



US00D945952S

(12) **United States Design Patent**  
**Kiefer, III et al.**

(10) **Patent No.:** **US D945,952 S**  
(45) **Date of Patent:** **\*\* Mar. 15, 2022**

- (54) **SOLAR TOWER**
- (71) Applicants: **Louis Fredrick Kiefer, III**, Nashua, NH (US); **Jennifer Elizabeth Kiefer**, Nashua, NH (US); **Louis Fredrick Kiefer, IV**, New London, NH (US)
- (72) Inventors: **Louis Fredrick Kiefer, III**, Nashua, NH (US); **Jennifer Elizabeth Kiefer**, Nashua, NH (US); **Louis Fredrick Kiefer, IV**, New London, NH (US)
- (\*\*) Term: **15 Years**

6,346,669	B1 *	2/2002	Itoh .....	F24S 25/16
				136/244
D476,717	S *	7/2003	Pitts .....	D23/207
6,681,534	B2	1/2004	David et al.	
7,321,173	B2	1/2008	Mann	
7,368,655	B2	5/2008	Blieske et al.	
D600,200	S *	9/2009	Dimov .....	D13/102
7,939,746	B2	5/2011	Wichner	
7,999,174	B2	8/2011	Moslehi	
8,053,665	B2	11/2011	Moslehi et al.	
D649,930	S *	12/2011	Lindor .....	D13/102
8,084,684	B2	12/2011	Moslehi	
8,106,593	B2	1/2012	Nevins	
D659,085	S *	5/2012	Olavarria .....	D13/102

(Continued)

- (21) Appl. No.: **29/690,355**
- (22) Filed: **May 7, 2019**
- (51) **LOC (13) Cl.** ..... **13-02**
- (52) **U.S. Cl.**  
USPC ..... **D13/102**
- (58) **Field of Classification Search**  
USPC ..... D13/102, 101, 103, 107, 118, 119, 184,  
D13/199; D21/491, 506; D23/207  
CPC ..... H01L 31/18; H01L 31/042; H01L 31/045;  
H01L 21/306; H02S 30/20; F16M 13/02;  
F24S 25/12; F24S 25/10; G02B 7/183;  
Y02E 10/47-60  
See application file for complete search history.

**FOREIGN PATENT DOCUMENTS**

CN 102201467 A 9/2011

*Primary Examiner* — Derrick E Holland

(74) *Attorney, Agent, or Firm* — Thomas G. Ference

(57) **CLAIM**

The ornamental design for a solar tower, as shown and described.

**DESCRIPTION**

This patent application is related to US Provisional Patent Application No. 62/844,468, filed on May 7, 2019, titled "Solar Towers", which is incorporated herein by reference. FIG. 1 is a perspective view of a first embodiment of a solar tower showing our new design; FIG. 2 is front-side, right-side, left-side and back-side view of FIG. 1; FIG. 3 is a perspective view of a second embodiment of a solar tower showing our new design; and, FIG. 4 is a front-side, right-side, left-side and back-side view of FIG. 3.

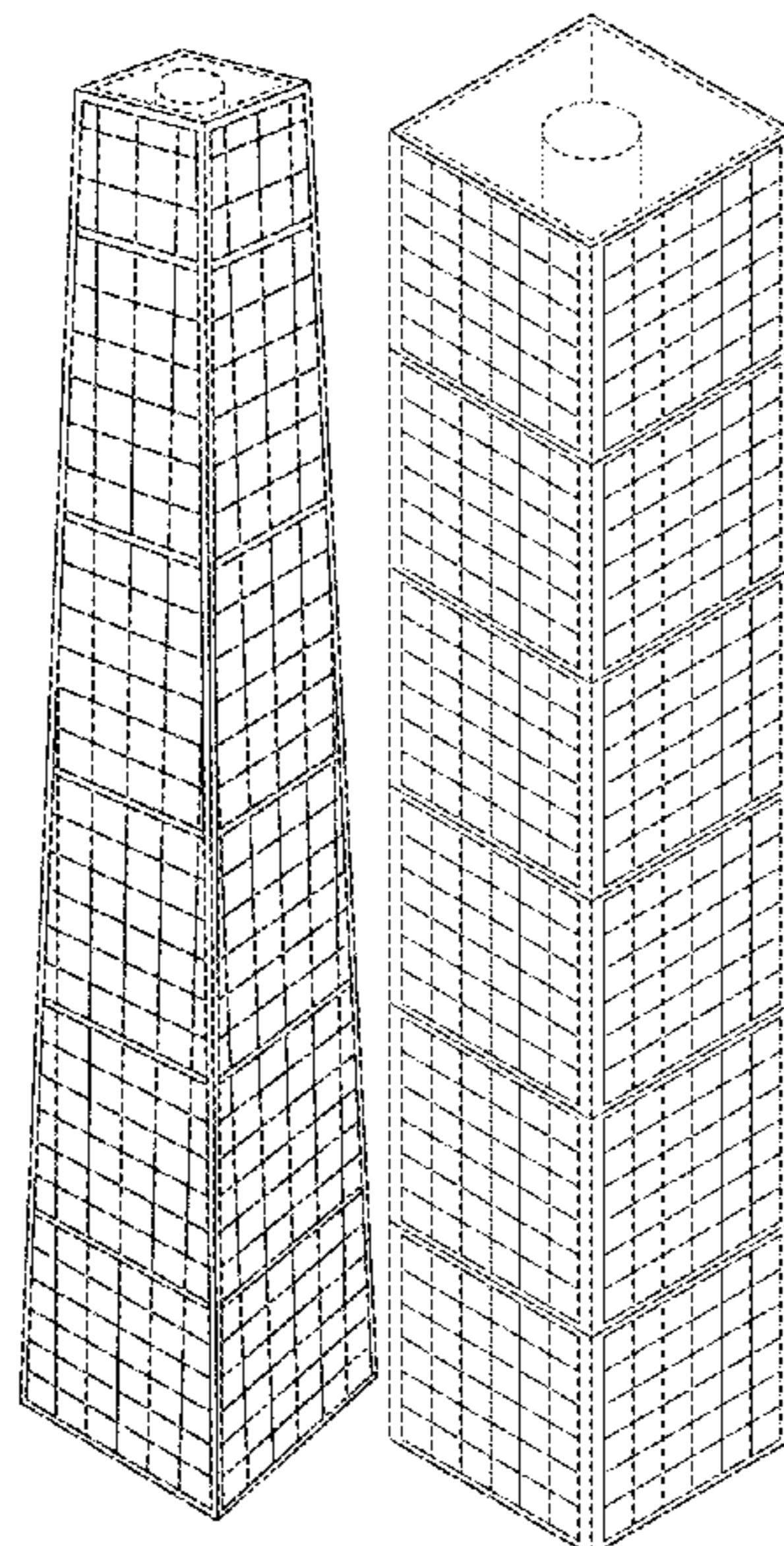
The broken lines shown represent portions of the solar tower that form no part of the claimed design.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,023,368	A	5/1977	Kelly	
4,131,984	A	1/1979	Kaplow et al.	
4,427,839	A	1/1984	Hall	
4,626,613	A	12/1986	Wenham et al.	
D303,244	S *	9/1989	Hanak .....	D13/102
5,248,621	A	9/1993	Sano	
5,503,898	A	4/1996	Lauf	
5,704,992	A	1/1998	Willeke et al.	
6,060,658	A *	5/2000	Yoshida .....	G09F 13/02
				136/243

**1 Claim, 4 Drawing Sheets**



(56)

**References Cited**

## U.S. PATENT DOCUMENTS

D667,064	S *	9/2012	Guyer .....	D21/700
8,288,195	B2	10/2012	Wang et al.	
8,324,499	B2	12/2012	Moslehi	
8,664,515	B2	3/2014	Hong et al.	
8,828,517	B2	9/2014	Wang et al.	
8,916,766	B2	12/2014	Hong et al.	
8,960,185	B2 *	2/2015	Ashkin .....	F24S 23/75 126/680
9,046,235	B2	6/2015	Wilson	
D742,816	S *	11/2015	Anker .....	D13/102
9,349,887	B2	5/2016	Moslehi	
9,421,731	B2	8/2016	Furutani et al.	
D769,183	S *	10/2016	Kubitz .....	D13/102
D800,056	S *	10/2017	Lakamp .....	D13/102
D813,802	S *	3/2018	Krantz .....	D13/102
10,451,233	B1	10/2019	Izradel	
2002/0062856	A1	5/2002	Wescott	
2003/0111105	A1	6/2003	Tsukuda et al.	
2004/0016454	A1	1/2004	Murphy et al.	
2009/0040750	A1	2/2009	Myer	
2009/0107545	A1	4/2009	Moslehi	
2010/0304521	A1	12/2010	Seutter et al.	
2011/0126882	A1	6/2011	Kwak	
2012/0017966	A1	1/2012	Shyu et al.	
2012/0092223	A1	4/2012	Habib et al.	
2013/0141902	A1	6/2013	Akdag	
2014/0216541	A1	8/2014	Yamaguchi et al.	
2015/0000726	A1	1/2015	Huang	
2015/0068583	A1	3/2015	Moslehi	
2015/0285959	A1	10/2015	Samuels	
2016/0073591	A1	3/2016	Surany	
2016/0149537	A1	5/2016	Ott	
2016/0286627	A1	9/2016	Hongxin et al.	

\* cited by examiner

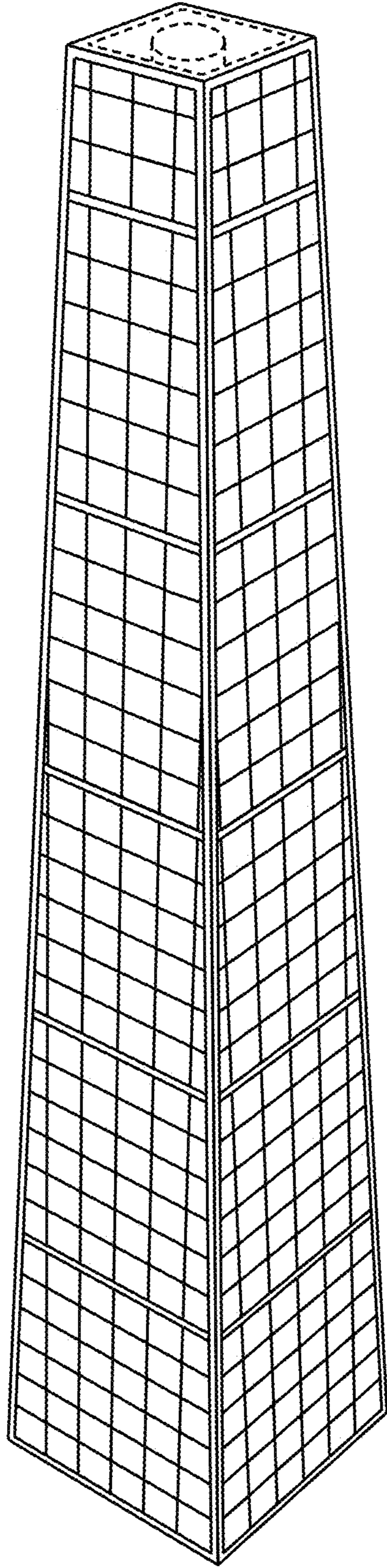


Figure 1

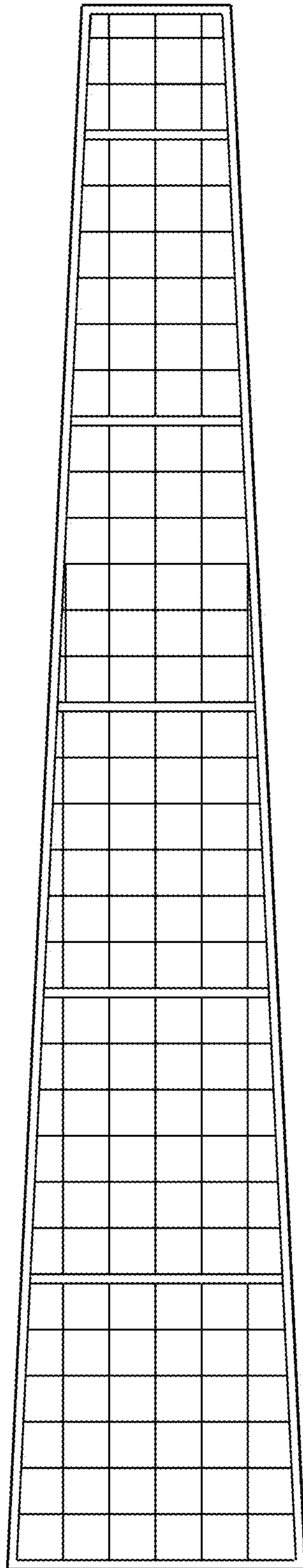


Figure 2

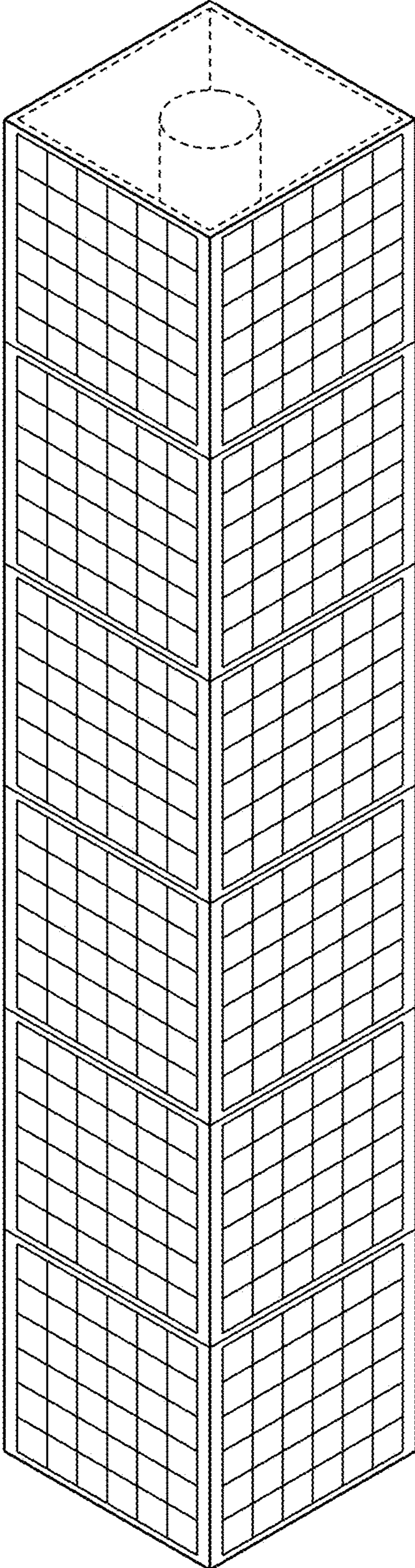


Figure 3

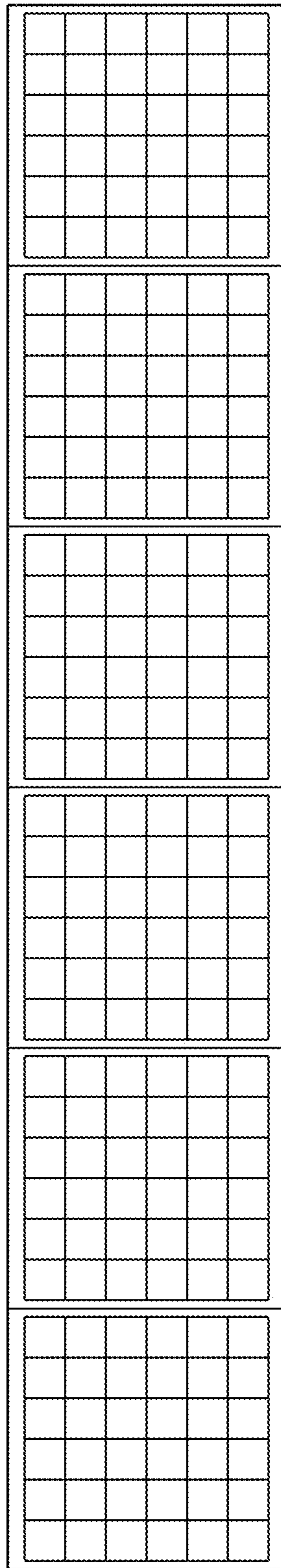


Figure 4