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(12) **United States Design Patent** (10) **Patent No.:** **US D789,912 S**  
**Zheng et al.** (45) **Date of Patent:** **\*\* Jun. 20, 2017**

(54) **ANTENNA**  
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D606,053 S 12/2009 Wu et al.  
D607,442 S 1/2010 Su et al.  
D608,769 S 1/2010 Bufe  
D612,368 S 3/2010 Yang et al.  
7,705,783 B2 4/2010 Rao et al.  
7,729,662 B2 6/2010 Abramov et al.  
D621,819 S 8/2010 Tsai et al.  
7,843,390 B2 11/2010 Liu  
D633,483 S 3/2011 Su et al.  
D635,127 S 3/2011 Tsai et al.  
7,907,971 B2 3/2011 Salo et al.

(Continued)

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

**OTHER PUBLICATIONS**

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(51) **LOC (10) Cl.** ..... **14-03**

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(52) **U.S. Cl.** ..... **D14/230**

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(58) **Field of Classification Search**

USPC ..... D14/138, 230–238.1, 299, 358; D13/182

CPC ..... H01L 33/48; H01L 33/486; H01L 23/02;

H05K 5/00; H01Q 13/10

See application file for complete search history.

(57) **CLAIM**

The ornamental design for an antenna, as shown and described.

**DESCRIPTION**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D288,803 S \* 3/1987 Capawana ..... D13/182  
7,061,437 B2 6/2006 Lin et al.  
7,148,849 B2 12/2006 Lin  
7,215,296 B2 5/2007 Abramov et al.  
D546,821 S 7/2007 Oliver  
D549,696 S 8/2007 Oshima et al.  
7,333,067 B2 2/2008 Hung et al.  
7,336,959 B2 2/2008 Khitrik et al.  
D573,589 S 7/2008 Montgomery et al.  
7,405,704 B1 7/2008 Lin et al.  
D585,054 S \* 1/2009 Hsiao ..... D14/230  
7,477,195 B2 1/2009 Vance  
D592,195 S 5/2009 Wu et al.  
7,570,215 B2 8/2009 Abramov et al.  
D599,334 S \* 9/2009 Chiang ..... D14/230

FIG. 1 is a front elevation view of an antenna, showing our new design;

FIG. 2 is a side elevation view thereof;

FIG. 3 is a bottom plan view thereof;

FIG. 4 is rear elevation view thereof;

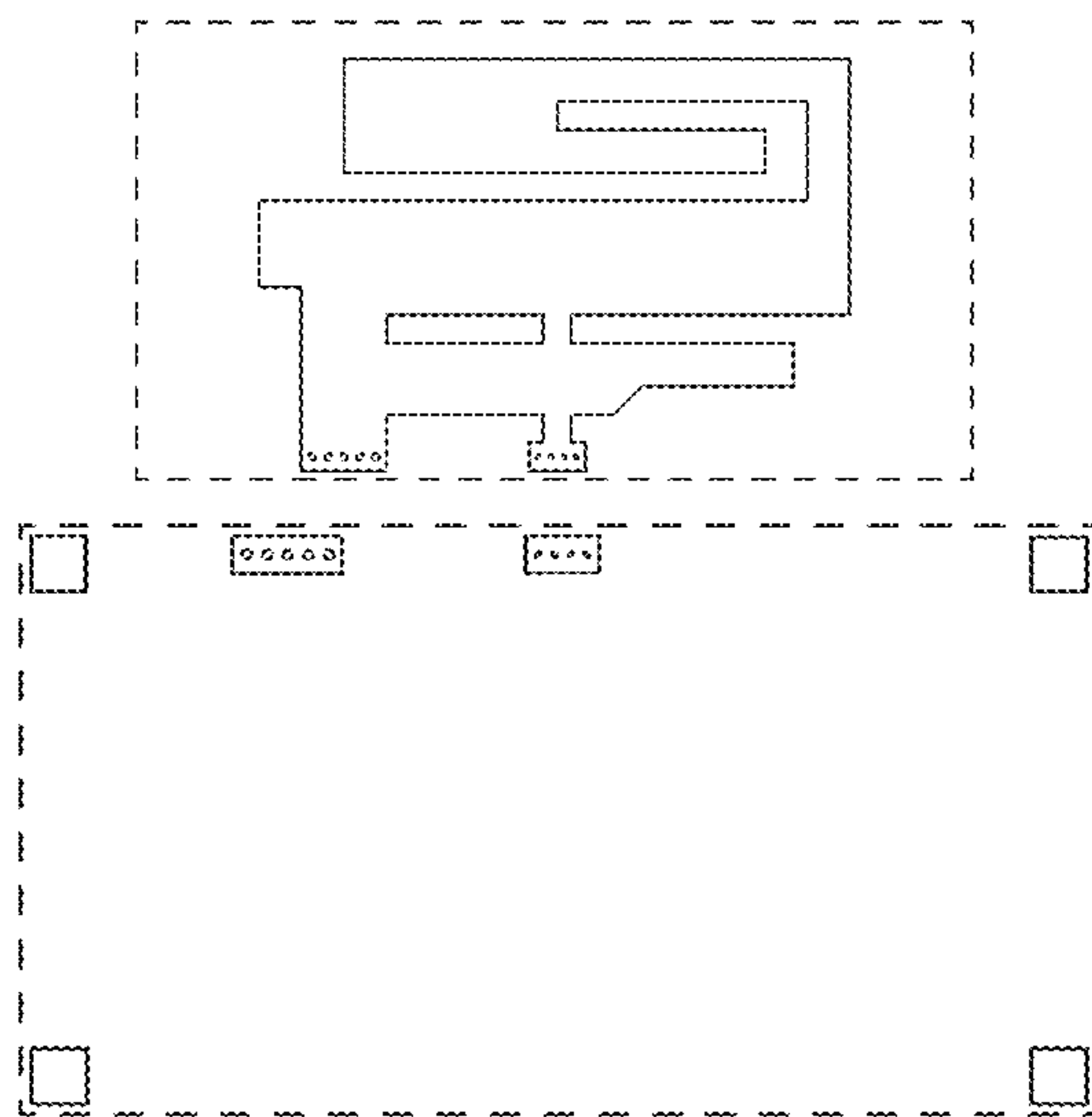
FIG. 5 is a front elevation view thereof, with unclaimed environment not shown;

FIG. 6 is a side elevation view thereof, with unclaimed environment not shown; and,

FIG. 7 is a rear elevation view thereof, with unclaimed environment not shown.

The broken line in the figure drawings represents unclaimed environment only and forms no part of the claimed design.

**1 Claim, 4 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

D635,560 S	4/2011	Tsai et al.	D703,195 S	4/2014	Zheng	
D635,963 S	4/2011	Podduturi	D703,196 S	4/2014	Zheng	
D635,964 S	4/2011	Podduturi	D706,247 S	6/2014	Zheng et al.	
D635,965 S	4/2011	Mi et al.	D706,750 S	6/2014	Bringuir	
D636,382 S	4/2011	Podduturi	D706,751 S	6/2014	Chang et al.	
7,965,242 B2	6/2011	Abramov et al.	D708,602 S	7/2014	Gosalia et al.	
D649,962 S	12/2011	Tseng et al.	D709,053 S	7/2014	Chang et al.	
D651,198 S	12/2011	Mi et al.	D710,832 S	8/2014	Yang	
D654,059 S	2/2012	Mi et al.	D710,833 S *	8/2014	Zheng .....	D14/230
D654,060 S	2/2012	Ko et al.	8,854,265 B1	10/2014	Yang et al.	
D658,639 S	5/2012	Huang et al.	D716,775 S	11/2014	Bidermann	
D659,129 S	5/2012	Mi et al.	D741,301 S *	10/2015	He .....	D14/230
D659,685 S	5/2012	Huang et al.	D747,297 S *	1/2016	He .....	D14/230
D659,688 S	5/2012	Huang et al.	D755,163 S *	5/2016	Yokoyama .....	D14/230
8,175,036 B2	5/2012	Visuri et al.	2002/0003499 A1	1/2002	Kouarn et al.	
8,184,601 B2	5/2012	Abramov et al.	2004/0222936 A1	11/2004	Hung et al.	
D662,916 S	7/2012	Huang et al.	2005/0073462 A1	4/2005	Lin et al.	
8,248,970 B2	8/2012	Abramov et al.	2005/0190108 A1	9/2005	Lin et al.	
D671,097 S	11/2012	Mi et al.	2006/0208900 A1	9/2006	Tavassoli Hozouri	
8,310,402 B2	11/2012	Yang	2007/0030203 A1	2/2007	Tsai et al.	
D676,429 S	2/2013	Gosalia et al.	2007/0188400 A1 *	8/2007	Fujita .....	H01Q 13/08 343/834
D678,255 S	3/2013	Ko et al.	2007/0229366 A1 *	10/2007	Kim .....	H01Q 1/243 343/700 MS
8,423,084 B2	4/2013	Abramov et al.	2008/0150829 A1	6/2008	Lin et al.	
D684,565 S	6/2013	Wei	2009/0002244 A1	1/2009	Woo	
D685,352 S	7/2013	Wei	2009/0058739 A1	3/2009	Konishi	
D685,772 S	7/2013	Zheng et al.	2009/0135072 A1	5/2009	Ke et al.	
D686,600 S	7/2013	Yang	2009/0262028 A1	10/2009	Mumbru et al.	
D689,474 S	9/2013	Yang et al.	2010/0188297 A1	7/2010	Chen et al.	
D692,870 S	11/2013	He	2010/0309067 A1	12/2010	Tsou et al.	
D694,738 S	12/2013	Yang	2011/0006950 A1	1/2011	Park et al.	
D695,279 S	12/2013	Yang et al.	2012/0038514 A1	2/2012	Bang	
D695,280 S	12/2013	Yang et al.	2012/0229348 A1	9/2012	Chiang	
			2012/0242546 A1	9/2012	Hu et al.	

\* cited by examiner

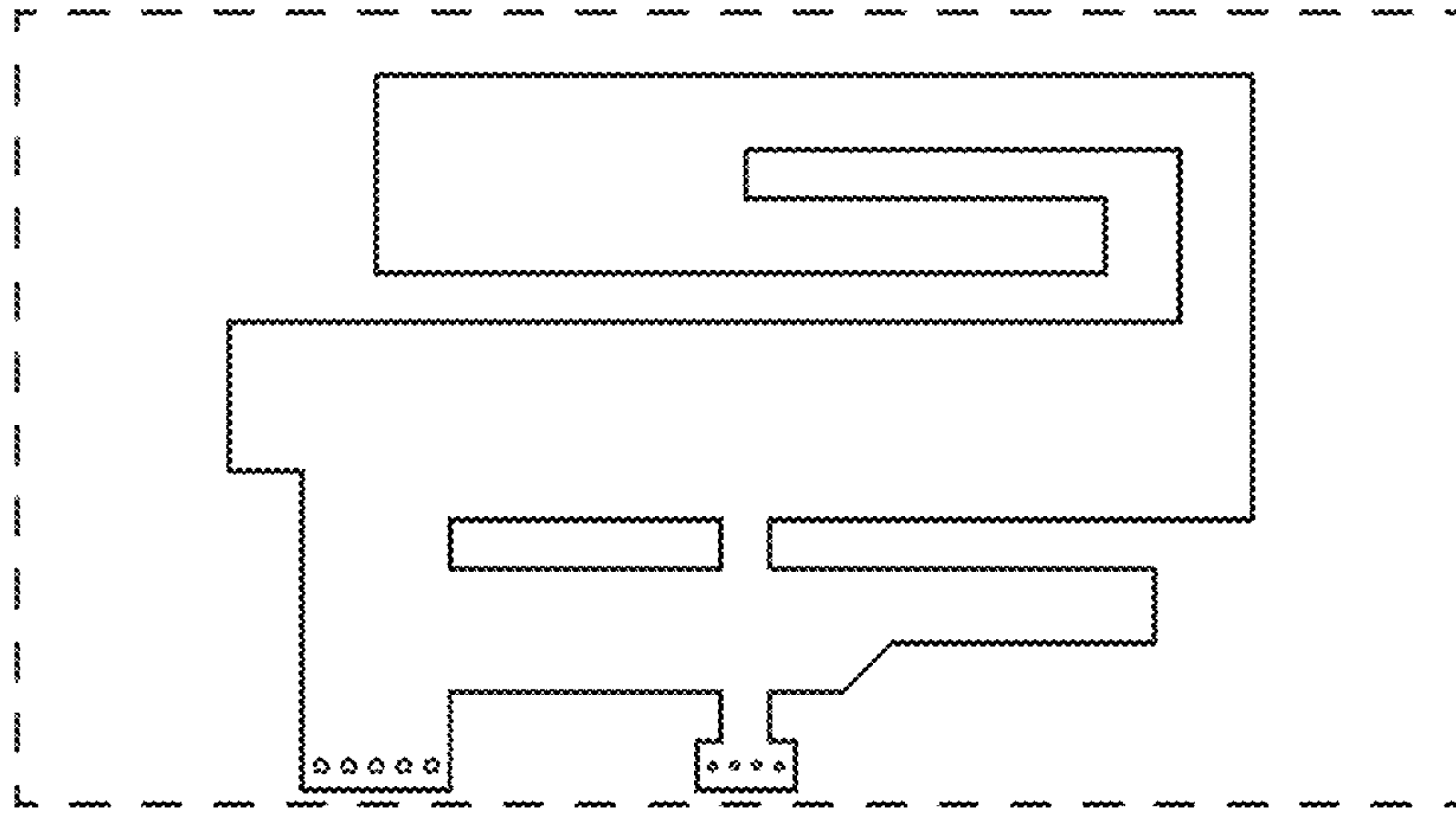


FIG. 1



FIG. 2

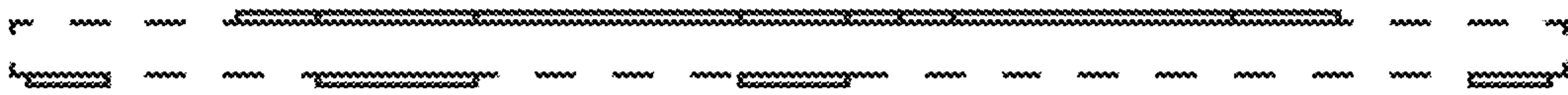


FIG. 3

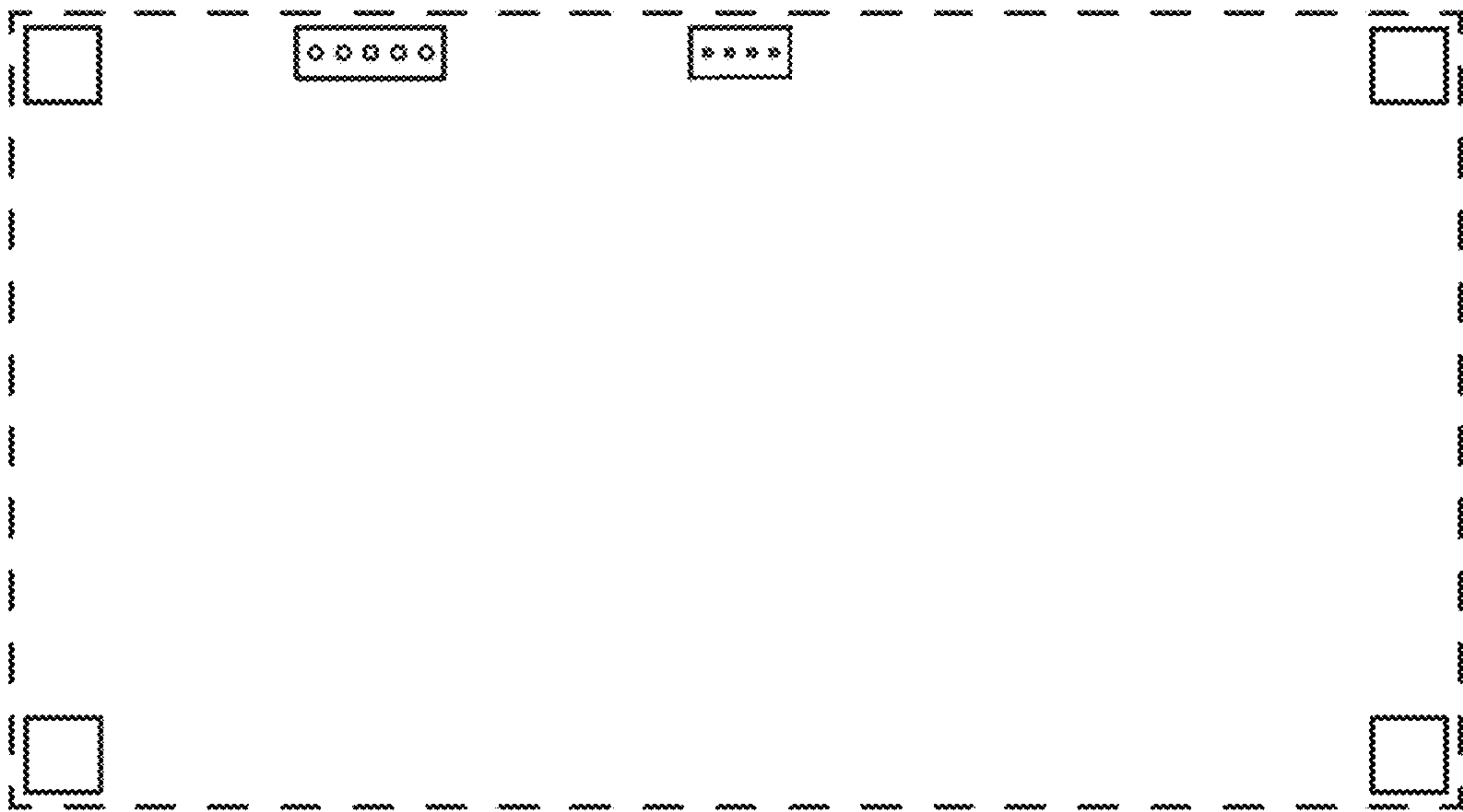


FIG. 4

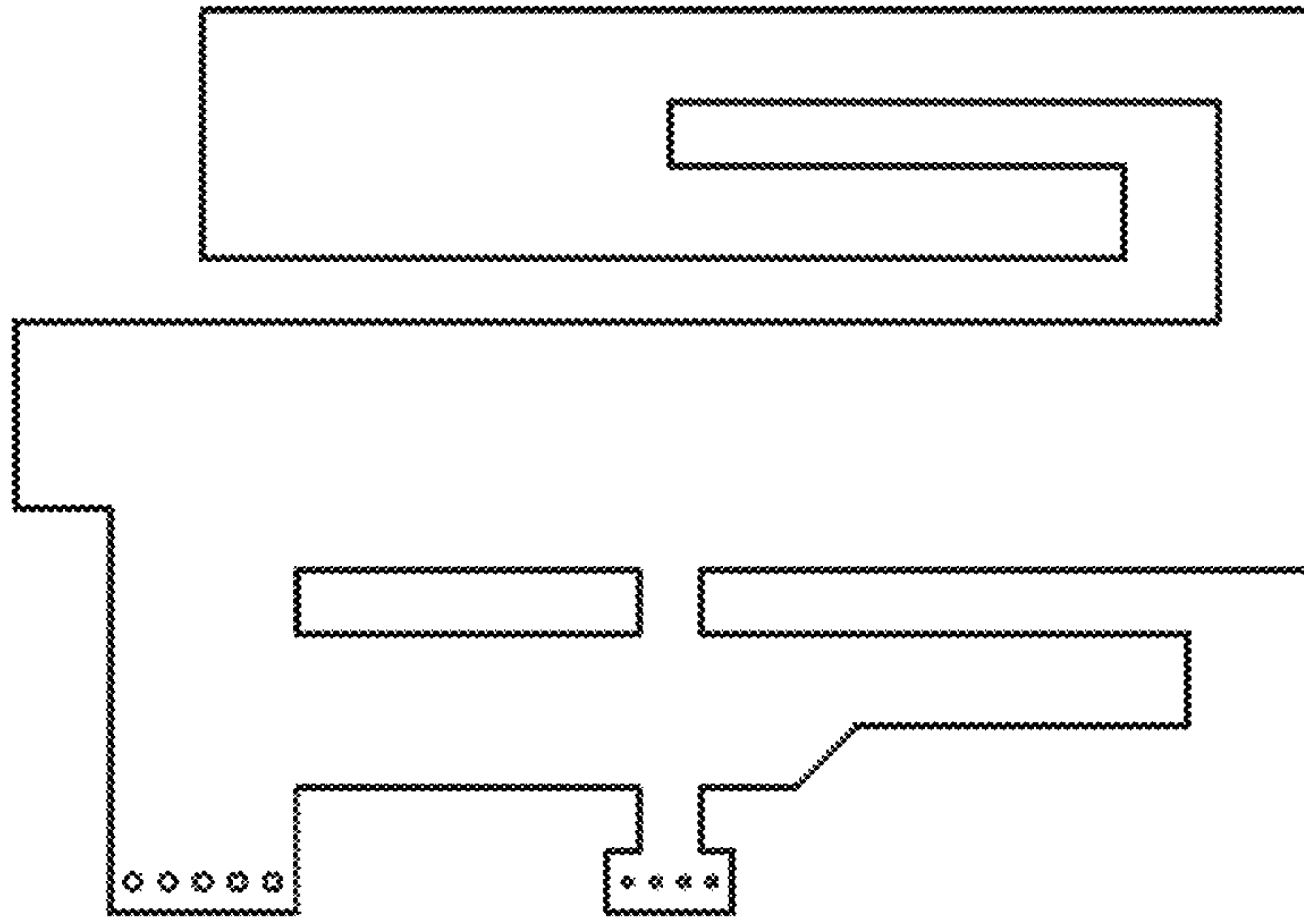


FIG. 5



FIG. 6

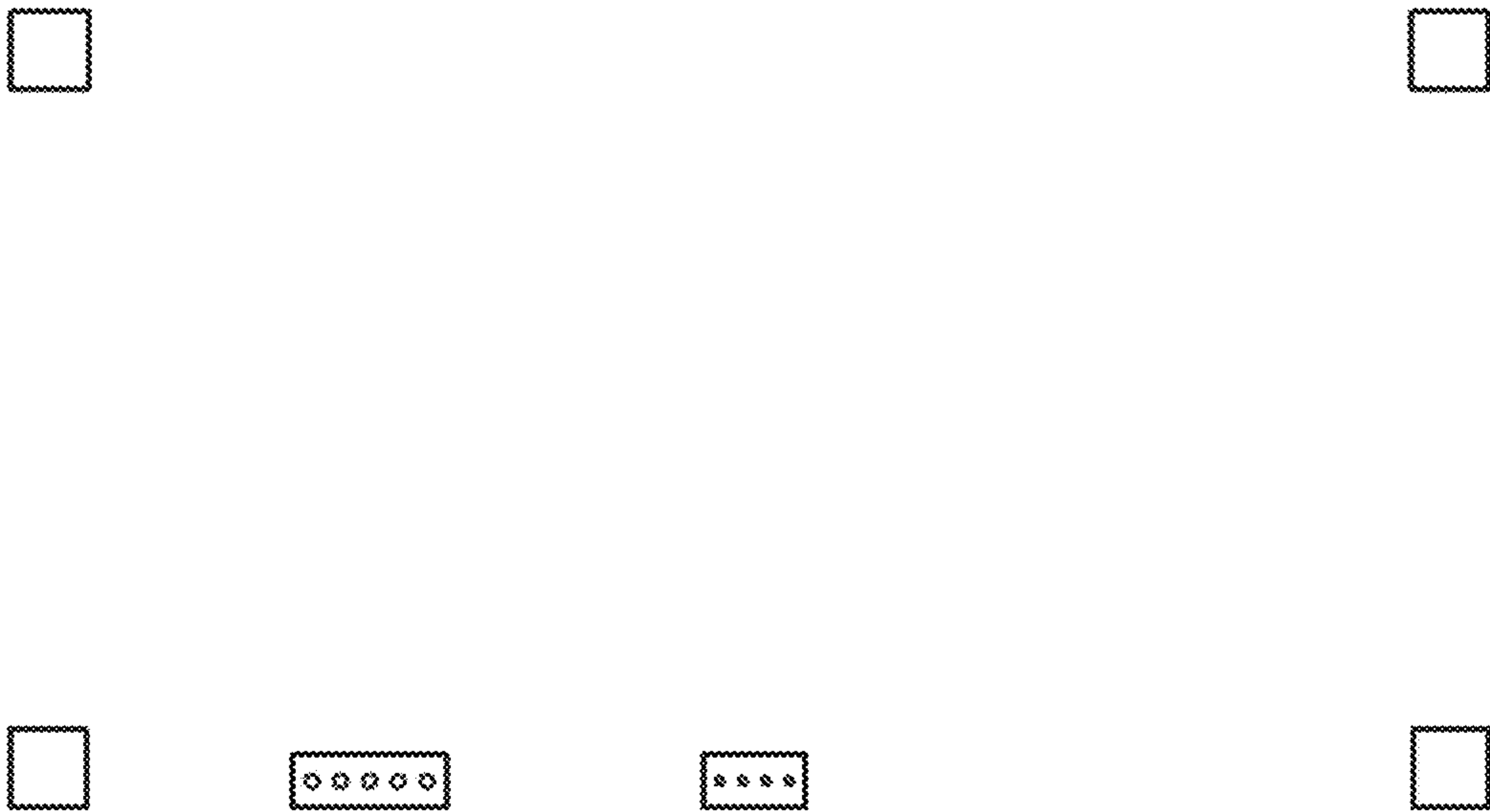


FIG. 7