



US00D939681S

(12) **United States Design Patent**
Zheng

(10) **Patent No.:** **US D939,681 S**

(45) **Date of Patent:** **** Dec. 28, 2021**

(54) **FRAME FOR AIR CLEANER FILTER
ELEMENT**

(71) Applicant: **Xuechun Zheng**, Haining (CN)

(72) Inventor: **Xuechun Zheng**, Haining (CN)

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

(21) Appl. No.: **29/764,822**

(22) Filed: **Jan. 4, 2021**

(51) **LOC (13) Cl.** **23-04**

(52) **U.S. Cl.**
USPC **D23/365**

(58) **Field of Classification Search**
USPC D23/209, 314, 325, 333–336, 355–366,
D23/386–388
CPC B01D 46/00; B01D 46/0004; B01D 27/04;
F25D 17/042; A61L 9/01
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 3,793,692 A * 2/1974 Tate B01D 46/10
29/896.62
- 3,844,478 A * 10/1974 Davis A61L 9/12
239/57
- D300,848 S * 4/1989 Baker D23/365
- D308,721 S * 6/1990 Ahl D23/366
- D397,777 S * 9/1998 Mack, Jr. D23/351

(Continued)

OTHER PUBLICATIONS

Nordic Pure Merv 14 Pleated Air Filter [Sep. 7, 2021] found online [Sep. 7, 2021]—<https://www.walmart.com/ip/Nordic-Pure-10x30x1M14-C-6-10-x-30-x-1-in-Merv-14-Pleated-Air-Filters-Plus-Carbon-Case-of-6-Pack-of-6/366998188>.*

Primary Examiner — John A Voytek

(74) *Attorney, Agent, or Firm* — Runit Ranjit Kanakia

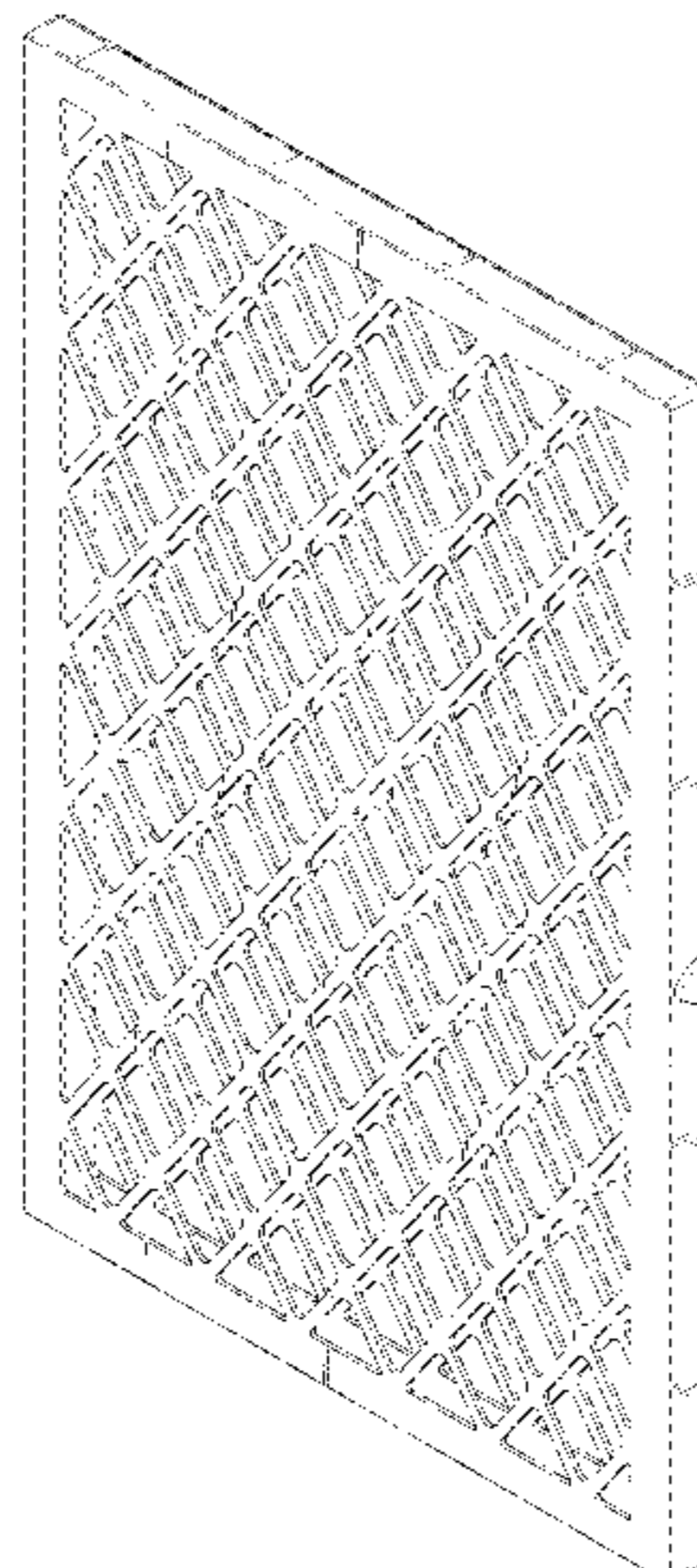
(57) **CLAIM**

The ornamental design for a frame for air cleaner filter element, as shown and described.

DESCRIPTION

FIG. 1 is a front elevational view of a frame for air cleaner filter element showing my new design; FIG. 2 is a rear elevational view thereof; and FIG. 3 is a left elevational view thereof; FIG. 4 is a right side view thereof; FIG. 5 is a top side view thereof; FIG. 6 is a bottom plan view thereof; FIG. 7 is a perspective view of a frame for air cleaner filter element showing my new design. FIG. 8 is a perspective view showing that the cover and base of the frame for air cleaner filter element are separated; FIG. 9 is a front elevational view showing the cover of the frame for air cleaner filter element; FIG. 10 is a rear elevational view thereof; and FIG. 11 is a left elevational view thereof; FIG. 12 is a right side view thereof; FIG. 13 is a top side view thereof; FIG. 14 is a bottom plan view thereof; FIG. 15 is a perspective view showing the cover of the frame for air cleaner filter element; FIG. 16 is a front elevational view showing the base of the frame for air cleaner filter element; FIG. 17 is a rear elevational view thereof; and FIG. 18 is a left elevational view thereof; FIG. 19 is a right side view thereof; FIG. 20 is a top side view thereof; FIG. 21 is a bottom plan view thereof; FIG. 22 is a perspective view showing the base of the frame for air cleaner filter element; FIG. 23 is an enlarged view of the base of the frame for air cleaner filter element of FIG. 17; and, FIG. 24 is an enlarged view of the base of the frame for air cleaner filter element of FIG. 22. The broken lines shown in the drawings form no part of the claimed design.

1 Claim, 18 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D449,100	S *	10/2001	Sundet	D23/365
D483,845	S	12/2003	Arato	
D517,193	S *	3/2006	Calkins	D23/395
D518,158	S	3/2006	Cho et al.	
D614,753	S	4/2010	DeFelice	
D655,802	S	3/2012	Platt	
D710,000	S	7/2014	Moreno	
8,834,611	B1 *	9/2014	Dimicelli	B01D 46/0036 95/286
D762,832	S	8/2016	Gale	
D775,344	S *	12/2016	Wu	D24/162
D786,152	S *	5/2017	Wotton	D12/171
D804,005	S *	11/2017	Spear	D23/365
D804,829	S *	12/2017	Austin	D5/58
D868,071	S *	11/2019	Liu	D14/440
D875,909	S	2/2020	Gregerson et al.	
D893,694	S	8/2020	Hugues et al.	
D893,695	S	8/2020	Gale et al.	
D906,503	S	12/2020	Rubin	
2009/0019824	A1 *	1/2009	Lawrence	B01D 46/10 55/497
2017/0368488	A1 *	12/2017	Wall	B01D 46/521

* cited by examiner

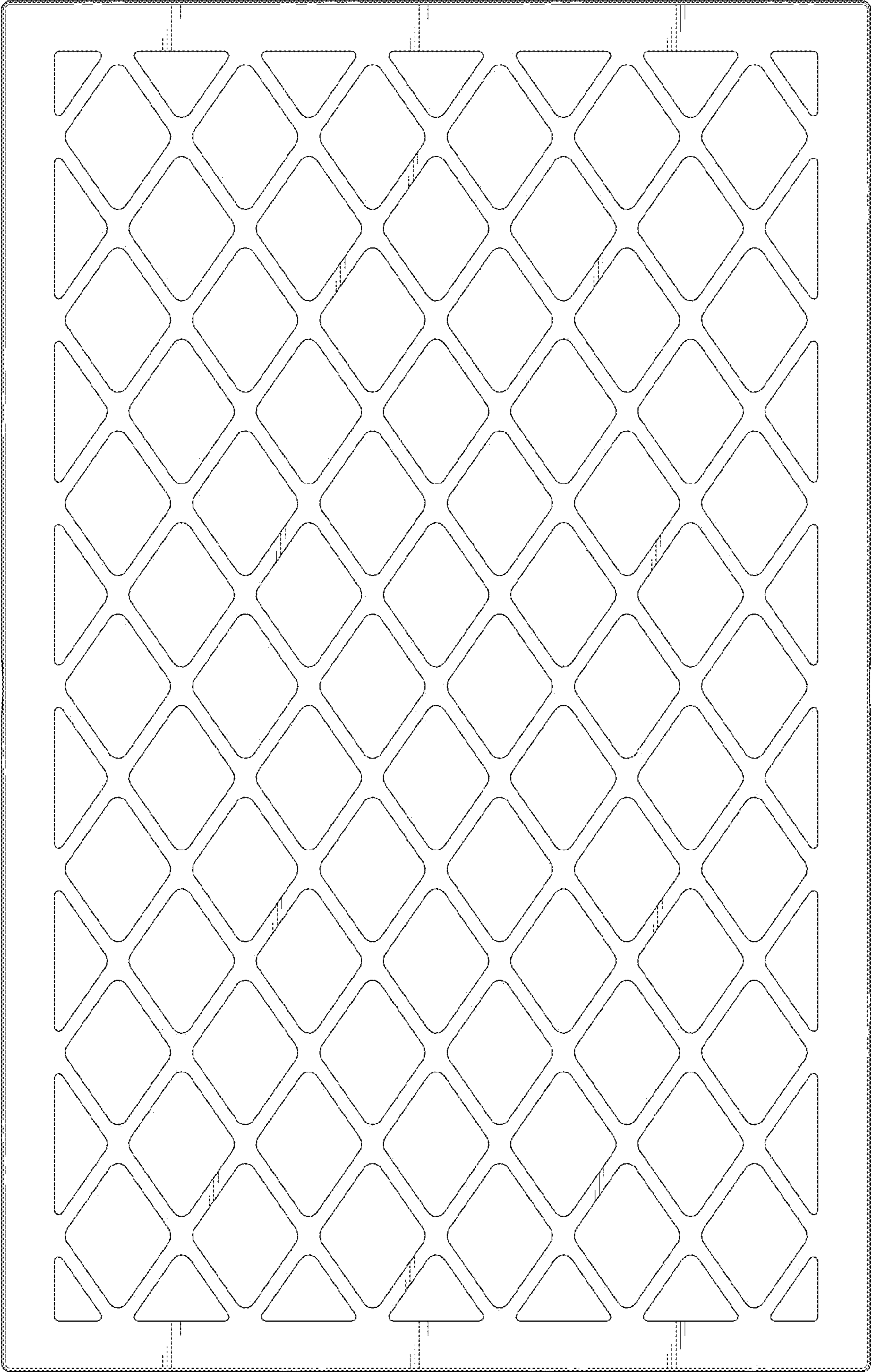


Fig. 1

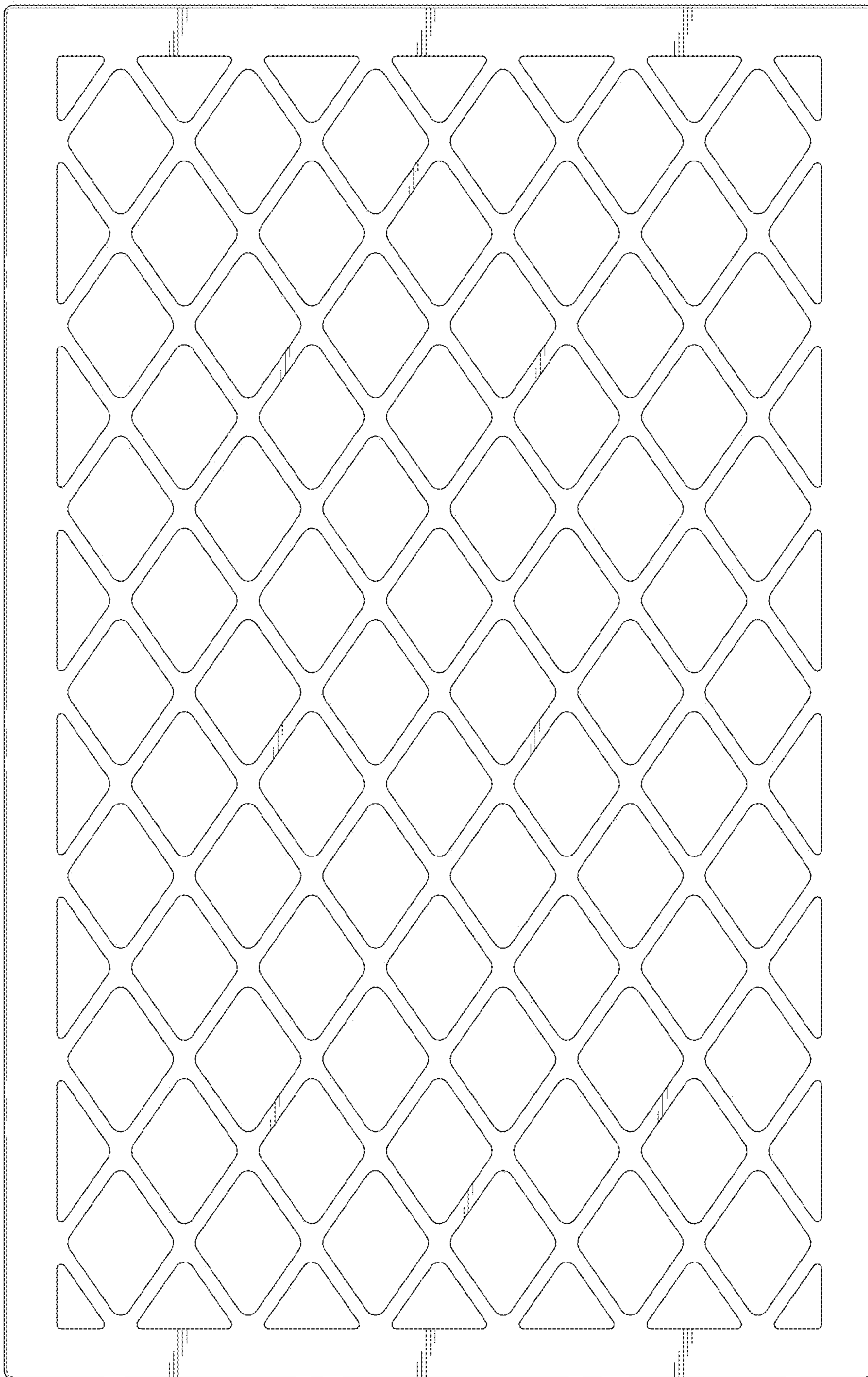


Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

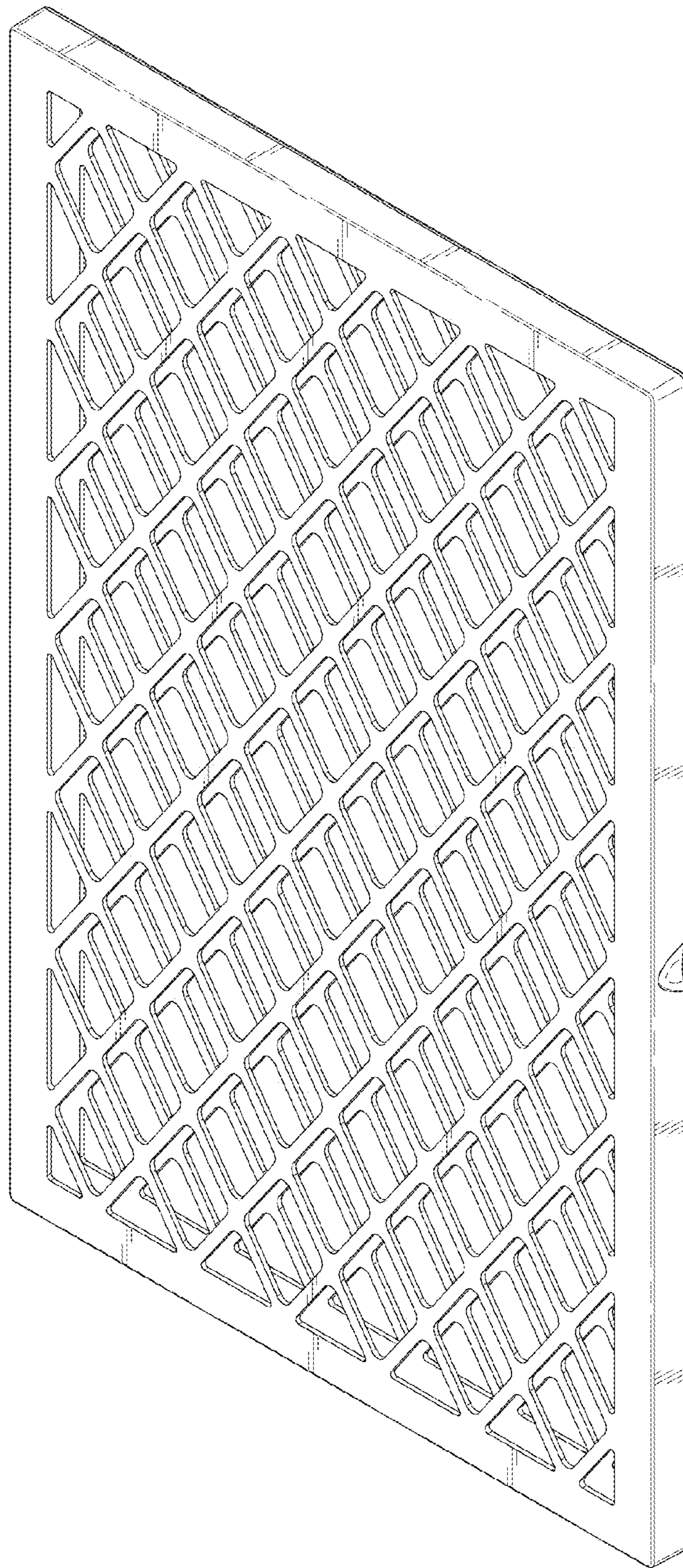


Fig. 7

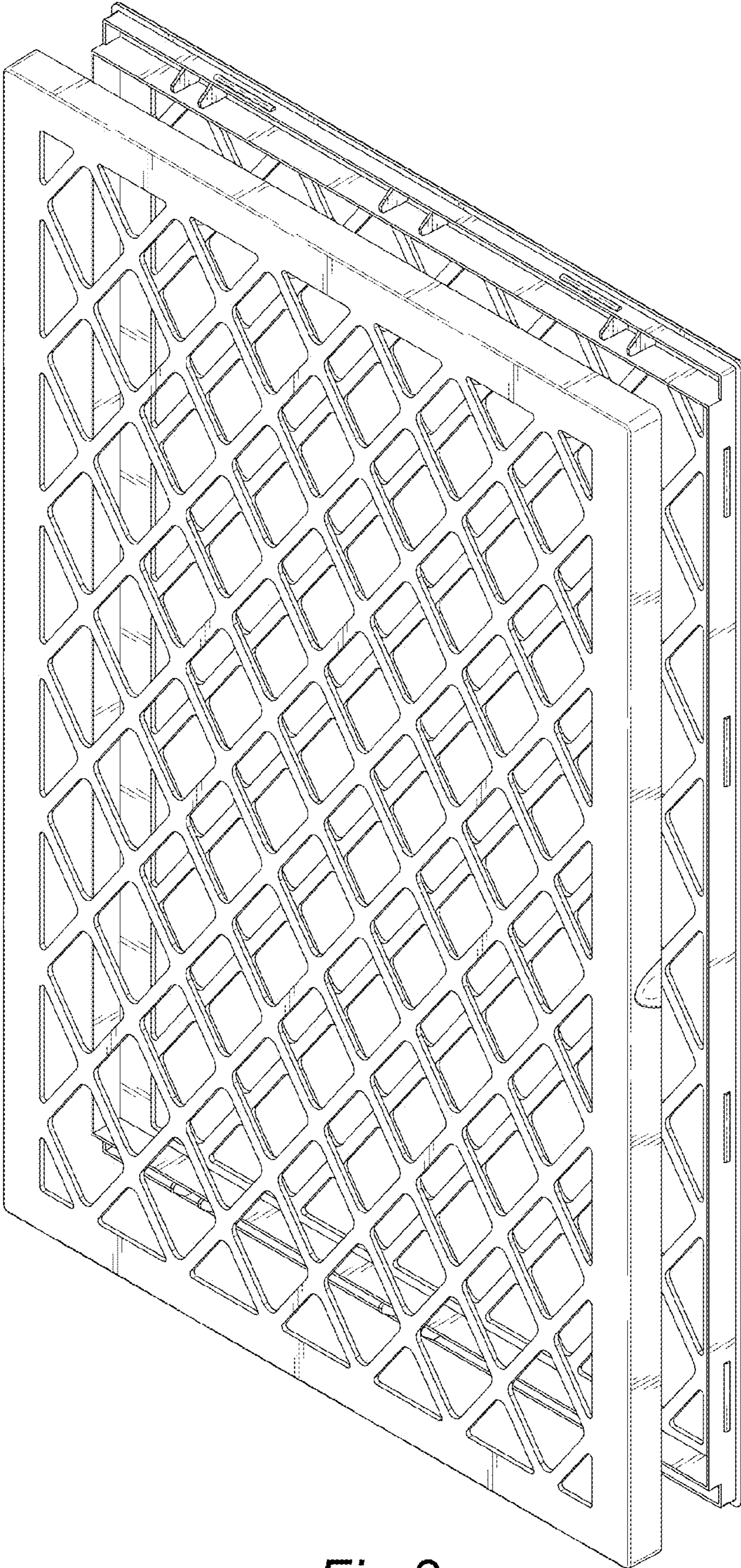


Fig. 8

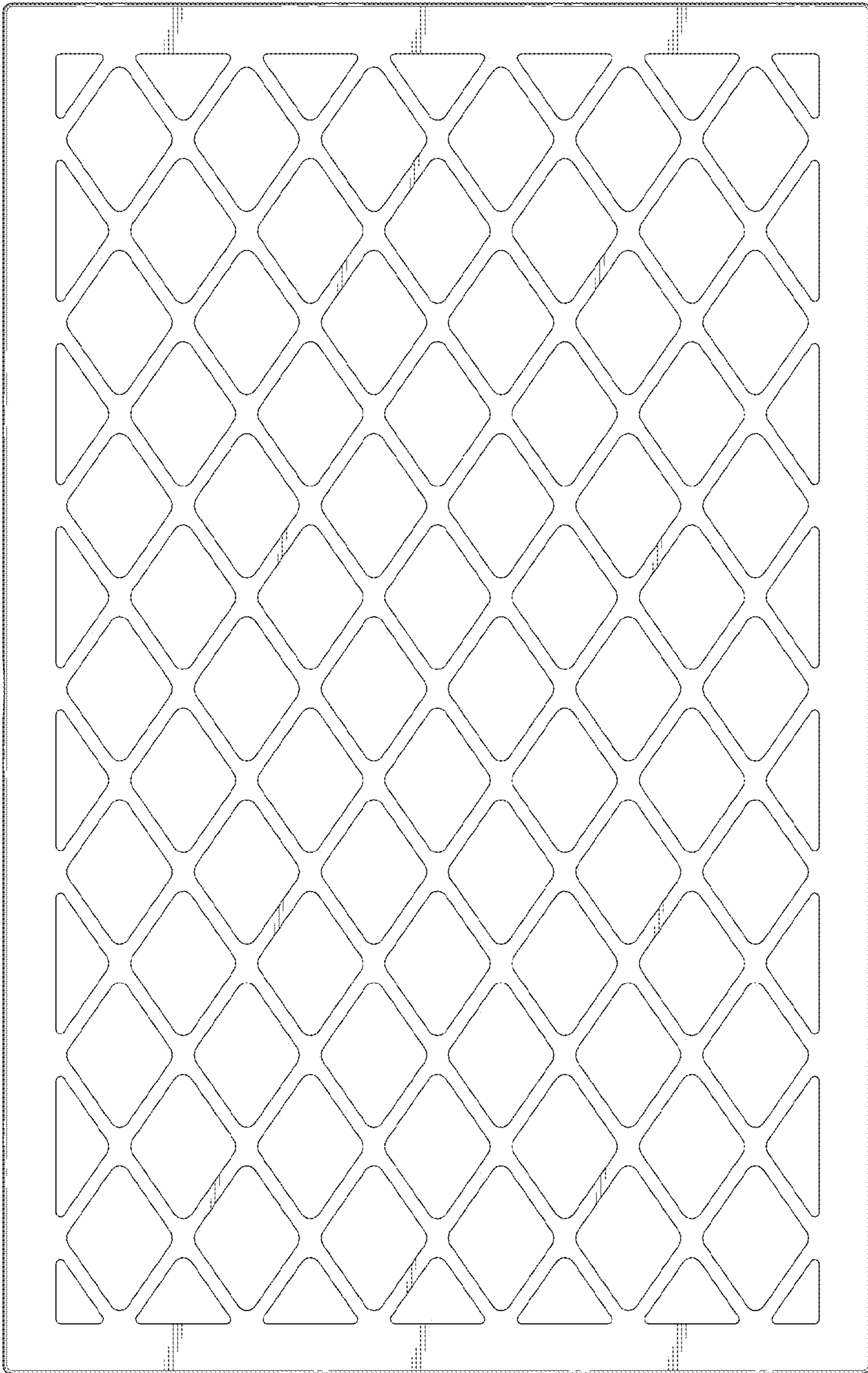


Fig.9

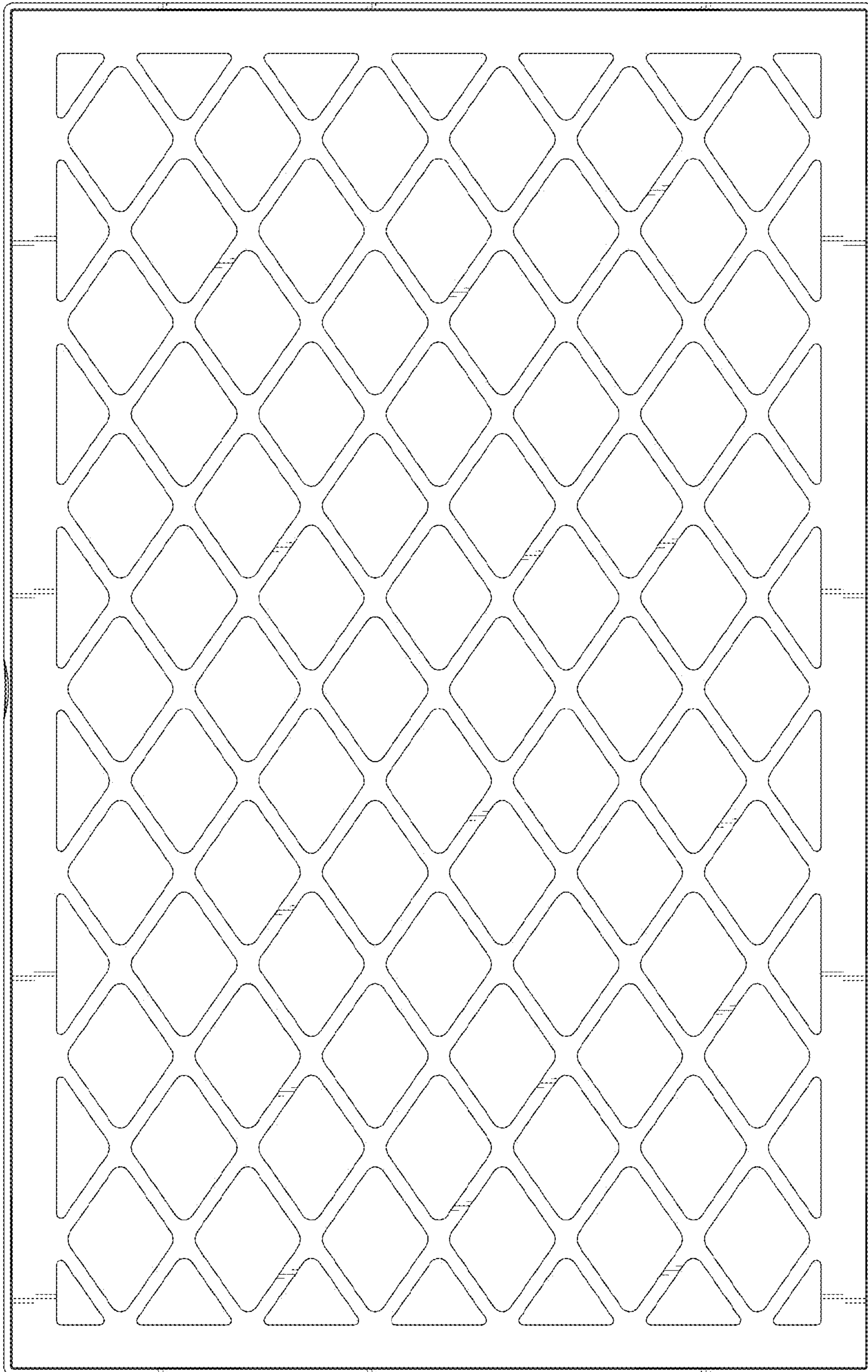


Fig. 10



Fig. 11



Fig. 12



Fig. 13

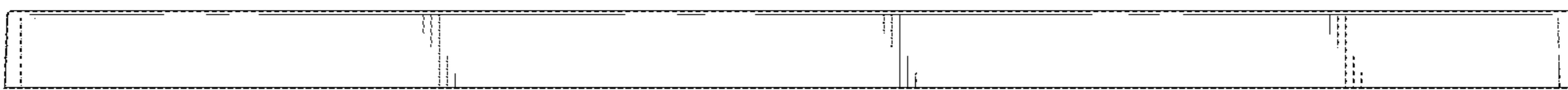


Fig. 14

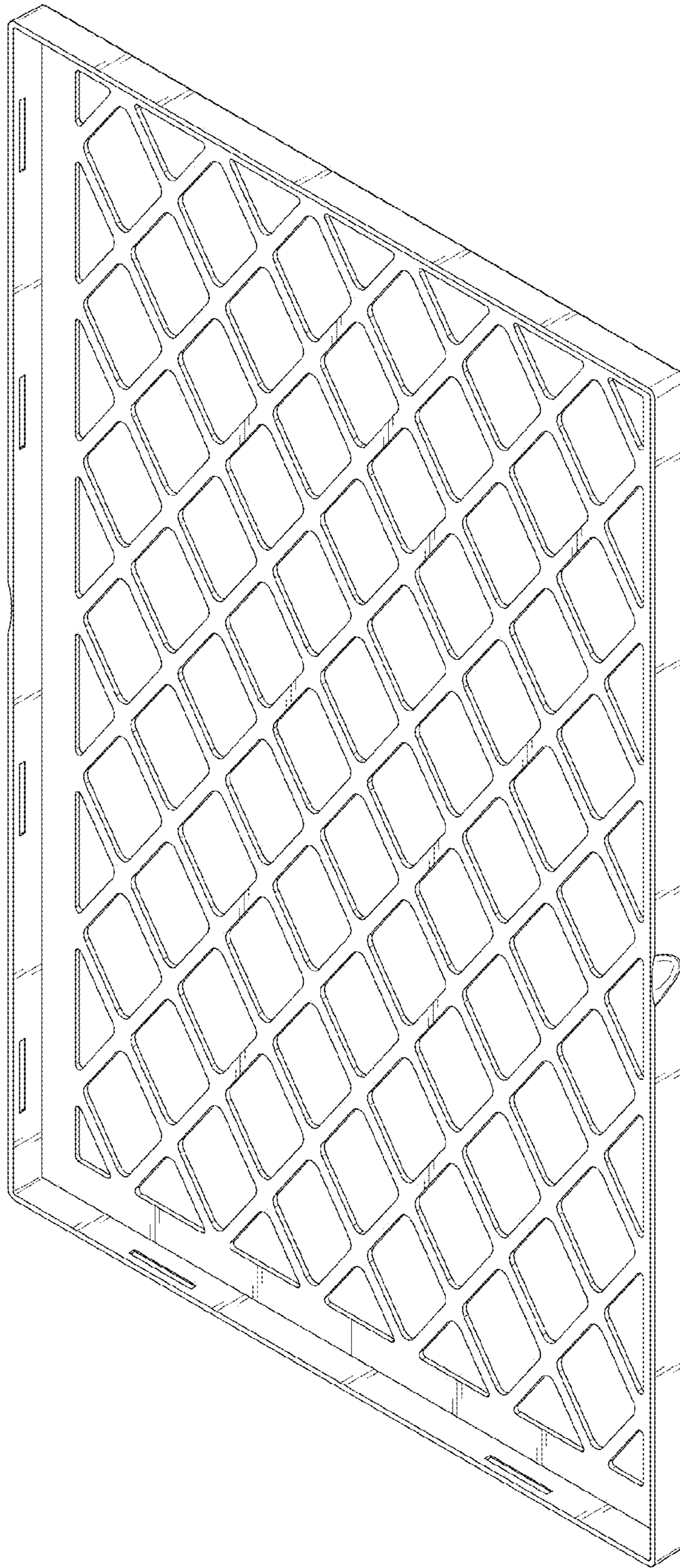


Fig. 15

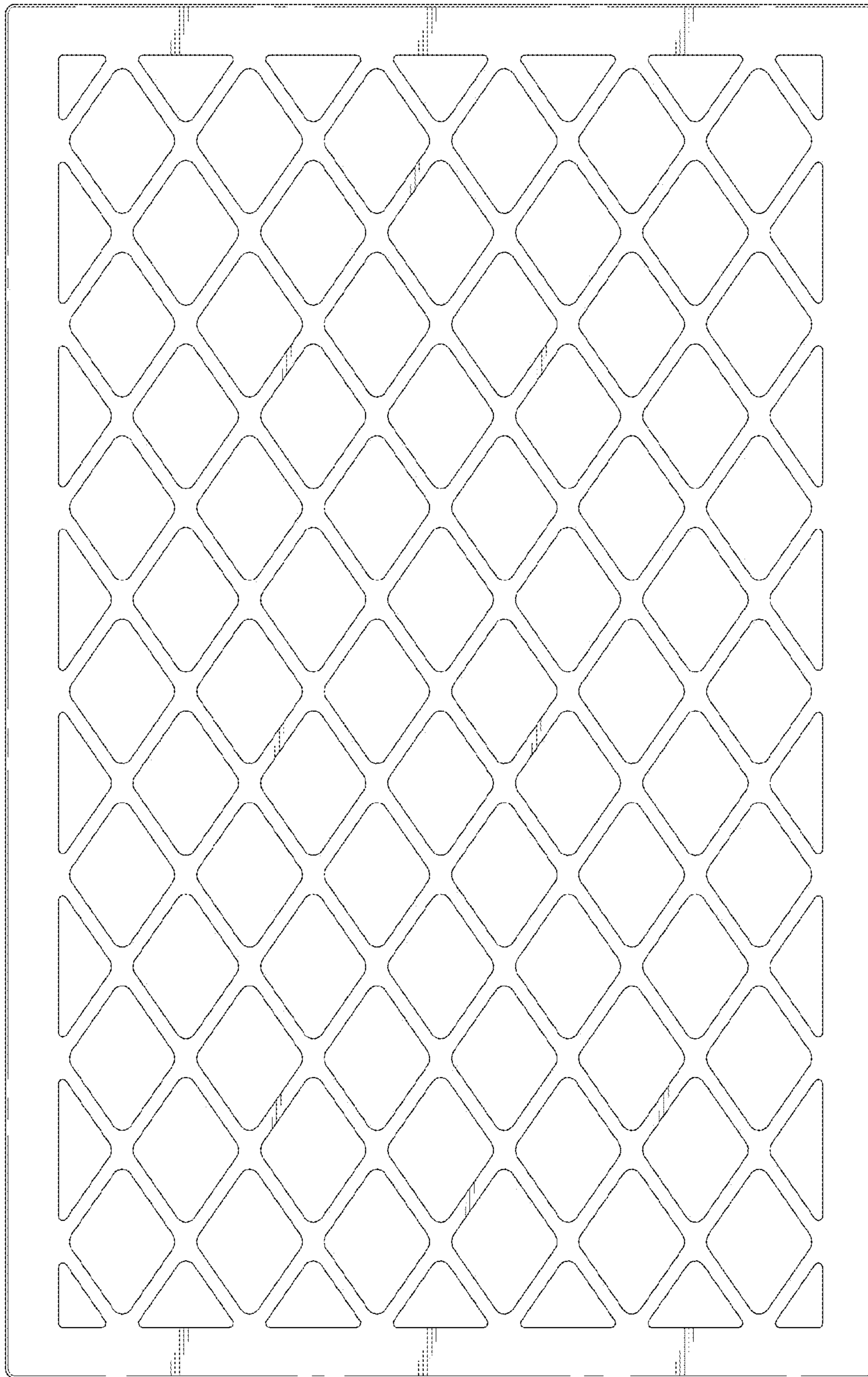


Fig. 16

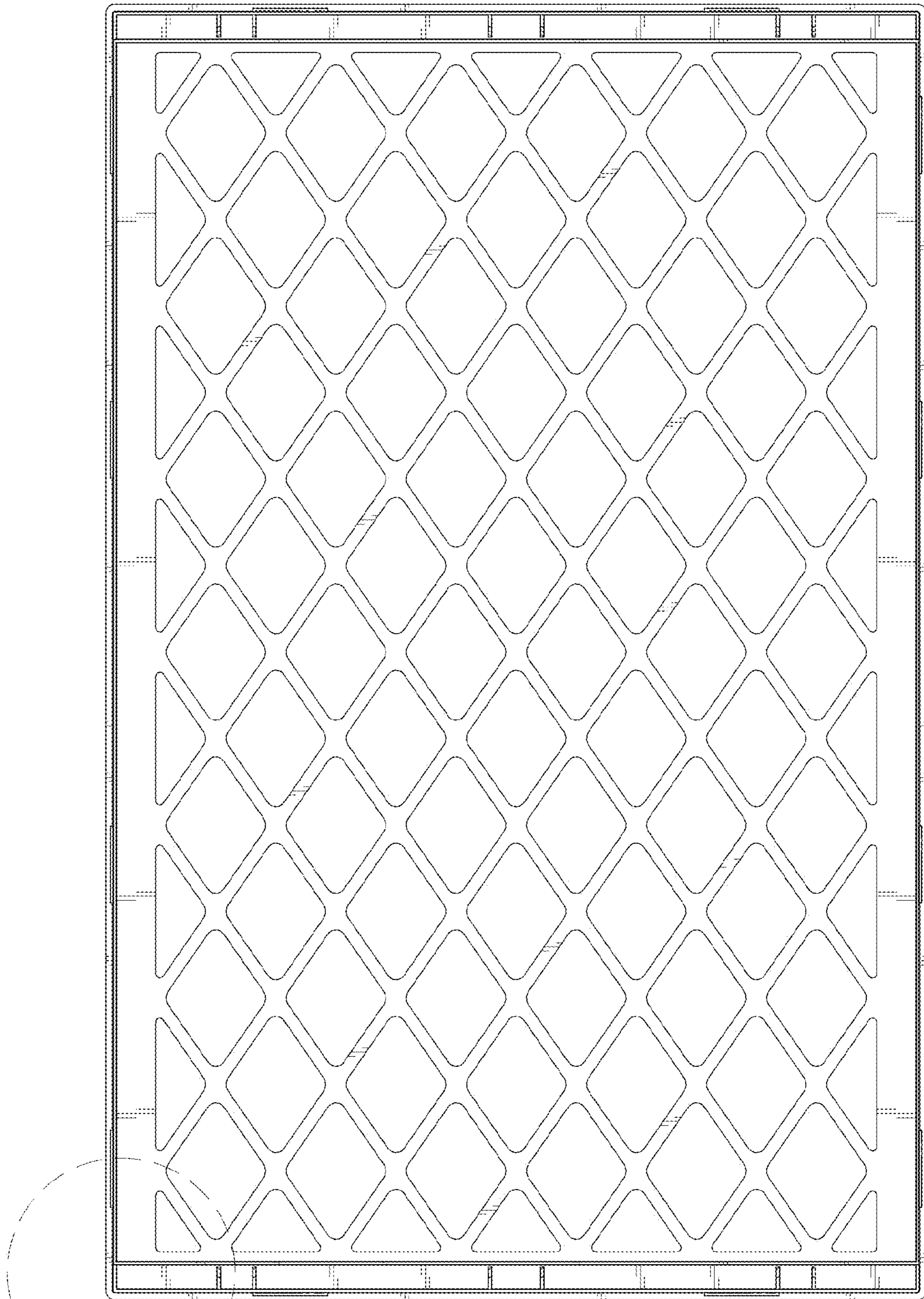


Fig.23

Fig.17



Fig. 18



Fig. 19

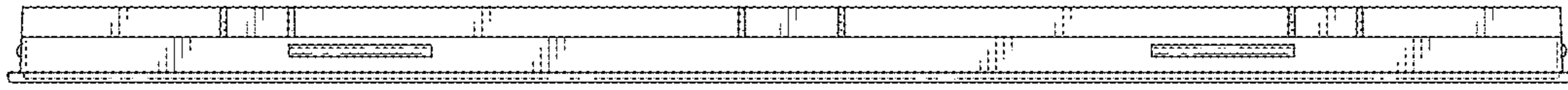


Fig.20



Fig.21

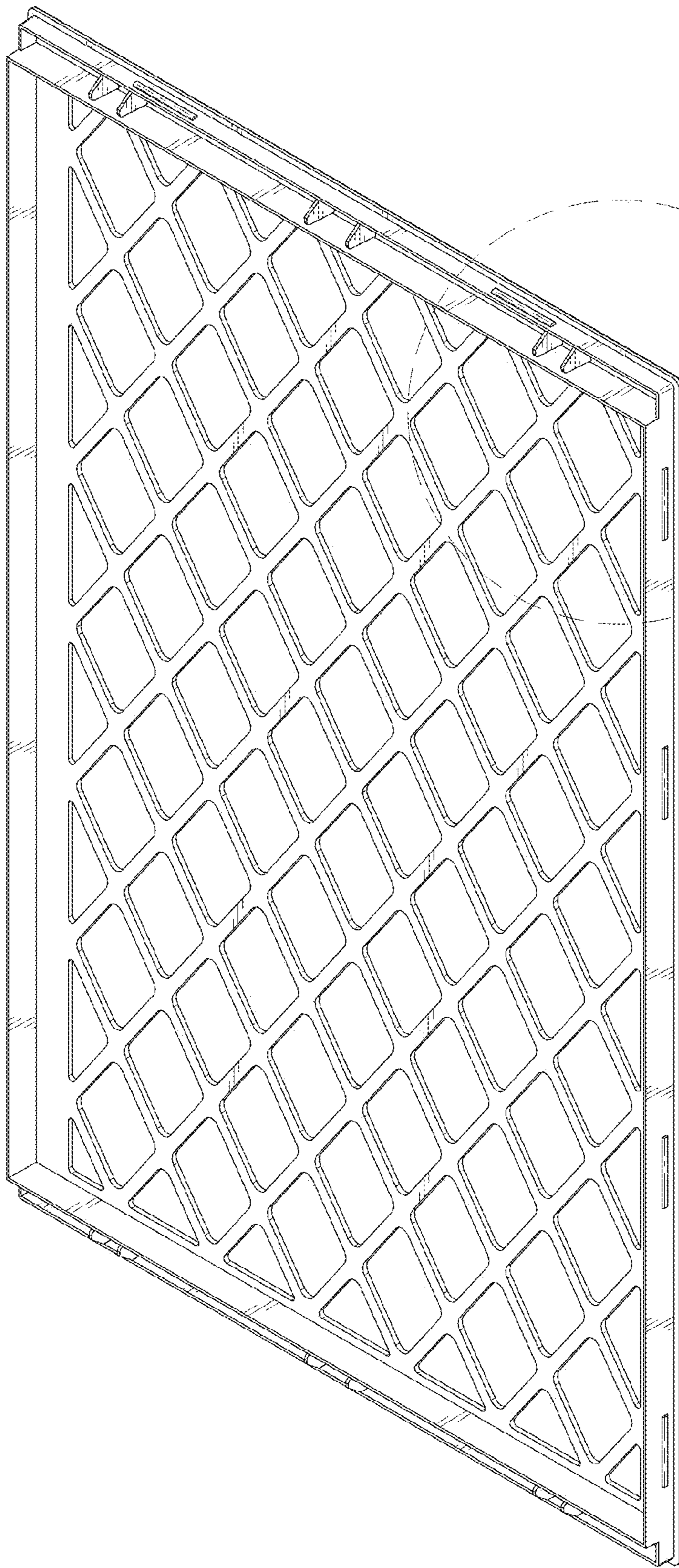


Fig.24

Fig.22

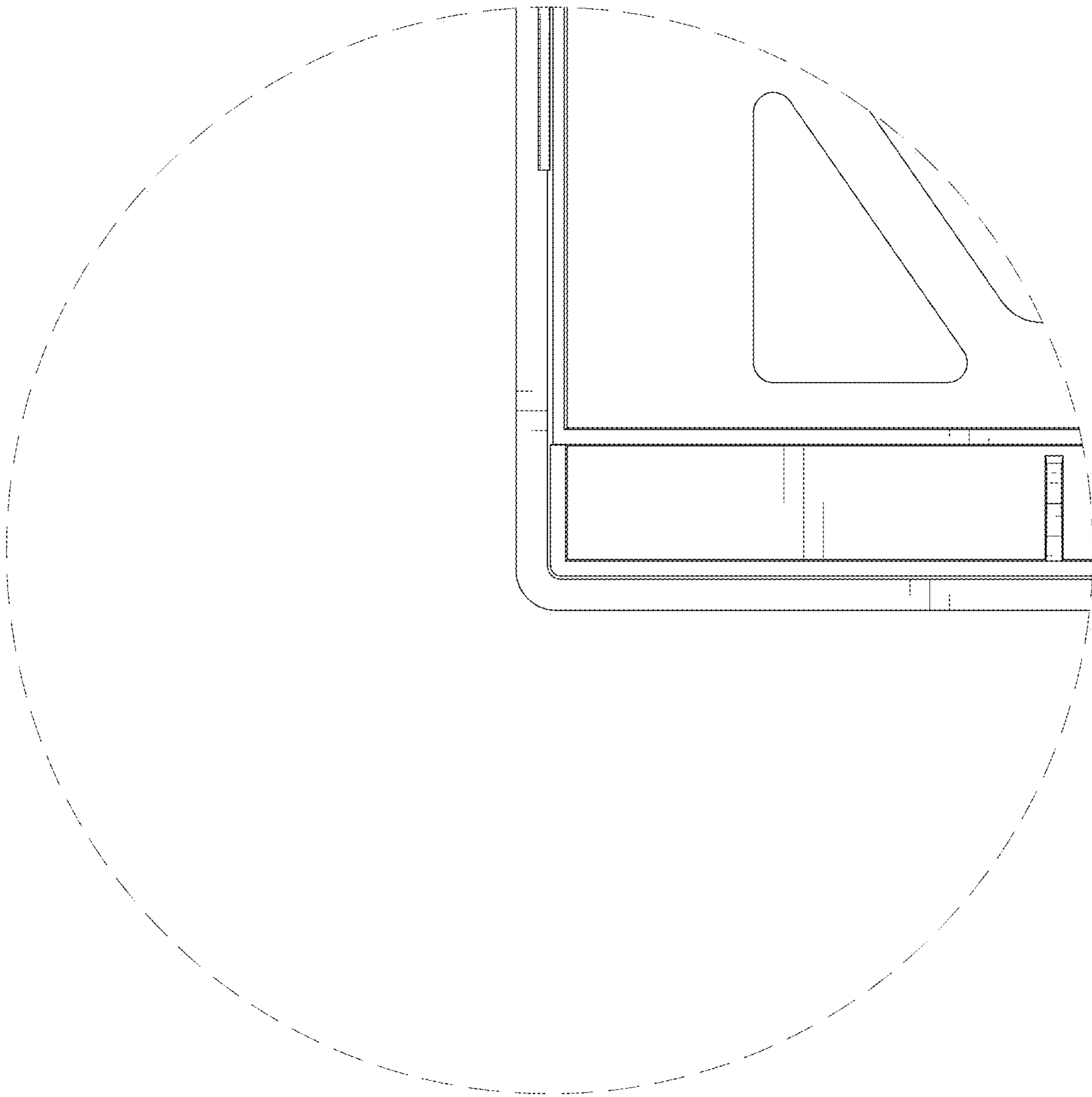


Fig. 23

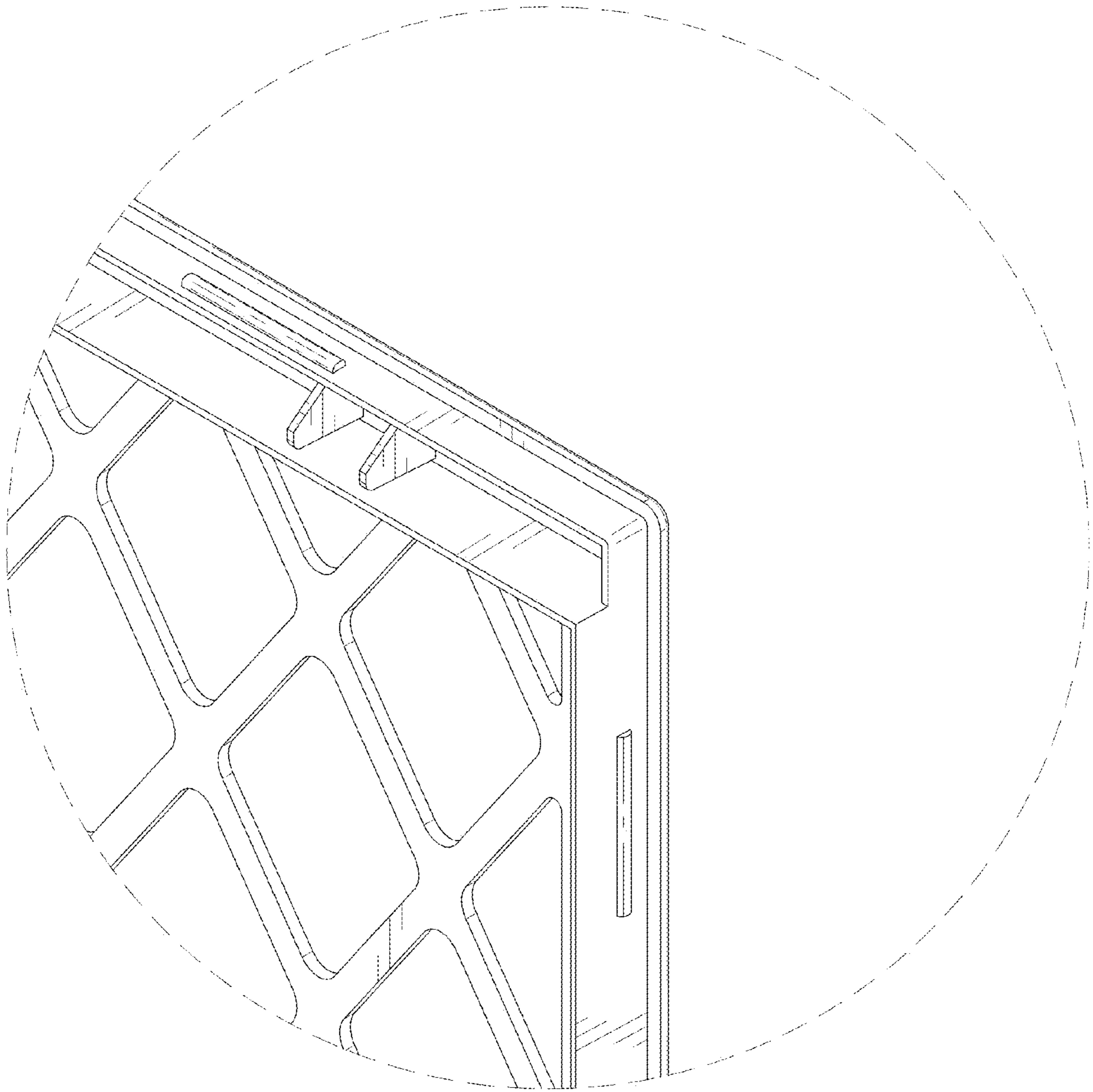


Fig. 24