereof;
 FIG. 7 is a left side view thereof;
 FIG. 8 is a right side view thereof; and,
 FIG. 9 is a perspective view thereof in use.
 The broken lines in FIG. 9 show environment that forms no part of the claimed design.

1 Claim, 9 Drawing Sheets

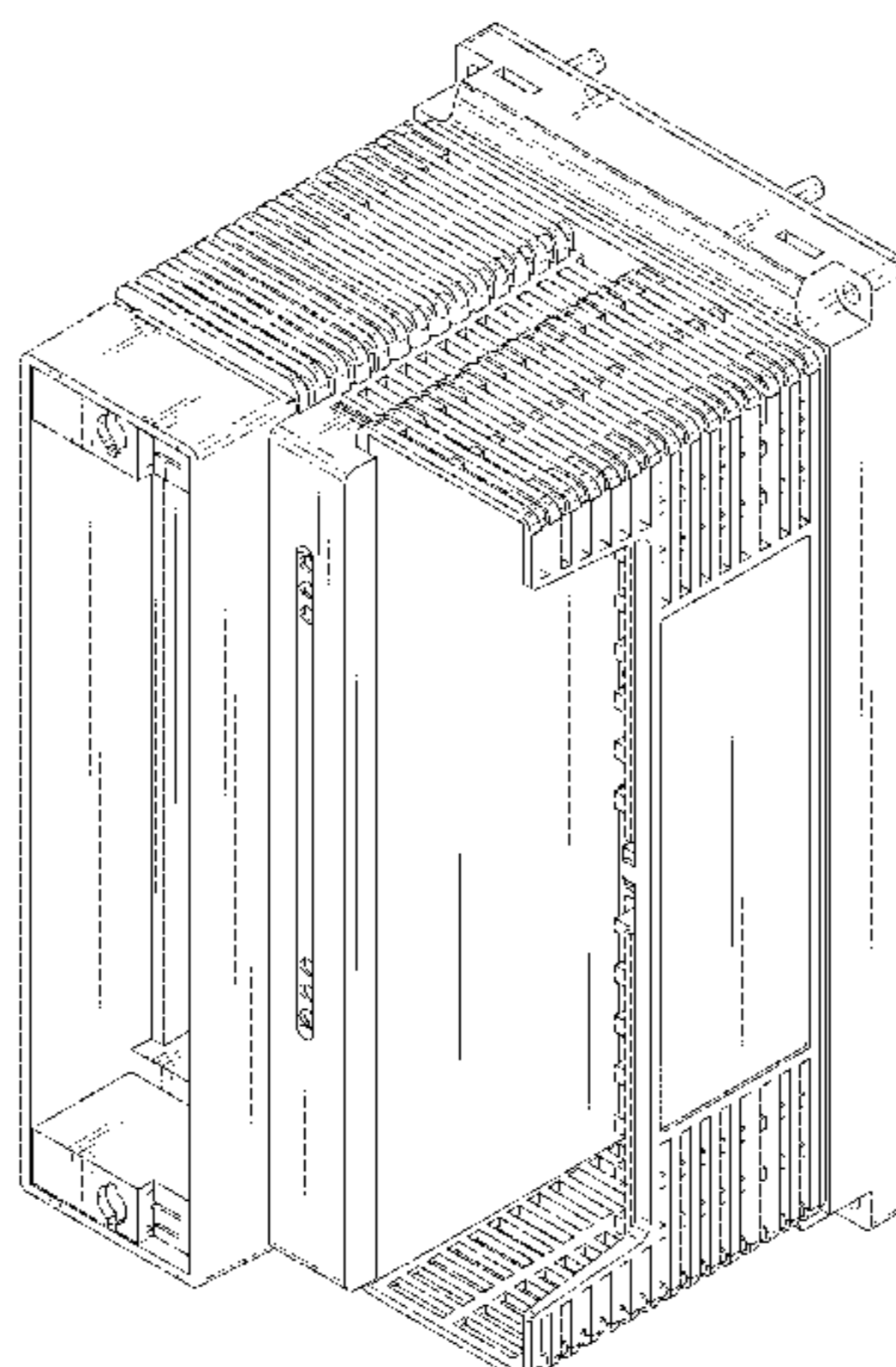


Fig. 1

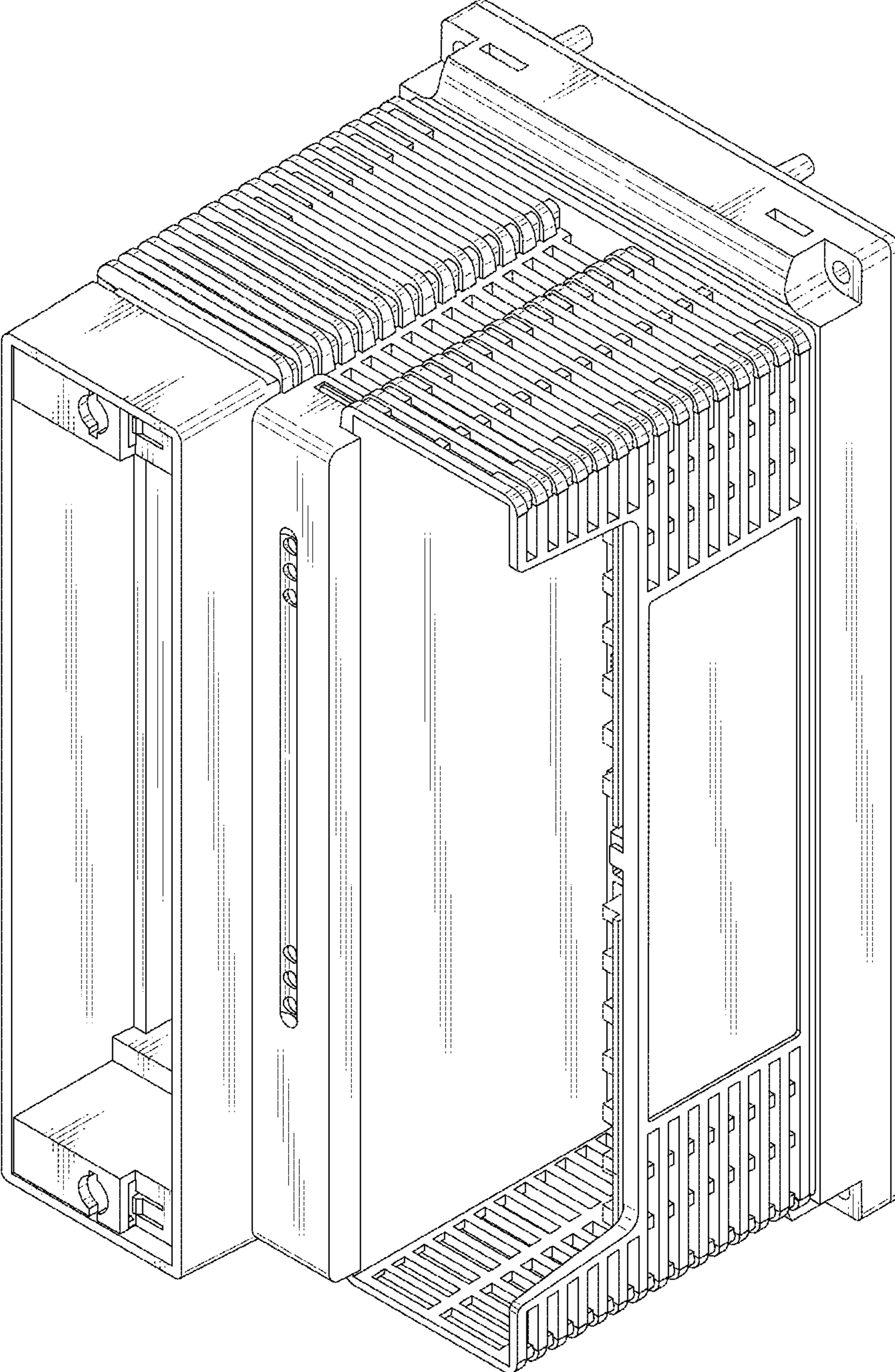


Fig. 2

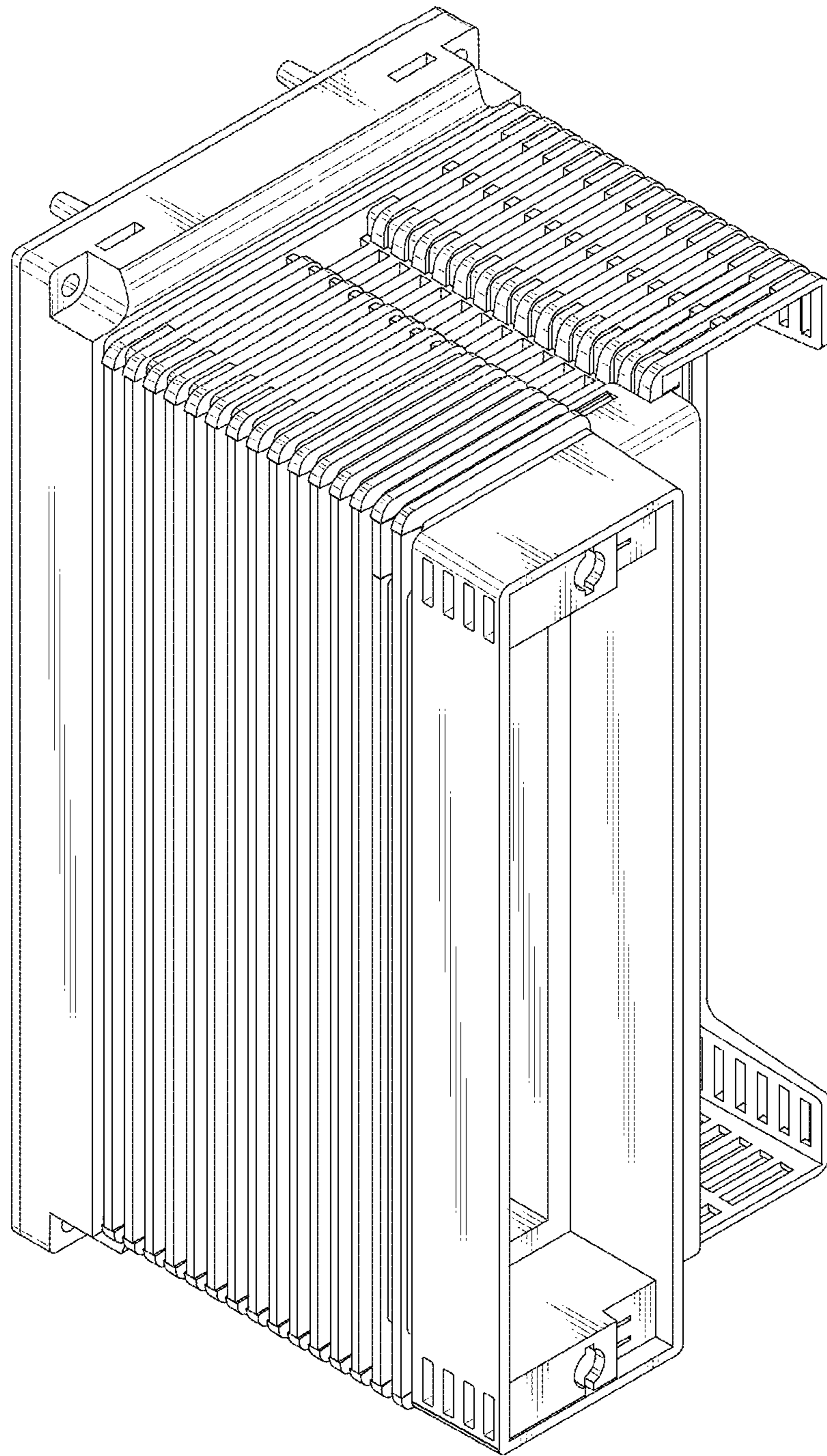


Fig. 3

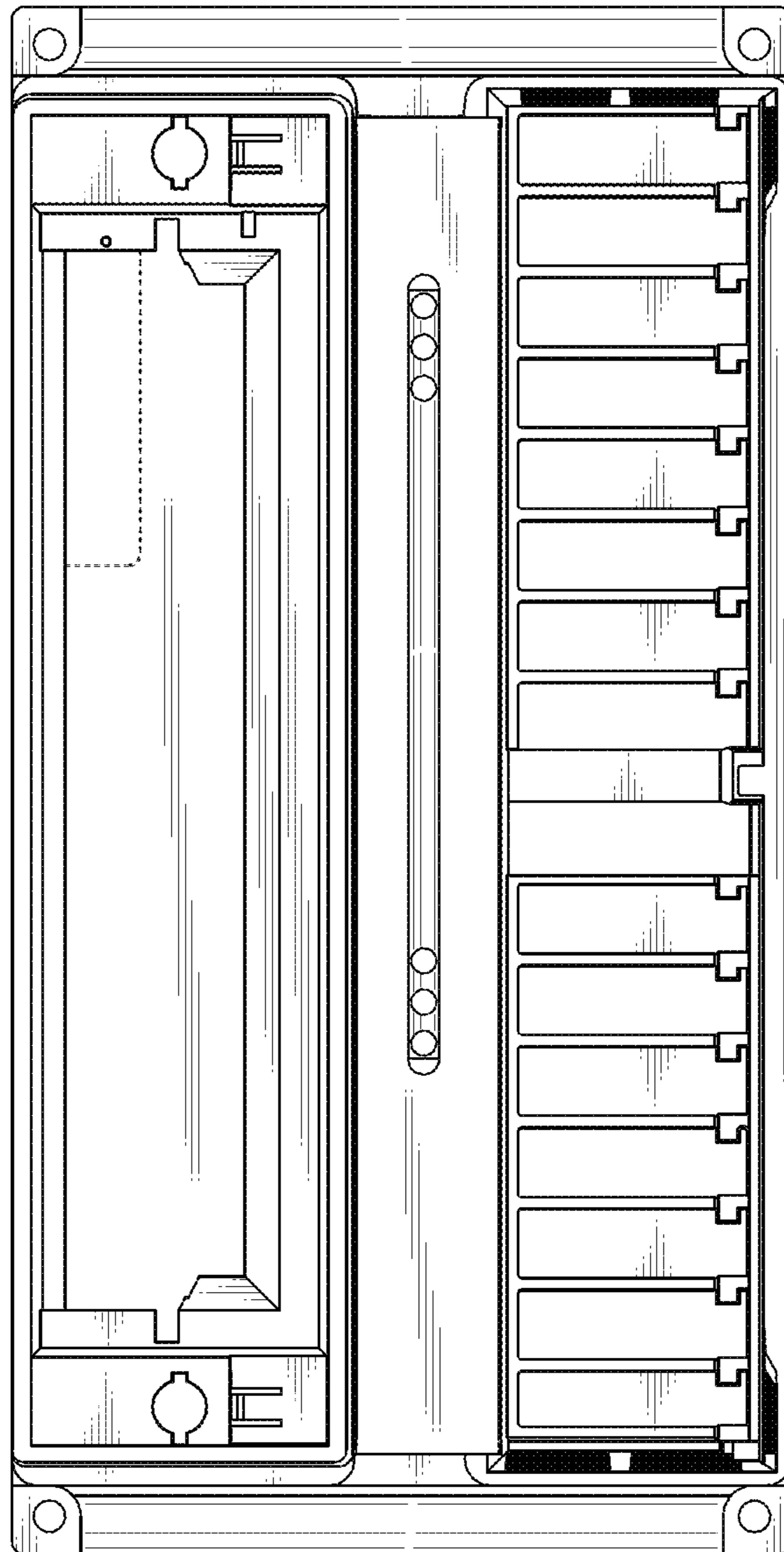


Fig. 4

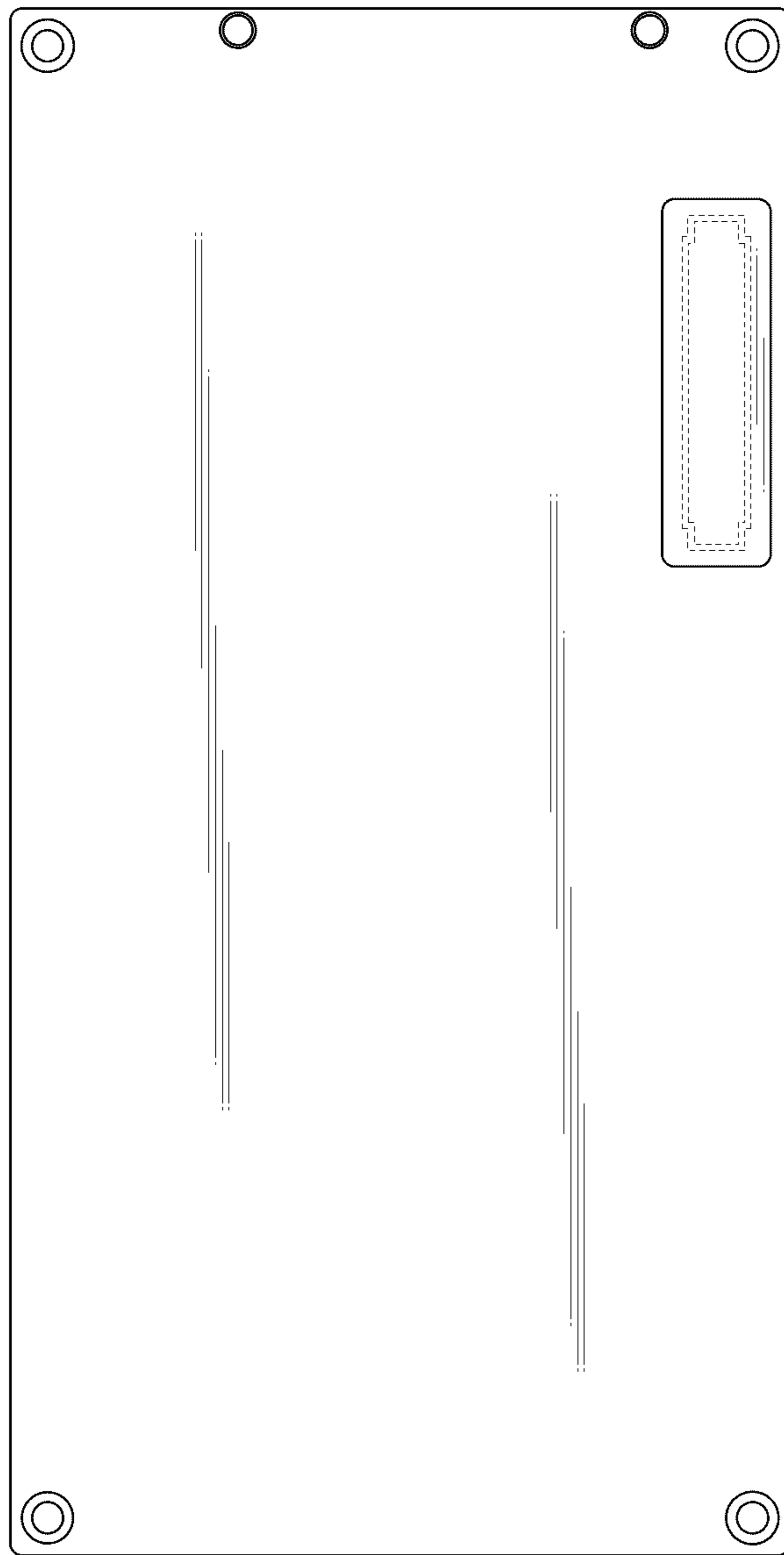


Fig. 5

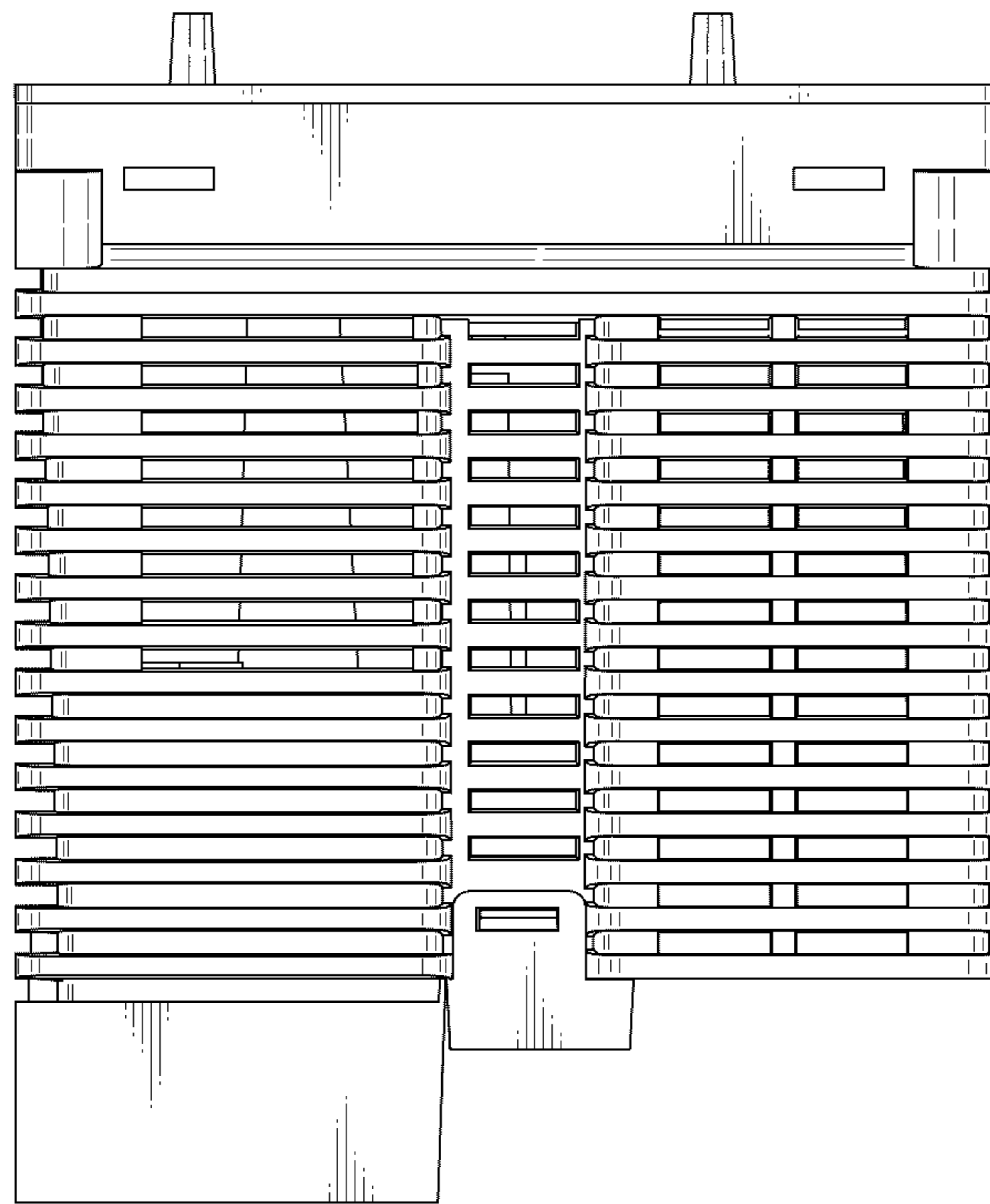


Fig. 6

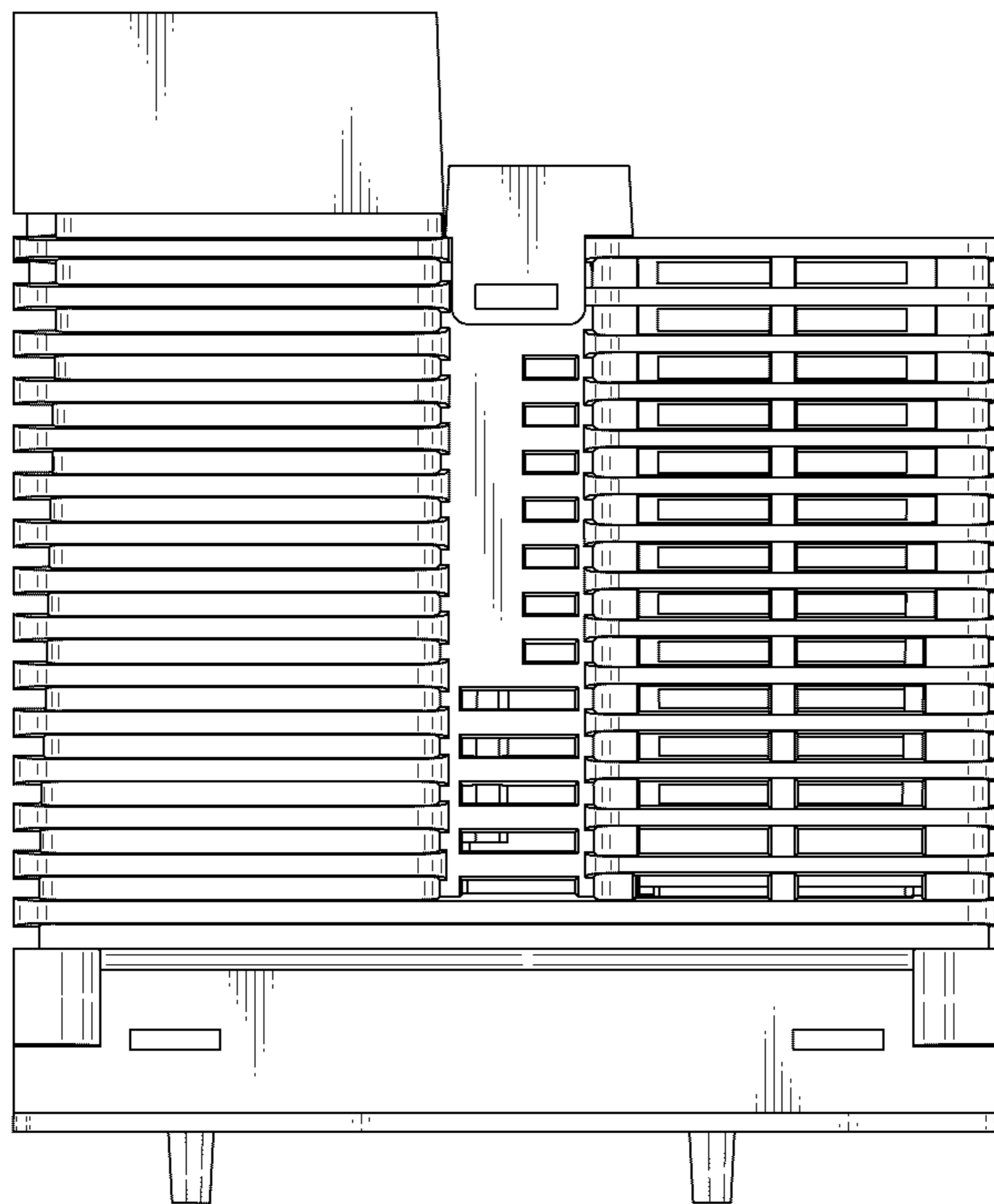


Fig. 7

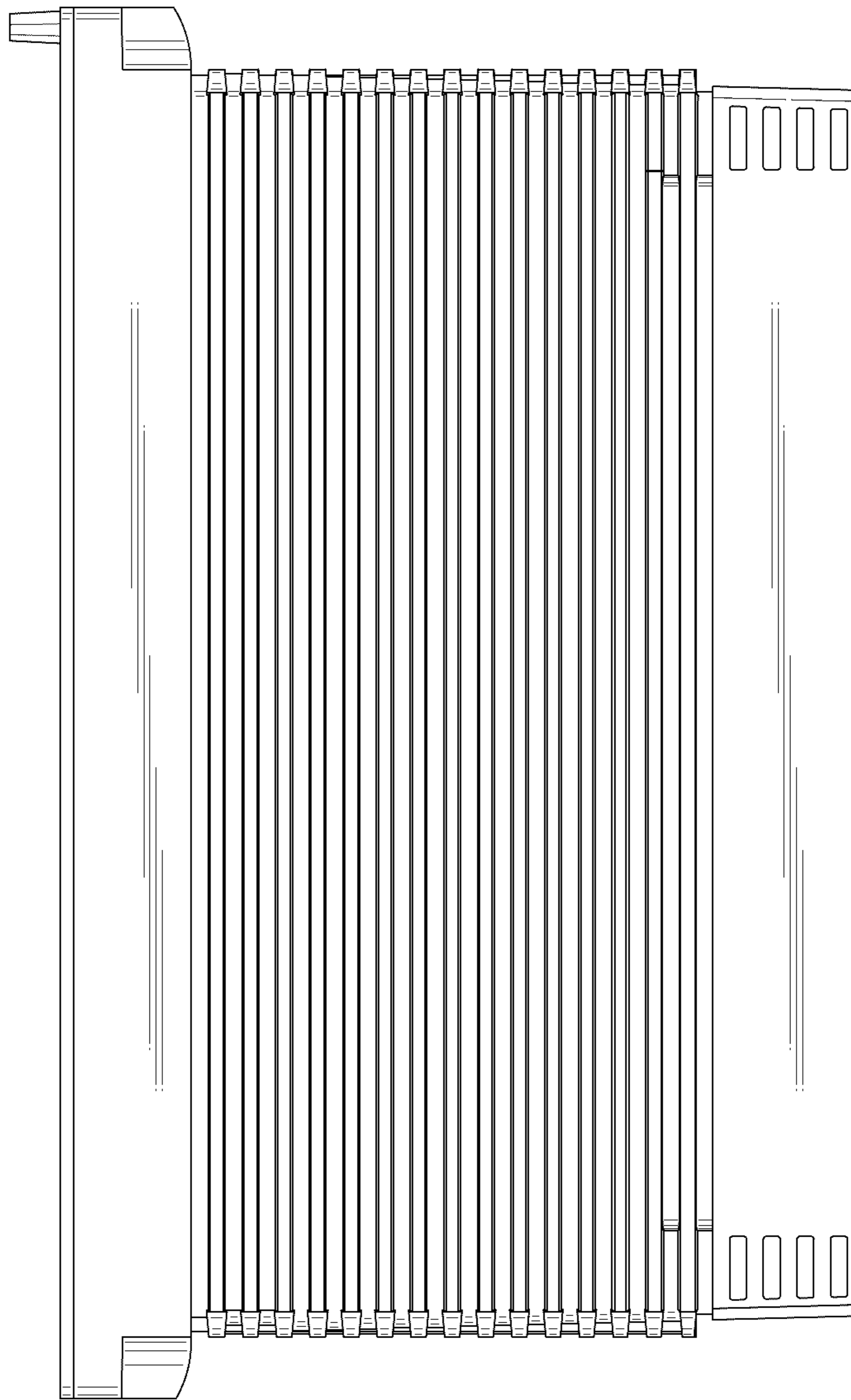


Fig. 8

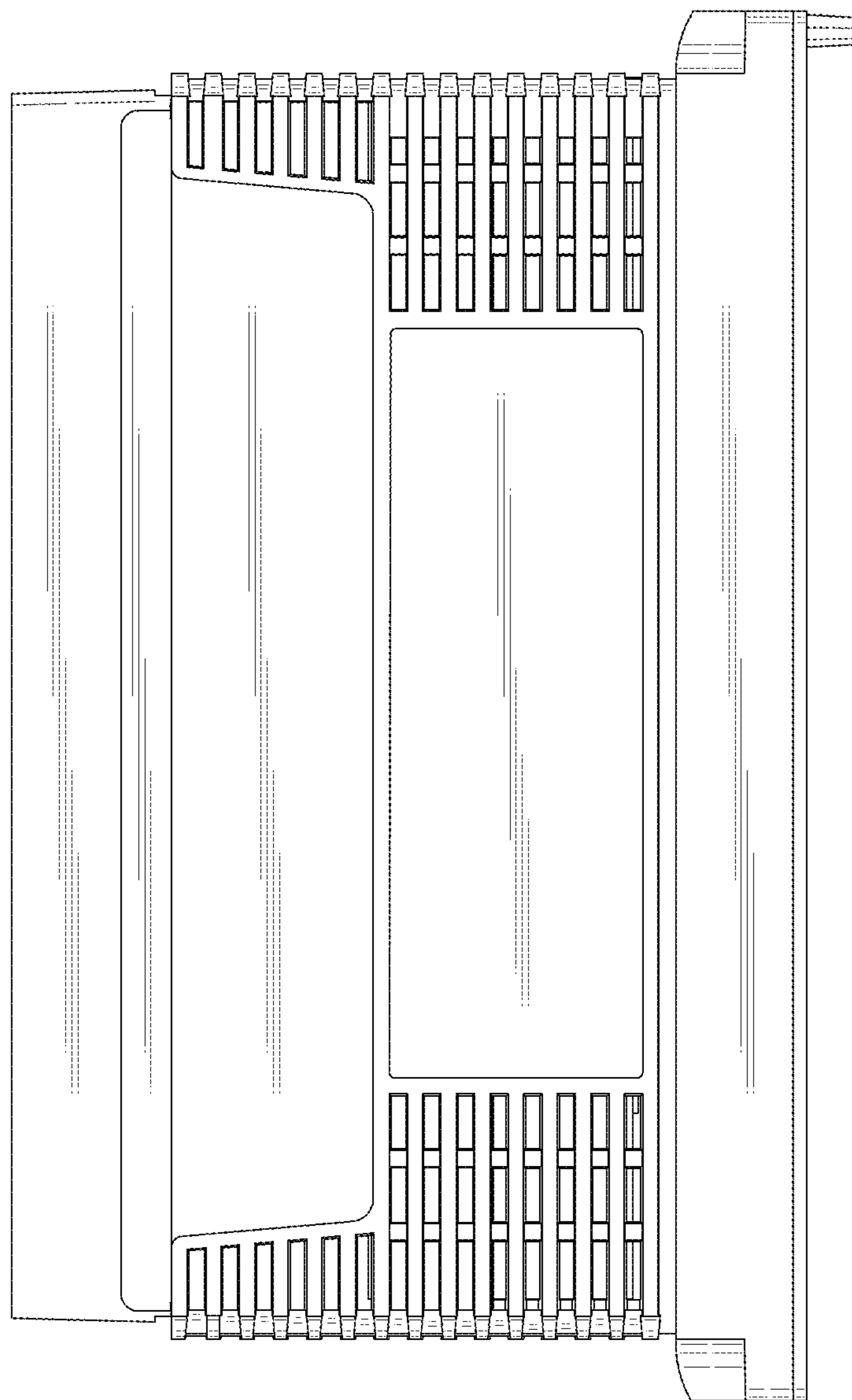


Fig. 9

