



US00D690670S

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

(10) **Patent No.:** **US D690,670 S**

(45) **Date of Patent:** **\*\* \*Oct. 1, 2013**

(54) **LED CHIP**

(75) Inventors: **Chen-Fu Chu**, Miao-Li County (TW);  
**Chao-Chen Cheng**, Miao-Li County  
(TW); **Li-Wei Shan**, Miao-Li County  
(TW)

(73) Assignee: **Semileds Optoelectronics Co., Ltd.**,  
Miao-Li County (TW)

(\*) Notice: This patent is subject to a terminal disclaimer.

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

(21) Appl. No.: **29/419,115**

(22) Filed: **Apr. 25, 2012**  
(Under 37 CFR 1.47)

(30) **Foreign Application Priority Data**

Oct. 28, 2011 (TW) ..... 100305814

(51) **LOC (9) Cl.** ..... **13-03**

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

(58) **Field of Classification Search**  
USPC ..... D13/180; D26/1; 257/79, 80, 81,  
257/88, 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

6,547,249 B2 \* 4/2003 Collins et al. .... 257/88  
6,573,537 B1 \* 6/2003 Steigerwald et al. .... 257/103  
6,921,924 B2 \* 7/2005 Tsai et al. .... 257/95  
7,179,670 B2 \* 2/2007 Shelton et al. .... 438/26  
D566,056 S \* 4/2008 Edmond et al. .... D13/180  
D566,057 S \* 4/2008 Edmond et al. .... D13/180  
7,436,066 B2 \* 10/2008 Sonobe et al. .... 257/767

D580,888 S \* 11/2008 Liu ..... D13/180  
D593,968 S \* 6/2009 Edmond et al. .... D13/180  
D599,748 S \* 9/2009 Liu ..... D13/180  
D602,450 S \* 10/2009 Edmond et al. .... D13/180  
D606,949 S \* 12/2009 Liu ..... D13/180  
D635,525 S \* 4/2011 Edmond et al. .... D13/180  
D647,493 S \* 10/2011 Chang et al. .... D13/180  
D647,494 S \* 10/2011 Chang et al. .... D13/180  
D647,495 S \* 10/2011 Chang et al. .... D13/180  
D673,125 S \* 12/2012 Edmond et al. .... D13/180  
D675,580 S \* 2/2013 Edmond et al. .... D13/180  
D676,001 S \* 2/2013 Hsu et al. .... D13/180  
2003/0107053 A1 \* 6/2003 Uemura et al. .... 257/200

(Continued)

Primary Examiner — Selina Sikder

(74) *Attorney, Agent, or Firm* — WPAT, PC; Justin King

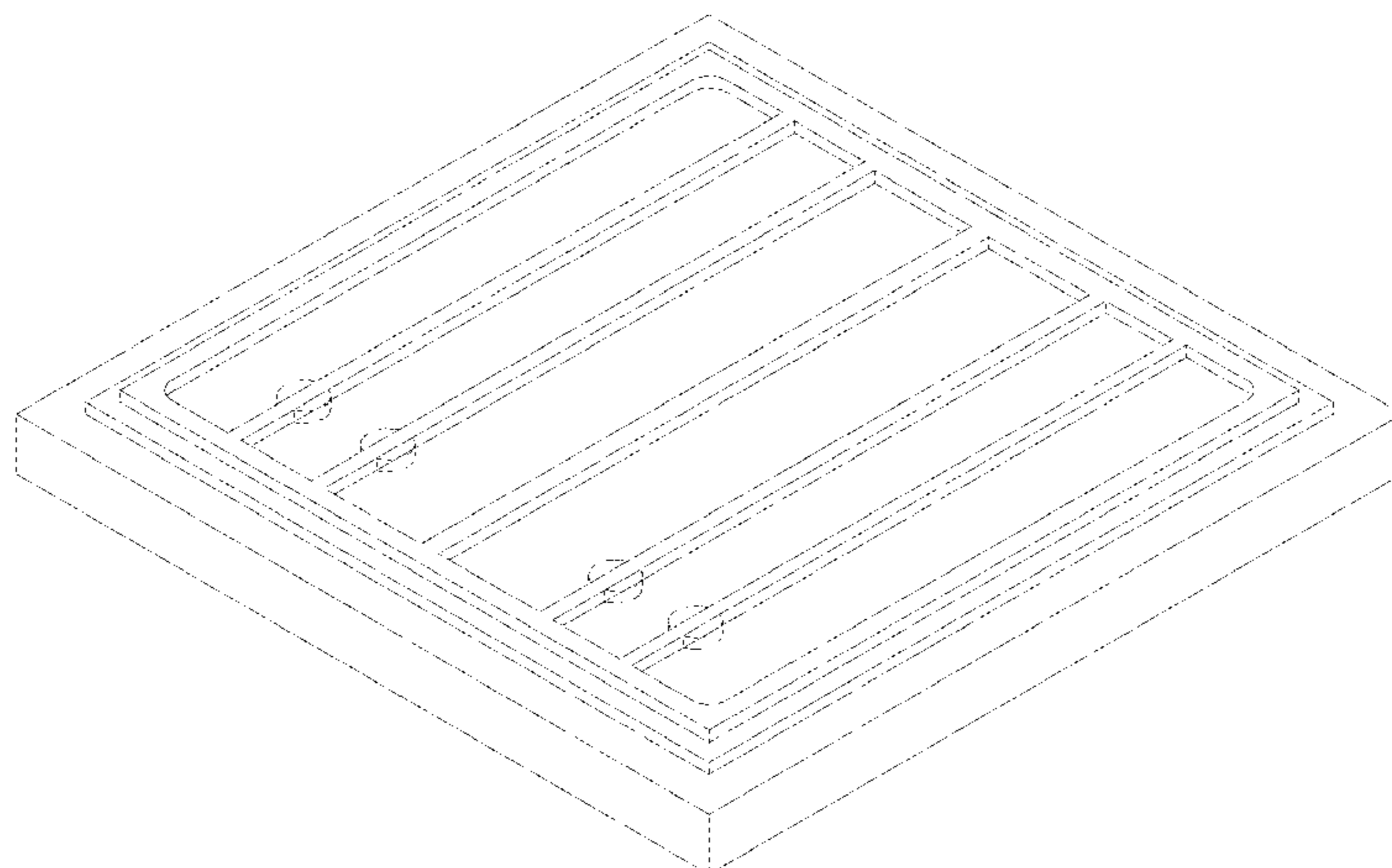
(57) **CLAIM**

The ornamental design for a LED chip, as shown and described in the drawings.

**DESCRIPTION**

FIG. 1 is a perspective view of a light emitting diode device showing my new design;  
FIG. 2 is a top view thereof;  
FIG. 3 is a front view thereof;  
FIG. 4 is a back view thereof;  
FIG. 5 is a left view thereof;  
FIG. 6 is a right view thereof;  
FIG. 7 is a cross-sectional view thereof, take along line 7-7 in FIG. 2.;  
FIG. 8 is a cross-sectional view thereof, take along line 8-8 in FIG. 2.;  
FIG. 9 is a right side view of thereof; the left side view is a mirror image of the right side view; and,  
FIG. 10 is a front view of thereof; the backside view is a mirror image of the front side view.  
It will be understood that the dash lines presented in the drawings are for illustration only, and do not form a part of the claimed design.

**1 Claim, 8 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

2003/0230754	A1 *	12/2003	Steigerwald et al. ....	257/91	
2006/0237735	A1 *	10/2006	Naulin et al. ....	257/98	* cited by examiner
2007/0085095	A1 *	4/2007	Ko et al. ....	257/94	
2009/0050924	A1 *	2/2009	Edmond ....	257/99	
2009/0283787	A1 *	11/2009	Donofrio et al. ....	257/98	

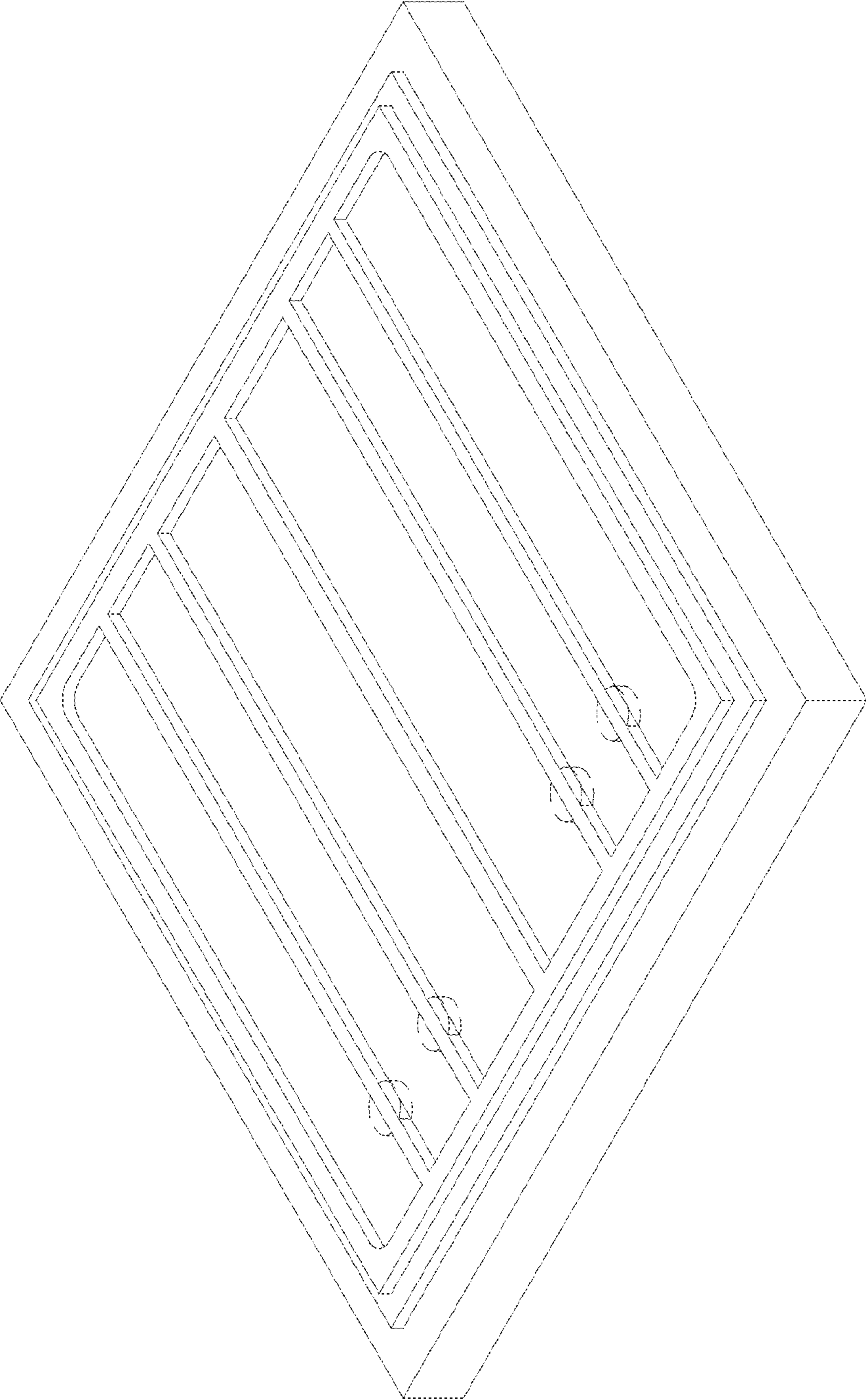


Fig. 1

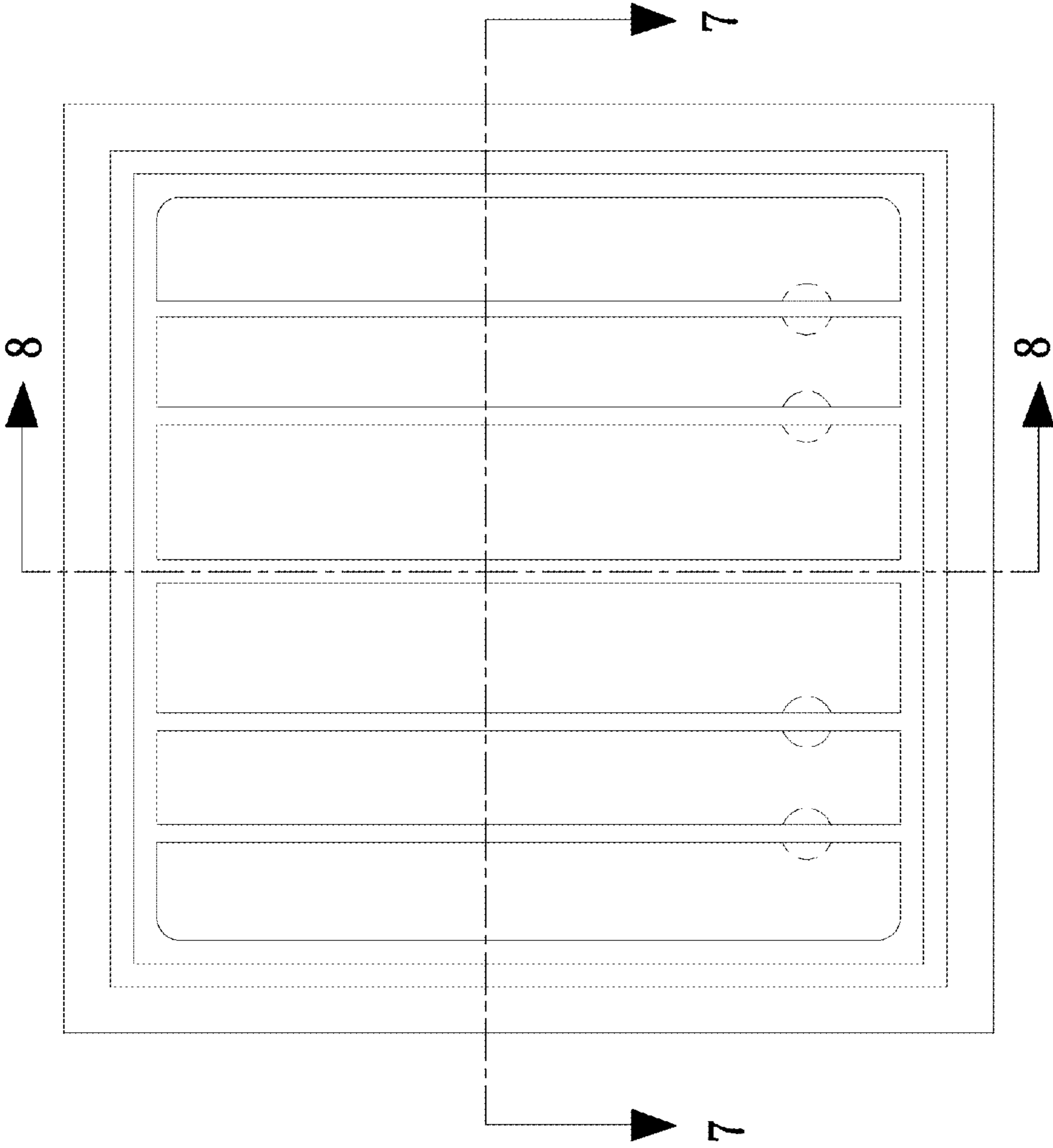


Fig. 2

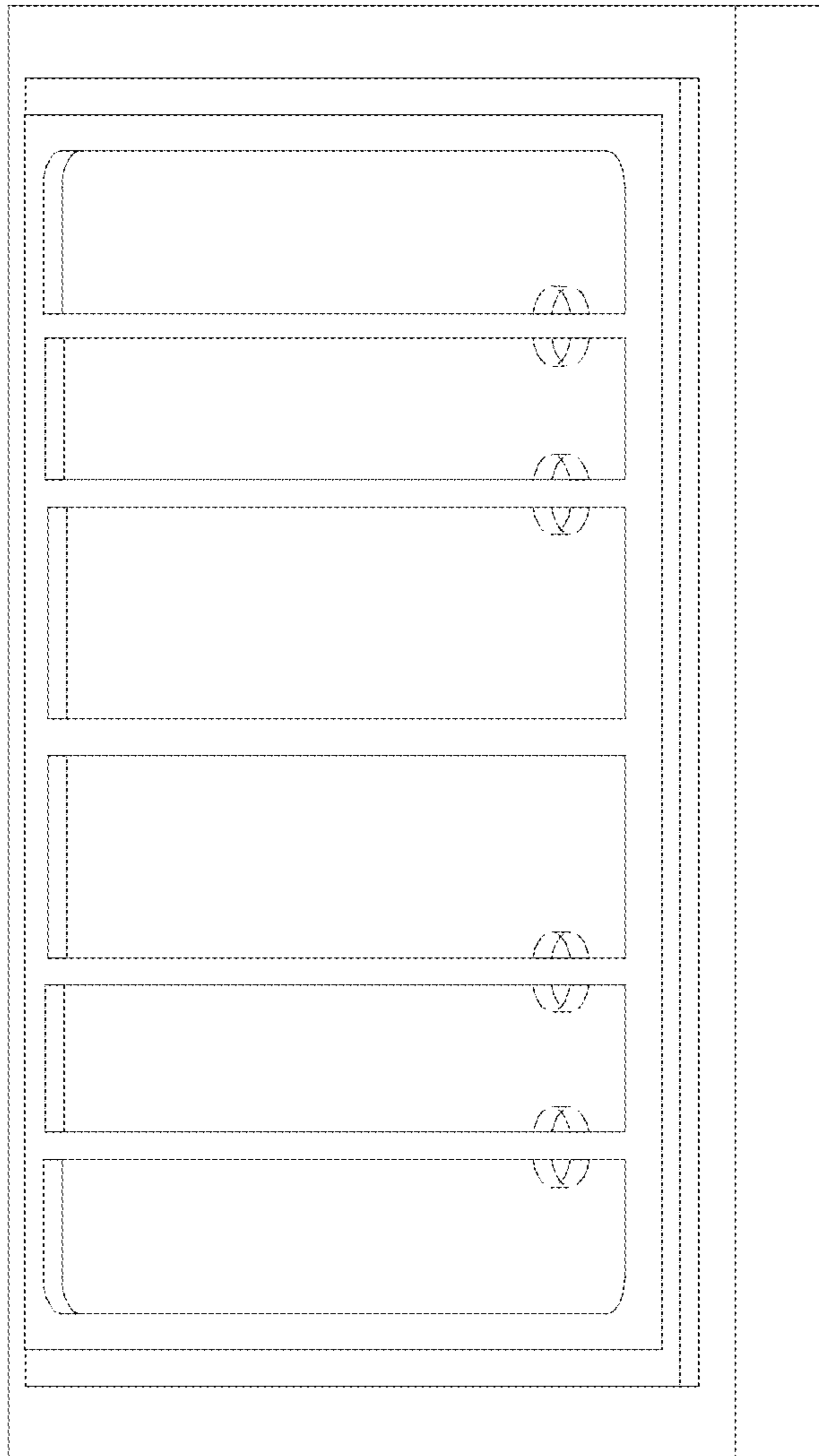


Fig. 3

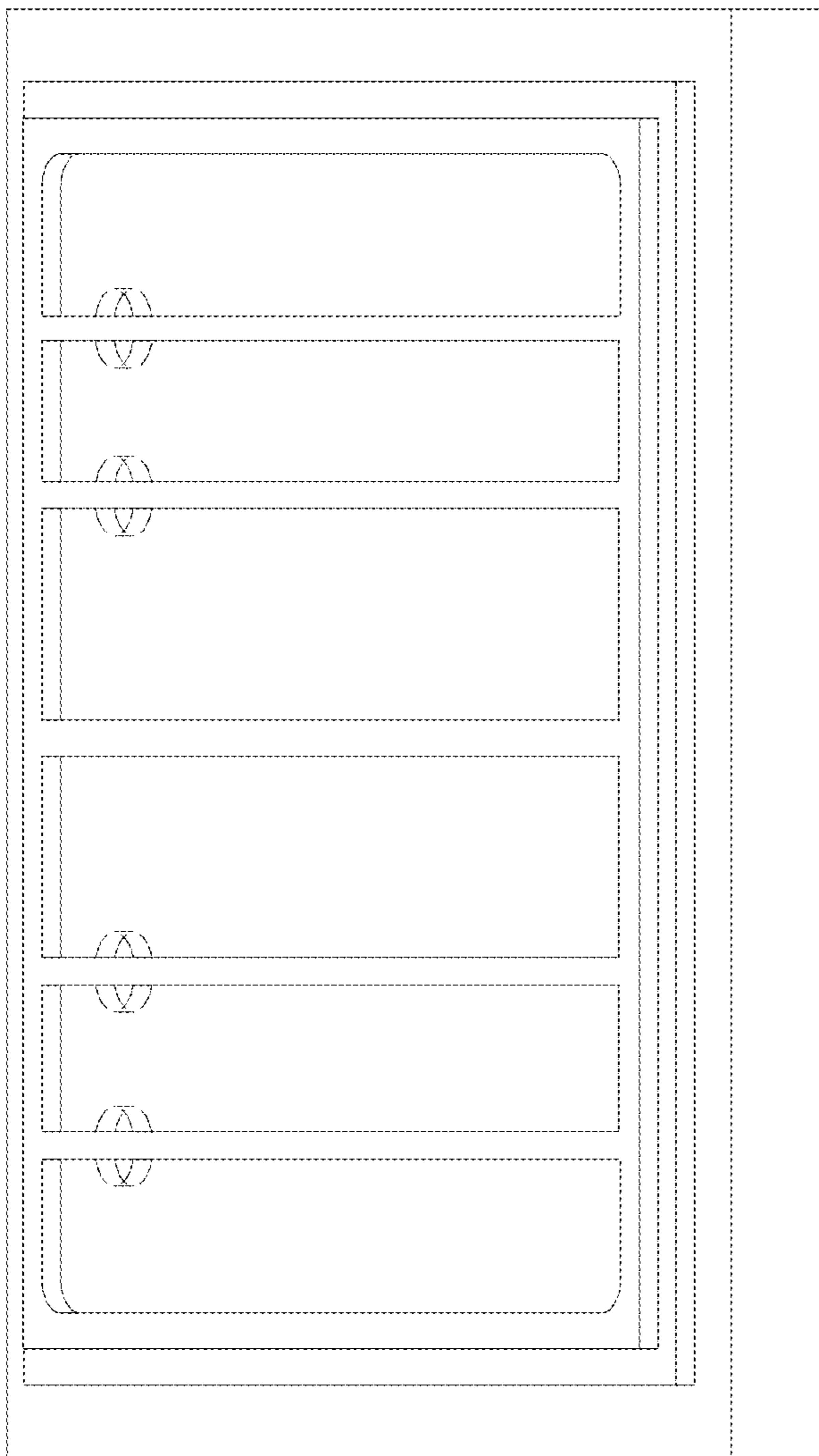


Fig. 4

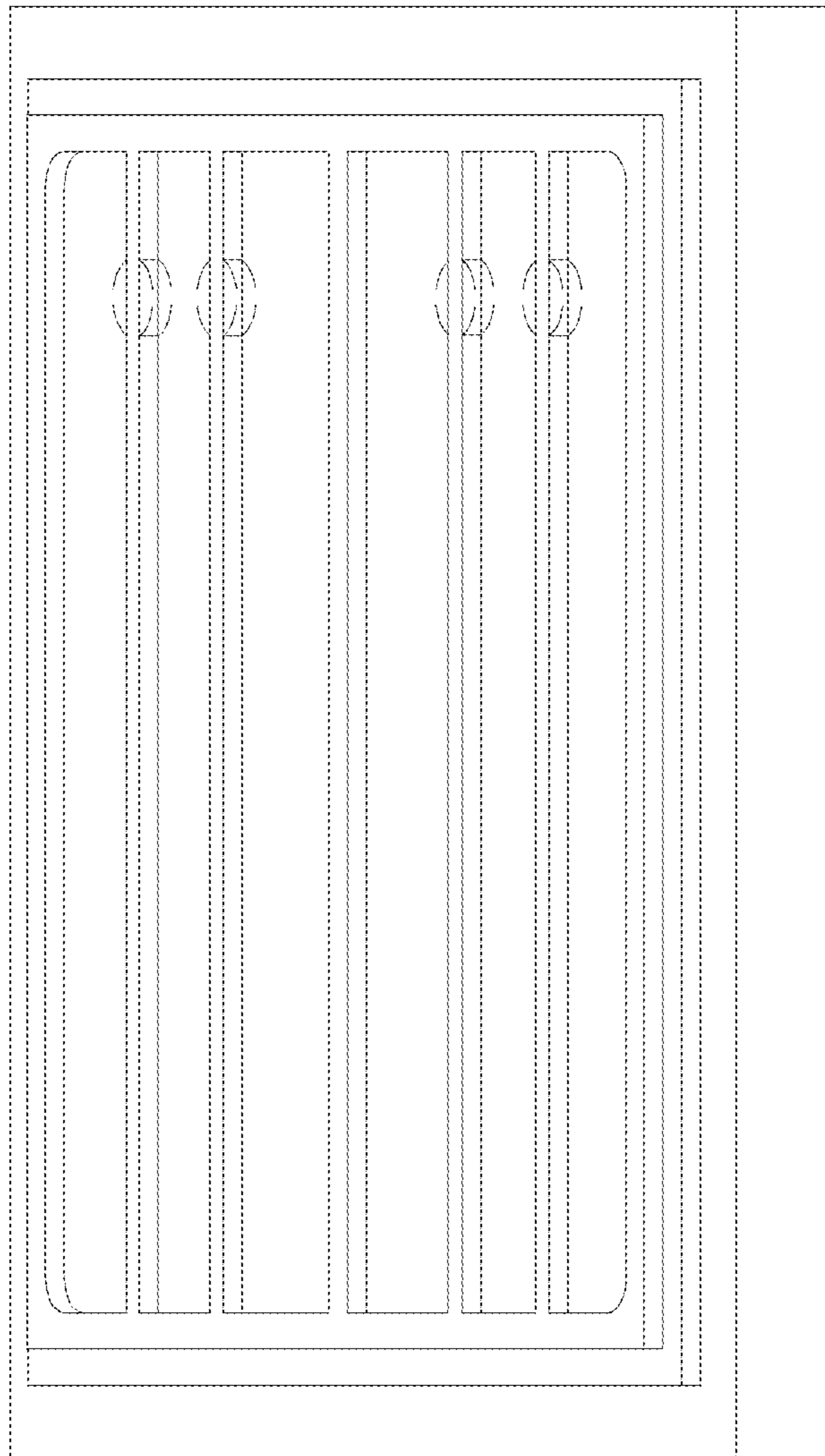


Fig. 5

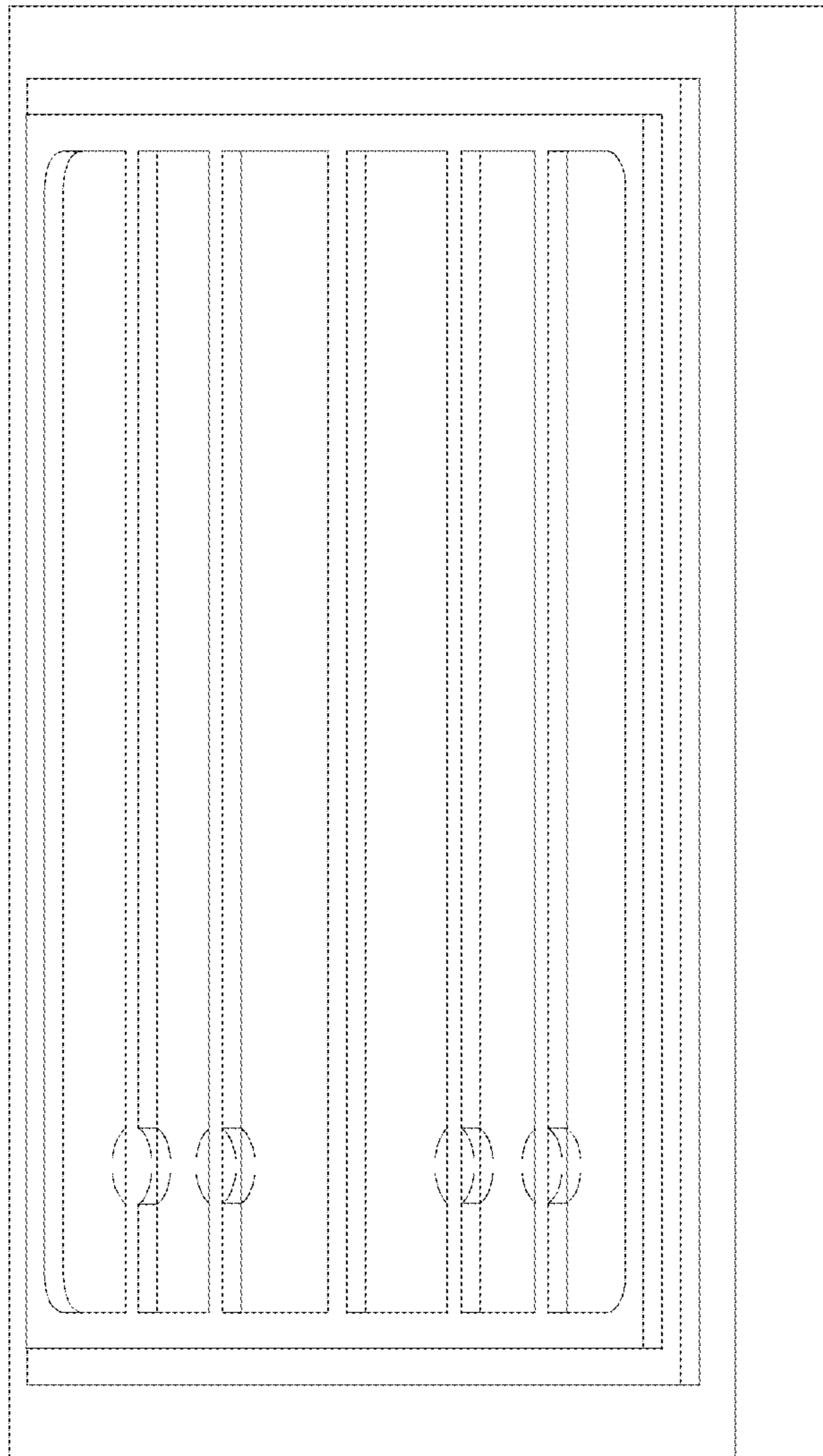


Fig. 6



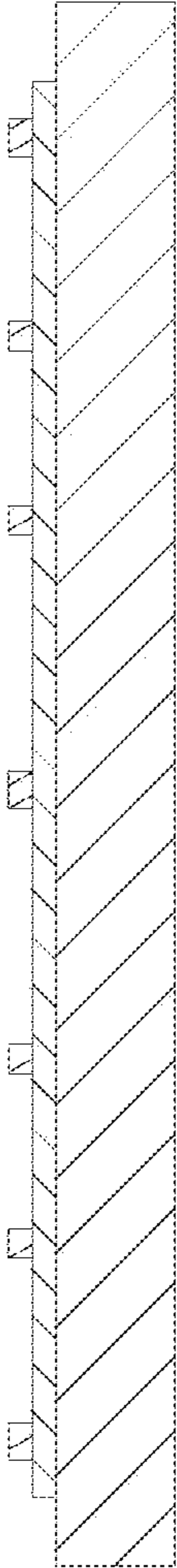


Fig. 7

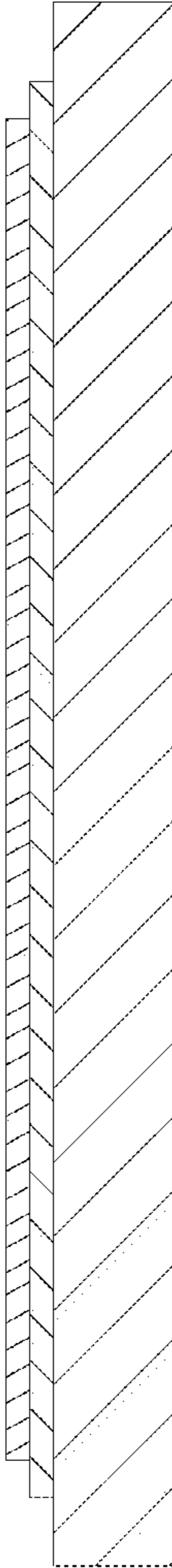


Fig. 8



Fig. 9

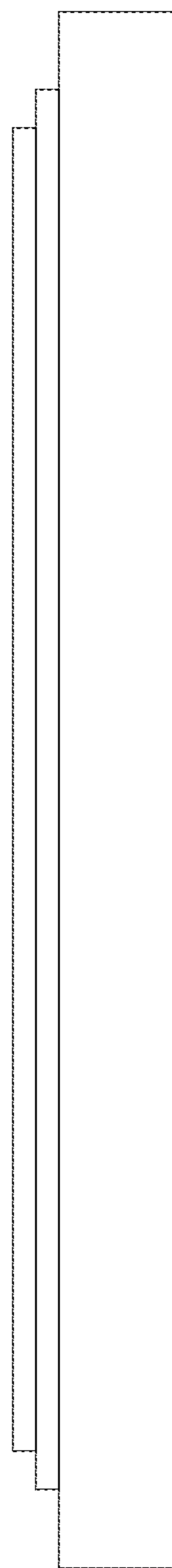


Fig. 10