

US00D851276S

(12) **United States Design Patent** (10) **Patent No.:** **US D851,276 S**
Ito (45) **Date of Patent:** **** Jun. 11, 2019**

(54) **PLACEMENT AND CLUSTER SIFTING CELL PLATE**

DESCRIPTION

(71) Applicant: **Saburo Ito**, Shizuoka-ken (JP)

(72) Inventor: **Saburo Ito**, Shizuoka-ken (JP)

(73) Assignee: **YAMAHA HATSUDOKI KABUSHIKI KAISHA** (JP)

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

(21) Appl. No.: **29/546,883**

(22) Filed: **Nov. 27, 2015**

(30) **Foreign Application Priority Data**

Jun. 11, 2015 (JP) 2015-012941
Jun. 11, 2015 (JP) 2015-012942

(51) **LOC (11) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/226**

(58) **Field of Classification Search**
USPC D24/224-226, 229-230; D10/81
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,965,219 A * 12/1960 Rhodin B01L 3/5085
206/488
6,039,804 A * 3/2000 Kim C30B 7/00
117/206

(Continued)

Primary Examiner — Ian Simmons

Assistant Examiner — Samantha Q Lawrence

(74) *Attorney, Agent, or Firm* — Ostrolenk Faber LLP

(57) **CLAIM**

The ornamental design for a placement and cluster sifting cell plate, as shown and described.

FIG. 1 is a top, perspective view of a placement and cluster sifting cell plate showing a first embodiment of my new design;

FIG. 2 is a front view thereof, the opposite rear view being a mirror image;

FIG. 3 is a side view thereof, the opposite side view being a mirror image;

FIG. 4 is a top view thereof;

FIG. 5 is an enlarged fragmentary view thereof of the square lying at the intersection of the horizontal and vertical lines marked 5 in FIG. 4;

FIG. 6 is a bottom view thereof;

FIG. 7 is an enlarged fragmentary view thereof of the square lying at the intersection of the horizontal and vertical lines marked 7 in FIG. 6;

FIG. 8 is a cross section on line 8 in FIGS. 5 and 7;

FIG. 9 is an enlarged fragmentary perspective view thereof of a square lying at the intersection of the horizontal and vertical lines marked 9 in FIG. 1 at the plate orientation of FIG. 1;

FIG. 10 is a top perspective view of a placement and cluster sifting cell plate showing a second embodiment of my new design;

FIG. 11 is a front view thereof, the opposite rear view being a mirror image;

FIG. 12 is a side view thereof, the opposite side view being a mirror image;

FIG. 13 is a top view thereof;

FIG. 14 is a view thereof of a square lying at the intersection of the horizontal and vertical lines marked 14 in FIG. 13;

FIG. 15 is a bottom view thereof;

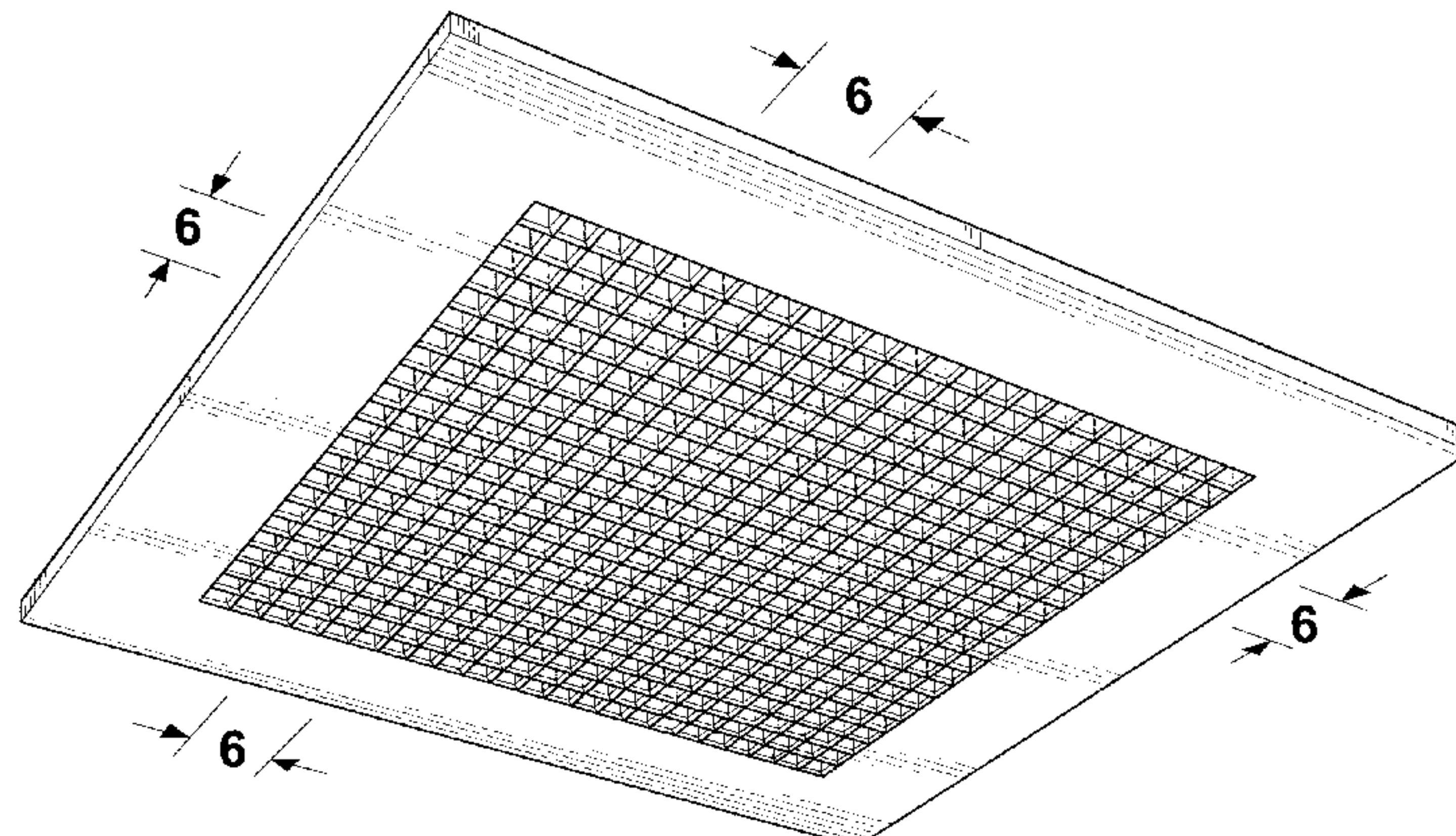
FIG. 16 is a view thereof of a square lying at the intersection of the horizontal and vertical lines marked 16 in FIG. 15;

FIG. 17 is a view thereof of a cross section on line 17 in FIG. 14; and,

FIG. 18 is an enlarged perspective view thereof of a square lying at the intersection of the horizontal and vertical lines marked 18 in FIG. 10 at the plate orientation of FIG. 10.

The broken line showing of structural features shown in cross section illustrate non-claimed subject matter and form no part of the claimed design.

(Continued)



FIGS. 1 and 4 illustrate the locations, orientations and schematically illustrate peripheral shapes of the wells in the first embodiment.

FIGS. 5, 8 and 9 are enlarged fragmentary views thereof that illustrate the shapes of the wells in the first embodiment.

FIGS. 10 and 13 illustrate the locations, orientations and schematically illustrate peripheral shapes of the cells in the second embodiment.

FIGS. 14, 17 and 18 are enlarged fragmentary views thereof that illustrate the shapes of the wells in the second embodiment.

1 Claim, 18 Drawing Sheets

(58) Field of Classification Search

CPC . A61B 10/00; A61B 10/0045; A61B 10/0058; A61B 10/007; A61B 10/0096; A61B 5/20; A61D 19/021; A61F 5/00; A61F 2/04; A61F 2/06; A61F 2/022; A61F 2/062; B01L 3/50; B01L 3/502; B01L 3/50273; B01L 3/50255; B01L 3/5085; B01L 3/50853; C12M 23/12; C12M 23/20; C12M 23/24; C12M 23/38; C12M 23/58; C12M 33/14; C30B 7/00; G01N 21/03; G01N 21/29; G01N 21/253; G01N 21/6428; G01N 21/6454; G01N 21/77; G01N 33/48728; G01N 33/5005; G01N 33/5008; G01N 33/5039; G01N 33/5058; G01N 33/523; G01N 33/528; G01N 33/54313; G01N 33/54326; G01N 33/54366; G01N 33/558; G01N 33/77; G01F 19/00; C12N 5/0062; C12N 5/0677

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

6,861,035 B2 * 3/2005 Pham C12M 23/12
422/561
6,890,762 B1 * 5/2005 Sugihara G01N 33/5005
422/82.01

7,011,793 B2 * 3/2006 Zhou B01L 3/502715
29/592
D530,021 S * 10/2006 Muraca D24/226
D621,060 S * 8/2010 Handique D24/225
D628,305 S * 11/2010 Gorrec D24/229
8,591,597 B2 * 11/2013 Hoganson A61F 2/062
623/23.64
8,911,690 B2 * 12/2014 Kugelmeier C12M 23/12
422/553
9,567,570 B2 * 2/2017 Stehno-Bittel C12N 5/0677
9,862,918 B2 * 1/2018 Ito C12M 23/12
2005/0136546 A1 * 6/2005 Berndt B01L 3/5085
436/45
2009/0298116 A1 * 12/2009 Fang C12M 23/16
435/29
2009/0298166 A1 * 12/2009 Fang C12M 23/12
435/305.2
2010/0019782 A1 * 1/2010 Watanabe G01N 33/48728
324/692
2010/0138204 A1 * 6/2010 Eoff G06F 19/12
703/11
2010/0173351 A1 * 7/2010 Yasuda G01N 33/48728
435/29
2010/0252128 A1 * 10/2010 Gong B01L 3/50853
137/561 A
2012/0328488 A1 * 12/2012 Puntambekar B01L 3/5085
422/503
2013/0004967 A1 * 1/2013 Halverson B01L 3/50853
435/7.8
2014/0322747 A1 * 10/2014 Ito G01N 33/48728
435/34
2015/0184119 A1 * 7/2015 Tsukada C12M 23/12
506/10
2015/0377861 A1 * 12/2015 Pant C12M 23/16
506/9
2016/0011176 A1 * 1/2016 Yasuda G01N 33/48728
506/14
2016/0075985 A1 * 3/2016 Jung C12M 23/12
435/32
2016/0304823 A1 * 10/2016 Hirano C12M 23/34
2016/0348148 A1 * 12/2016 Wu B01D 53/228
2017/0183621 A1 * 6/2017 Ejiri C12N 5/0062
2017/0198248 A1 * 7/2017 Kinuta C12M 33/14
2017/0267960 A1 * 9/2017 Tsukada C12M 23/12

* cited by examiner

FIG. 1

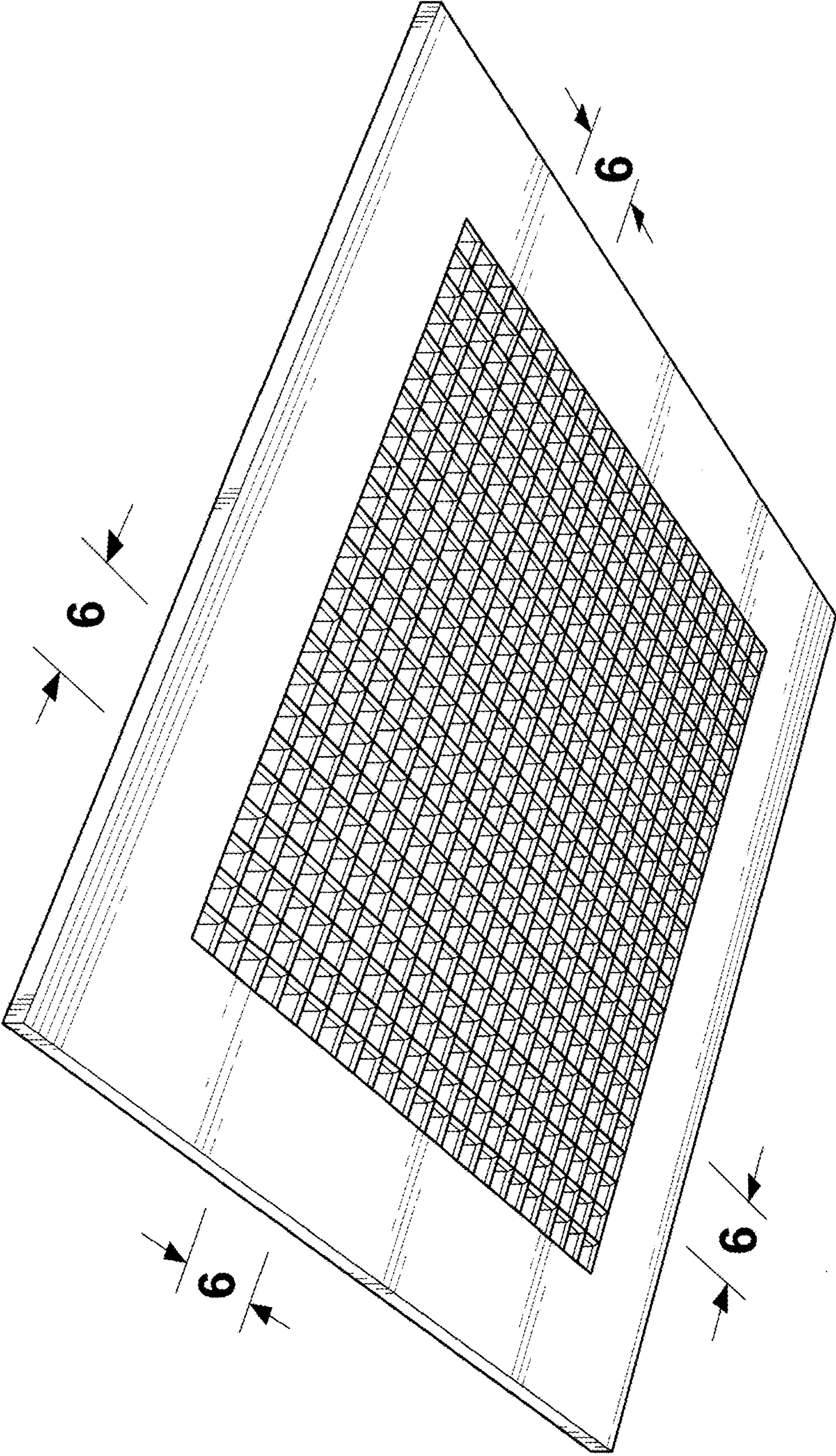


FIG. 2



FIG. 3



FIG. 4

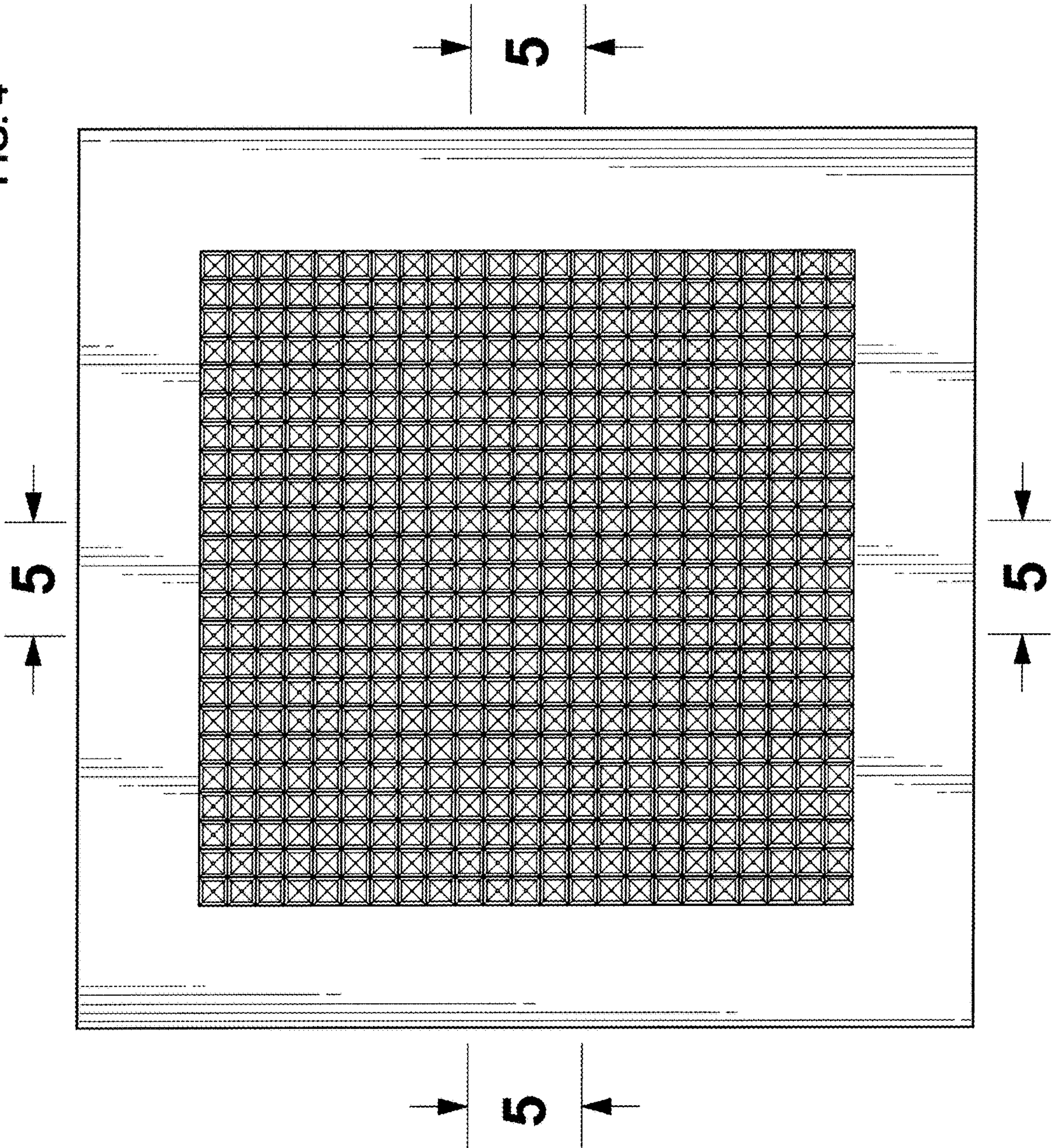
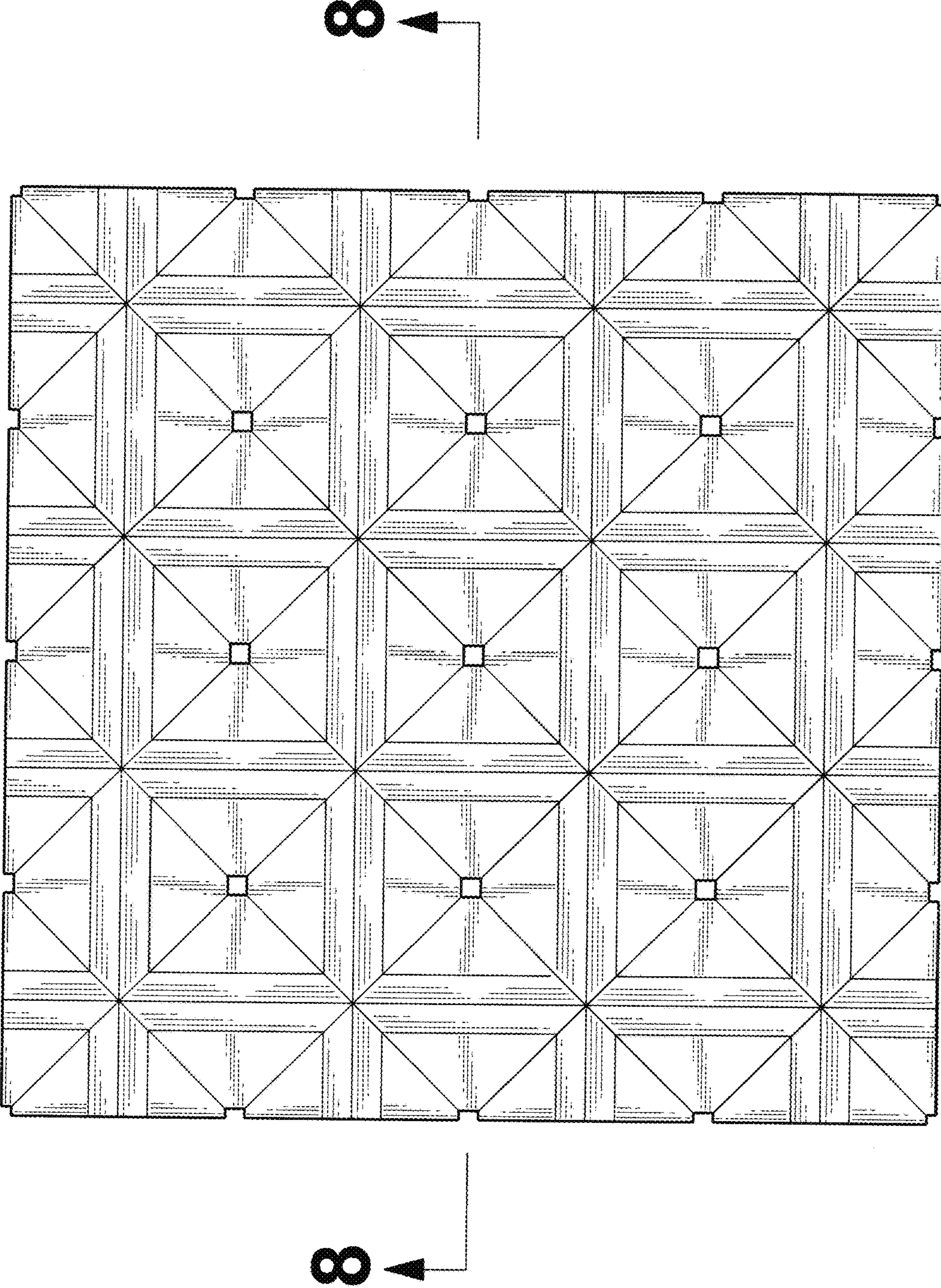


FIG. 5



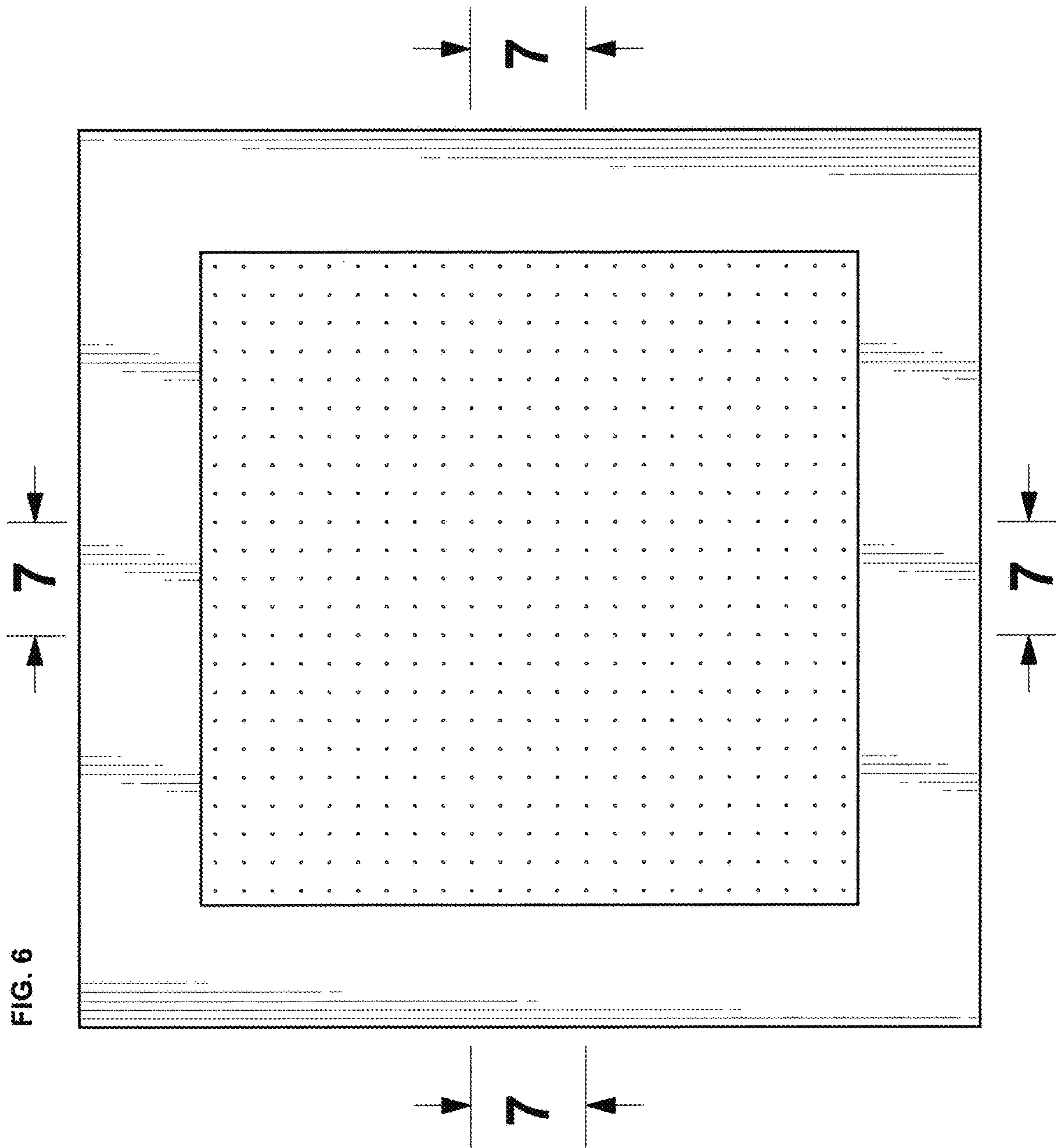


FIG. 7

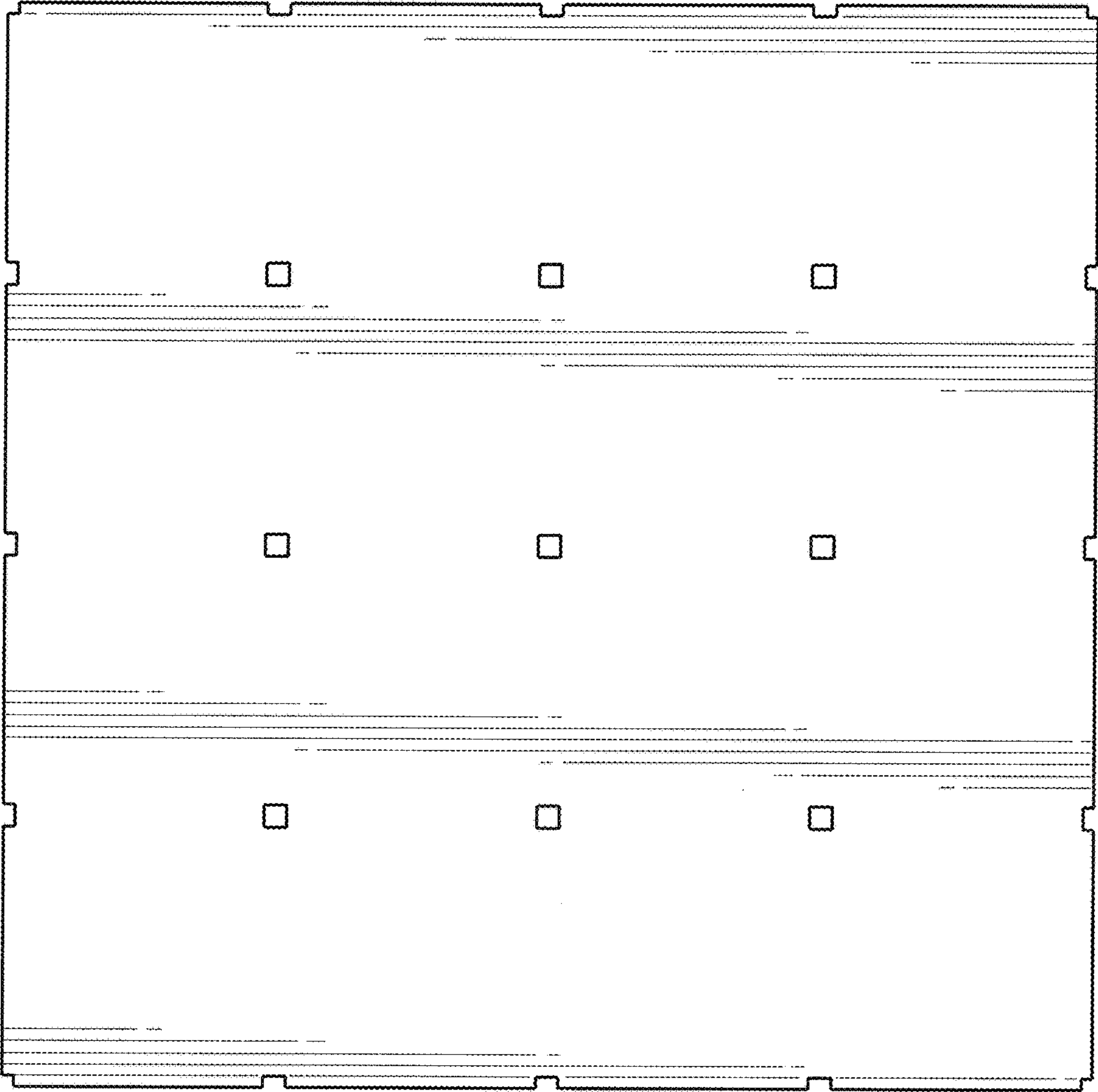


FIG. 8

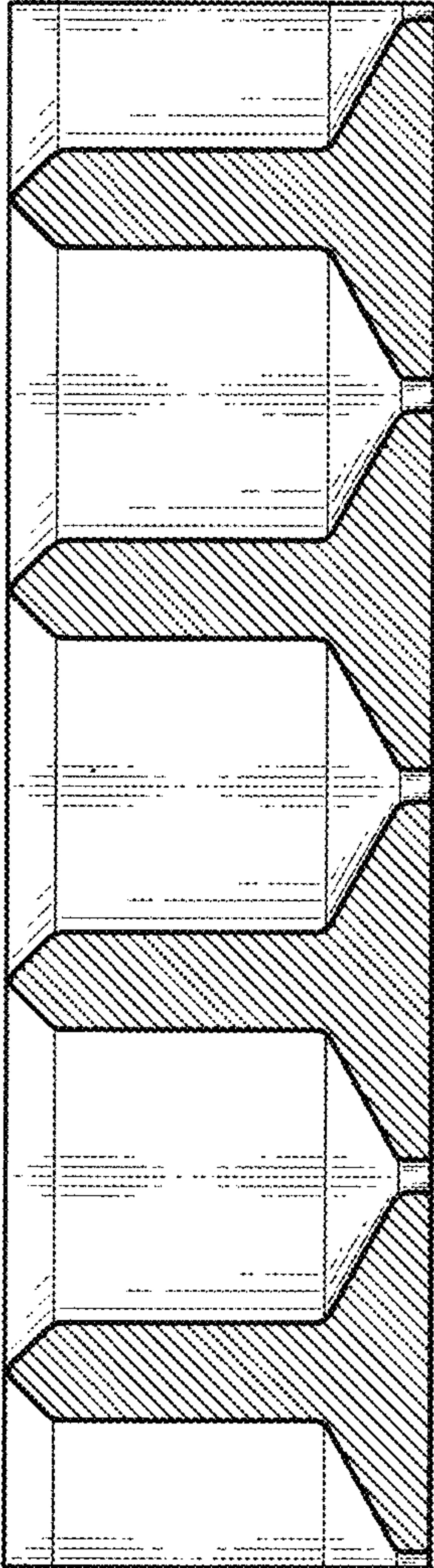


FIG. 9

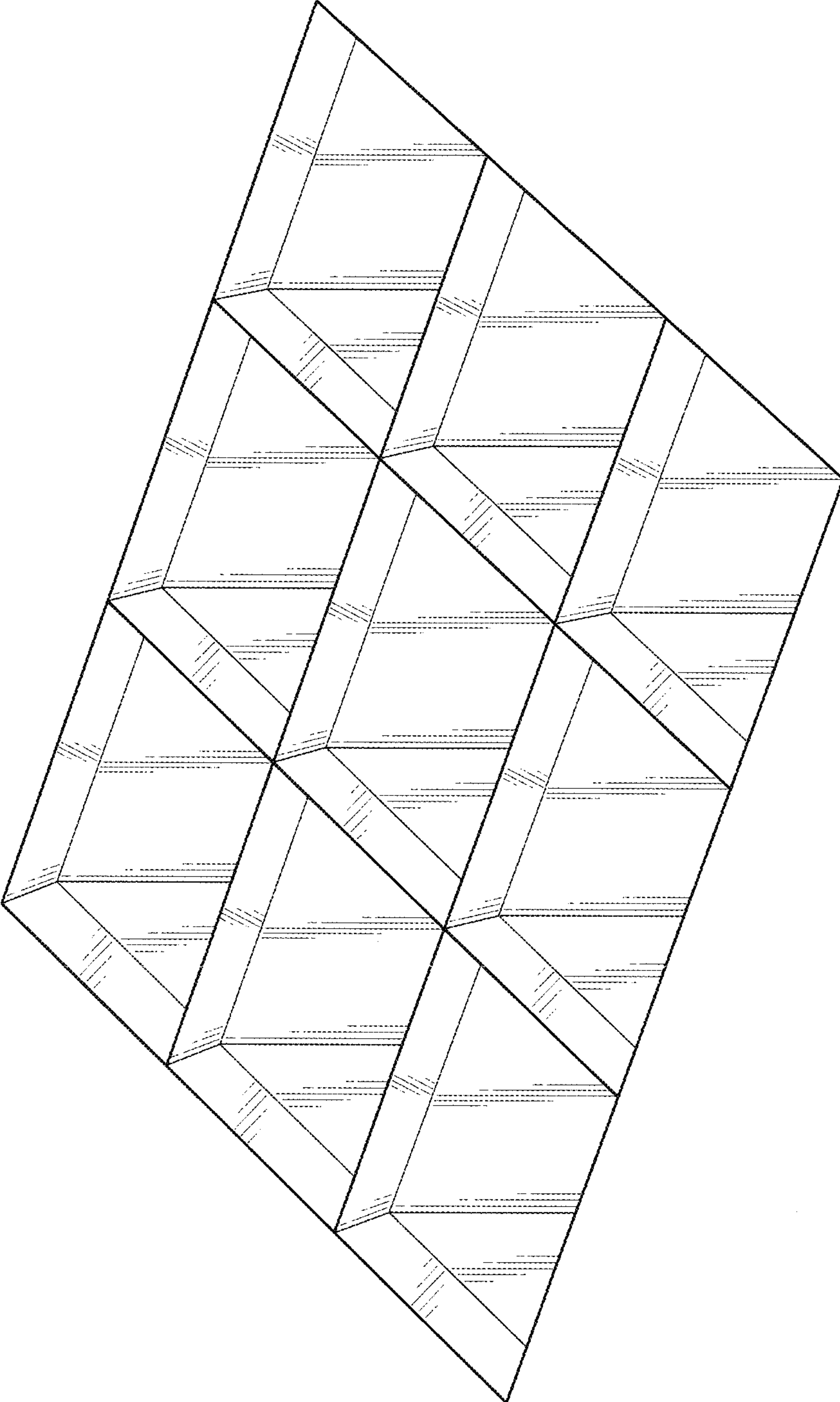


FIG. 10

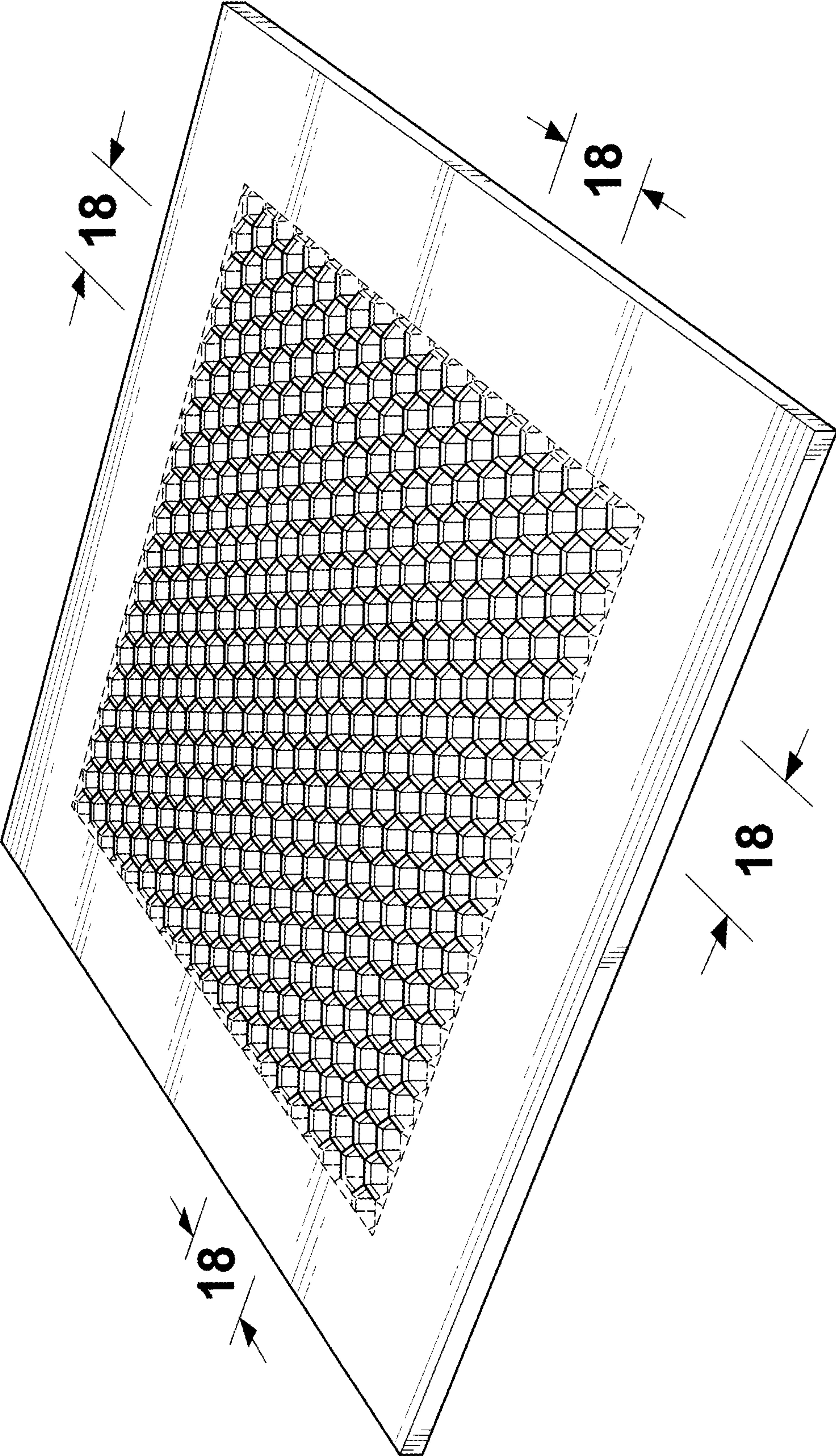


FIG. 11



FIG. 12



FIG. 13

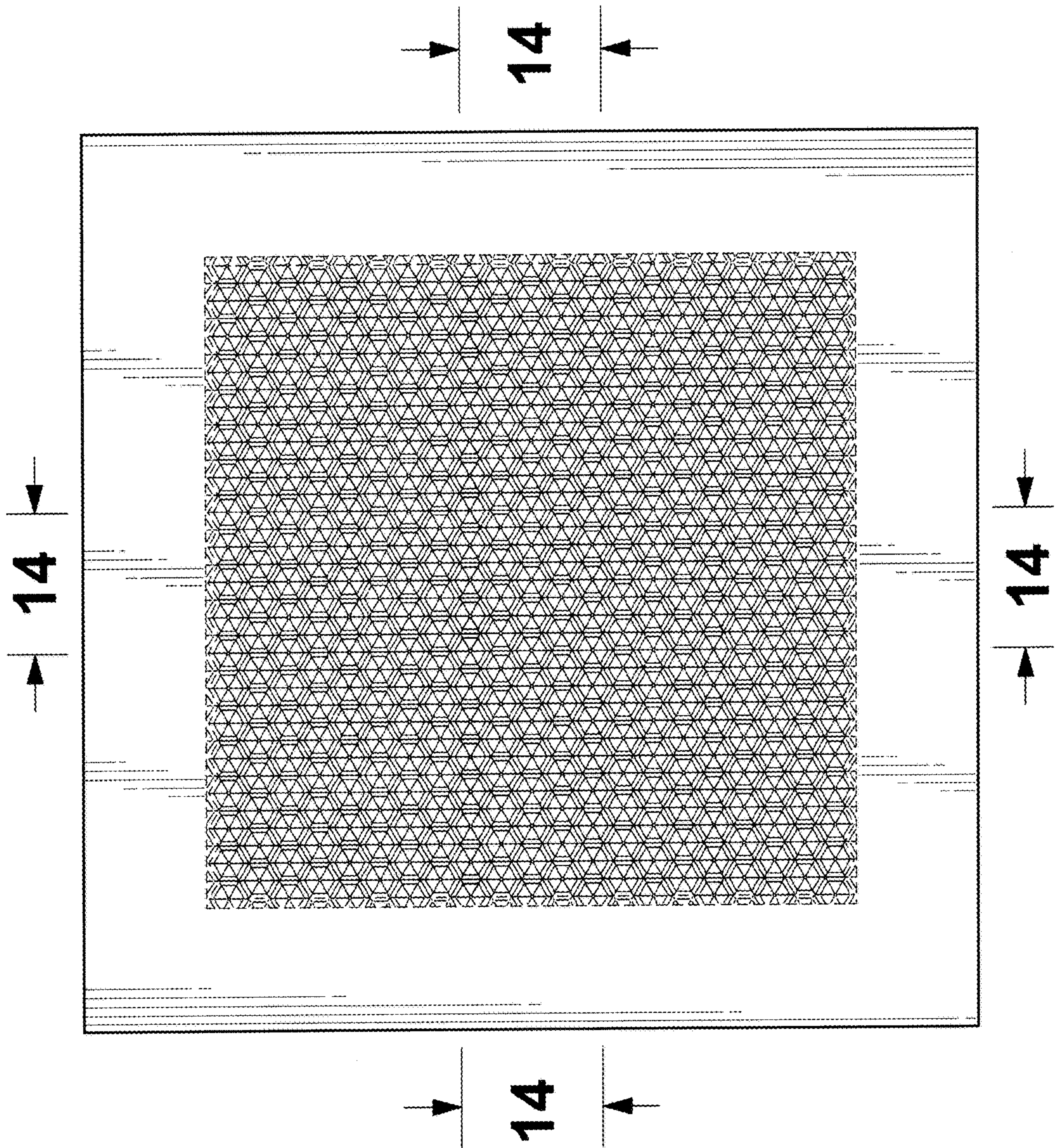
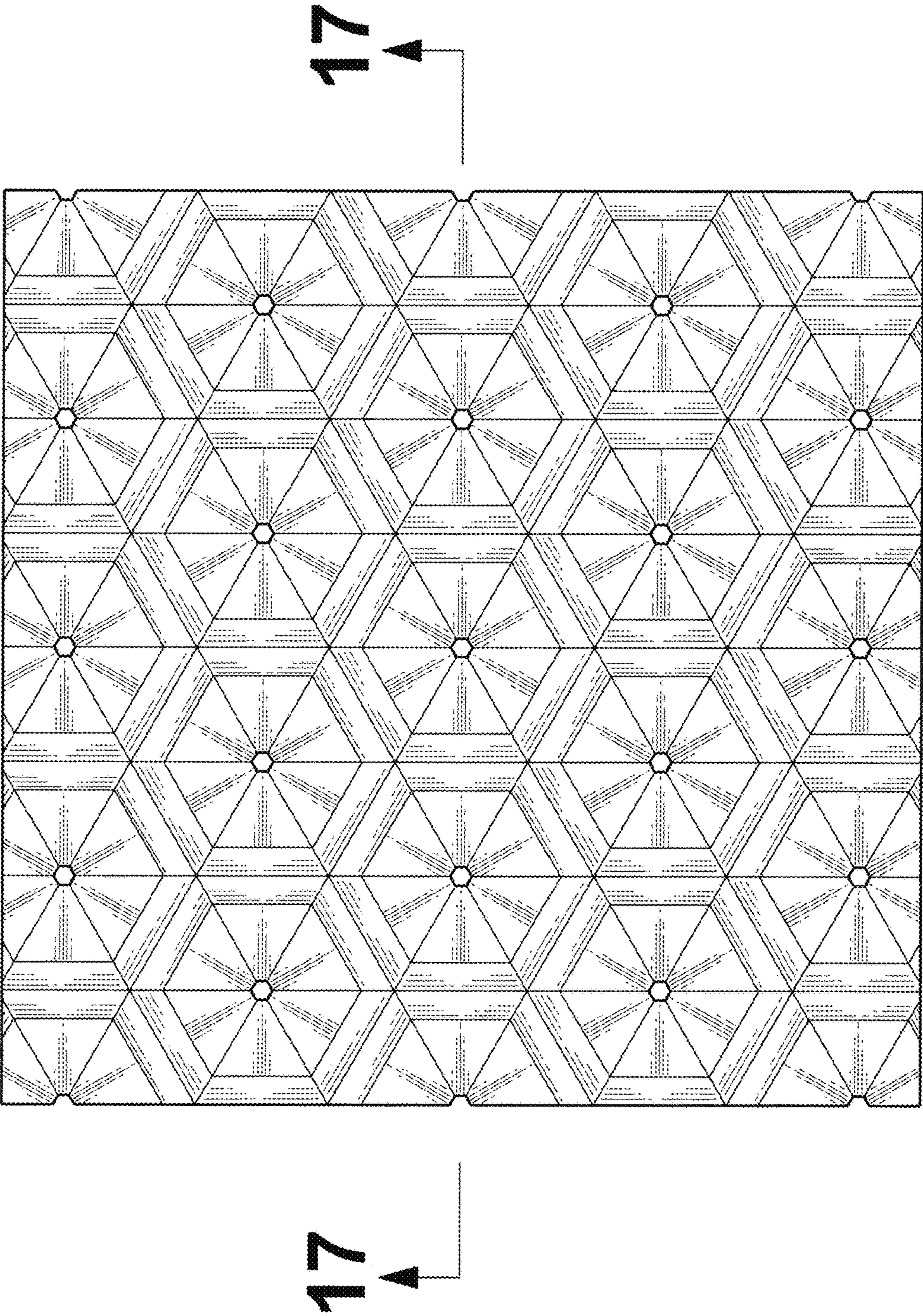


FIG. 14



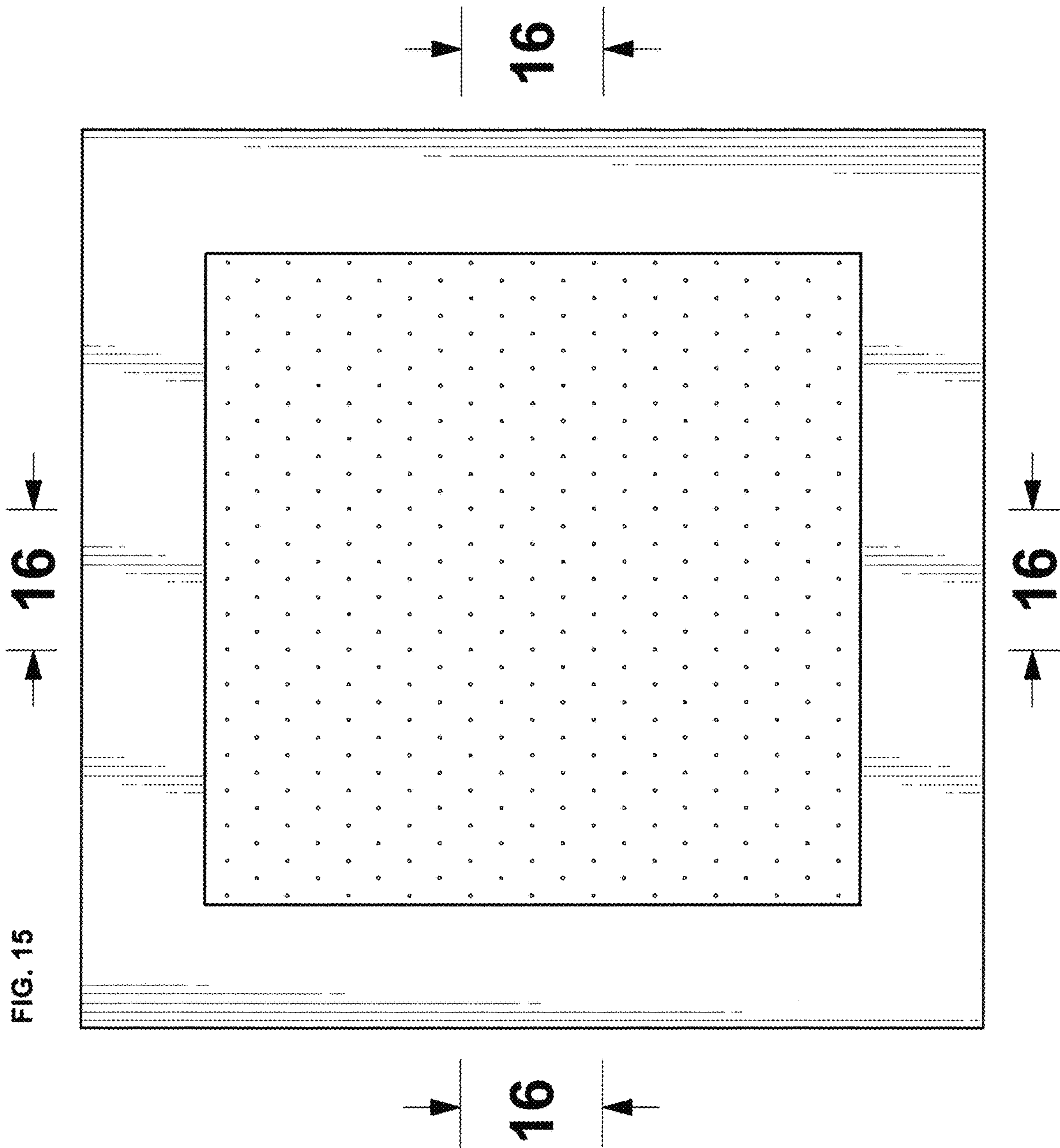


FIG. 16

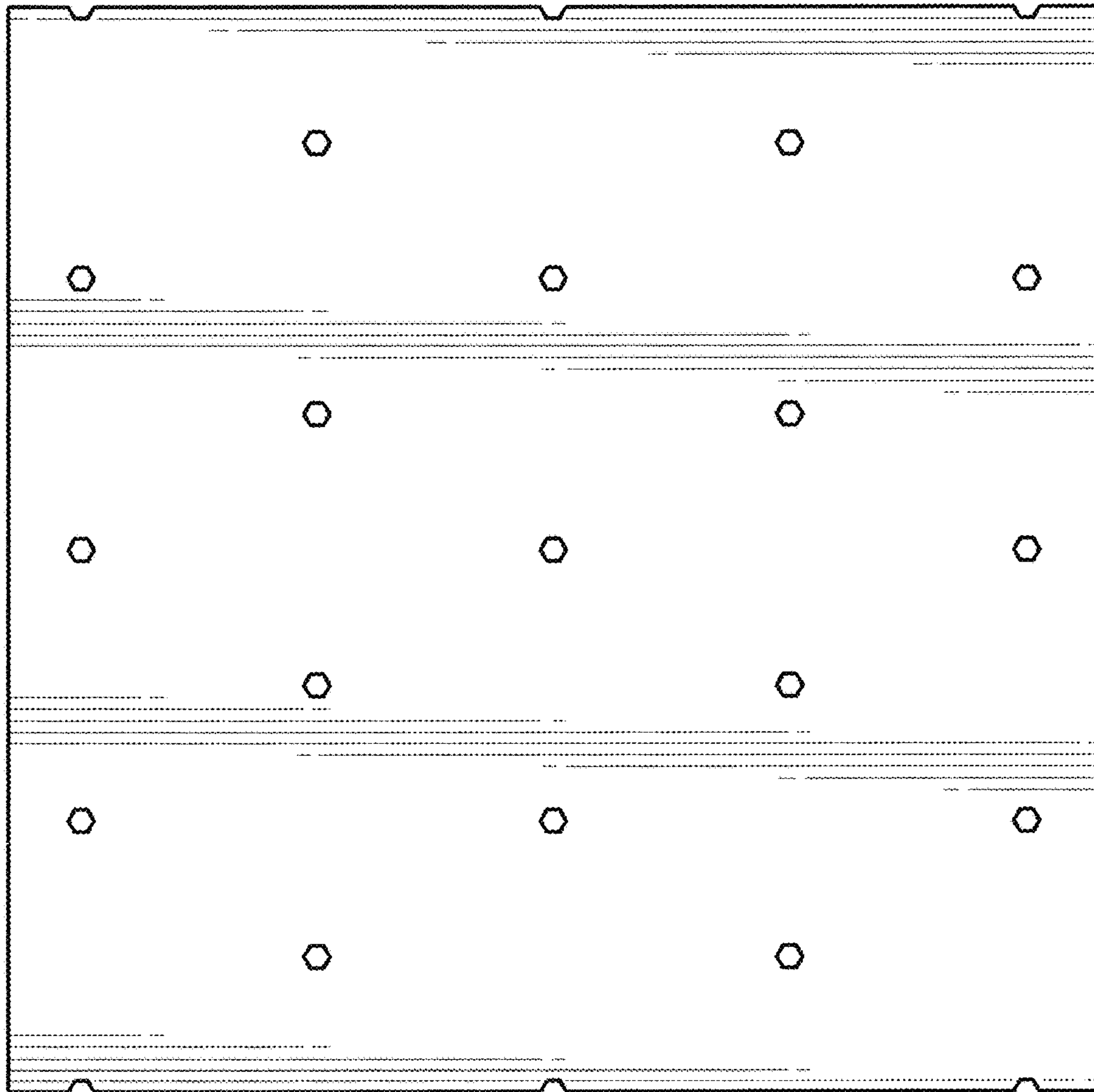


FIG. 17

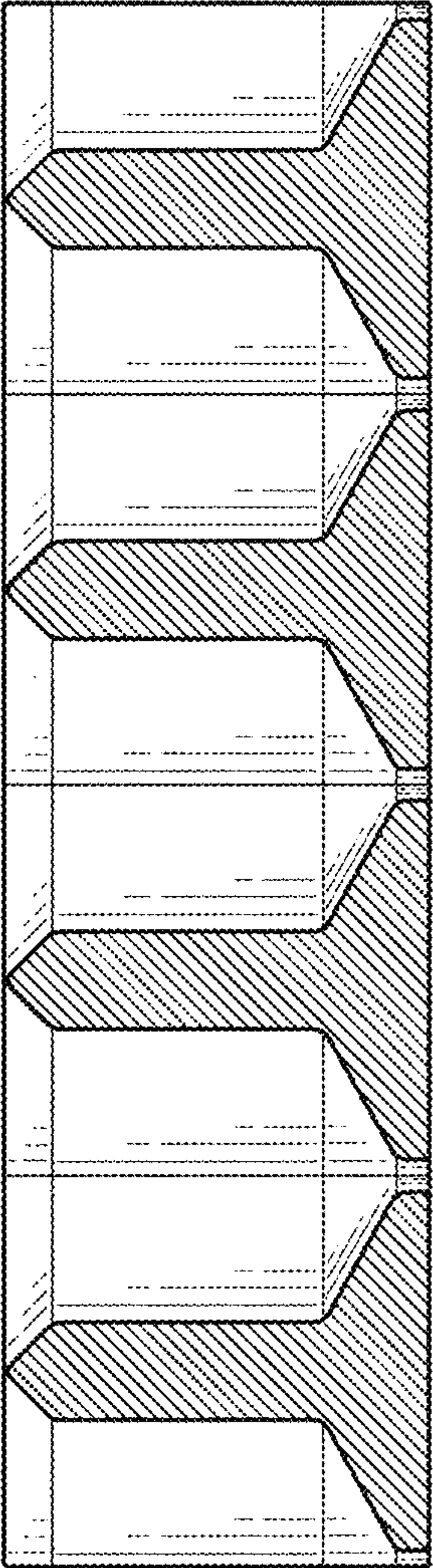


FIG. 18

