



US00D628267S

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

(10) **Patent No.:** **US D628,267 S**

(45) **Date of Patent:** **** *Nov. 30, 2010**

(54) **SINTERING TRAY**

(75) Inventors: **Rainer K. Dittmann**, München (DE);
Anthony A. Bredebusch, Landsberg am
Lech (DE); **Christian A. Richter**,
Feldafing (DE); **Anja B. Fischer**,
Seefeld/Hechendorf (DE)

2006/0018780 A1 1/2006 Hosamani et al.
2006/0082033 A1 4/2006 Hauptmann et al.
2006/0117989 A1 6/2006 Hauptmann et al.
2008/0199823 A1 8/2008 Miller

(Continued)

(73) Assignee: **3M Innovative Properties Company**,
St. Paul, MN (US)

FOREIGN PATENT DOCUMENTS

DE 10052203 A1 4/2001

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

(21) Appl. No.: **29/342,971**

(Continued)

(22) Filed: **Sep. 3, 2009**

OTHER PUBLICATIONS

(30) **Foreign Application Priority Data**

U.S. Appl. No. 29/342,964, published Sep. 3, 2009, Dittmann et al.

Mar. 3, 2009 (EM) 1097760-1/6

(Continued)

(51) **LOC (9) Cl.** **23-01**

Primary Examiner—Robin V Webster

(52) **U.S. Cl.** **D23/209; D23/365; D23/499;**
D34/38

(74) *Attorney, Agent, or Firm*—Pamela L. Stewart

(58) **Field of Classification Search** **D23/207,**
D23/209, 365, 499; 428/408, 688, 698;
55/499; D34/38; D7/388; 108/51.11; 264/605
See application file for complete search history.

(57) **CLAIM**

The ornamental design for a sintering tray, as shown and described.

(56) **References Cited**

DESCRIPTION

U.S. PATENT DOCUMENTS

D221,745 S * 9/1971 Holdredge D34/38
4,184,840 A 1/1980 Gamberg et al.
D256,273 S * 8/1980 Townsend et al. D23/336
4,348,176 A 9/1982 Gamble et al.
D307,462 S * 4/1990 Merkouris D23/209
4,925,561 A * 5/1990 Ishii et al. 210/493.3
5,993,970 A 11/1999 Oscarsson et al.
D476,725 S * 7/2003 Dushek et al. D23/365
6,709,694 B1 3/2004 Suttor et al.
6,756,421 B1 6/2004 Todo et al.
D544,949 S * 6/2007 Winters et al. D23/365
D571,608 S * 6/2008 Yeung D7/388
7,624,688 B2 * 12/2009 Kulbeth et al. 108/51.11
2002/0184922 A1 12/2002 Dick et al.

FIG. 1 is a perspective view showing the new design for a sintering tray;

FIG. 2 is a top plan view thereof;

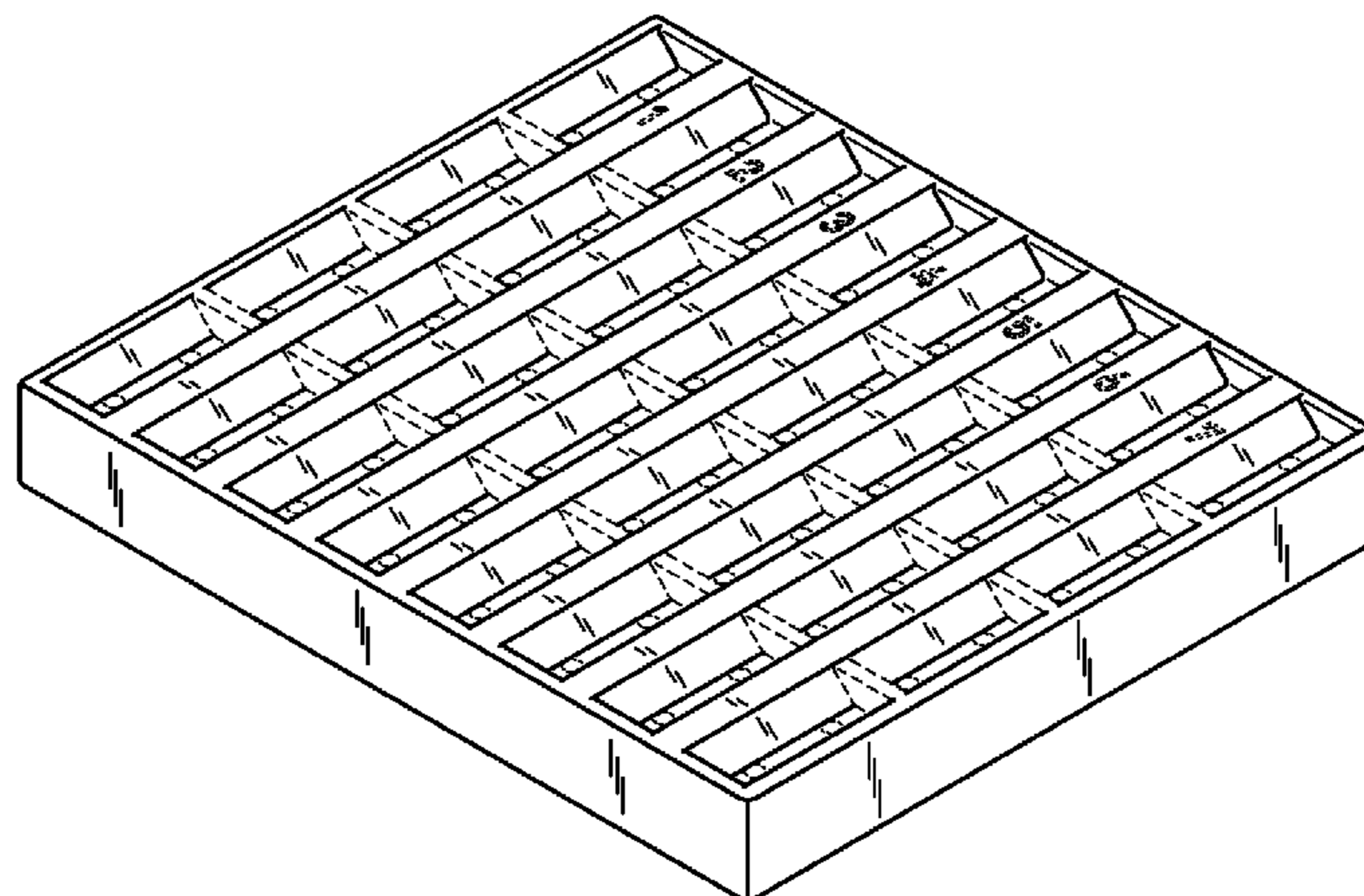
FIG. 3 is a bottom plan view thereof;

FIG. 4 is a front side elevational view thereof, the rear side elevational view (not shown) being identical thereto; and,

FIG. 5 is a right side elevational view thereof, the left side elevational view (not shown) being identical thereto.

The broken lines are included for the purpose of illustrating the environment only and form no part of the claimed design.

1 Claim, 2 Drawing Sheets



U.S. PATENT DOCUMENTS

2008/0286718 A1 11/2008 Franke et al.

FOREIGN PATENT DOCUMENTS

JP	3-296006		12/1991
SU	1699982	A1	12/1991
WO	97/07078		2/1997
WO	2008/098157	A1	8/2008

OTHER PUBLICATIONS

U.S. Appl. No. 29/342,968, published Sep. 3, 2009, Dittmann et al.
U.S. Appl. No. 29/342,969, published Sep. 3, 2009, Dittmann et al.
U.S. Appl. No. 29/342,976, published Sep. 3, 2009, Dittmann et al.
U.S. Appl. No. 29/342,979, published Sep. 3, 2009, Dittmann et al.
International Search Report dated May 13, 2010, for PCT/US2010/26745, 3 pages.

“Lava 200™ Furnace 200, Faster sintering made easy”, 3MESPE, St. Paul, MN, USA [on line], retrieved from the internet prior to Mar. 12, 2009. URL <http://solutions.3m.com/wps/portal/3M/en_US/3M-ESPE/dental-professionals/products/category/cad-cam/lava-furnace-200/>, pp. 12.

“Fabrication of Kiln Furniture with Variable Geometry Especially for Technical Ceramics”, Kollenberg, Wolfgang and Nikolay, Dieter; Werkstoffzentrum Rheinbach GmbH, Lise-Meitner-Straße 1, 53359 Rheinbach, [on line], retrieved from the internet prior to Mar. 12, 2009. URL <<http://www.werkstoffzentrum.de>>, pp. 5.

“Realisierung Keramischer Prototyping mittels 3D-Druck and Heißgießen”, Kindtner et al., Werkstoffzentrum Rheinbach GmbH, Lise-Meitner-Str. 1, 53359 Rheinbach [on line]. retrieved from the internet prior to Mar. 12, 2009. URL <http://www.werkstoffzentrum.de>, pp. 9.

* cited by examiner

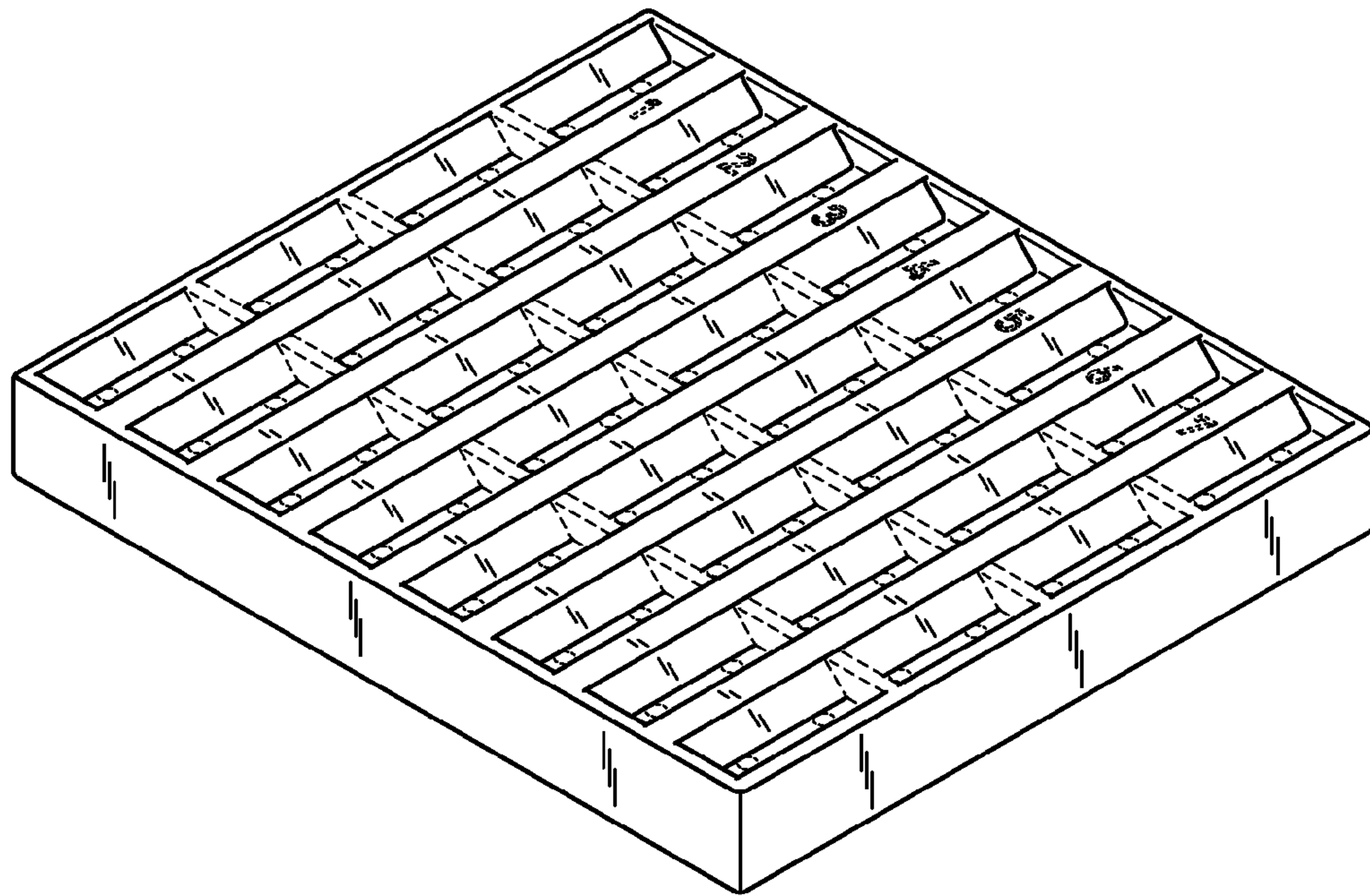


FIG. 1

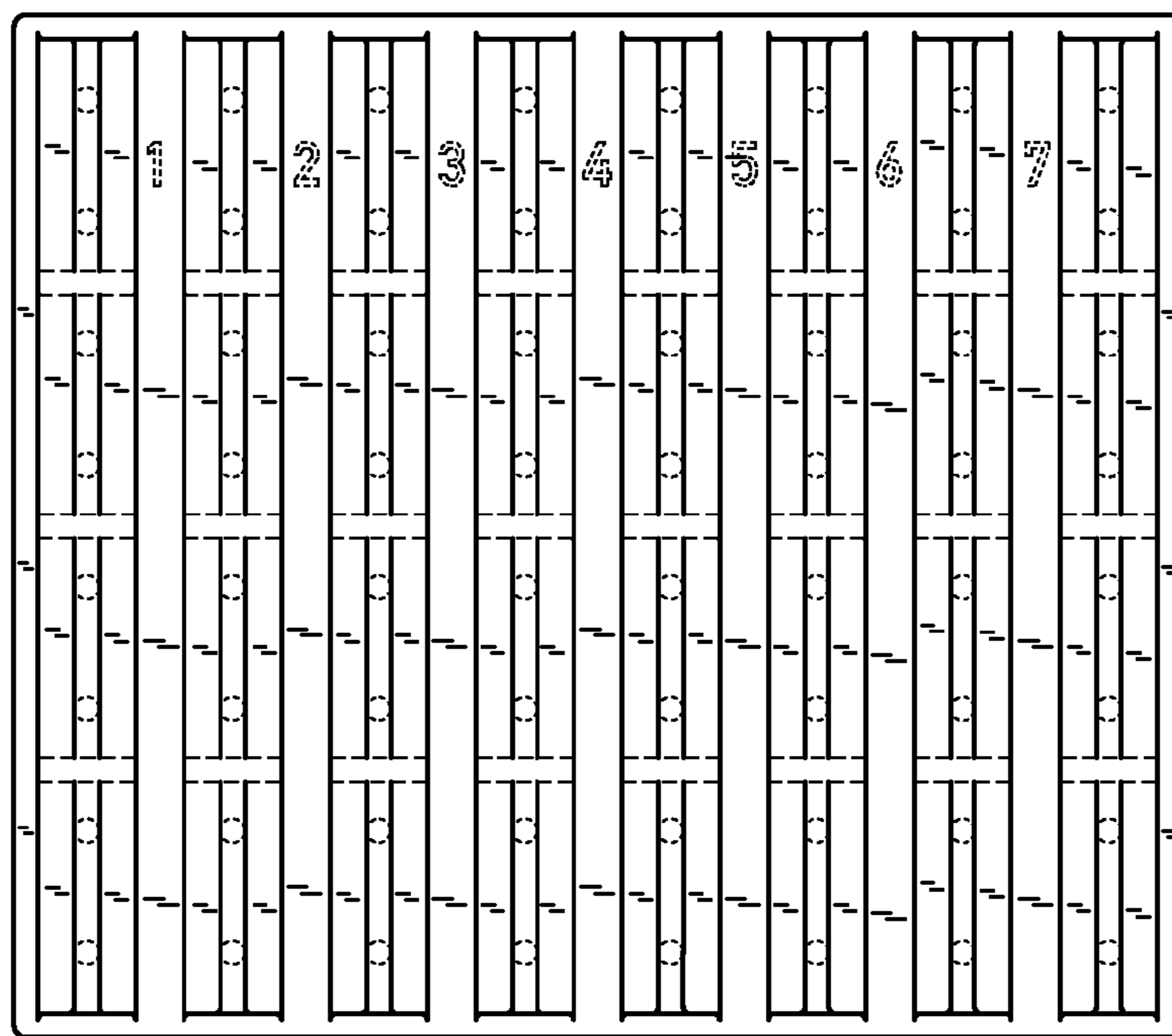


FIG. 2

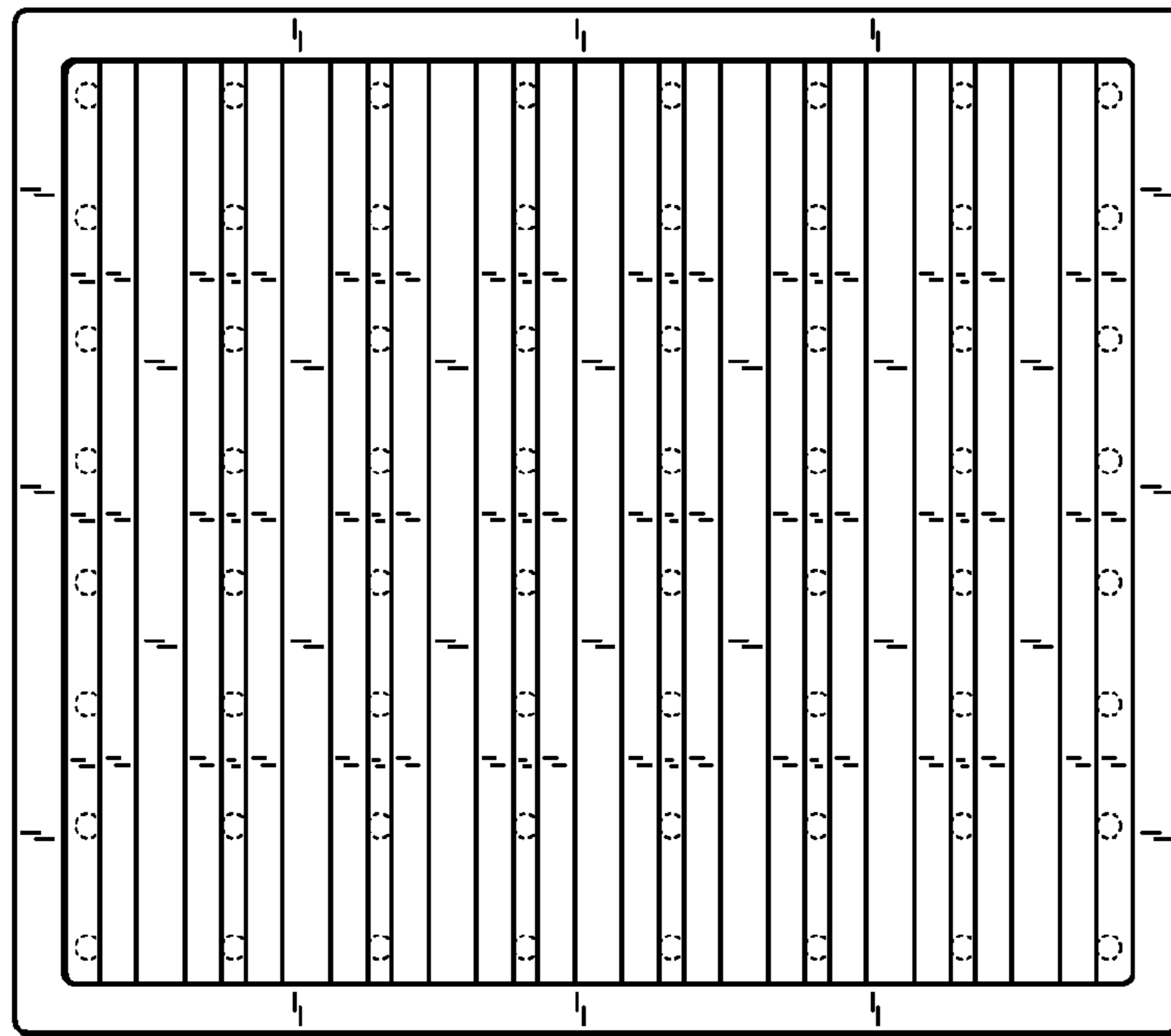


FIG. 3

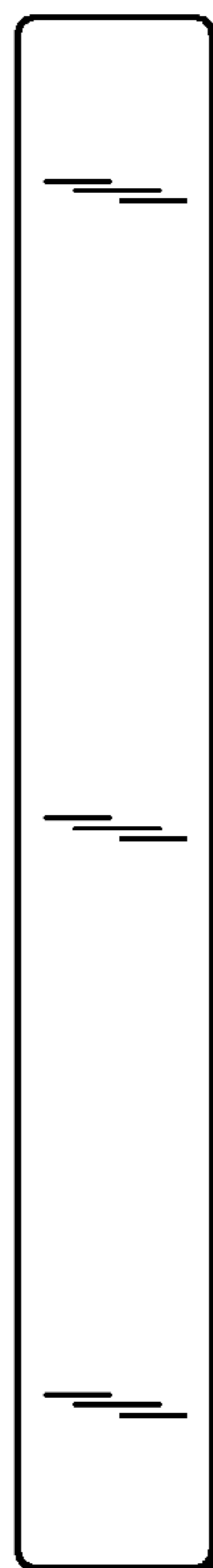


FIG. 4



FIG. 5