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

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- (54) **ANTENNA ASSEMBLY**
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- (\*\*) Term: **15 Years**
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- (51) **LOC (12) Cl.** ..... **14-03**
- (52) **U.S. Cl.**  
USPC ..... **D14/230**
- (58) **Field of Classification Search**  
USPC ..... D14/138, 230–238, 299, 358; D12/42, D12/43  
CPC ..... H01Q 7/00; H01Q 13/10; H01Q 9/285; H01Q 19/30; H01Q 19/12; H01Q 1/38; H01Q 1/36; H01Q 2/0027; H01Q 1/48; H01Q 9/045; H01Q 1/243; H04B 1/0475; H04B 1/034; H05K 11/00  
See application file for complete search history.

- D588,586 S \* 3/2009 Montgomery ..... D14/230
- D592,195 S \* 5/2009 Wu ..... D14/230
- 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 ..... D14/230
- D608,769 S 1/2010 Bufe
- D612,368 S 3/2010 Yang et al.
- 7,688,273 B2 \* 3/2010 Montgomery ..... H01Q 1/243 343/820
- 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.

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(57) **CLAIM**

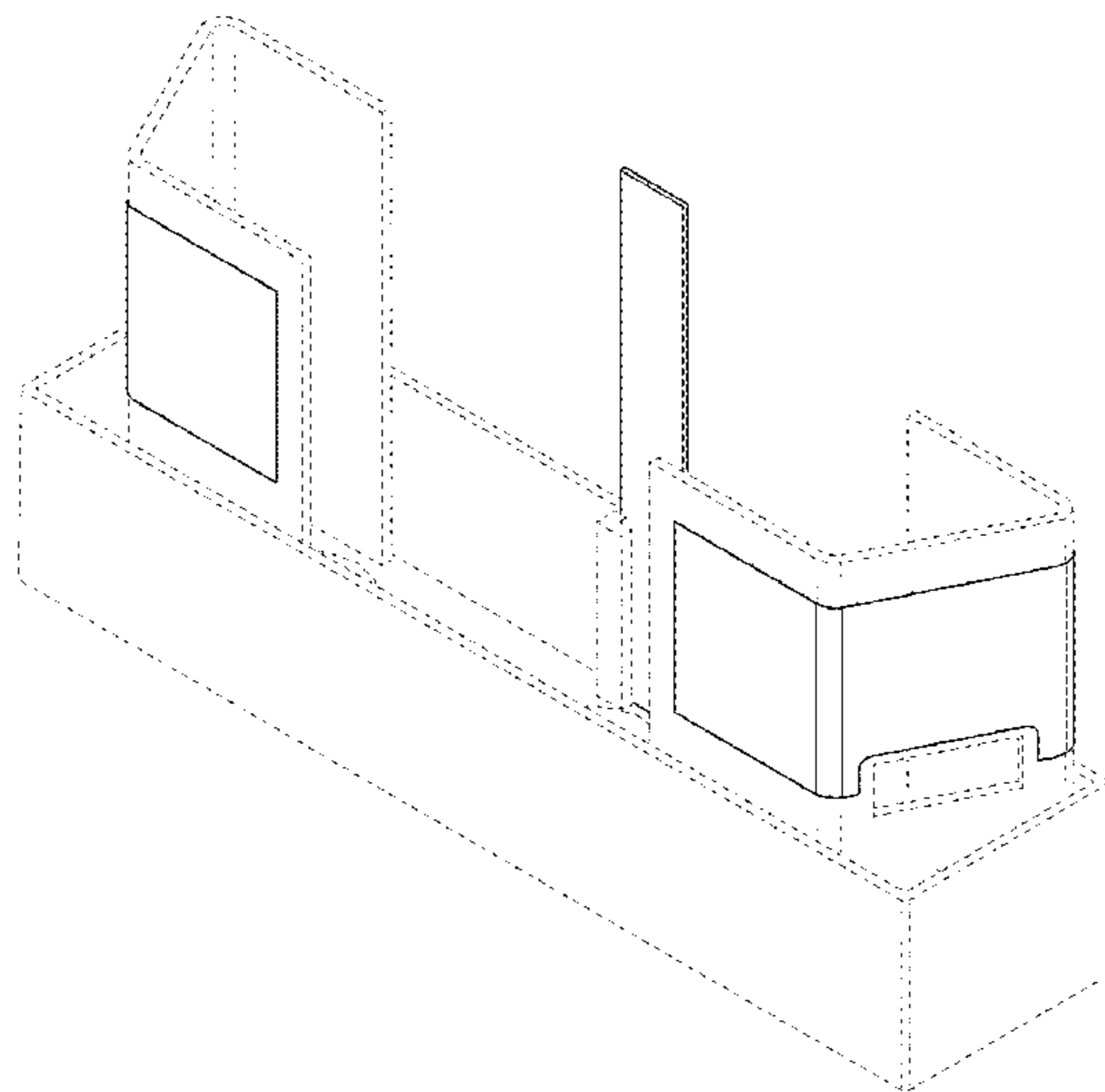
The ornamental design for an antenna assembly, as shown and described.

**DESCRIPTION**

FIG. 1 is a front elevation view of an antenna assembly; FIG. 2 is a side elevation view thereof; FIG. 3 is an opposite side elevation view thereof; FIG. 4 is a top plan view thereof; FIG. 5 is a bottom plan view thereof; FIG. 6 is a rear elevation view thereof; and, FIG. 7 is a top perspective view thereof. The broken lines are for illustration purposes only and form no part of the claimed invention.

**1 Claim, 7 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 8/2008 Lin et al.
- 7,477,195 B2 1/2009 Vance



(56)

References Cited

U.S. PATENT DOCUMENTS

D636,382 S	4/2011	Podduturi	D710,832 S	8/2014	Yang	
7,965,242 B2	6/2011	Abramov et al.	D710,833 S	8/2014	Zheng et al.	
D649,962 S	12/2011	Tseng et al.	8,854,265 B1 *	10/2014	Yang .....	H01Q 9/045 343/700 MS
D651,198 S	12/2011	Mi et al.	D716,775 S	11/2014	Bidermann	
D654,059 S	2/2012	Mi et al.	9,432,070 B2	8/2016	Mercer	
D654,060 S	2/2012	Ko et al.	D767,542 S *	9/2016	Chang .....	D14/230
D656,925 S *	4/2012	Podduturi .....	D778,882 S *	2/2017	Zheng .....	D14/230
D658,639 S	5/2012	Huang et al.	D786,840 S *	5/2017	He .....	D14/230
D659,129 S	5/2012	Mi et al.	D788,078 S *	5/2017	Lee .....	D14/218
D659,685 S	5/2012	Huang et al.	D793,997 S *	8/2017	Podduturi .....	D14/230
D659,688 S	5/2012	Huang et al.	D801,957 S *	11/2017	He .....	D14/230
8,175,036 B2	5/2012	Visuri et al.	D804,458 S *	12/2017	Chang .....	D14/230
8,184,601 B2	5/2012	Abramov et al.	D823,285 S *	7/2018	Montgomery .....	D14/230
D662,916 S	7/2012	Huang et al.	D842,280 S *	3/2019	Montgomery .....	D14/230
8,248,970 B2	8/2012	Abramov et al.	2002/0003499 A1	1/2002	Kouam et al.	
D671,097 S	11/2012	Mi et al.	2004/0222936 A1	11/2004	Hung et al.	
8,310,402 B2	11/2012	Yang	2005/0073462 A1	4/2005	Lin et al.	
D676,429 S	2/2013	Gosalia et al.	2005/0190108 A1	9/2005	Lin et al.	
D678,255 S	3/2013	Ko et al.	2006/0208900 A1	9/2006	Tavassoli Hozouri	
8,423,084 B2	4/2013	Abramov et al.	2007/0030203 A1	2/2007	Tsai et al.	
D684,565 S	6/2013	Wei	2008/0150829 A1	6/2008	Lin et al.	
D685,352 S	7/2013	Wei	2009/0002244 A1	1/2009	Woo	
D685,772 S	7/2013	Zheng et al.	2009/0027273 A1 *	1/2009	Lin .....	H01Q 1/2266 343/700 MS
D686,600 S	7/2013	Yang	2009/0058739 A1	3/2009	Konishi	
D689,474 S	9/2013	Yang et al.	2009/0135072 A1	5/2009	Ke et al.	
D692,870 S	11/2013	He	2009/0262028 A1	10/2009	Murnbru et al.	
D694,738 S	12/2013	Yang	2010/0171664 A1 *	7/2010	Yang .....	H01Q 1/2266 343/700 MS
D695,279 S	12/2013	Yang et al.	2010/0188297 A1	7/2010	Chen et al.	
D695,280 S	12/2013	Yang et al.	2010/0253582 A1 *	10/2010	Nozawa .....	H01Q 1/243 343/702
8,654,030 B1	2/2014	Mercer	2010/0309067 A1	12/2010	Tsou et al.	
D703,195 S	4/2014	Zheng	2011/0006950 A1	1/2011	Park et al.	
D703,196 S	4/2014	Zheng	2012/0038514 A1	2/2012	Bang	
D706,247 S	6/2014	Zheng et al.	2012/0229348 A1	9/2012	Chiang	
D706,750 S	6/2014	Bringuir	2012/0242546 A1	9/2012	Hu et al.	
D706,751 S	6/2014	Chang et al.				
D708,602 S	7/2014	Gosalia et al.				
D709,053 S	7/2014	Chang et al.				

\* cited by examiner

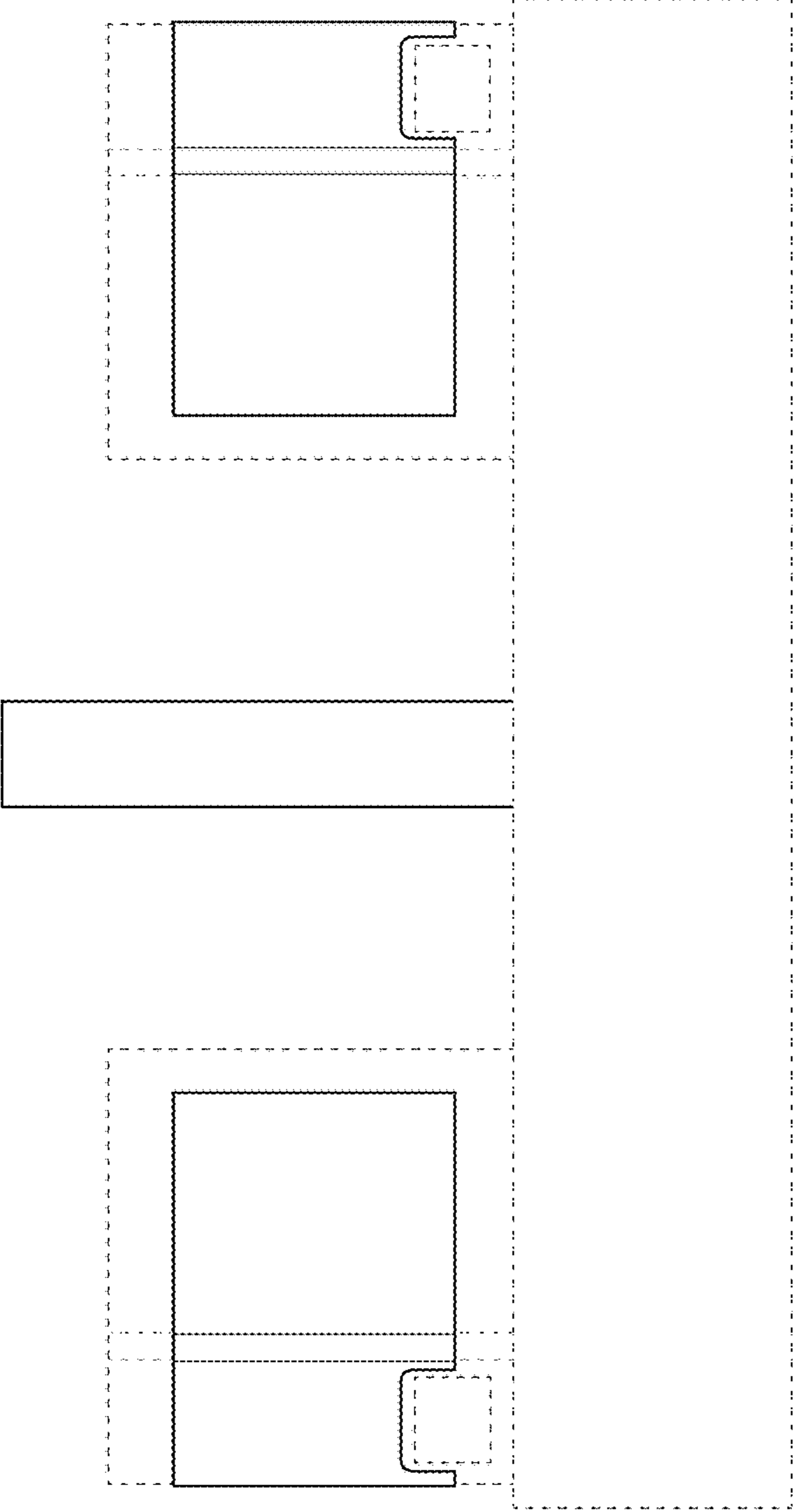


FIG. 1

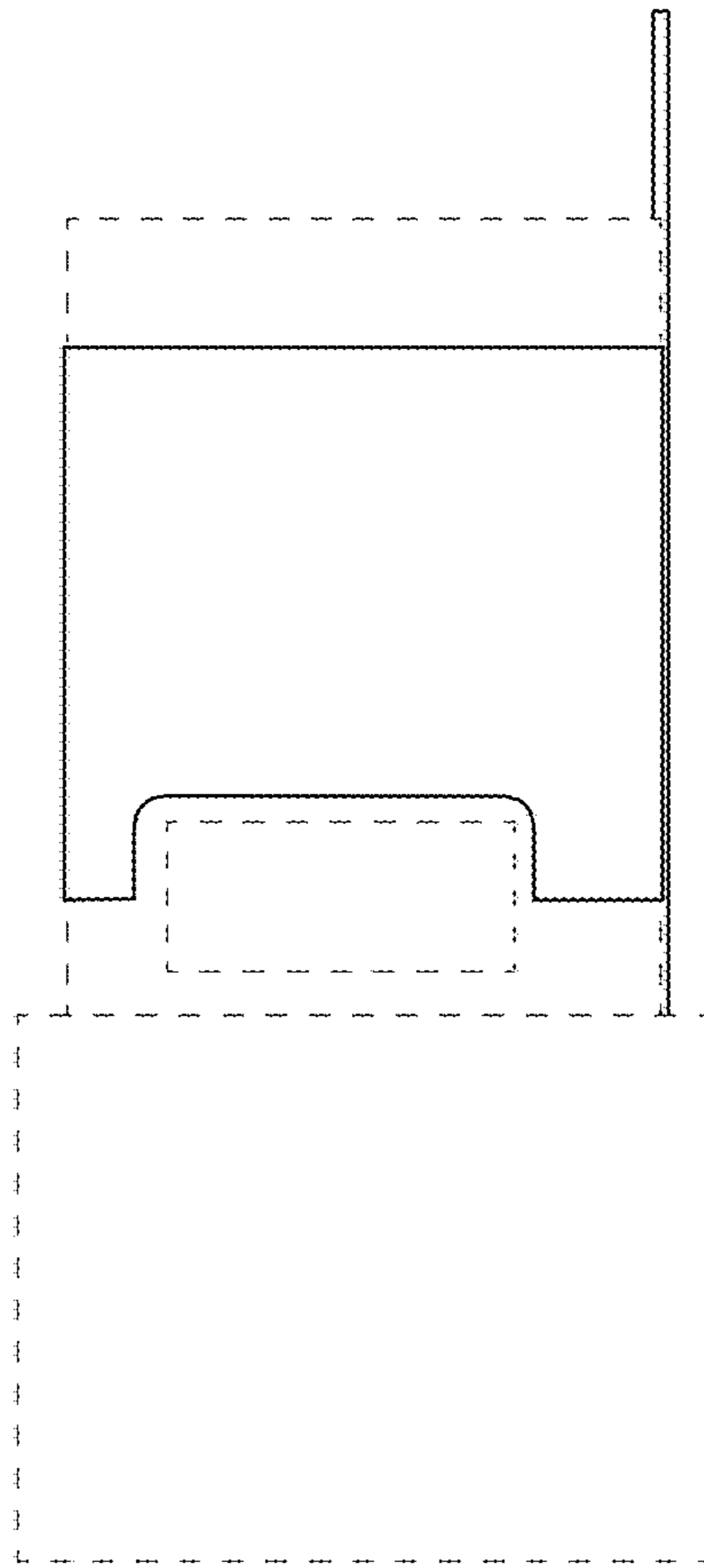


FIG. 2

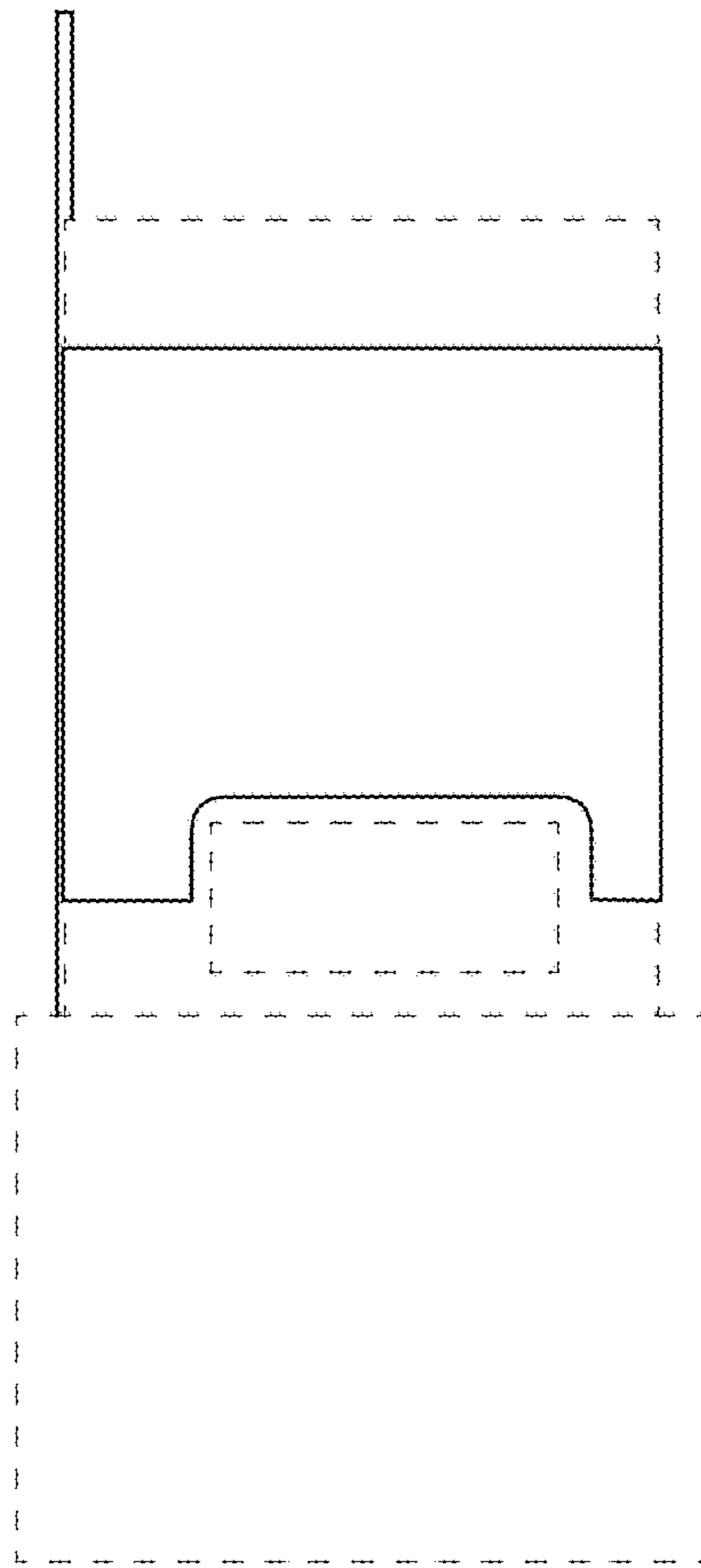


FIG. 3

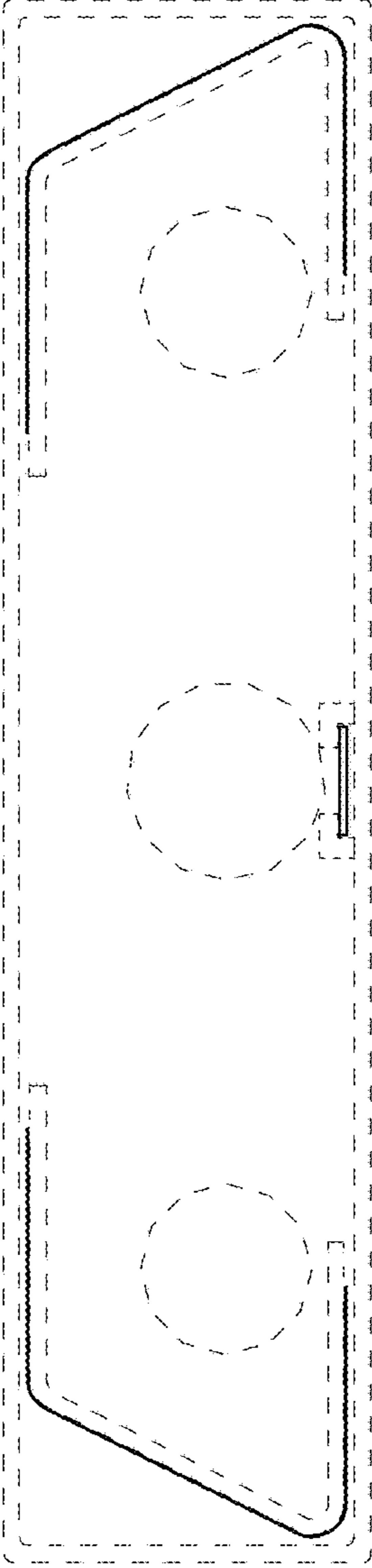


FIG. 4

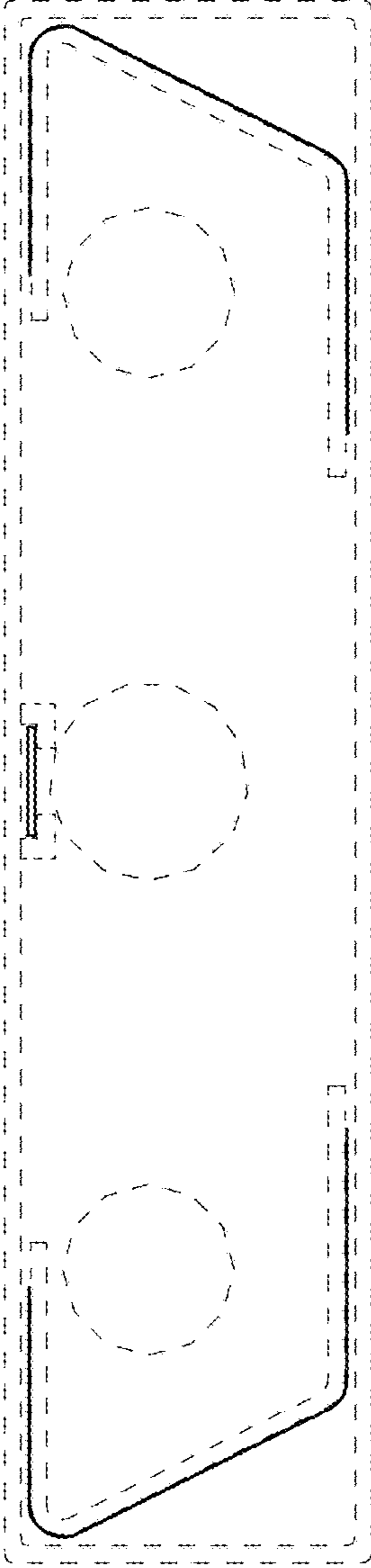


FIG. 5

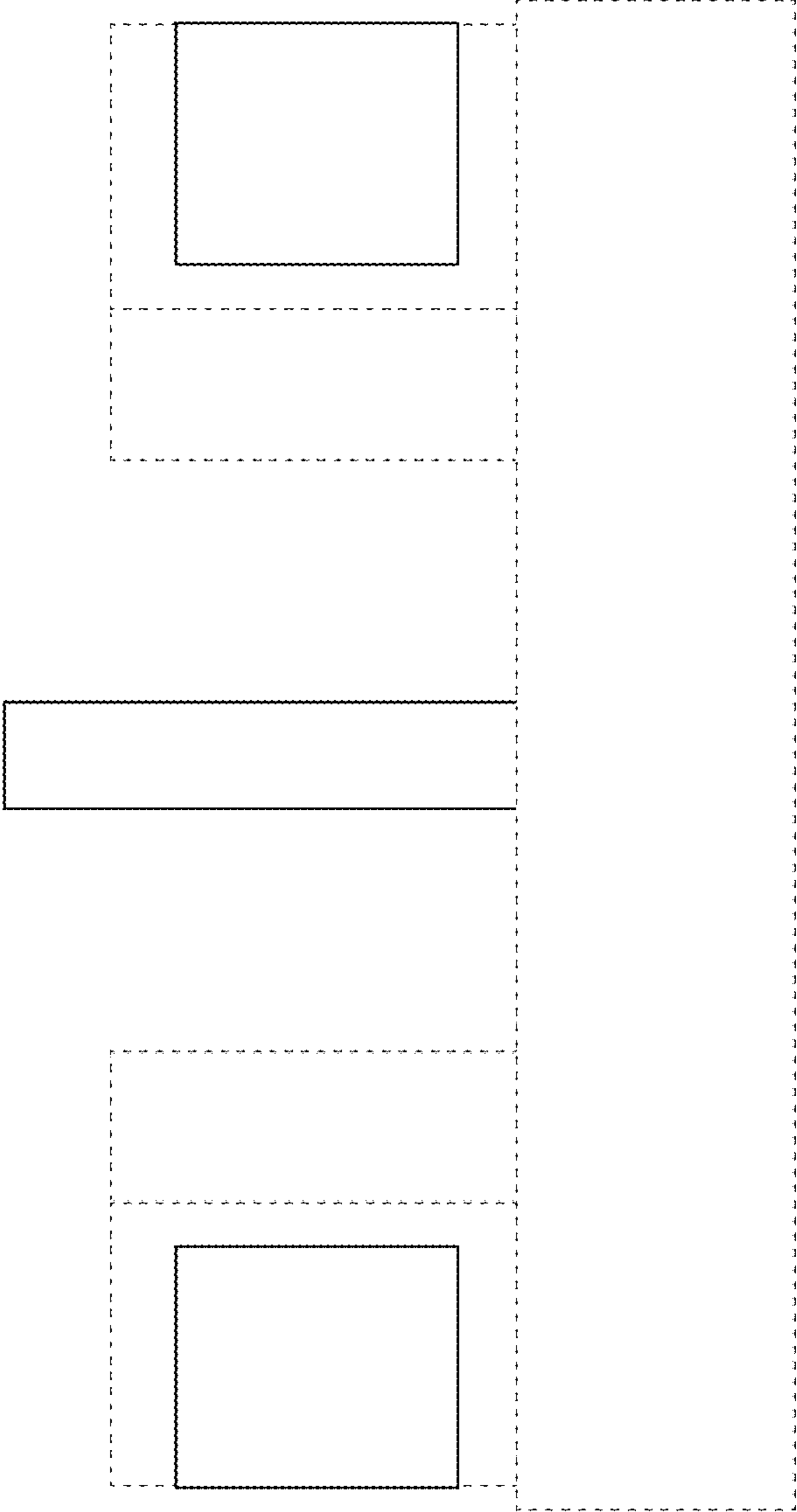


FIG. 6



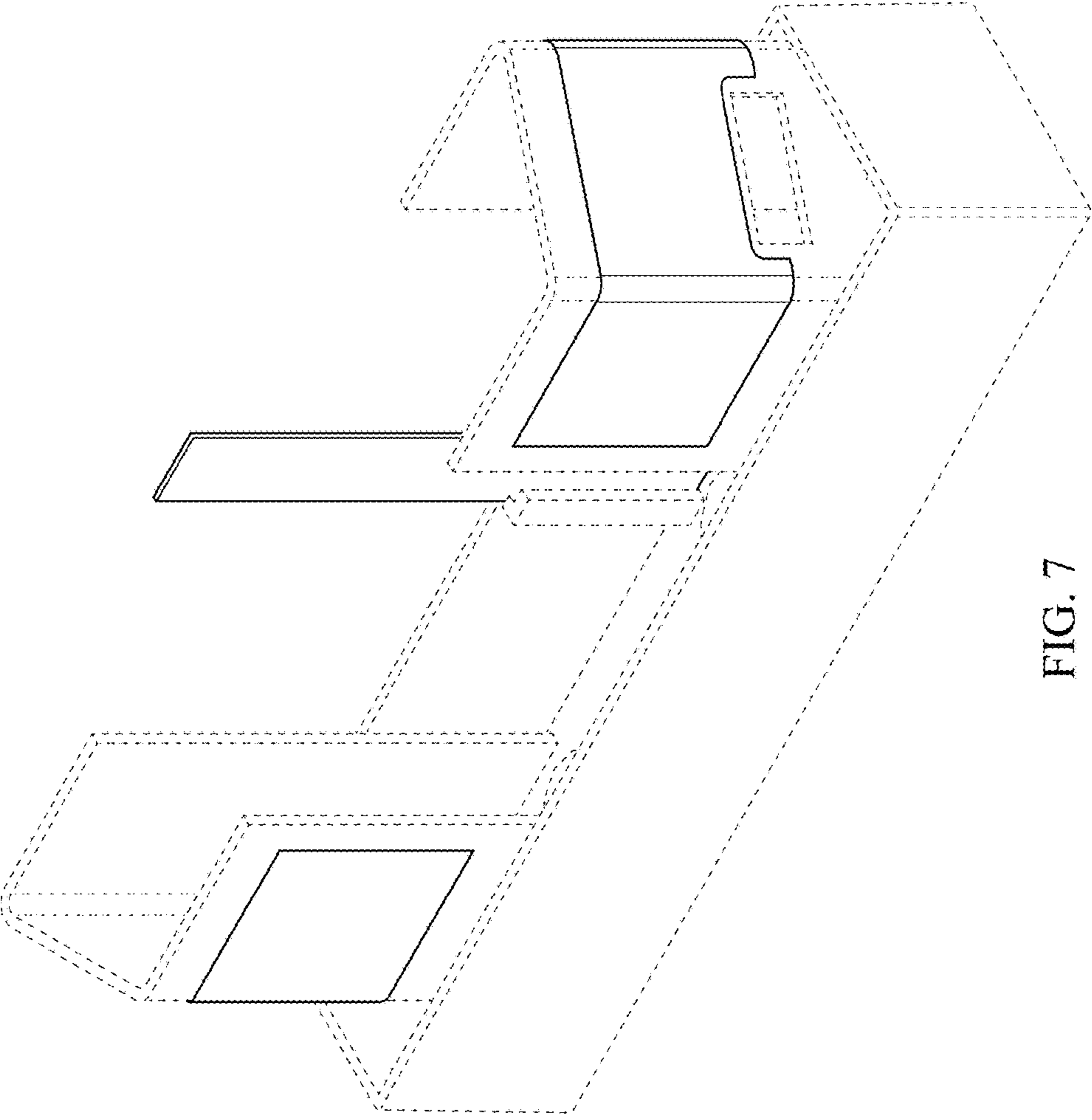


FIG. 7