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(12) **United States Design Patent** (10) **Patent No.:** **US D780,723 S**
Gosalia et al. (45) **Date of Patent:** **** Mar. 7, 2017**

(54) **ANTENNA**

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

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

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

(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.

(56) **References Cited**

U.S. PATENT DOCUMENTS

7,061,437 B2	6/2006	Lin et al.	
D530,707 S *	10/2006	Chen	D14/230
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.	
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	

(Continued)

OTHER PUBLICATIONS

<http://airgain.com/our-services/embedded-antennas/>—Retrieved Dec. 17, 2016.*

(Continued)

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Michael Catania

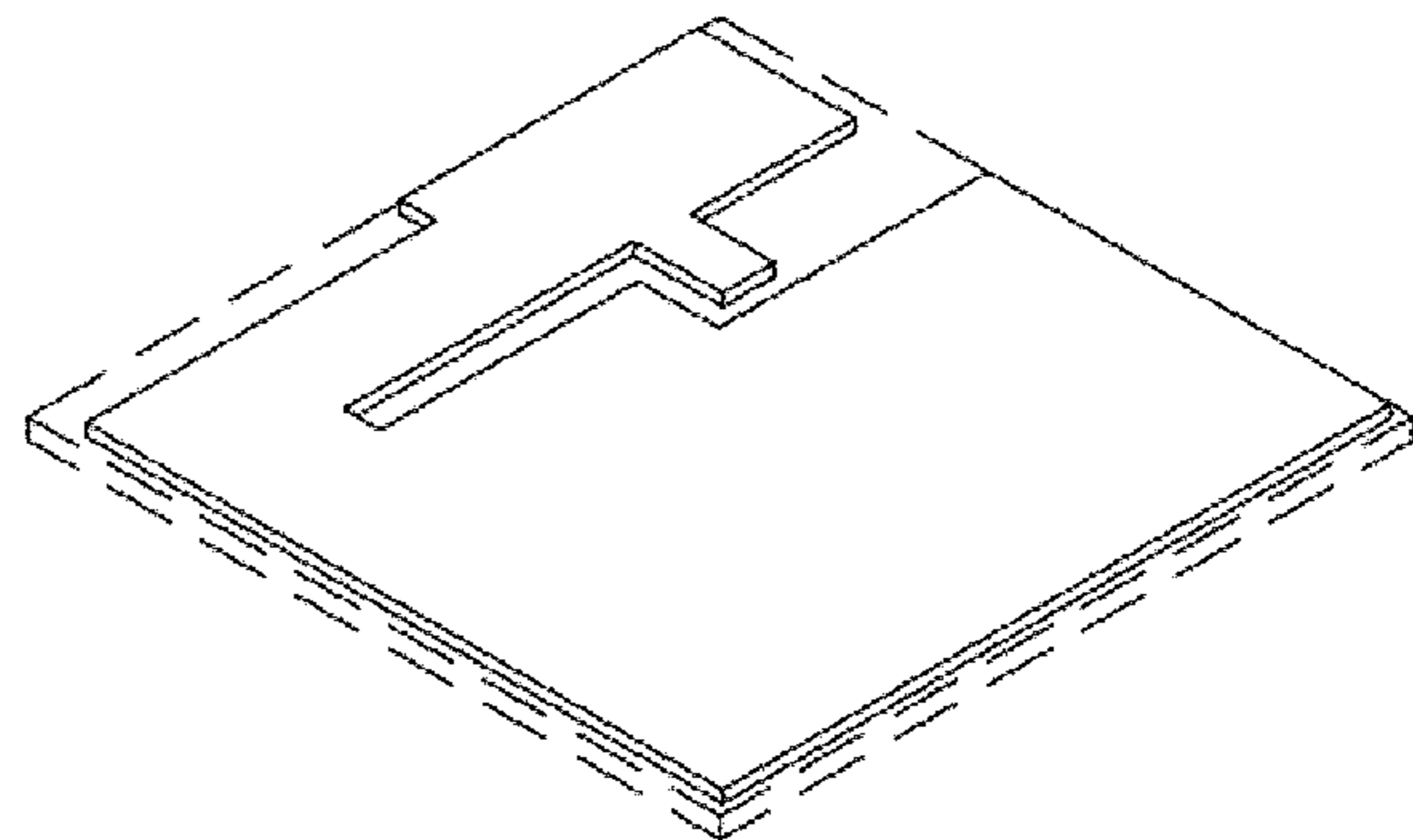
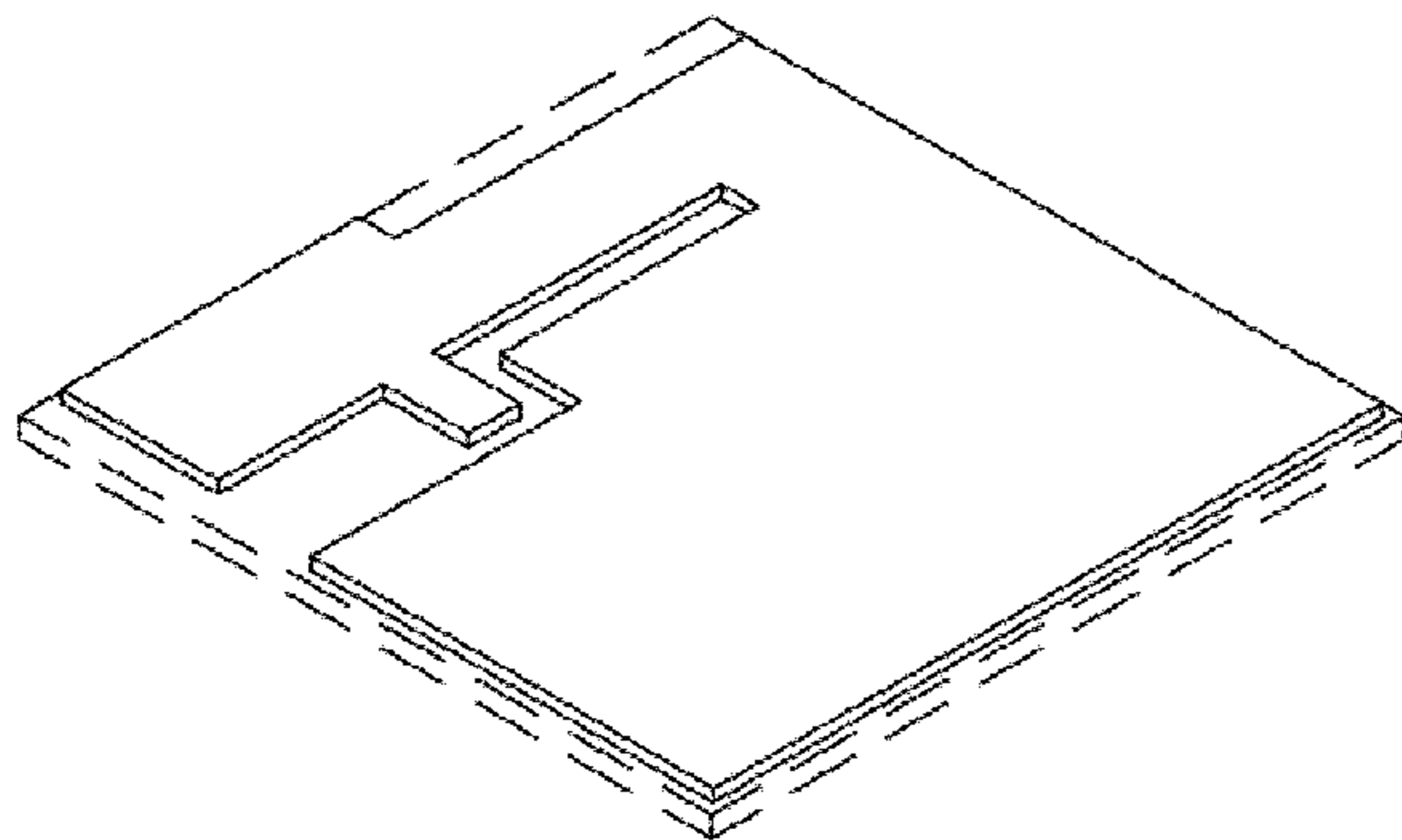
(57) **CLAIM**

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

DESCRIPTION

FIG. 1 is a top plan view of the first embodiment of an antenna, showing our new design;
FIG. 2 is a front elevation view thereof;
FIG. 3 is a bottom elevation view thereof;
FIG. 4 is a top perspective view thereof;
FIG. 5 is a top plan view thereof, with unclaimed environment not shown;
FIG. 6 is a front elevation view thereof, with unclaimed environment not shown;
FIG. 7 is a top plan view of the second embodiment of an antenna;
FIG. 8 is a front elevation view thereof;
FIG. 9 is a bottom elevation view thereof;
FIG. 10 is a top perspective view thereof;
FIG. 11 is a top plan view thereof, with unclaimed environment not shown; and,
FIG. 12 is a front 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, 1 Drawing Sheet



(56)

References Cited

U.S. PATENT DOCUMENTS

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 D14/230
 D635,963 S 4/2011 Podduturi
 D635,964 S 4/2011 Podduturi
 D635,965 S 4/2011 Mi et al.
 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.
 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 D14/230
 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.
 D690,289 S * 9/2013 Zuniga D14/230

D692,870 S 11/2013 He
 D694,738 S * 12/2013 Yang D14/230
 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 Bringuier
 D706,751 S * 6/2014 Chang D14/230
 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 D14/230
 8,854,265 B1 10/2014 Yang et al.
 D716,775 S 11/2014 Bidermann
 D750,050 S * 2/2016 Podduturi D14/230
 D750,051 S * 2/2016 Podduturi D14/230
 D766,220 S * 9/2016 He 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.
 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.
 2009/0262028 A1 10/2009 Mumbru et al.
 2010/0188297 A1 7/2010 Chen et al.
 2010/0309067 A1 12/2010 Tsou et al.
 2011/0006950 A1 1/2011 Park et al.
 2012/0038514 A1 2/2012 Bang
 2012/0229348 A1 9/2012 Chiang
 2012/0242546 A1 * 9/2012 Hu H01Q 1/243
 343/700 MS

OTHER PUBLICATIONS

<http://www.fyxkj.com/EN/channels/35.html>—Retrieved Dec. 19, 2016.*

* cited by examiner

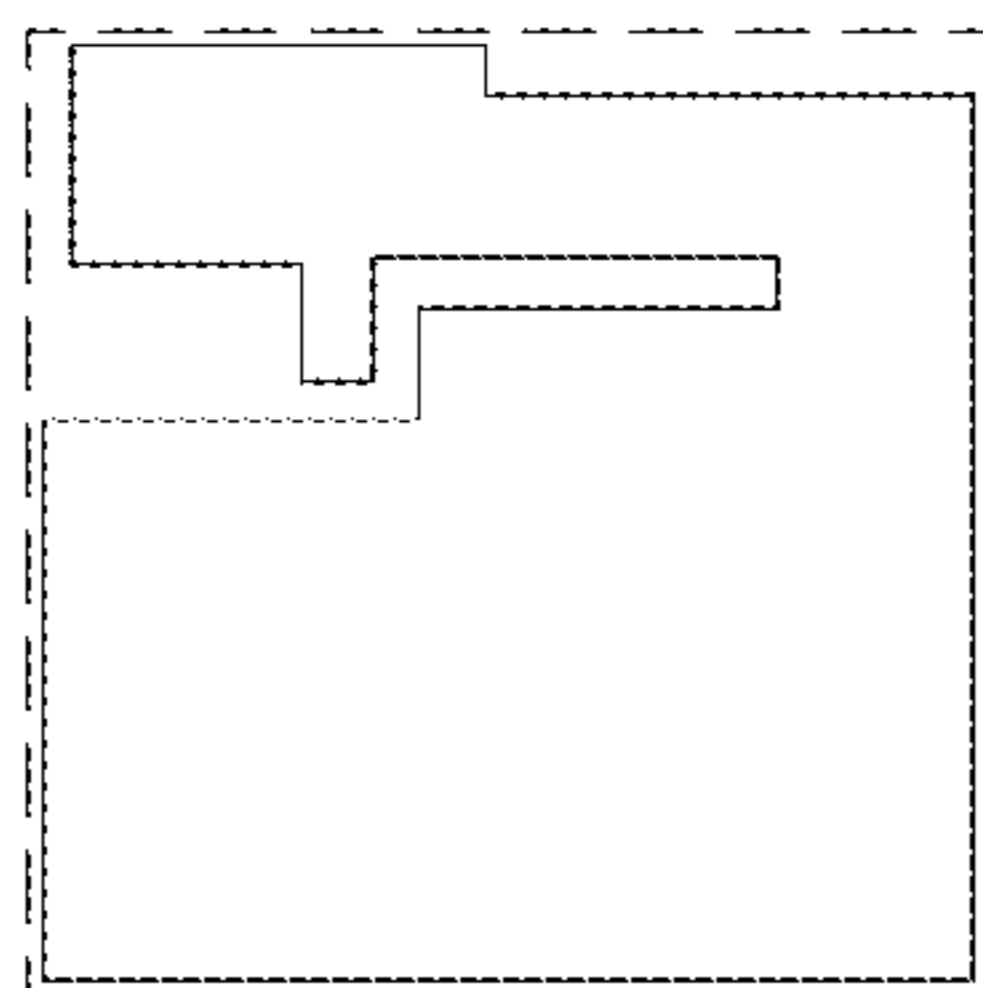


FIG. 1

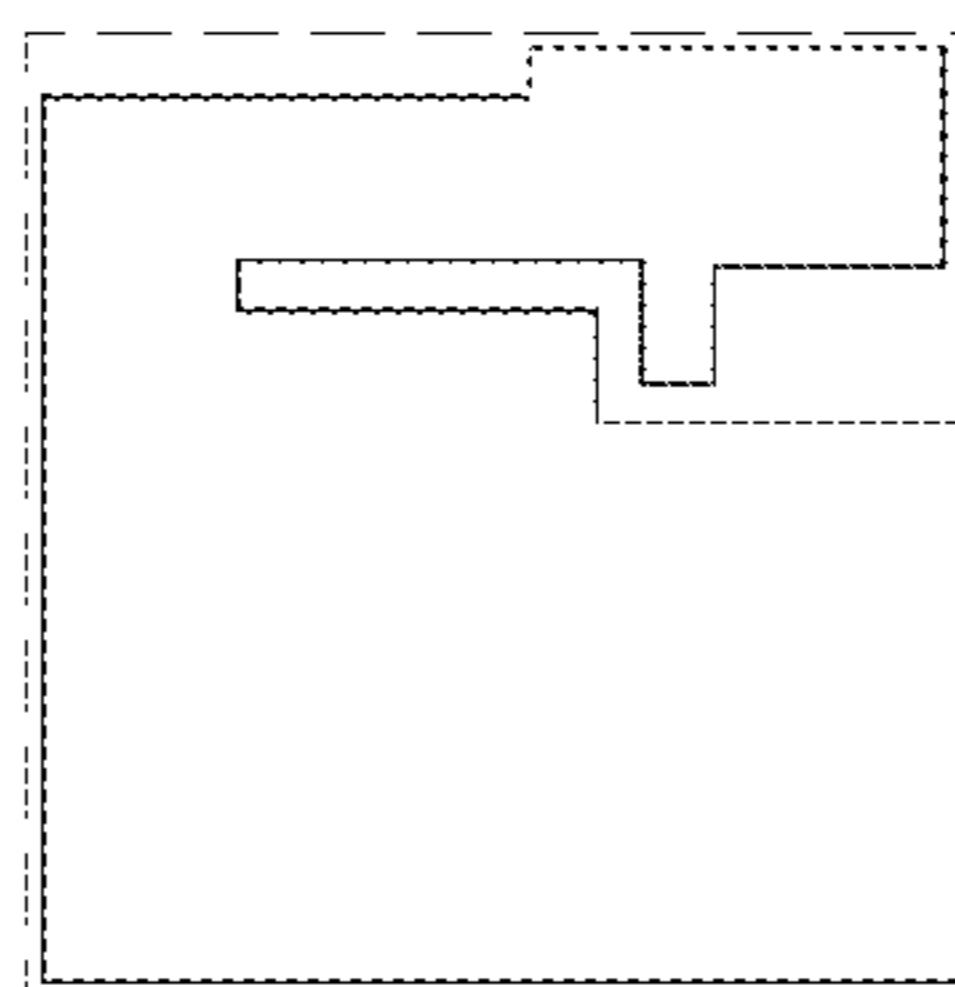


FIG. 7

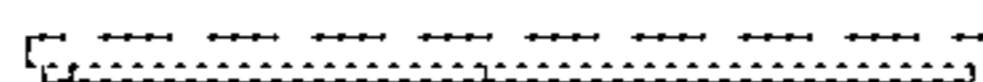


FIG. 2

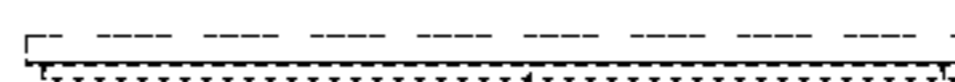


FIG. 8

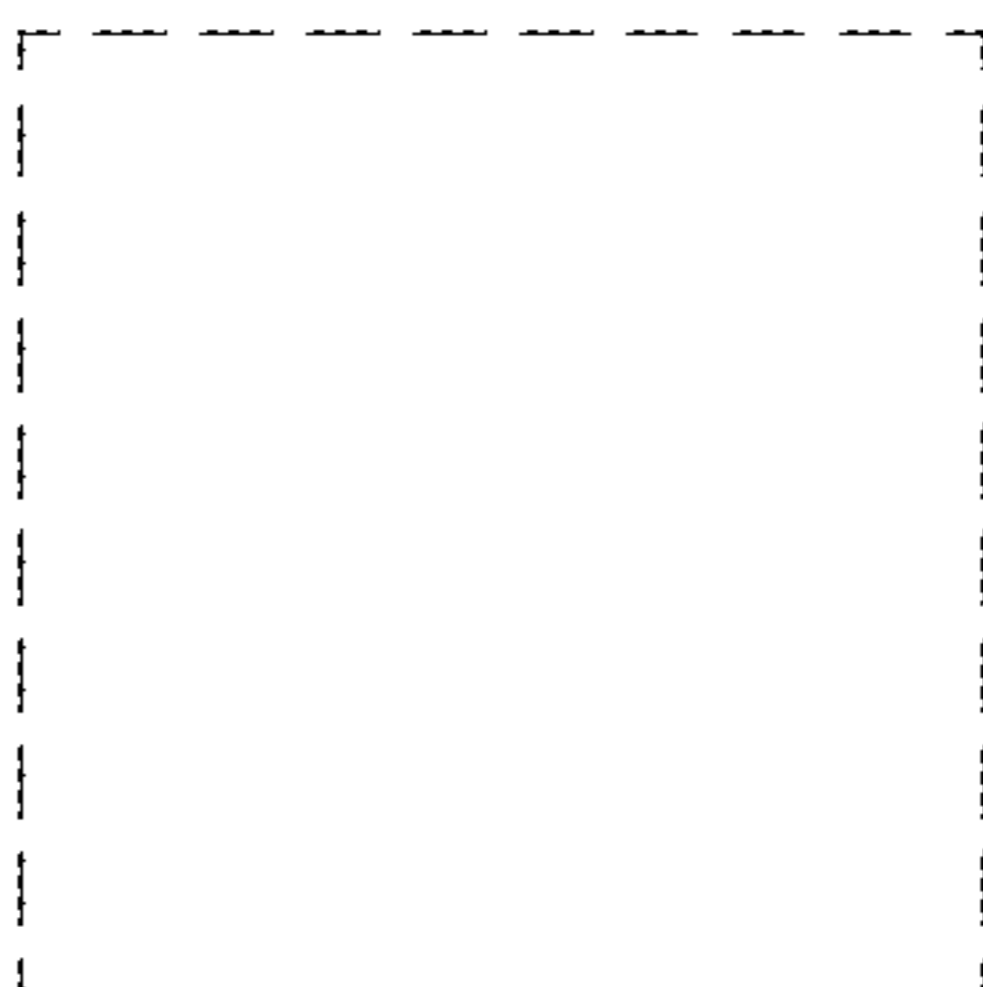


FIG. 3



FIG. 9

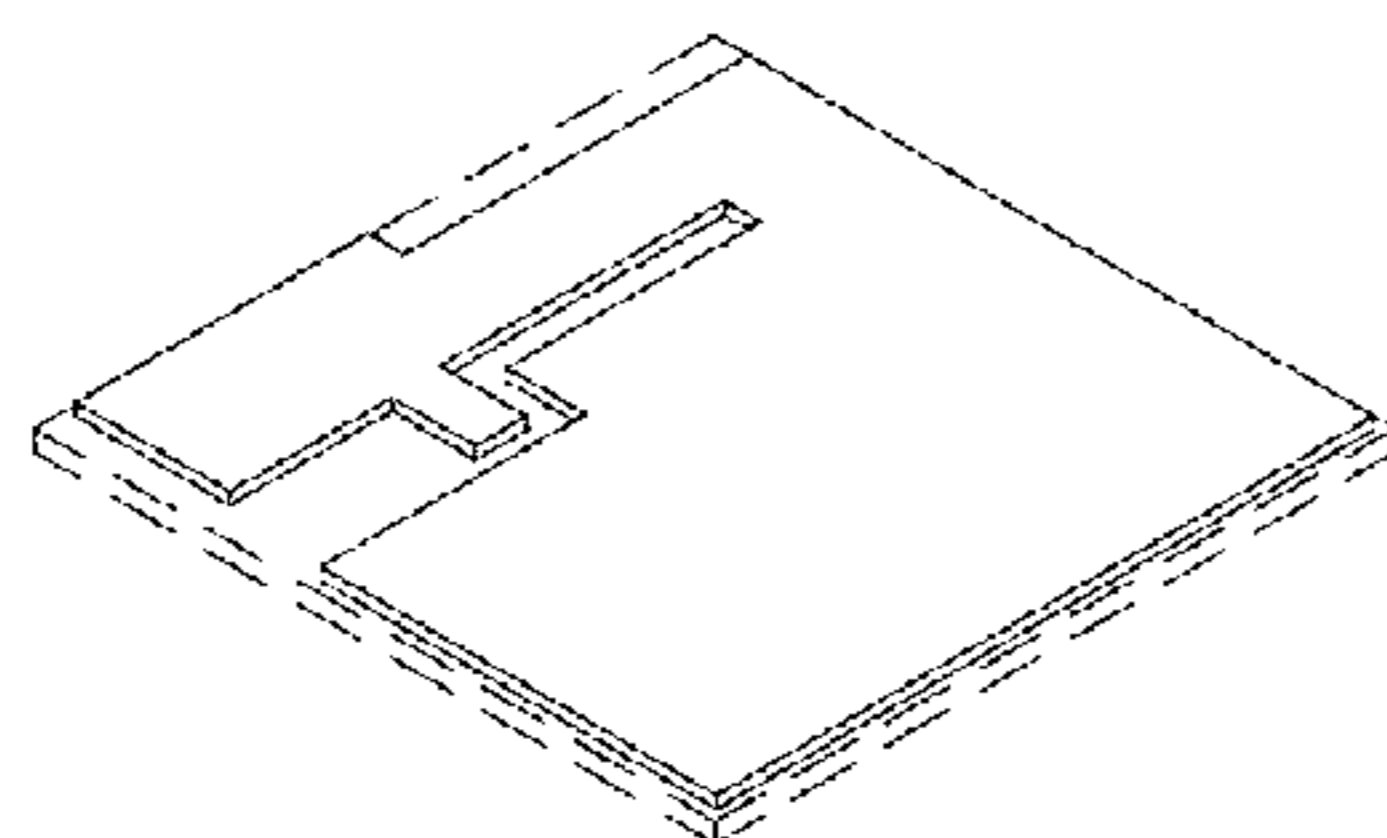


FIG. 4

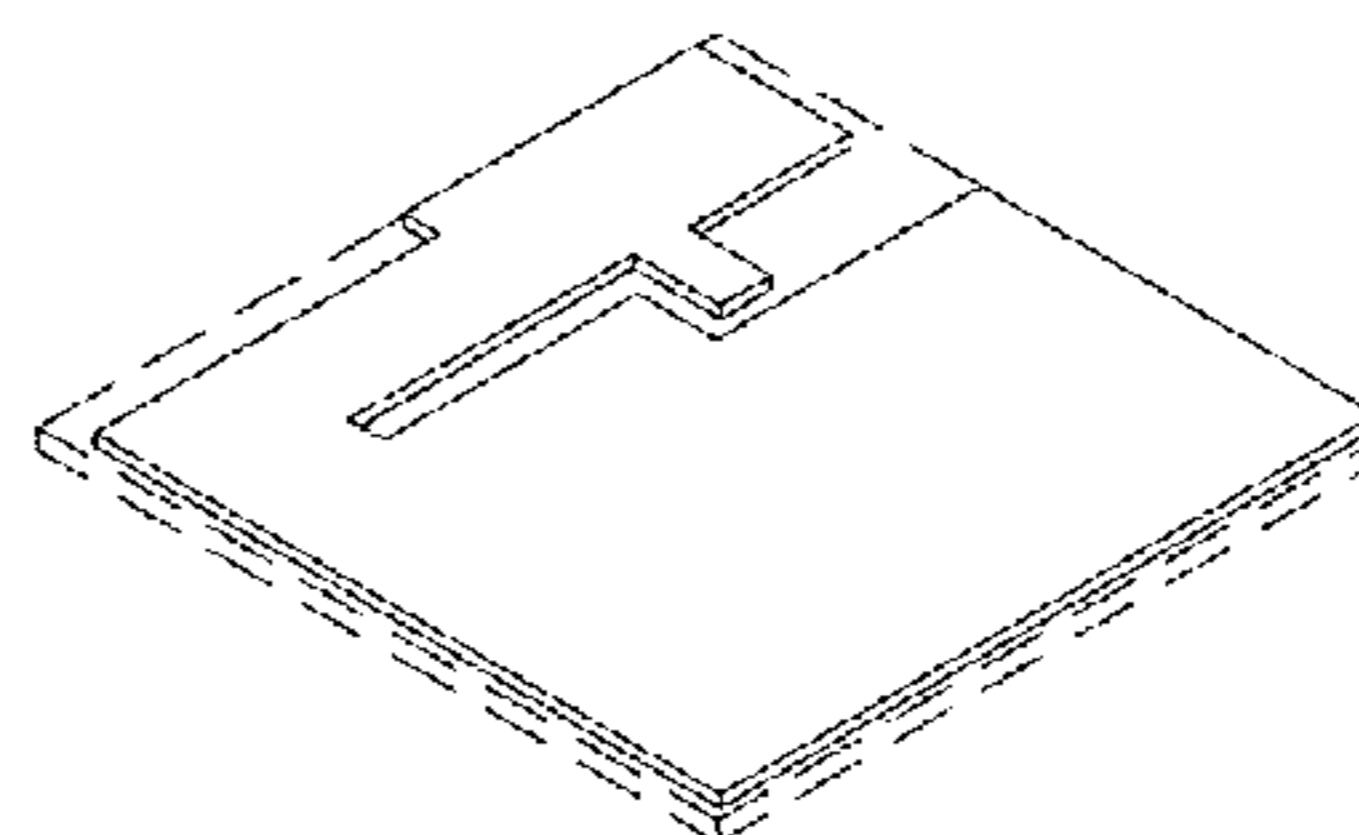


FIG. 10

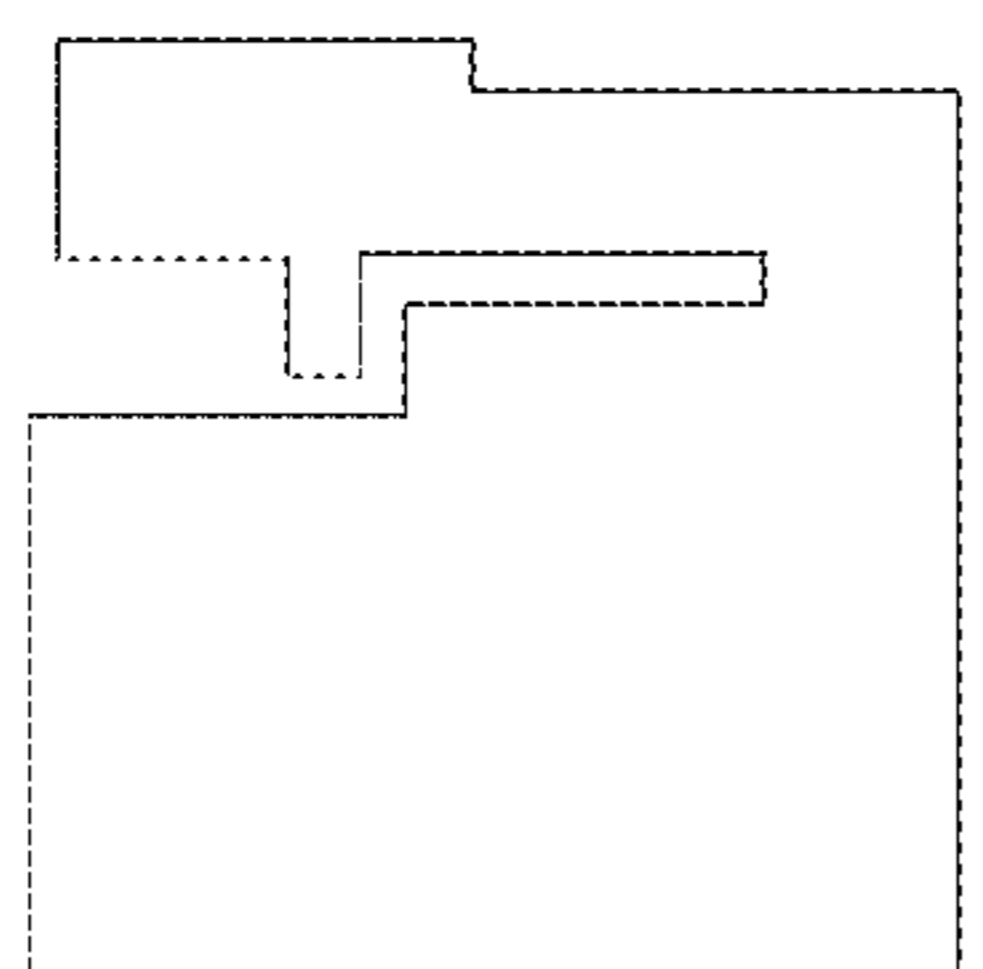


FIG. 5

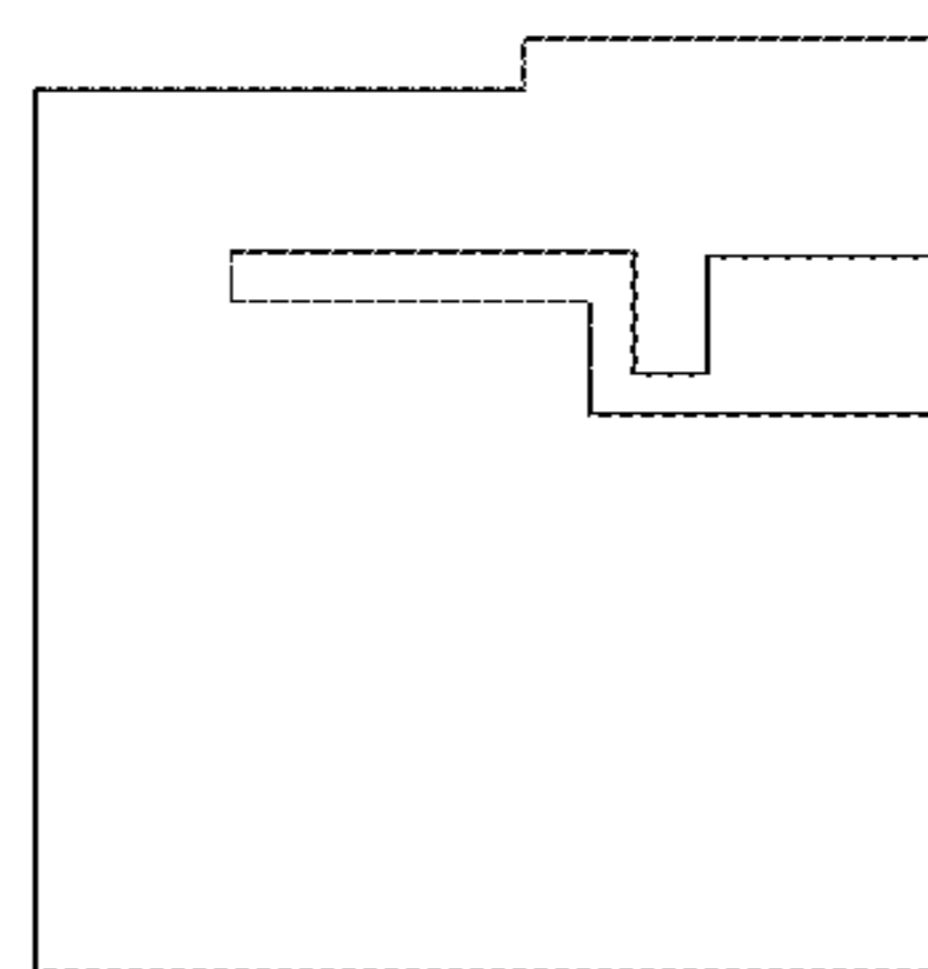


FIG. 11

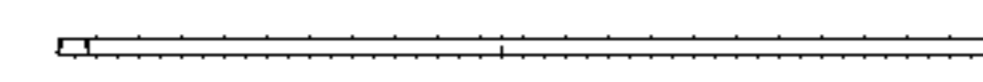


FIG. 6

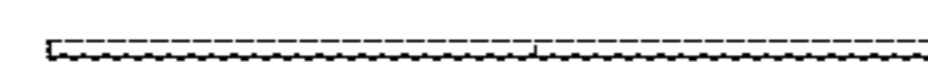


FIG. 12