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

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- (54) **CHANNEL HOLE PATTERN**
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- (73) Assignee: **Robotzone, LLC**, Winfield, KS (US)
- (\*\*) Term: **15 Years**

1,938,818 A *	12/1933	Erickson .....	A47K 3/008 4/595
2,082,138 A *	6/1937	Badel .....	A63H 33/12 446/113
2,116,301 A *	5/1938	Champlin .....	A63H 33/06 446/108
2,733,786 A *	2/1956	Drake .....	A47B 96/1408 52/633
2,793,403 A *	5/1957	Livingston .....	E04F 13/042 52/366

(Continued)

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- (51) **LOC (13) Cl.** ..... **21-01**
- (52) **U.S. Cl.**  
USPC ..... **D21/491; D21/501**
- (58) **Field of Classification Search**  
USPC ..... D21/484-504, 561, 562; D25/155;  
D6/511; D15/139, 199; D8/354  
CPC ..... A63H 33/00; A63H 33/04; A63H 33/042;  
A63H 33/06; A63H 33/065; A63H  
33/088; A63H 33/12  
See application file for complete search history.

**OTHER PUBLICATIONS**

Actobotics Product Feature: Connecting Channel, uploaded by ServoCity on youtube Jun. 18, 2014 [online], [site visited Sep. 13, 2020]. Available from Internet: <URL:https://www.youtube.com/watch?v=UjJ8yy6-kBM> (Year: 2014).\*

(Continued)

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(56) **References Cited**

**U.S. PATENT DOCUMENTS**

1,166,688 A *	1/1916	Hornby .....	E04B 1/1903 403/218
D48,675 S *	3/1916	Gilbert .....	D21/486
D48,859 S *	4/1916	Gilbert .....	D21/486
D48,860 S *	4/1916	Gilbert .....	D21/486
D51,277 S *	9/1917	Gilbert .....	D21/486
D51,552 S *	12/1917	Gilbert .....	D21/486
D76,792 S *	11/1928	Gilbert .....	D21/486
1,760,638 A *	5/1930	Gilbert .....	A63H 33/12 446/113
1,789,896 A *	1/1931	Gilbert .....	A63H 33/042 446/103
1,792,976 A *	2/1931	Gilbert .....	A63H 33/042 446/112

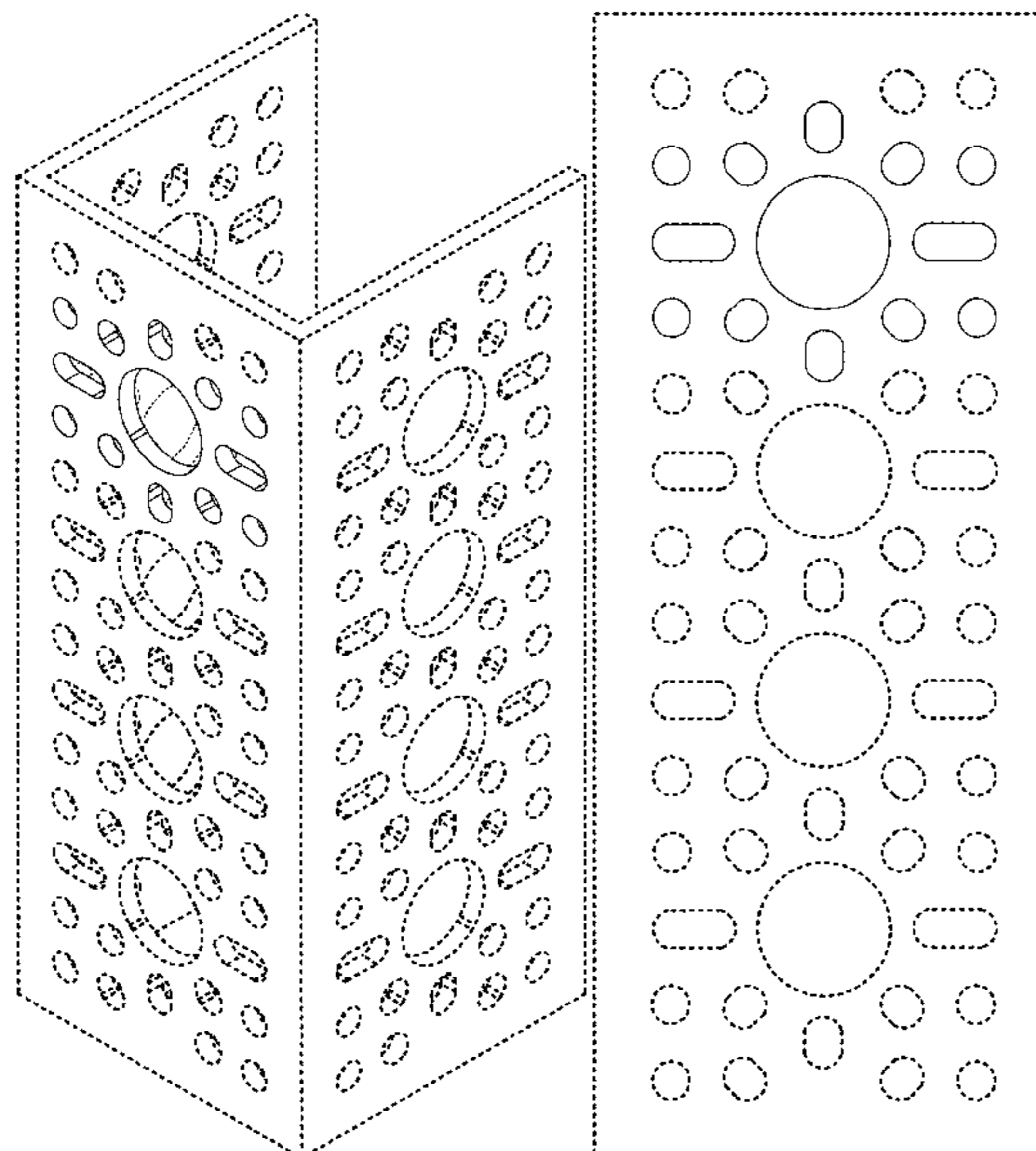
(57) **CLAIM**

The ornamental design for a channel hole pattern, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a channel hole pattern. FIG. 2 is a bottom view of the channel hole pattern. FIG. 3 is a first end view of the channel hole pattern. FIG. 4 is a first side view of the channel hole pattern. FIG. 5 is a second side view of the channel hole pattern. FIG. 6 is a second end view of the channel hole pattern; and, FIG. 7 is a top view of the channel hole pattern. The broken lines of FIGS. 1-7 are included for the purpose of illustrating environmental structure and form no part of the claimed design.

**1 Claim, 7 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

2,889,016 A \* 6/1959 Warren ..... F16B 5/02  
52/98  
D244,307 S \* 5/1977 Maddestra ..... D21/486  
D291,315 S \* 8/1987 Belford ..... D8/349  
4,957,251 A \* 9/1990 Hubbard ..... F16L 3/22  
248/68.1  
D370,171 S \* 5/1996 Emerson ..... D8/354  
D371,506 S \* 7/1996 Nofziger ..... D8/354  
D388,136 S \* 12/1997 Lecocq ..... D21/502  
D432,394 S \* 10/2000 Hays ..... D8/354  
D479,930 S \* 9/2003 Cook ..... D6/706  
D506,572 S \* 6/2005 Tufts, Jr. .... D27/161  
D584,941 S \* 1/2009 Broehl ..... D8/377  
D603,910 S \* 11/2009 Uttley ..... D21/484  
D619,446 S \* 7/2010 Reti ..... D8/354  
7,934,971 B2 \* 5/2011 Mimlitch, III ..... A63H 33/042  
446/107  
7,963,486 B2 \* 6/2011 Wilson ..... H04Q 1/062  
248/49  
D667,718 S \* 9/2012 Preda ..... D8/354  
D683,565 S \* 6/2013 Chou ..... D6/580

8,696,399 B2 \* 4/2014 Mimlitch ..... A63H 33/108  
446/85  
D722,657 S \* 2/2015 Pettey ..... D21/486  
8,998,154 B2 \* 4/2015 Lupsa ..... H02G 3/12  
248/200.1  
9,044,690 B2 \* 6/2015 Uttley ..... A63H 33/102  
9,169,948 B2 \* 10/2015 Buttars ..... E03C 1/021  
D770,573 S \* 11/2016 Pettey ..... D21/486  
9,550,130 B2 \* 1/2017 Pettey ..... A63H 33/042  
10,122,157 B1 \* 11/2018 Gintz ..... F16L 3/223  
D869,567 S \* 12/2019 Holman ..... D21/484  
10,561,958 B2 \* 2/2020 Purwar ..... A63H 33/12  
10,598,264 B2 \* 3/2020 Zheng ..... A63H 33/12  
10,683,949 B1 \* 6/2020 Mock ..... F16L 3/04  
D892,599 S \* 8/2020 Witherbee ..... D8/354  
2001/0022231 A1 \* 9/2001 Dyer ..... H02G 3/0437  
174/504  
2009/0247045 A1 \* 10/2009 Pettey ..... A63H 33/107  
446/484

OTHER PUBLICATIONS

<http://modernroboticsinc.com/gobilda>, accessed on May 20, 2017, 2 pages.

\* cited by examiner

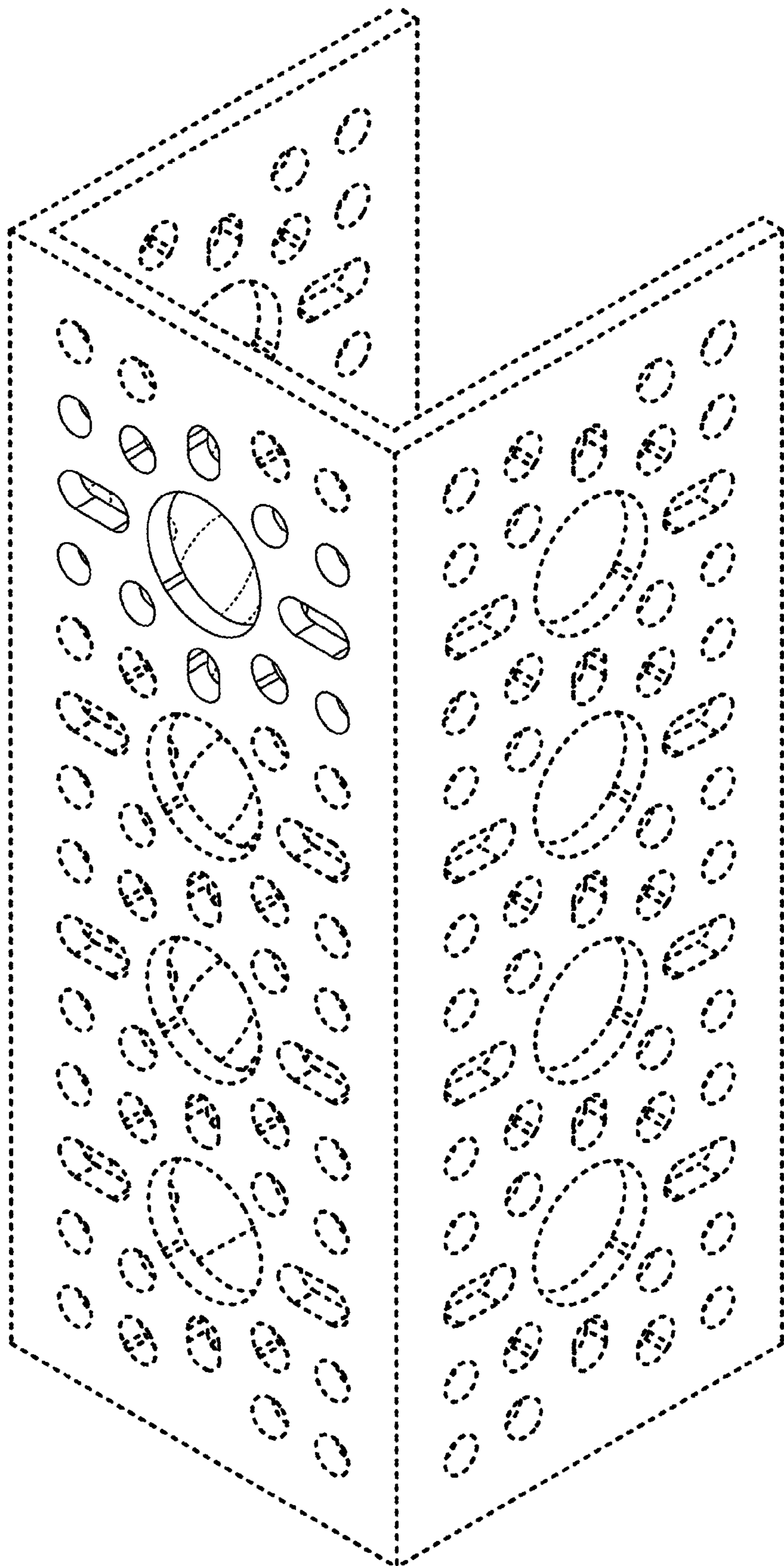


FIG. 1

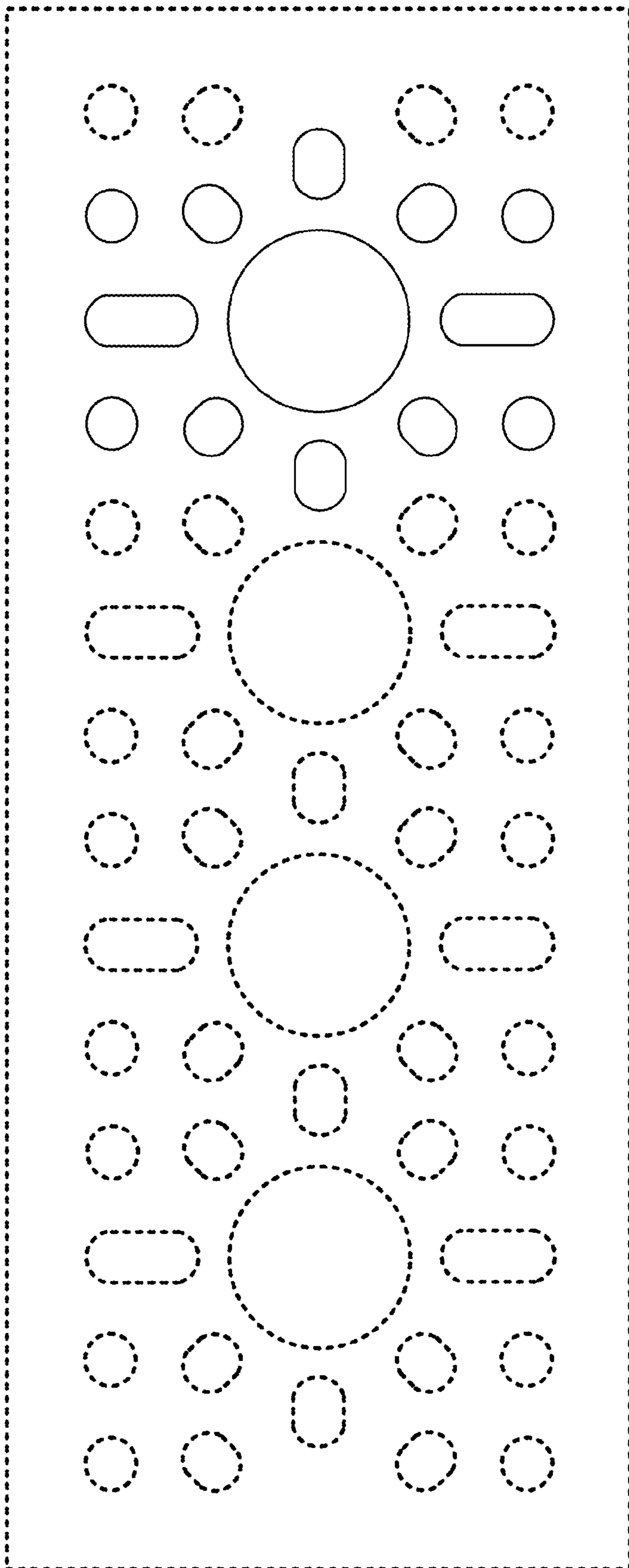


FIG. 2

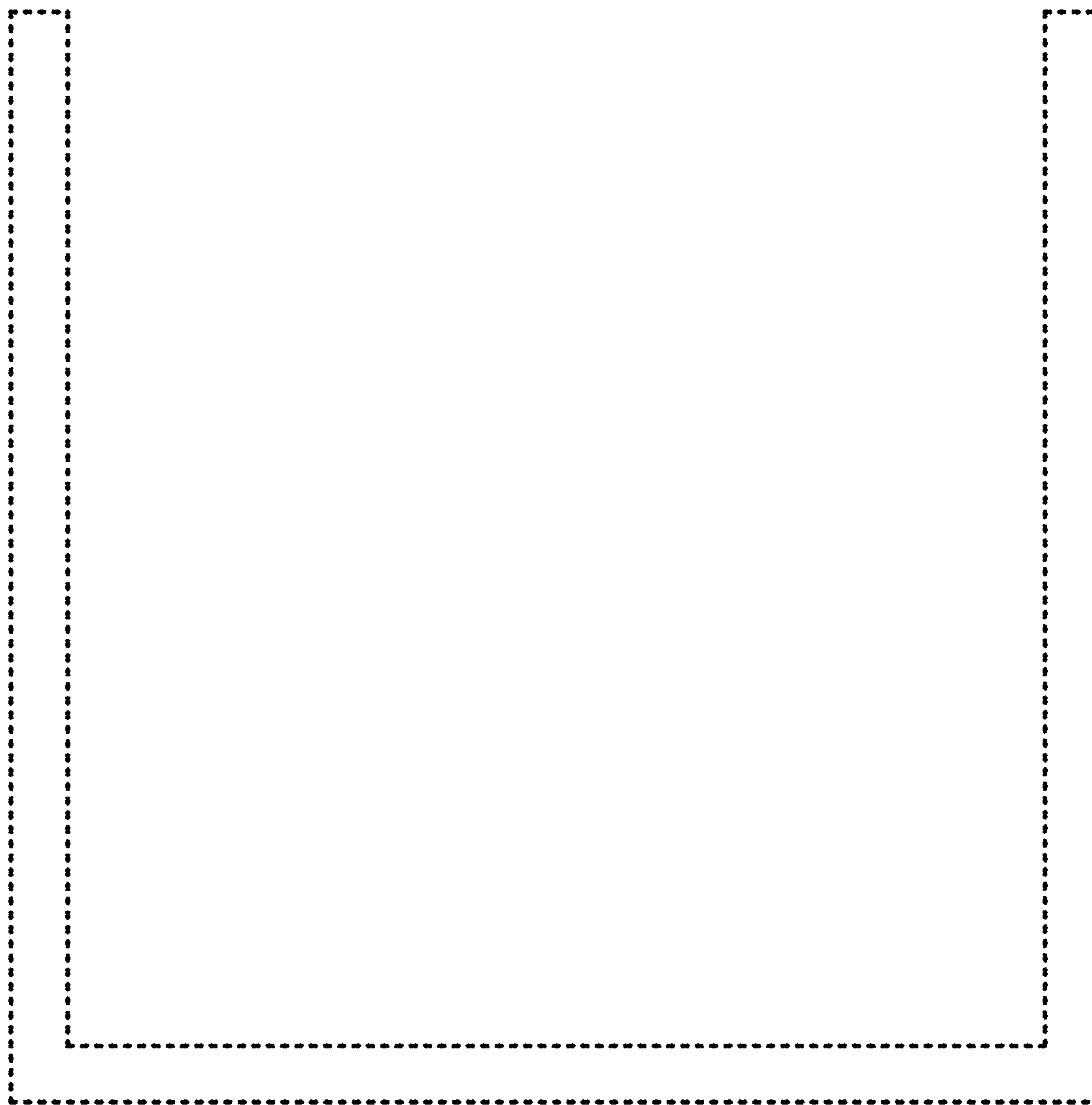


FIG. 3

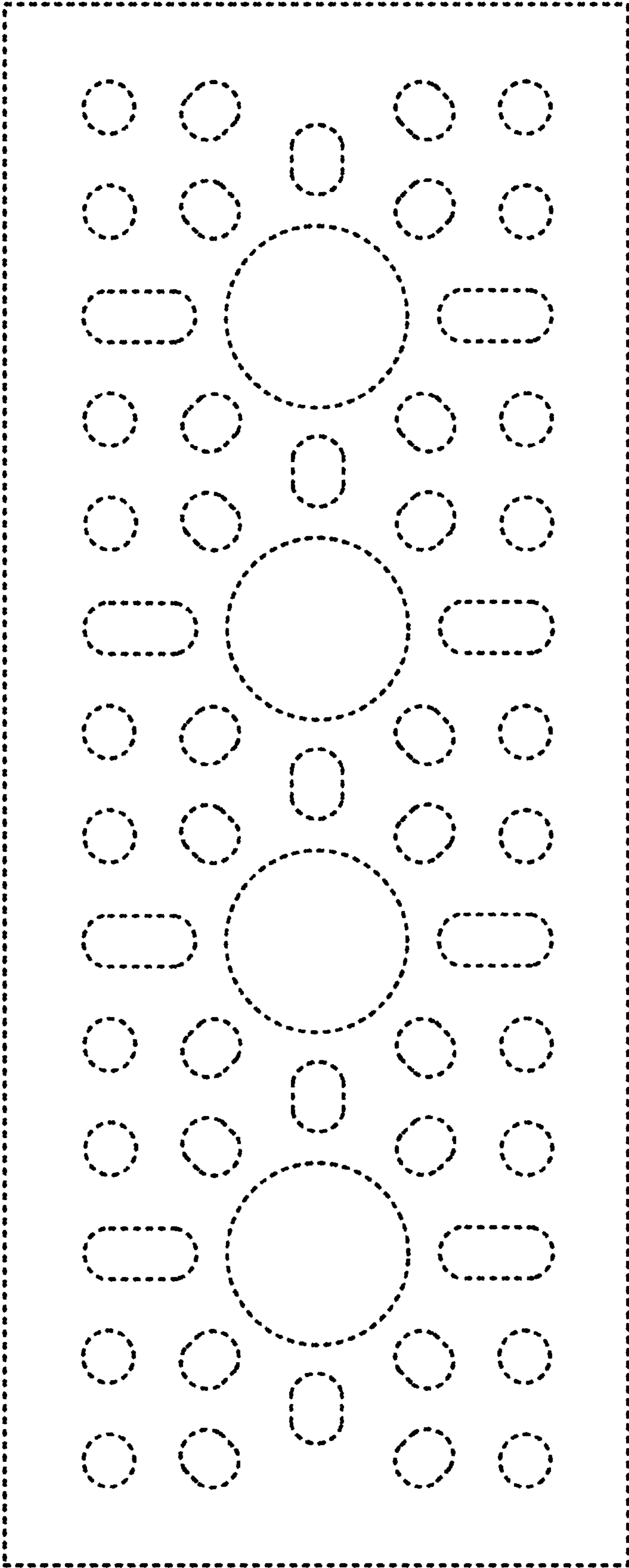


FIG. 4

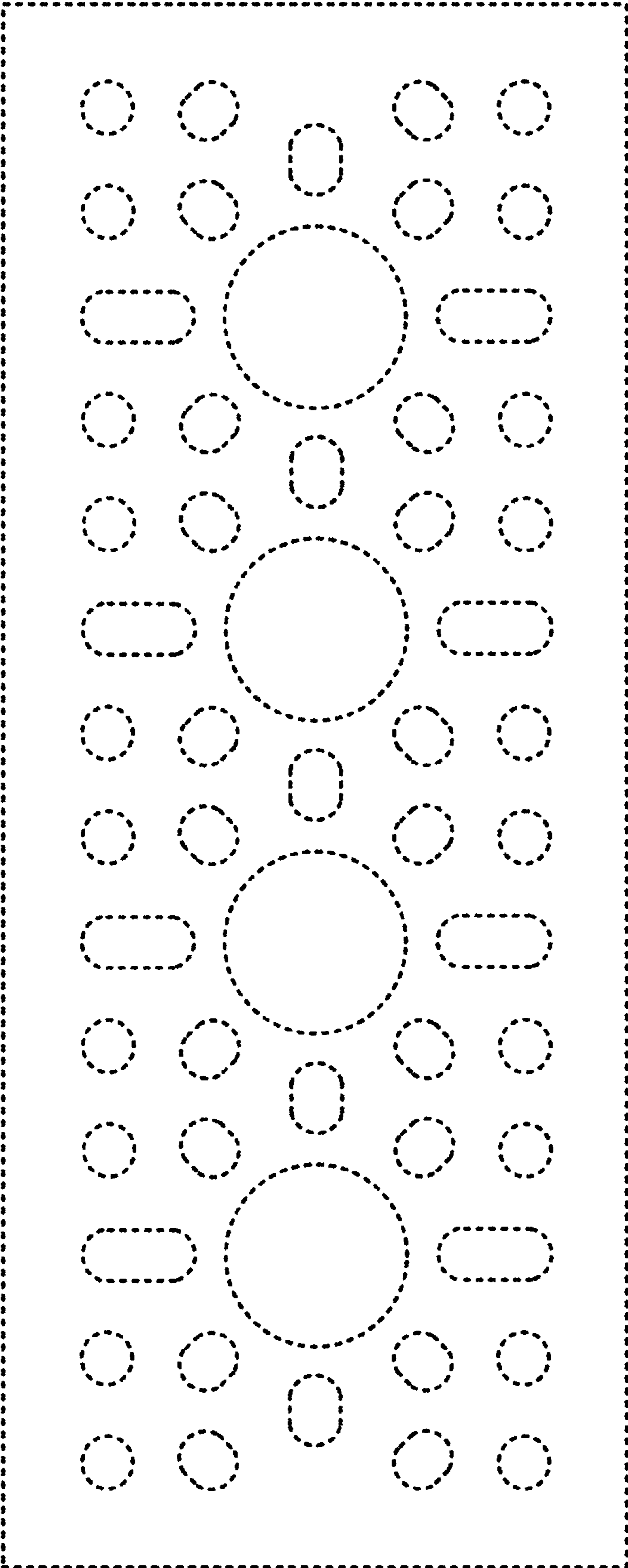


FIG. 5

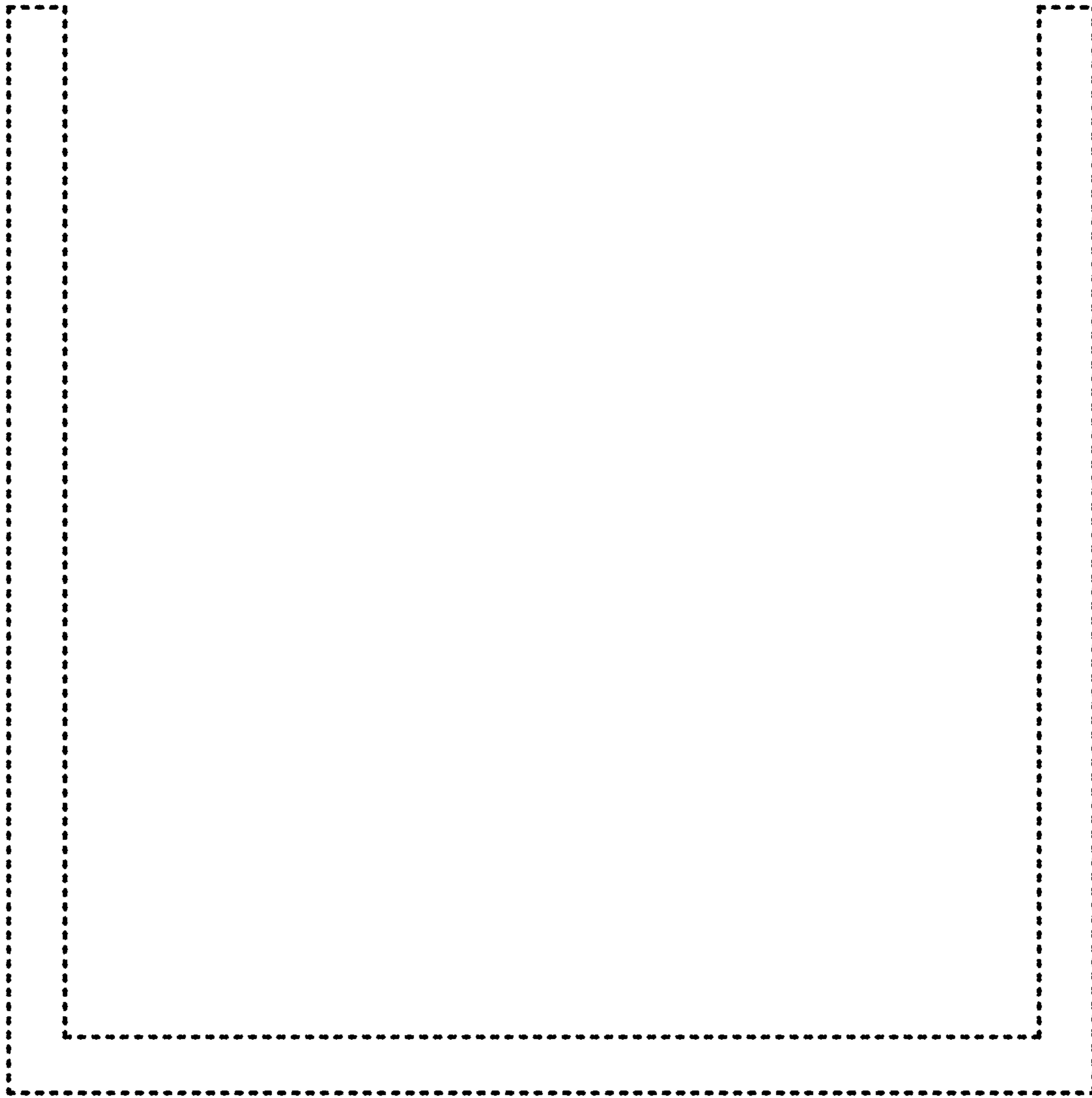


FIG. 6



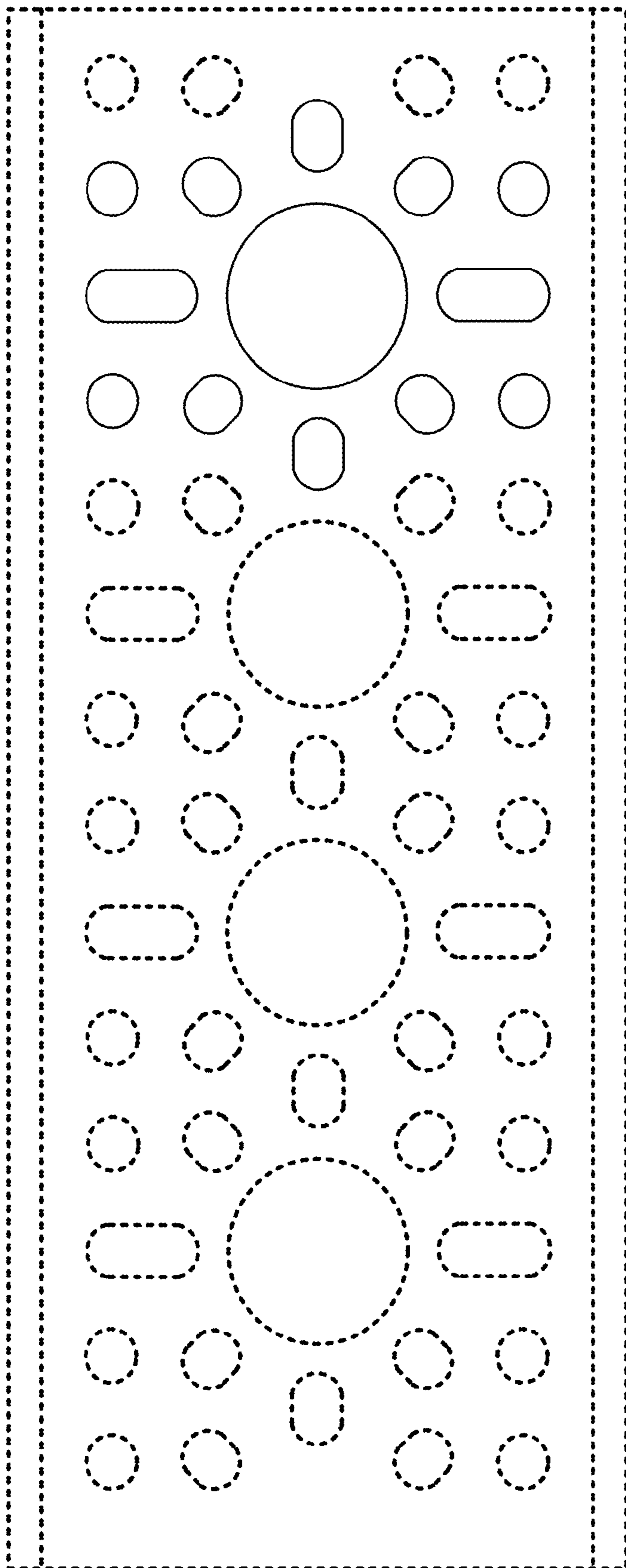


FIG. 7