



US00D826946S

(12) **United States Design Patent**
Lim et al.

(10) **Patent No.:** **US D826,946 S**
(45) **Date of Patent:** **** Aug. 28, 2018**

(54) **SSD STORAGE DEVICE**

(71) Applicant: **SAMSUNG ELECTRONICS CO., LTD.**, Suwon-si (KR)

(72) Inventors: **G. M Lim**, Seoul (KR); **Eun-jin Yun**, Seoul (KR)

(73) Assignee: **SAMSUNG ELECTRONICS CO., LTD.**, Suwon-si (KR)

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

(21) Appl. No.: **29/614,248**

(22) Filed: **Aug. 17, 2017**

(30) **Foreign Application Priority Data**

Feb. 17, 2017 (KR) 30-2017-0007659

(51) **LOC (11) Cl.** **14-02**

(52) **U.S. Cl.**
USPC **D14/436**; D14/435

(58) **Field of Classification Search**
USPC 439/946, 948, 159, 77; 174/250, 260, 174/52.1, 52.2, 16.1, 16.3; 710/300–303; 438/121; 376/191; 165/185, 80.2; 711/104, 164; 365/191, 51, 200, 201, 365/230.1, 230.03, 233.11, 212.63; 714/733, 744, 763, 718, 723, 766, 6.13, 714/773; 360/69, 97.02, 53; 361/679.33–679.45, 737, 752, 736, 728, 361/796, 797, 729, 730, 725–727, 749, 361/760, 784, 789, 771, 792, 764, 765, 361/704, 715, 710, 711, 719, 767, 785,
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,872,505 A * 10/1989 Jones H01L 23/4006
165/185
5,224,023 A * 6/1993 Smith G06F 1/184
174/254

(Continued)

FOREIGN PATENT DOCUMENTS

CN 303719066 S 6/2016
JP D1479370 S 9/2013

(Continued)

OTHER PUBLICATIONS

Communication issued Nov. 3, 2017 by the Taiwan Intellectual Property Office in counterpart Taiwanese Patent Application No. 106304663.

(Continued)

Primary Examiner — Susan Moon Lee

(74) *Attorney, Agent, or Firm* — Sughrue Mion, PLLC

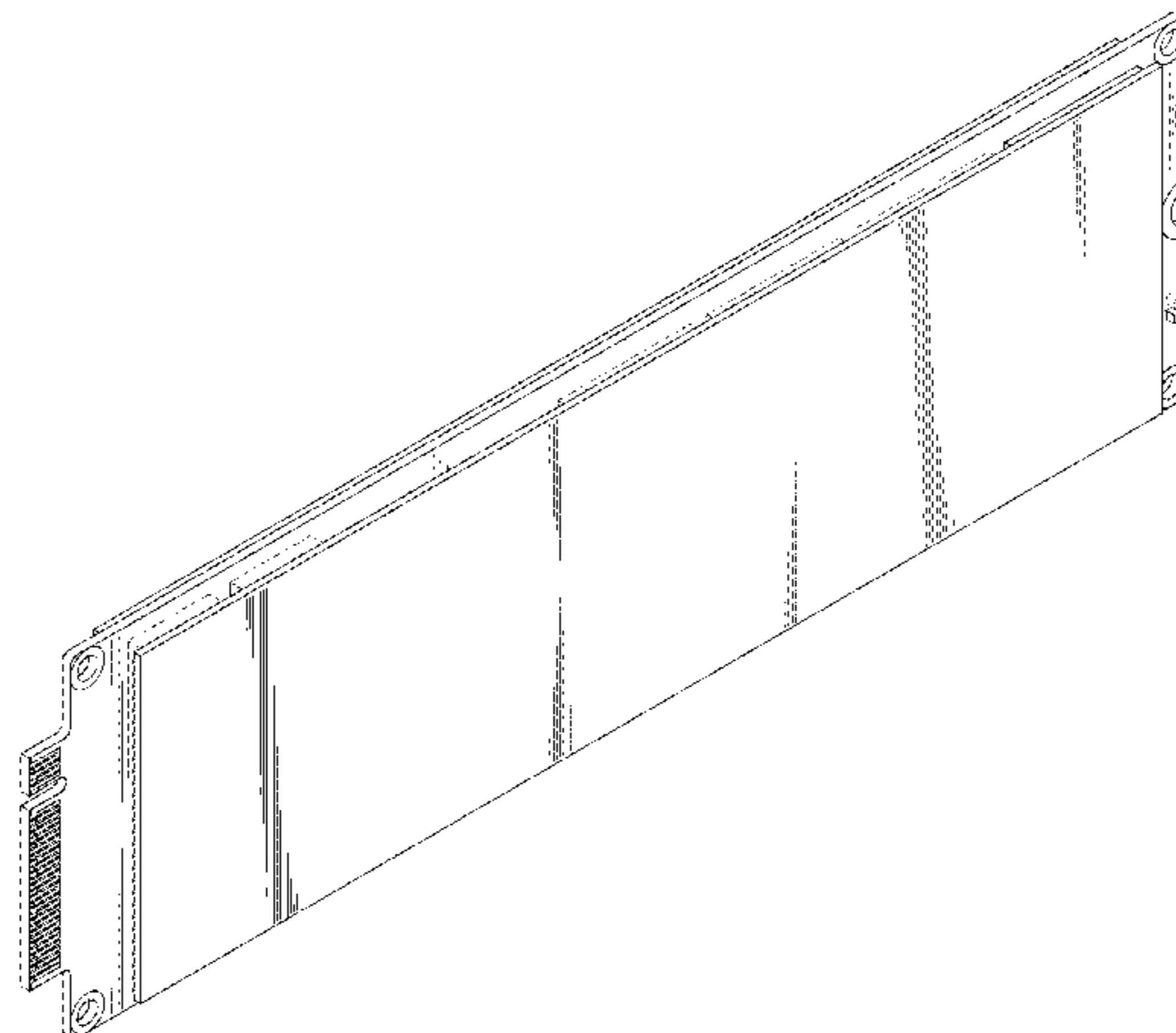
(57) **CLAIM**

The ornamental design for an SSD storage device, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of an SSD storage device showing our new design.
FIG. 2 is a front elevation view thereof.
FIG. 3 is a rear elevation view thereof.
FIG. 4 is a left side elevation view thereof.
FIG. 5 is a right side elevation view thereof.
FIG. 6 is a top plan view thereof; and,
FIG. 7 is a bottom plan view thereof.
Broken lines and unshaded portions contained within broken lines depict either features of the SSD storage device that form no part of the present design claim or exemplary elements that might be used in conjunction with the SSD storage device that are shown for illustrative purposes only and that form no part of the claimed design.

1 Claim, 7 Drawing Sheets



(58) **Field of Classification Search**

USPC 361/803; 400/412, 713-715;
 428/137-138, 140, 304.4, 457; 442/9;
 257/678, 679, 693, E23.064, 734, 713,
 257/718, 719, E25.023, E21.705,
 257/E23.098, E23.177; 235/441, 443,
 235/487, 492, 493, 495, 380; D18/1, 7,
 D18/9, 11; D13/103, 119, 162, 184, 199,
 D13/182; D14/110, 114, 125, 240, 242,
 D14/299-302, 314, 348-370, 435-438,
 D14/496, 478-480

CPC G06K 19/06196; G06K 19/072; G06K
 19/0721; G06K 19/0722; G06K 19/0723;
 G06K 19/0724; G06K 19/0725; G06K
 19/0726; G06K 19/0727; G06K 19/0728;
 G06K 19/073; G06K 19/07309; G06K
 19/077; G06K 19/07701; G06K
 19/07715; G06K 19/0772; G06K
 19/07724; G06K 19/07726; G06K
 19/07728; G06F 21/77-21/80; G06F
 21/85-21/88; G06F 21/00; G06F 3/0604;
 G06F 3/0688; G06F 3/0653; G06F
 3/0659; G06F 11/1076; G06F 11/1008;
 G06F 11/1044; G06F 12/1416; G06F
 12/1425; G06F 12/1433; G06F 13/00;
 G06Q 20/3229; G06Q 20/34; G06Q
 20/341; G06Q 20/346; G06Q 20/349;
 G06Q 20/3563; G06Q 20/3567; G06Q
 20/357; G06Q 20/3576; H05K 5/026;
 H05K 5/0256; H05K 5/0265; H05K
 5/0269; H05K 5/0273; H05K 5/0278;
 H05K 5/0282; H05K 5/0286; H05K
 5/0291; H05K 5/0295; H05K 5/03; H05K
 5/04; H05K 5/06; H05K 5/061; H05K
 5/062; H05K 5/063; H05K 5/064; H05K
 5/065; H05K 5/066; H05K 5/067; H05K
 5/068; H05K 5/069; H05K 7/00; H05K
 7/005; H05K 7/02; H05K 7/023; H05K
 7/026; H05K 7/04; H05K 7/10; H05K
 7/1418; H05K 7/142; H05K 7/1424;
 H05K 7/1427-7/1439; H05K 7/1461;
 H05K 7/1464-7/1474; H05K 7/1479;
 H05K 7/1481; H05K 7/1485-7/1488;
 H05K 2201/09745; H05K 2201/09754;
 H05K 2201/09763; H05K 2201/09772;
 H05K 2201/098; H05K 2201/09818;
 H05K 2201/10; H05K 2201/10007; H05K
 1/189; H05K 1/0203; H05K 1/118; H05K
 1/181; H05K 3/00; H05K 3/0061; H05K
 999/00; H05K 2201/056; H05K
 2201/1056; H05K 2201/10734; H05K
 2201/2018; H05K 2203/1572; H04N
 2201/216; G11C 16/0483; G11C 16/225;
 G11C 16/10; G11C 7/04; G11C 7/22;
 G11C 5/04; G11C 5/00; G11C 5/143;
 G11C 29/12; G11C 29/26; G11C 29/16;
 G11C 2029/0401; H01L 23/3672; H01L
 23/4093; H01L 2924/0002; H01L
 2924/00; H01L 25/0652; H01L 25/105

See application file for complete search history.

(56)

References Cited

U.S. PATENT DOCUMENTS

5,347,428 A * 9/1994 Carson H01L 25/0657
 174/260

5,754,409 A * 5/1998 Smith H01R 12/62
 174/254

5,995,370 A * 11/1999 Nakamori H01L 23/367
 165/185

6,002,589 A * 12/1999 Perino H01L 23/4985
 257/E23.065

6,021,048 A * 2/2000 Smith H05K 1/144
 361/736

6,025,992 A * 2/2000 Dodge H01L 23/3733
 165/80.3

6,088,829 A * 7/2000 Umemura G06F 13/4243
 713/400

D432,096 S * 10/2000 Jeon D13/182

6,381,140 B1 * 4/2002 Liao G11C 5/04
 361/679.32

6,535,387 B2 * 3/2003 Summers H01L 23/4093
 165/185

6,590,282 B1 * 7/2003 Wang H01L 25/0657
 257/685

6,614,664 B2 * 9/2003 Lee G11C 15/00
 361/748

6,628,538 B2 * 9/2003 Funaba G11C 5/04
 257/E25.01

6,757,751 B1 * 6/2004 Gene H05K 1/144
 439/101

6,762,942 B1 * 7/2004 Smith H05K 1/189
 174/258

6,956,284 B2 * 10/2005 Cady H01L 23/3114
 257/685

7,269,025 B2 * 9/2007 David G11C 5/04
 257/E23.079

7,299,313 B2 * 11/2007 Gower G06F 13/1684
 710/105

7,516,281 B2 * 4/2009 LaBerge G06F 13/4086
 711/105

7,590,899 B2 * 9/2009 Swietek G06F 12/1416
 711/104

7,619,893 B1 * 11/2009 Yu H01L 23/3672
 165/185

7,636,274 B2 * 12/2009 Solomon G06F 12/0207
 365/233.13

7,688,592 B2 * 3/2010 Gruendler H01L 23/4093
 165/185

7,811,097 B1 * 10/2010 Bhakta H05K 1/147
 439/71

7,839,712 B2 * 11/2010 Djordjevic G11C 5/04
 365/212

7,861,029 B2 * 12/2010 Djordjevic G11C 5/025
 365/63

D637,192 S 5/2011 Andre et al.

D637,193 S 5/2011 Andre et al.

8,018,723 B1 * 9/2011 Yu H01L 23/367
 257/707

D652,041 S * 1/2012 Andre D14/436

D655,296 S * 3/2012 Andre D14/436

D673,922 S * 1/2013 Moriai D13/182

8,347,057 B2 * 1/2013 Nishio G06F 13/1673
 711/167

8,422,263 B2 * 4/2013 Saito G11C 5/04
 365/189.03

D686,215 S * 7/2013 Andre D14/436

8,510,629 B2 * 8/2013 Tsukada G06F 11/1044
 714/763

8,705,240 B1 * 4/2014 Zohni H01L 23/367
 361/704

(56)

References Cited

U.S. PATENT DOCUMENTS

8,796,830 B1 * 8/2014 Fjelstad H01L 23/4952
257/676
D716,310 S * 10/2014 Andre D14/436
8,885,422 B2 * 11/2014 Ribeiro G11C 5/02
365/189.17
D753,073 S 4/2016 Sponring
D787,456 S * 5/2017 Matsumoto D13/182
D787,457 S * 5/2017 Matsumoto D13/182
D793,973 S * 8/2017 Matsumoto D13/182
D794,035 S * 8/2017 Hung D14/435
D798,251 S * 9/2017 Li D13/182
2004/0196682 A1 * 10/2004 Funaba H01L 23/552
365/149
2005/0082663 A1 * 4/2005 Wakiyama H01L 23/5387
257/717
2006/0049500 A1 * 3/2006 Goodwin G11C 5/04
257/686
2006/0049502 A1 * 3/2006 Goodwin G06F 1/184
257/686
2006/0049513 A1 * 3/2006 Goodwin G11C 5/00
257/712
2006/0050488 A1 * 3/2006 Goodwin G11C 5/04
361/749
2006/0050489 A1 * 3/2006 Wehrly, Jr. H01L 25/0652
361/749
2006/0050492 A1 * 3/2006 Goodwin G11C 5/04
361/767
2006/0050498 A1 * 3/2006 Cady G11C 5/04
361/803
2006/0050592 A1 * 3/2006 Cady H05K 1/189
365/230.03
2006/0129888 A1 * 6/2006 Szewerenko G06F 1/20
714/30
2006/0171247 A1 * 8/2006 Hoppe G11C 5/04
365/189.07
2006/0261449 A1 * 11/2006 Rapport G11C 5/04
257/666
2007/0011574 A1 * 1/2007 Weiss G06F 11/1008
714/763
2007/0033490 A1 * 2/2007 Moosrainer G06F 11/1044
714/763
2007/0139897 A1 * 6/2007 RaghuRam H01L 23/3672
361/720
2007/0176286 A1 * 8/2007 Wehrly, Jr. H01L 25/0655
257/723

2007/0212902 A1 * 9/2007 Clayton G06F 1/183
439/66
2007/0212906 A1 * 9/2007 Clayton H01L 23/5387
439/77
2007/0212919 A1 * 9/2007 Clayton H01L 23/473
439/326
2007/0212920 A1 * 9/2007 Clayton H01R 12/721
439/326
2007/0223198 A1 * 9/2007 Lai H01L 23/3672
361/720
2007/0294889 A1 * 12/2007 Schmitt H01L 25/50
29/831
2008/0094811 A1 * 4/2008 Hazelzet G11C 5/04
361/760
2008/0116571 A1 * 5/2008 Dang H01L 23/3672
257/721
2008/0123300 A1 * 5/2008 Tian G11C 5/04
361/721
2008/0123303 A1 * 5/2008 Sugano G11C 5/00
361/728
2008/0137278 A1 * 6/2008 Chih G11C 5/06
361/679.31
2009/0129026 A1 * 5/2009 Baek H01L 23/3672
361/710
2009/0268390 A1 * 10/2009 King G06F 13/409
361/679.33
2010/0073860 A1 * 3/2010 Moriai G06F 3/0626
361/679.32
2013/0219235 A1 * 8/2013 Ohba G11C 29/12
714/718
2016/0172016 A1 * 6/2016 Matsumoto G11C 5/04
365/191
2016/0334992 A1 * 11/2016 Yashiro G06F 3/0614
2017/0010639 A1 * 1/2017 Matsumoto G06F 1/183

FOREIGN PATENT DOCUMENTS

JP D1520122 S 3/2015
JP D1528484 S 7/2015
KR 30-0645777 S 6/2012
KR 30-0680966 S 2/2013
KR 30-0680971 S 2/2013

OTHER PUBLICATIONS

Non-Patent Prior Art List, 2 pages total.

* cited by examiner

FIG. 1

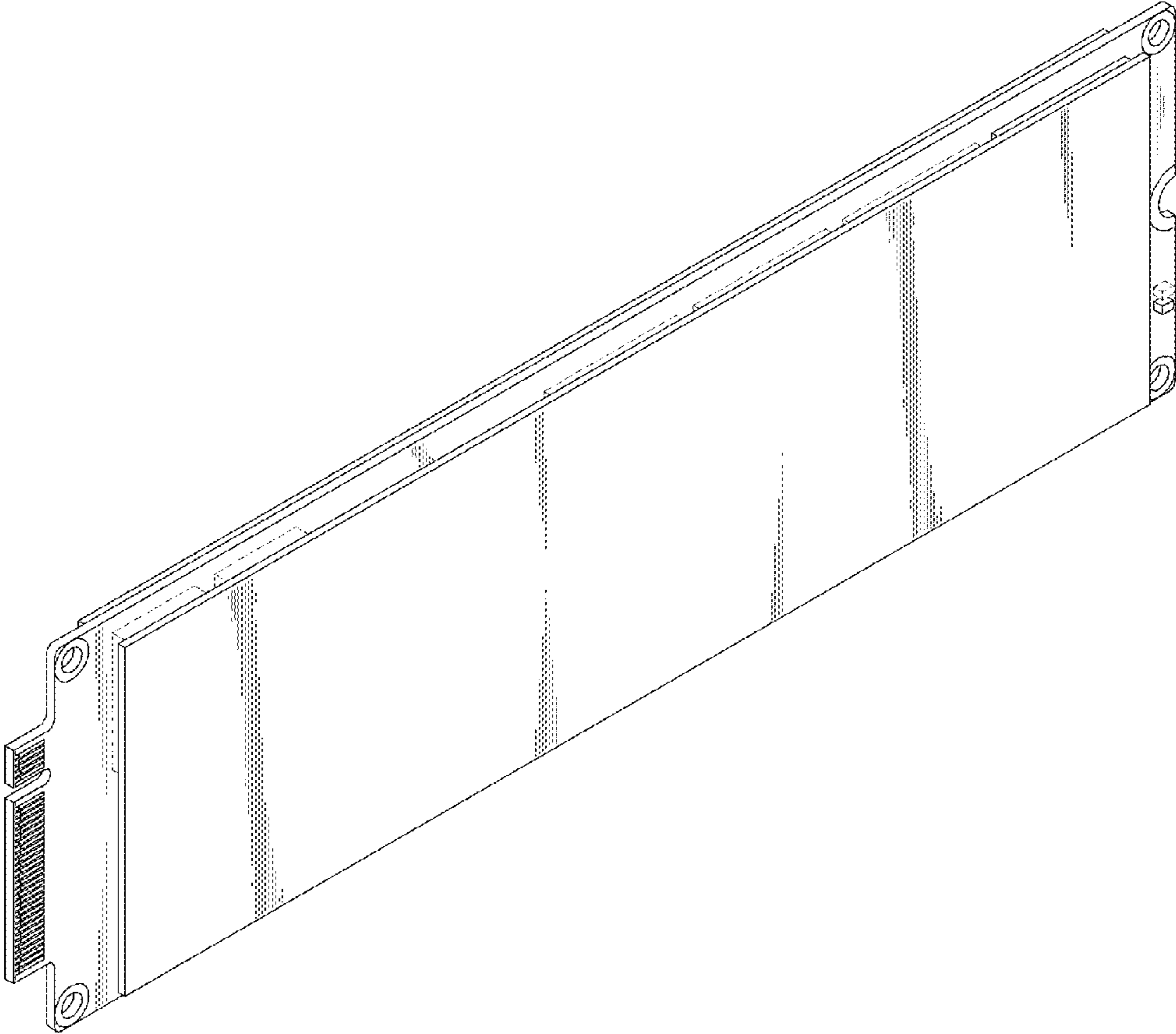


FIG. 2

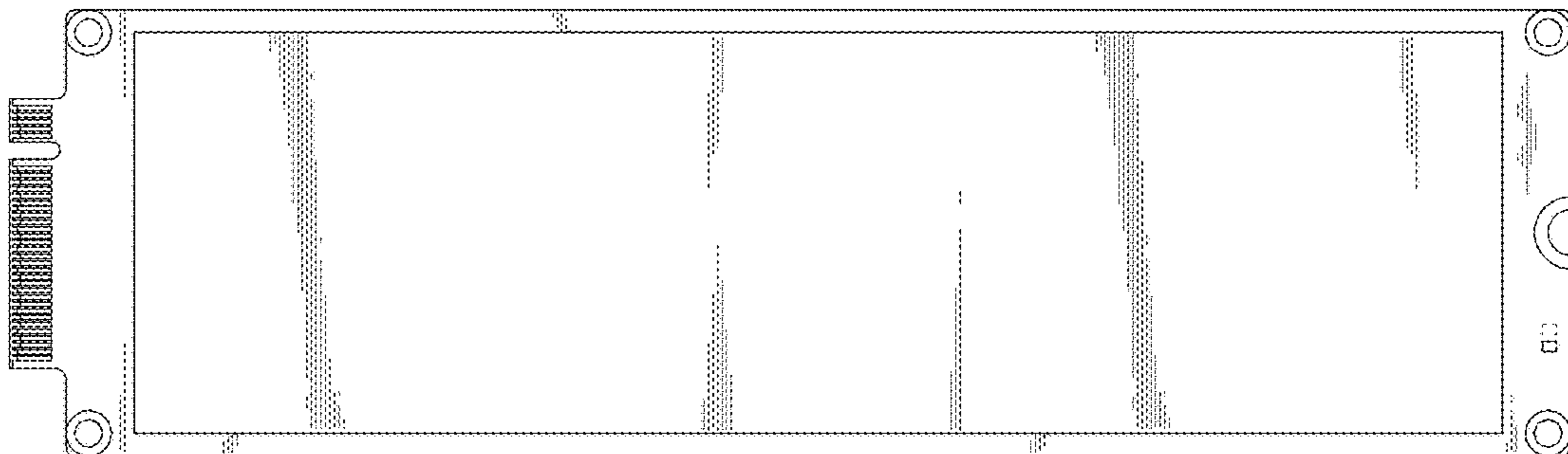


FIG. 3

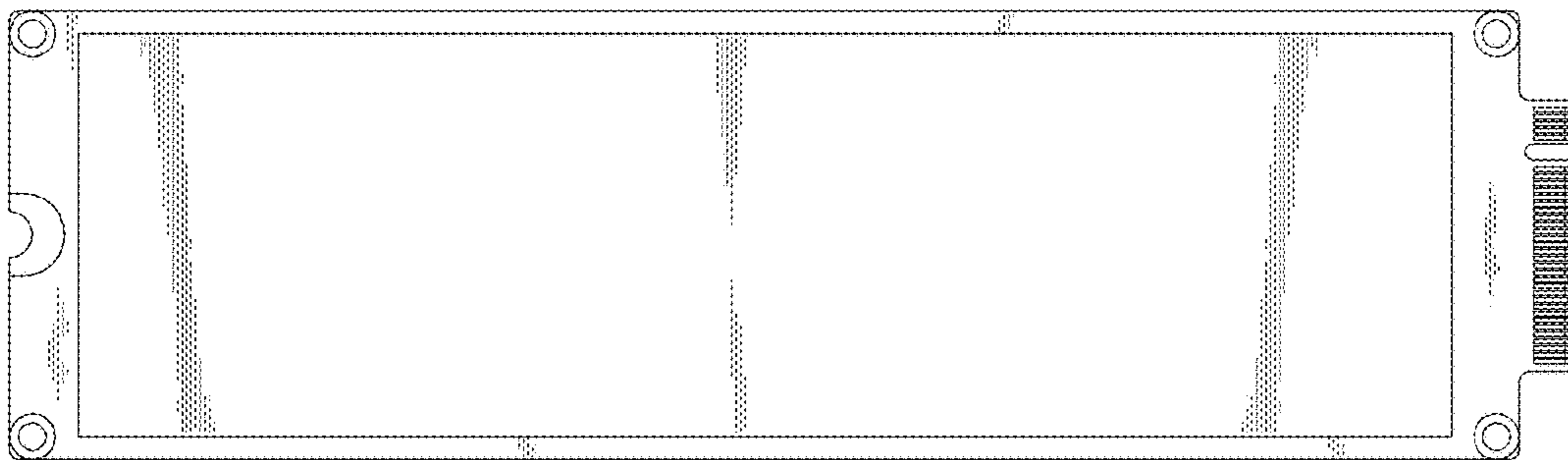


FIG. 4



FIG. 5

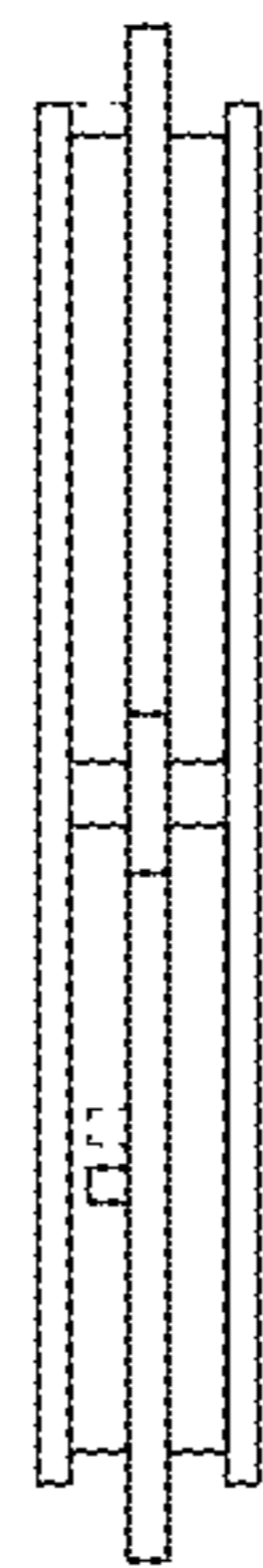


FIG. 6



FIG. 7

