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(12) **United States Design Patent** (10) **Patent No.:** **US D795,846 S**
Chang et al. (45) **Date of Patent:** **** Aug. 29, 2017**

- (54) **ANTENNA**
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- (51) **LOC (10) Cl.** **14-03**
- (52) **U.S. Cl.**
USPC **D14/230**
- (58) **Field of Classification Search**
USPC D14/230, 231, 232, 233, 234, 235, 236,
D14/237, 238, 138, 299, 358, 240;
D12/42, 43
CPC H01Q 7/00; H01Q 13/10; H01Q 9/285;
H01Q 19/30; H01Q 19/12; H01Q 1/38;
H01Q 1/36; H01Q 1/42; H01Q 1/242;
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See application file for complete search history.

- 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
- 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.
- D635,560 S 4/2011 Tsai et al.
- D635,963 S 4/2011 Podduturi
- D635,964 S 4/2011 Podduturi
- D635,965 S 4/2011 Mi et al.

(Continued)

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(57) **CLAIM**

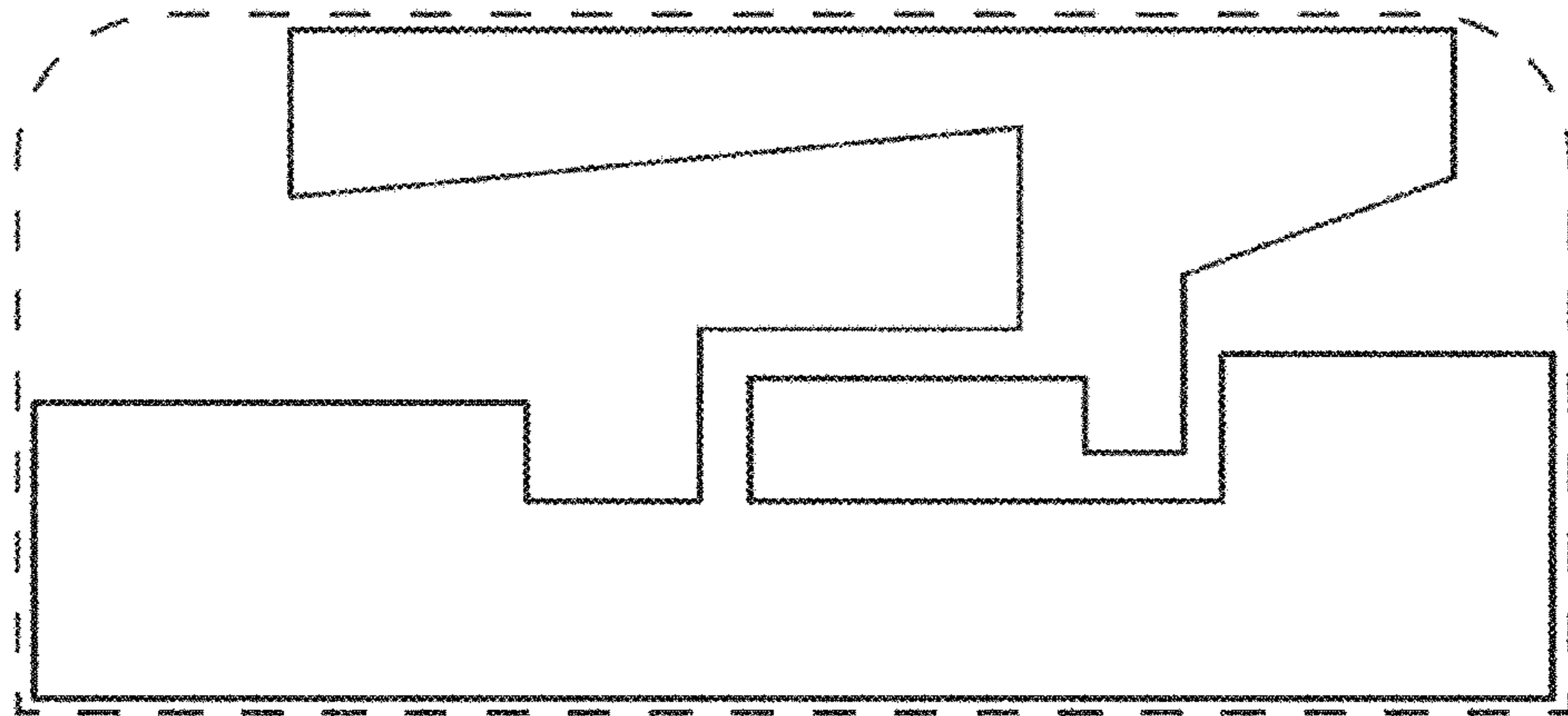
The ornamental design for an antenna, as shown and described.

DESCRIPTION

FIG. 1 is a top plan view of an antenna, showing our new design with an unclaimed base drawn in broken line; FIG. 2 is a side elevation view thereof; FIG. 3 is a front elevation view thereof; FIG. 4 is a bottom plan view thereof; FIG. 5 is a top perspective view thereof; FIG. 6 is a top plan view of the antenna; and, FIG. 7 is a side elevation view of the antenna. The broken lines illustrate environment that forms no part of the claimed design.

1 Claim, 3 Drawing Sheets

- (56) **References Cited**
U.S. PATENT DOCUMENTS
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.



(56)

References Cited

U.S. PATENT DOCUMENTS

| | | | | | |
|-------------------|---------|-------------------|--------------------------|--|--|
| D636,382 S | 4/2011 | Podduturi | | | |
| 7,965,242 B2 | 6/2011 | Abramov et al. | | | |
| D649,962 S | 12/2011 | Tseng et al. | | | |
| D651,198 S | 12/2011 | Mi et al. | | | |
| D654,059 S | 2/2012 | Mi et al. | | | |
| D654,060 S | 2/2012 | Ko et al. | | | |
| D658,639 S | 5/2012 | Huang et al. | | | |
| D659,129 S | 5/2012 | Mi et al. | | | |
| D659,685 S | 5/2012 | Huang et al. | | | |
| D659,688 S | 5/2012 | Huang et al. | | | |
| 8,175,036 B2 | 5/2012 | Visuri et al. | | | |
| 8,184,601 B2 | 5/2012 | Abramov et al. | | | |
| D662,916 S | 7/2012 | Huang et al. | | | |
| 8,248,970 B2 | 8/2012 | Abramov et al. | | | |
| D670,276 S * | 11/2012 | Mi | D14/230 | | |
| D671,097 S | 11/2012 | Mi et al. | | | |
| 8,310,402 B2 | 11/2012 | Yang | | | |
| D676,429 S | 2/2013 | Gosalia et al. | | | |
| D678,255 S | 3/2013 | Ko et al. | | | |
| 8,423,084 B2 | 4/2013 | Abramov et al. | | | |
| D684,565 S | 6/2013 | Wei | | | |
| D685,352 S | 7/2013 | Wei | | | |
| D685,772 S | 7/2013 | Zheng et al. | | | |
| D686,600 S | 7/2013 | Yang | | | |
| D689,474 S | 9/2013 | Yang et al. | | | |
| D692,870 S | 11/2013 | He | | | |
| D694,738 S | 12/2013 | Yang | | | |
| D695,279 S | 12/2013 | Yang et al. | | | |
| D695,280 S | 12/2013 | Yang et al. | | | |
| D703,195 S | 4/2014 | Zheng | | | |
| D703,196 S | 4/2014 | Zheng | | | |
| D706,247 S | 6/2014 | Zheng et al. | | | |
| D706,750 S | 6/2014 | Bringuir | | | |
| D706,751 S | 6/2014 | Chang et al. | | | |
| D707,664 S * | 6/2014 | Chu | D14/230 | | |
| D708,602 S | 7/2014 | Gosalia et al. | | | |
| D709,053 S | 7/2014 | Chang et al. | | | |
| D710,832 S | 8/2014 | Yang | | | |
| D710,833 S | 8/2014 | Zheng et al. | | | |
| 8,854,265 B1 | 10/2014 | Yang et al. | | | |
| D716,775 S | 11/2014 | Bidermann | | | |
| D741,301 S * | 10/2015 | He | D14/230 | | |
| D747,297 S * | 1/2016 | He | D14/230 | | |
| D750,049 S * | 2/2016 | Podduturi | D14/230 | | |
| D766,221 S * | 9/2016 | Zheng | D14/230 | | |
| D766,884 S * | 9/2016 | Zheng | D14/240 | | |
| D767,542 S * | 9/2016 | Chang | D14/230 | | |
| D767,544 S * | 9/2016 | Yang | D14/230 | | |
| 2002/0003499 A1 | 1/2002 | Kouam et al. | | | |
| 2004/0222936 A1 | 11/2004 | Hung et al. | | | |
| 2005/0073462 A1 | 4/2005 | Lin et al. | | | |
| 2005/0190108 A1 | 9/2005 | Lin et al. | | | |
| 2006/0208900 A1 | 9/2006 | Tavassoli Hozouri | | | |
| 2007/0030203 A1 | 2/2007 | Tsai et al. | | | |
| 2007/0052591 A1 * | 3/2007 | Chao | H01Q 9/42 343/700 MS | | |
| 2008/0150829 A1 | 6/2008 | Lin et al. | | | |
| 2009/0002244 A1 | 1/2009 | Woo | | | |
| 2009/0058739 A1 | 3/2009 | Konishi | | | |
| 2009/0135072 A1 | 5/2009 | Ke et al. | | | |
| 2009/0231199 A1 * | 9/2009 | Vance | H01Q 1/243 343/700 MS | | |
| 2009/0262028 A1 | 10/2009 | Mumbru et al. | | | |
| 2010/0127941 A1 * | 5/2010 | Chiang | H01Q 1/243 343/700 MS | | |
| 2010/0188297 A1 | 7/2010 | Chen et al. | | | |
| 2010/0309067 A1 | 12/2010 | Tsou et al. | | | |
| 2011/0006950 A1 | 1/2011 | Park et al. | | | |
| 2011/0012789 A1 * | 1/2011 | Yang | H01Q 1/38 343/700 MS | | |
| 2012/0038514 A1 | 2/2012 | Bang | | | |
| 2012/0229348 A1 | 9/2012 | Chiang | | | |
| 2012/0242546 A1 | 9/2012 | Hu et al. | | | |

* cited by examiner

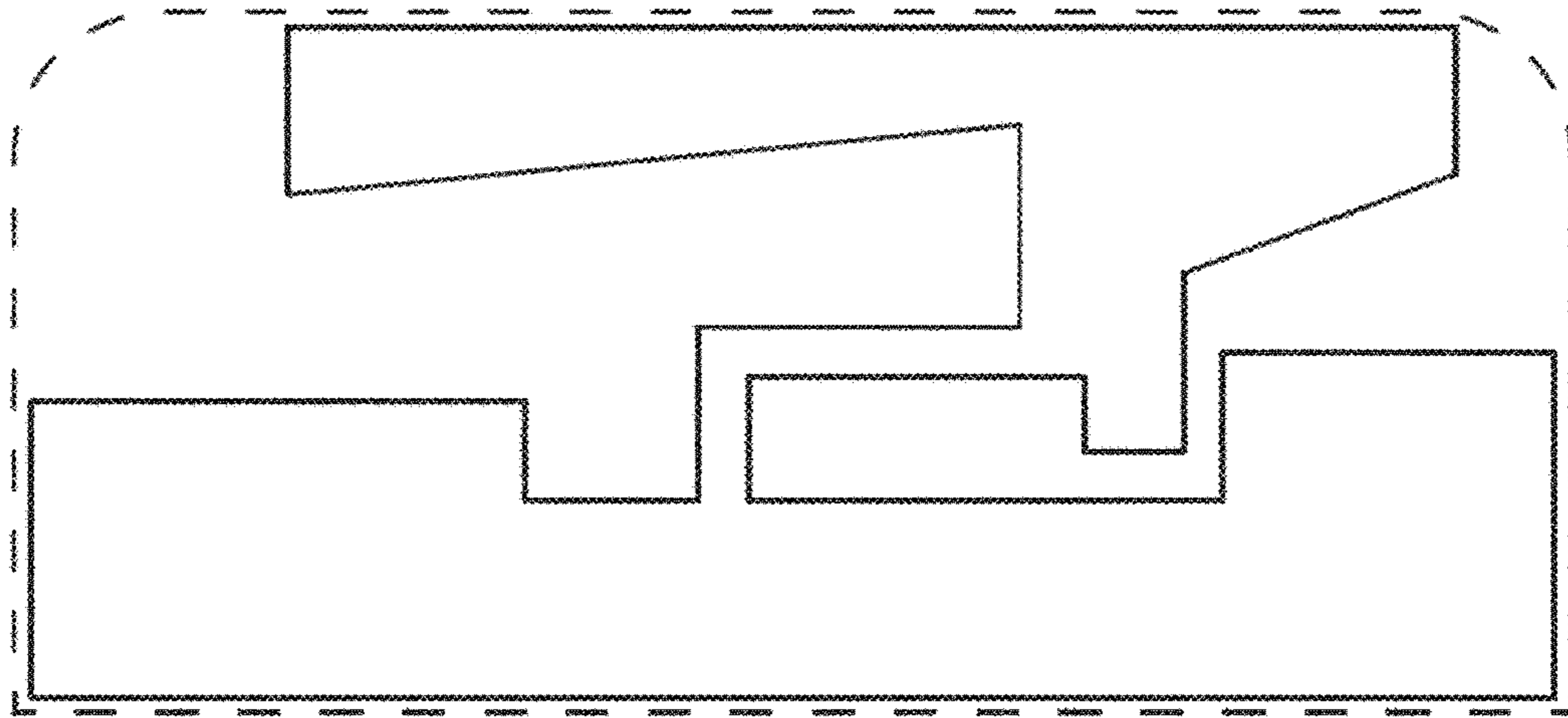


FIG. 1



FIG. 2



FIG. 3



FIG. 4

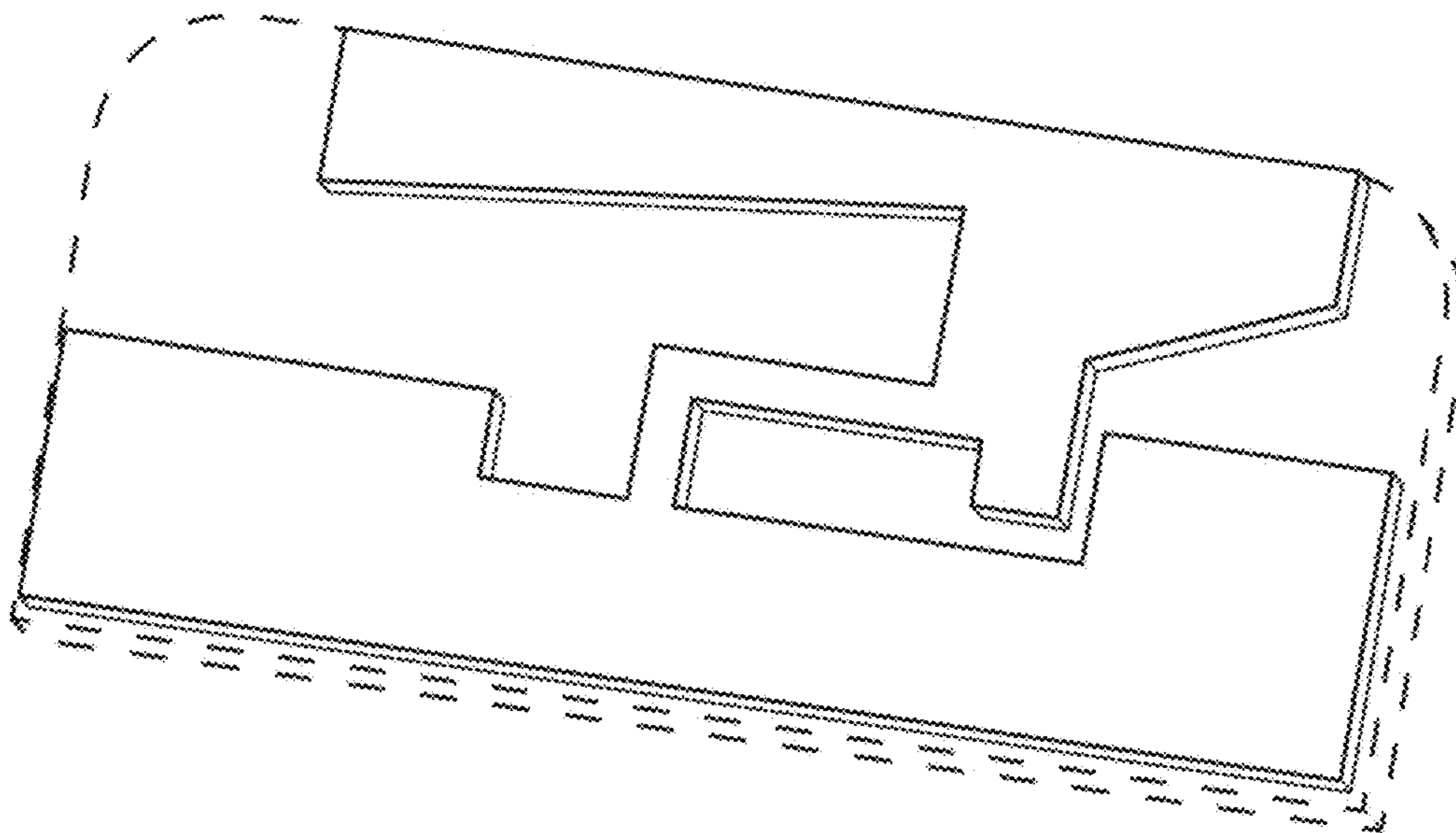


FIG. 5

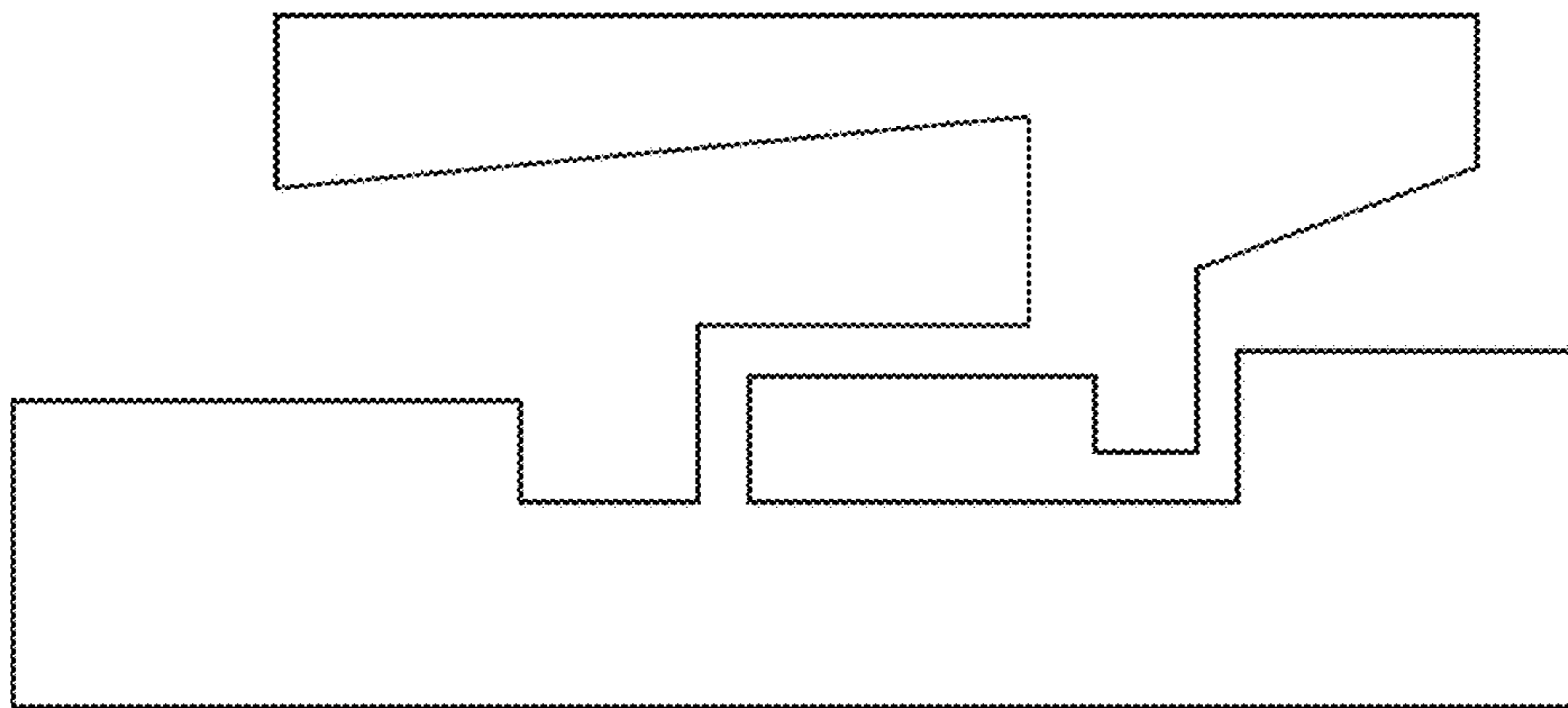


FIG. 6

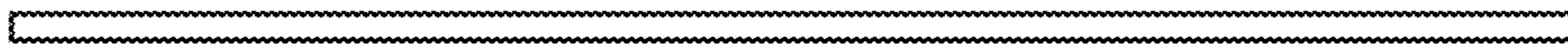


FIG. 7