

US00D528994S

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

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(45) **Date of Patent:** **** Sep. 26, 2006**

(54) **LIGHT EMITTING DIODE MODULE**

JP D1191624 12/2003

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(57) **CLAIM**

We claim the ornamental design for a light emitting diode module, as shown and described.

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

DESCRIPTION

(21) Appl. No.: **29/219,402**

(22) Filed: **Dec. 16, 2004**

(30) **Foreign Application Priority Data**

| | | | |
|---------------|------|-------|-------------|
| Jun. 18, 2004 | (JP) | | 2004-018278 |
| Jun. 18, 2004 | (JP) | | 2004-018279 |
| Jun. 18, 2004 | (JP) | | 2004-018280 |
| Jun. 18, 2004 | (JP) | | 2004-018281 |

FIG. 1 is a top perspective view of a first embodiment of a light emitting diode module of the present invention;
 FIG. 2 is a top view thereof;
 FIG. 3 is a first side view thereof, wherein the second side view is a mirror image thereof;
 FIG. 4 is a third side view thereof, wherein the fourth side view is a mirror image thereof;
 FIG. 5 is a top perspective view of a second embodiment of a light emitting diode module of the present invention;
 FIG. 6 is a top view thereof;
 FIG. 7 is a first side view thereof, wherein the second side view is a mirror image thereof;
 FIG. 8 is a third side view thereof, wherein the fourth side view is a mirror image thereof;
 FIG. 9 is a top perspective view of a third embodiment of a light emitting diode module of the present invention;
 FIG. 10 is a top view thereof;
 FIG. 11 is a first side view thereof, wherein the second side view is a mirror image thereof;
 FIG. 12 is a third side view thereof, wherein the fourth side view is a mirror image thereof;
 FIG. 13 is a top perspective view of a fourth embodiment of a light emitting diode module of the present invention;
 FIG. 14 is a top view thereof;
 FIG. 15 is a first side view thereof, wherein the second side view is a mirror image thereof; and,
 FIG. 16 is a third side view thereof, wherein the fourth side view is a mirror image thereof.
 The bottom view of each embodiment of the light emitting diode module of the present invention is flat and unornamented.

(51) **LOC (8) Cl.** **13-03**

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

(58) **Field of Classification Search** D13/180;
D26/2; 257/79, 80, 81, 82, 88, 89, 95, 98,
257/99, 100, 678, 680, 433, 434; 313/483,
313/498, 500; 361/820; 362/235, 555, 800;
372/45.01

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

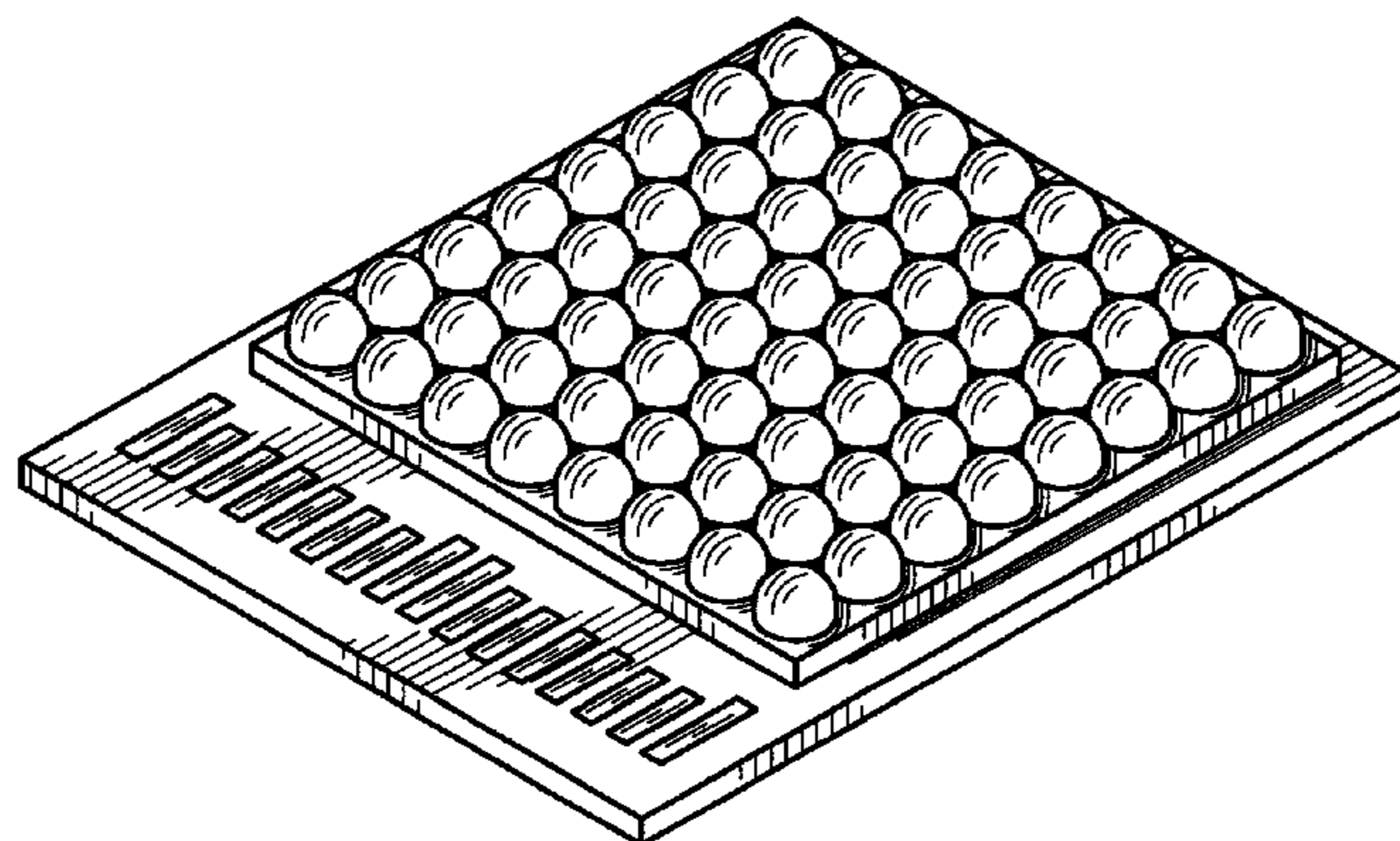
D262,405 S 12/1981 Zabransky

(Continued)

FOREIGN PATENT DOCUMENTS

| | | |
|----|----------|---------|
| JP | D1182538 | 8/2003 |
| JP | D1182540 | 8/2003 |
| JP | D1182541 | 8/2003 |
| JP | D1182542 | 8/2003 |
| JP | D1182543 | 8/2003 |
| JP | D1183708 | 9/2003 |
| JP | D1190712 | 11/2003 |

1 Claim, 16 Drawing Sheets



US D528,994 S

Page 2

U.S. PATENT DOCUMENTS

| | | | | | | | | | |
|-----------|------|---------|---------------------|---------|--------------|------|---------|---------------------|---------|
| 5,313,365 | A * | 5/1994 | Pennisi et al. | 361/760 | D494,287 | S | 8/2004 | Matsui et al. | |
| 5,808,592 | A | 9/1998 | Mizutani et al. | | D494,288 | S | 8/2004 | Matsui et al. | |
| 6,071,755 | A * | 6/2000 | Baba et al. | 438/106 | D494,687 | S | 8/2004 | Matsui et al. | |
| 6,220,722 | B1 | 4/2001 | Begemann | | 6,891,200 | B1 * | 5/2005 | Nagai et al. | 257/88 |
| 6,391,687 | B1 * | 5/2002 | Cabahug et al. | 438/123 | 6,949,772 | B1 * | 9/2005 | Shimizu et al. | 257/99 |
| 6,502,956 | B1 | 1/2003 | Wu | | D514,530 | S * | 2/2006 | Matsui et al. | D13/180 |
| D474,848 | S | 5/2003 | Lodhie | | D515,517 | S * | 2/2006 | Matsui et al. | D13/180 |
| 6,659,632 | B1 | 12/2003 | Chen | | 2003/0189829 | A1 * | 10/2003 | Shimizu et al. | 362/240 |
| D494,286 | S | 8/2004 | Matsui et al. | | | | | | |

* cited by examiner

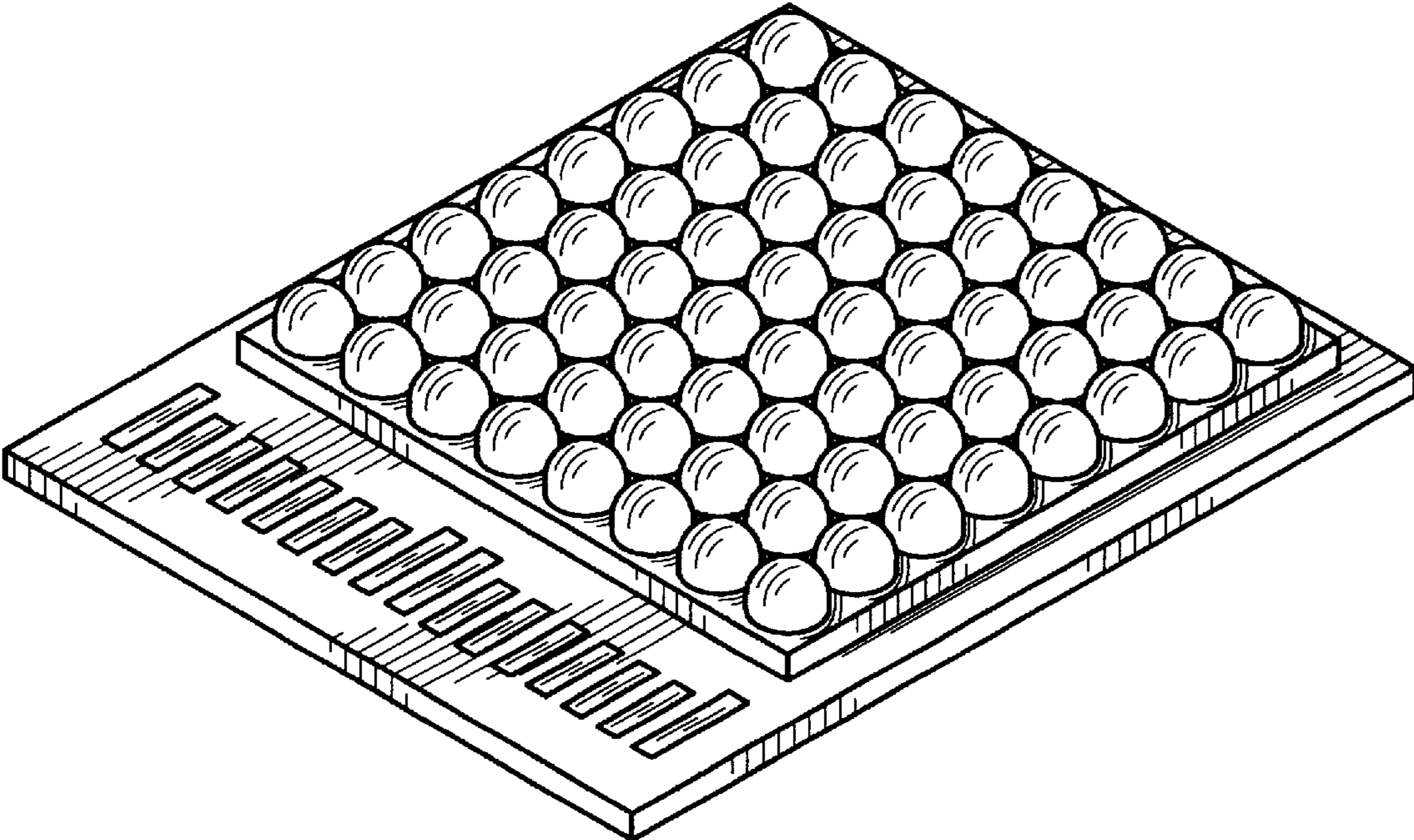


FIG. 1

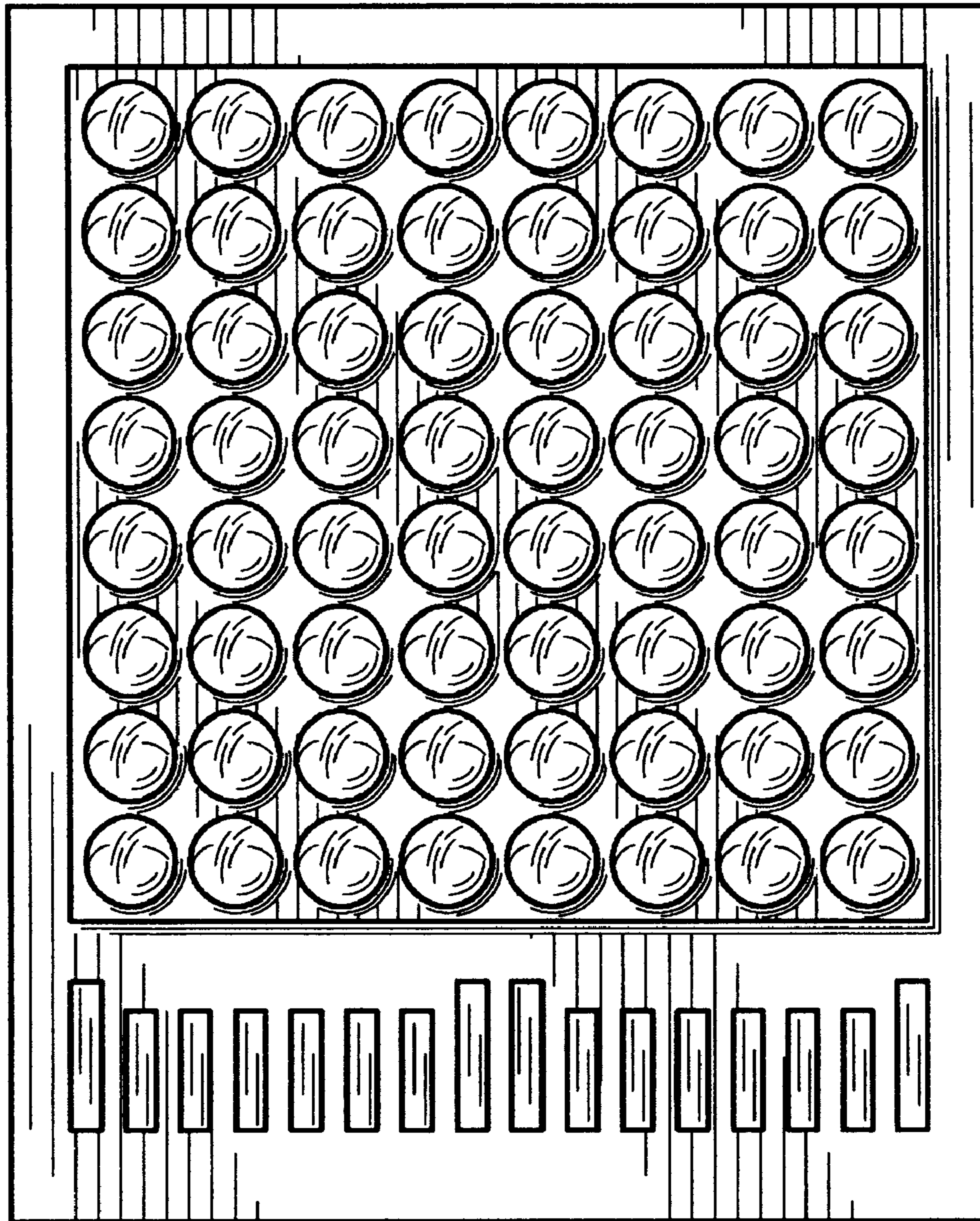


FIG. 2

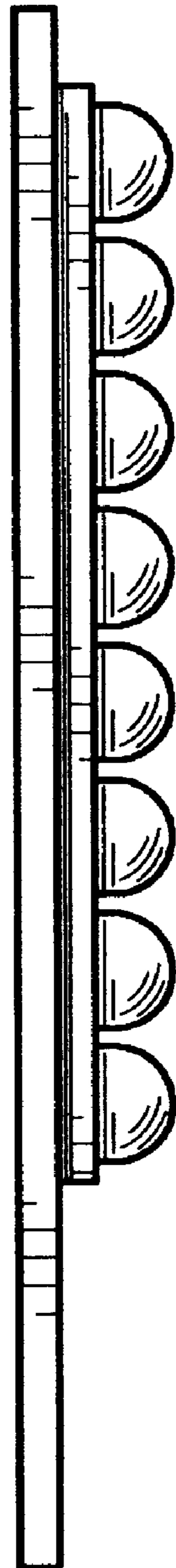


FIG. 3

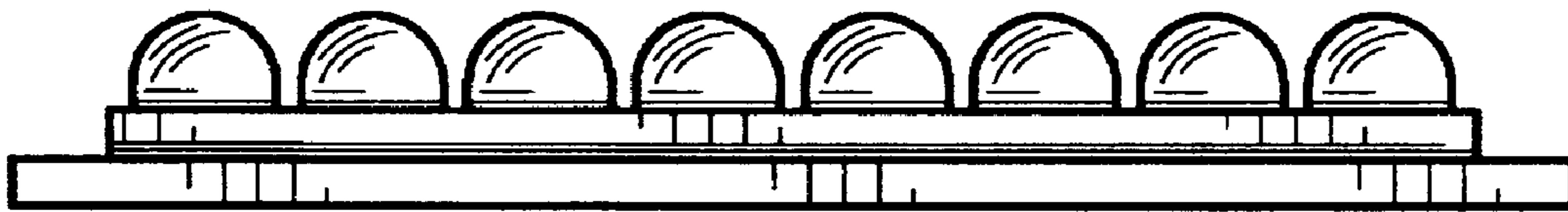


FIG. 4

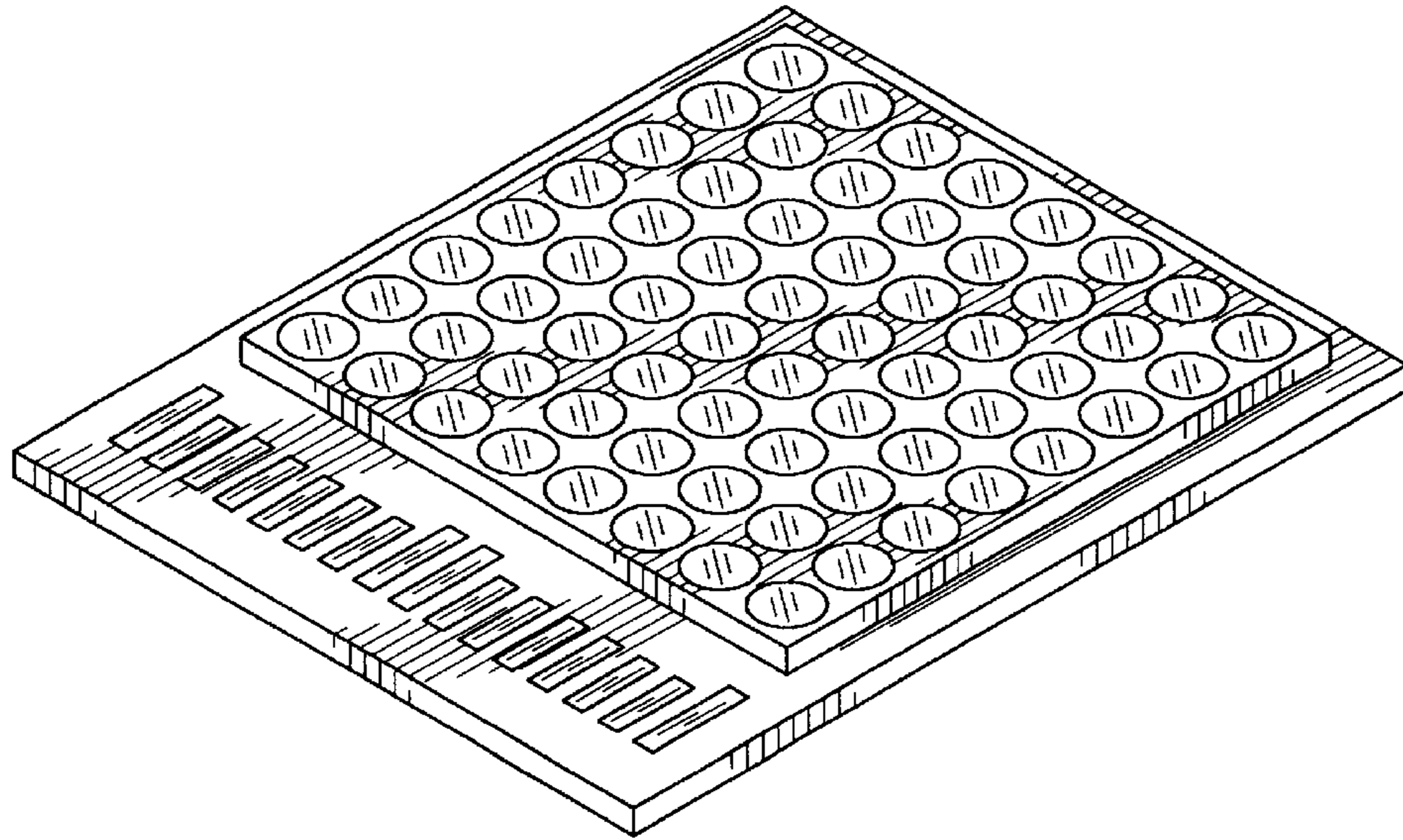


FIG. 5

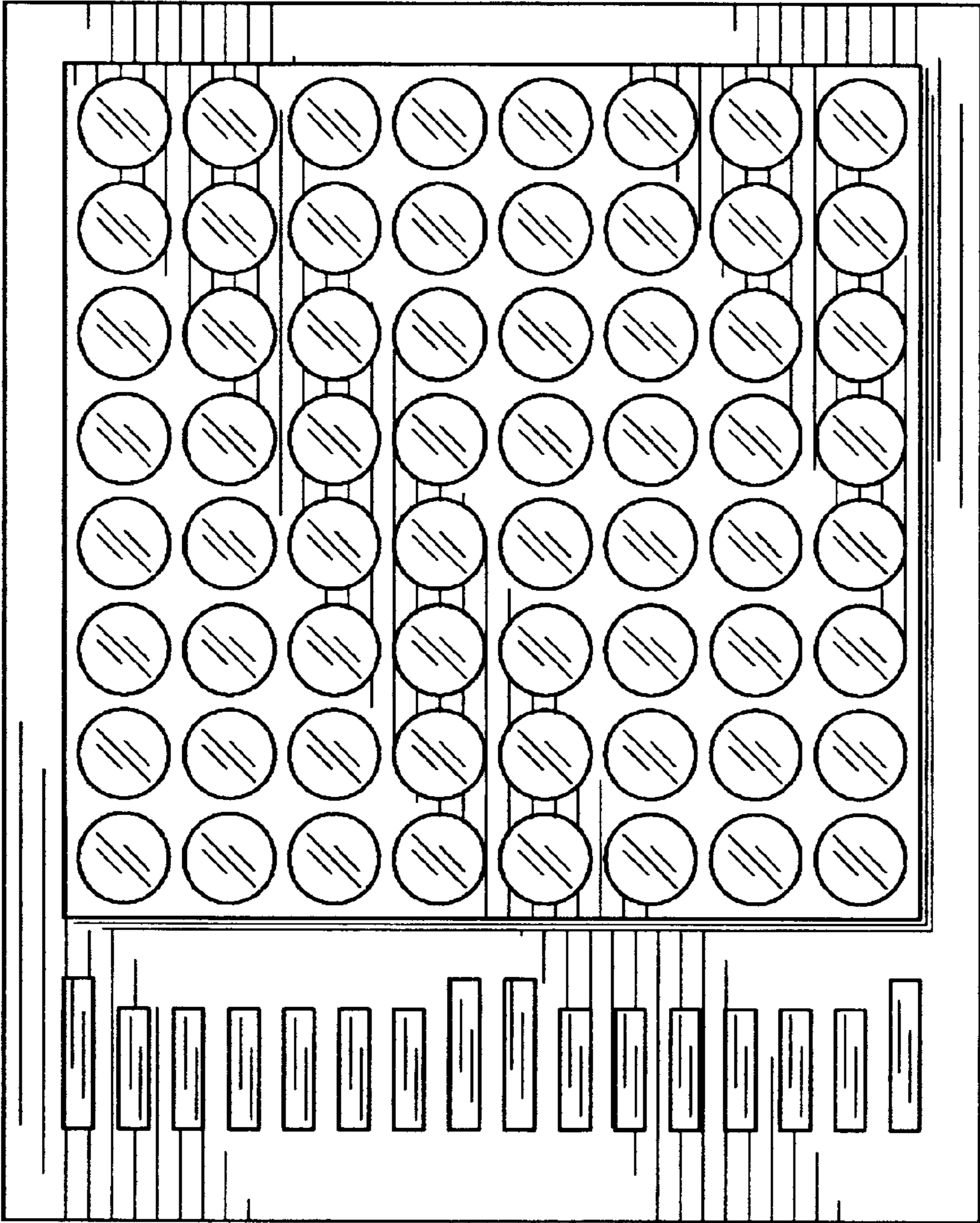


FIG. 6



FIG. 7



FIG. 8

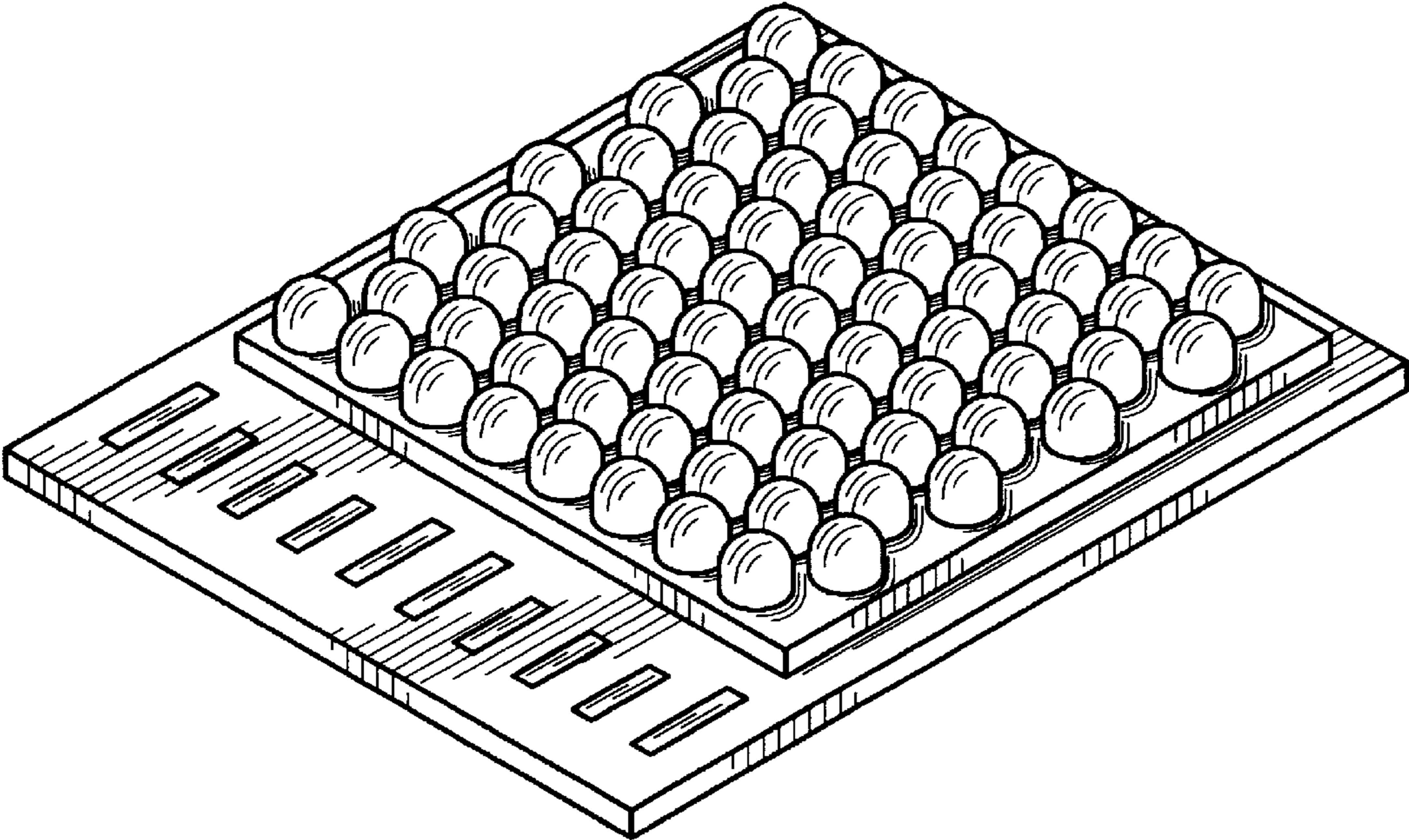


FIG. 9

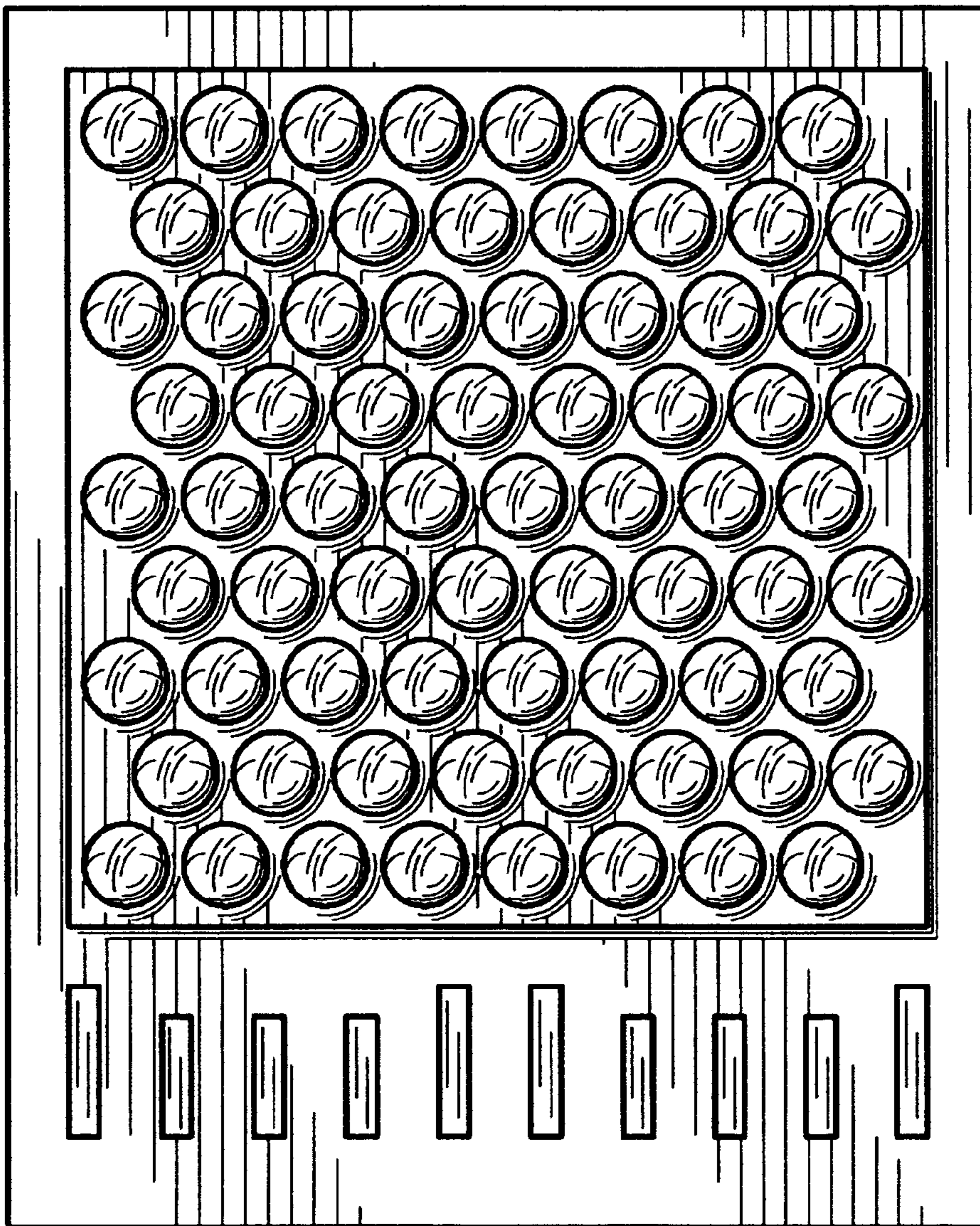


FIG. 10



FIG. 11

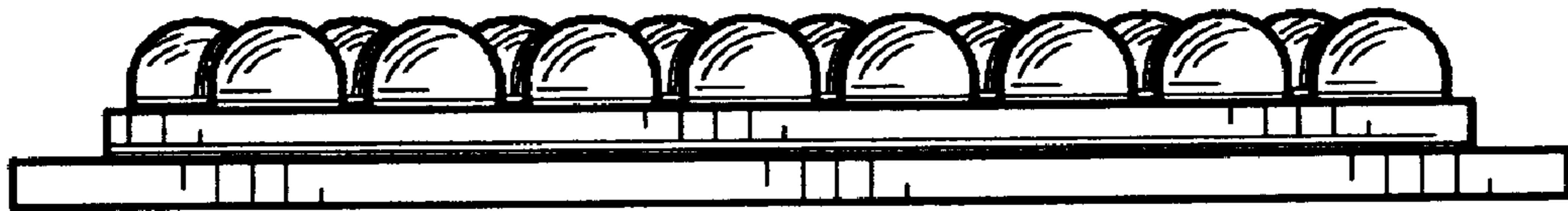


FIG. 12

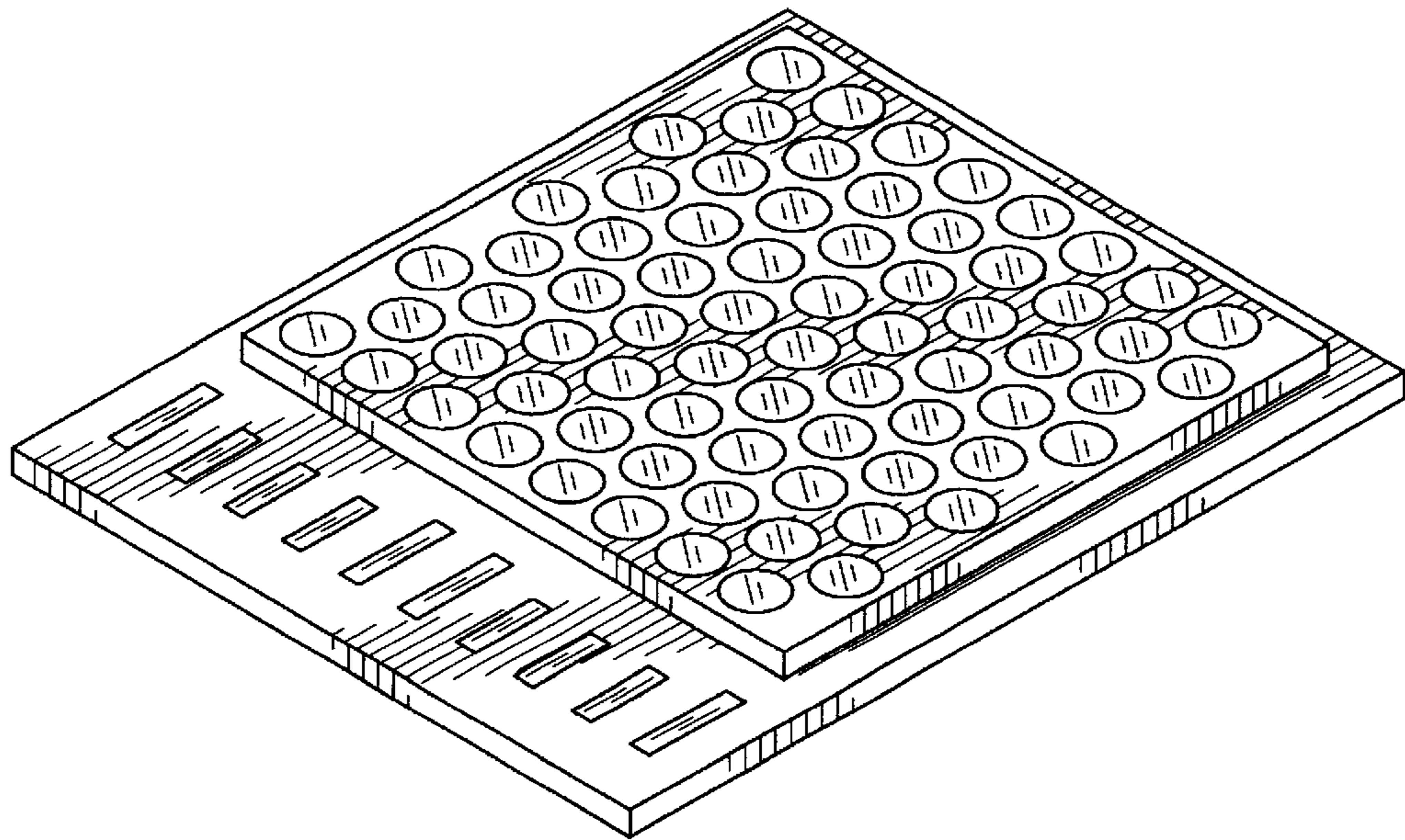


FIG. 13

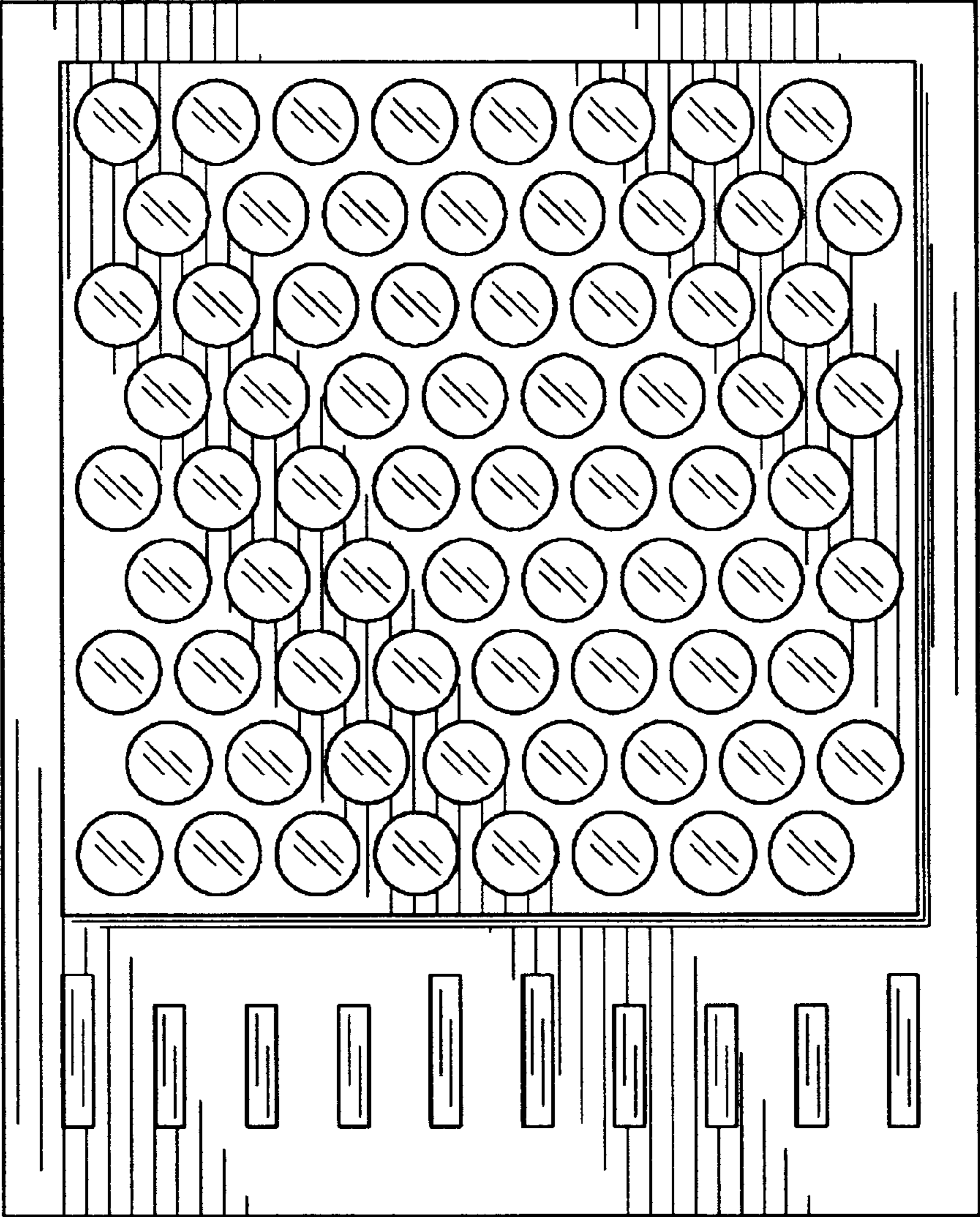


FIG. 14

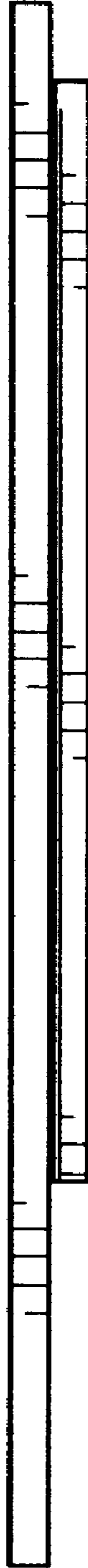


FIG. 15

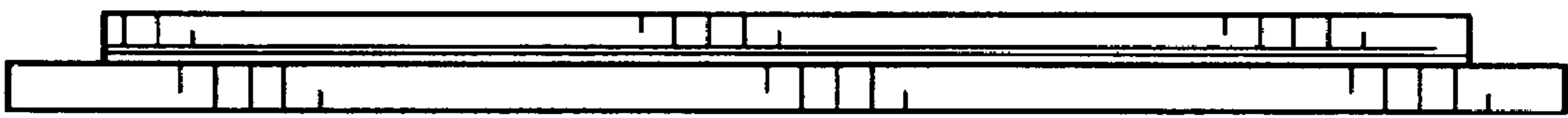


FIG. 16