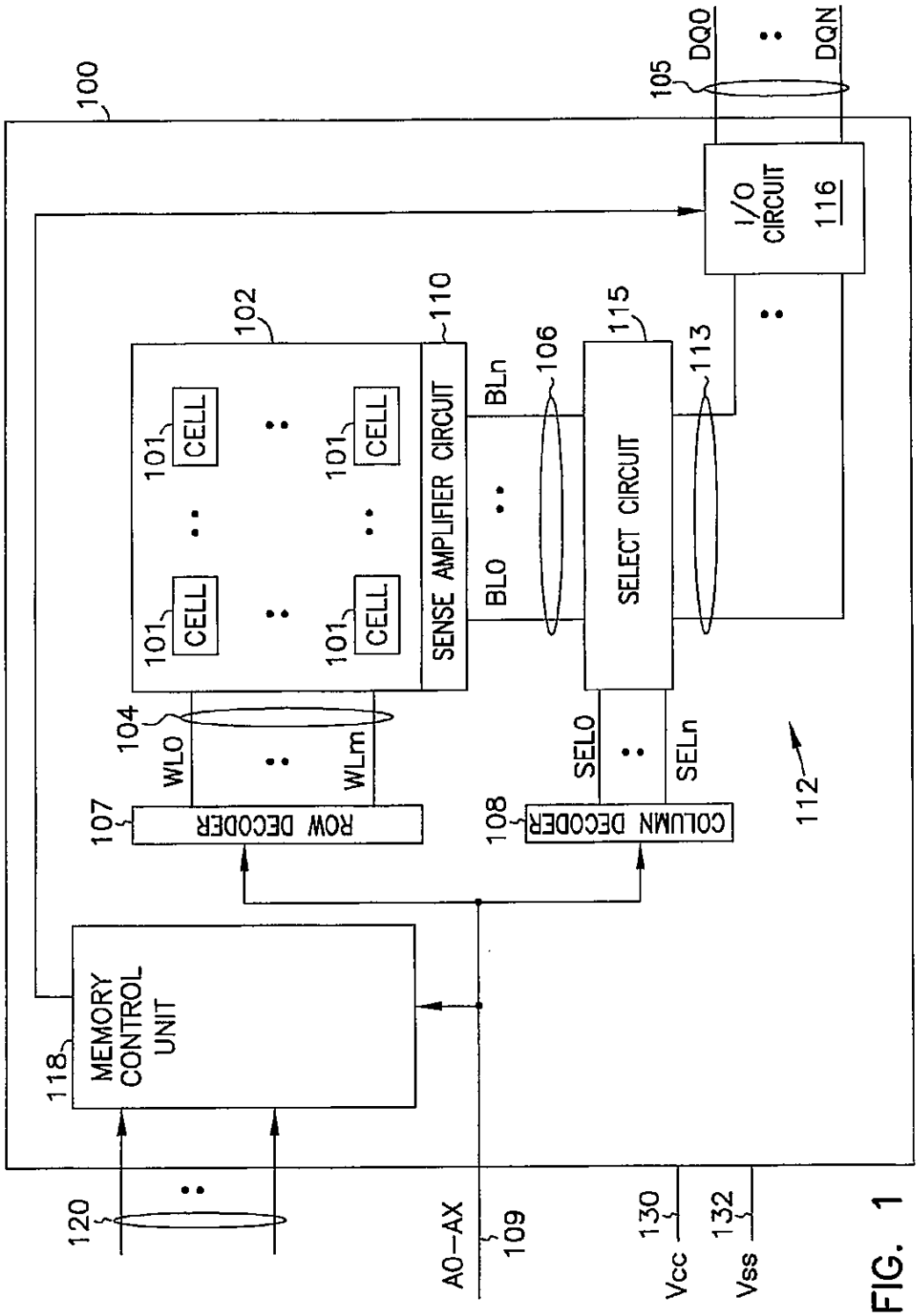

100
105
DQ0
DQN
I/O CIRCUIT 116
102
110
SENSE AMPLIFIER CIRCUIT
BLn
BL0
106
115
SELECT CIRCUIT
113
101
CELL
104
WL0
WLm
107
ROW DECODER
108
COLUMN DECODER
SEL0
SELn
112
118
MEMORY CONTROL UNIT
120
A0–AX
109
130
Vcc
132
Vss

FIG. 1

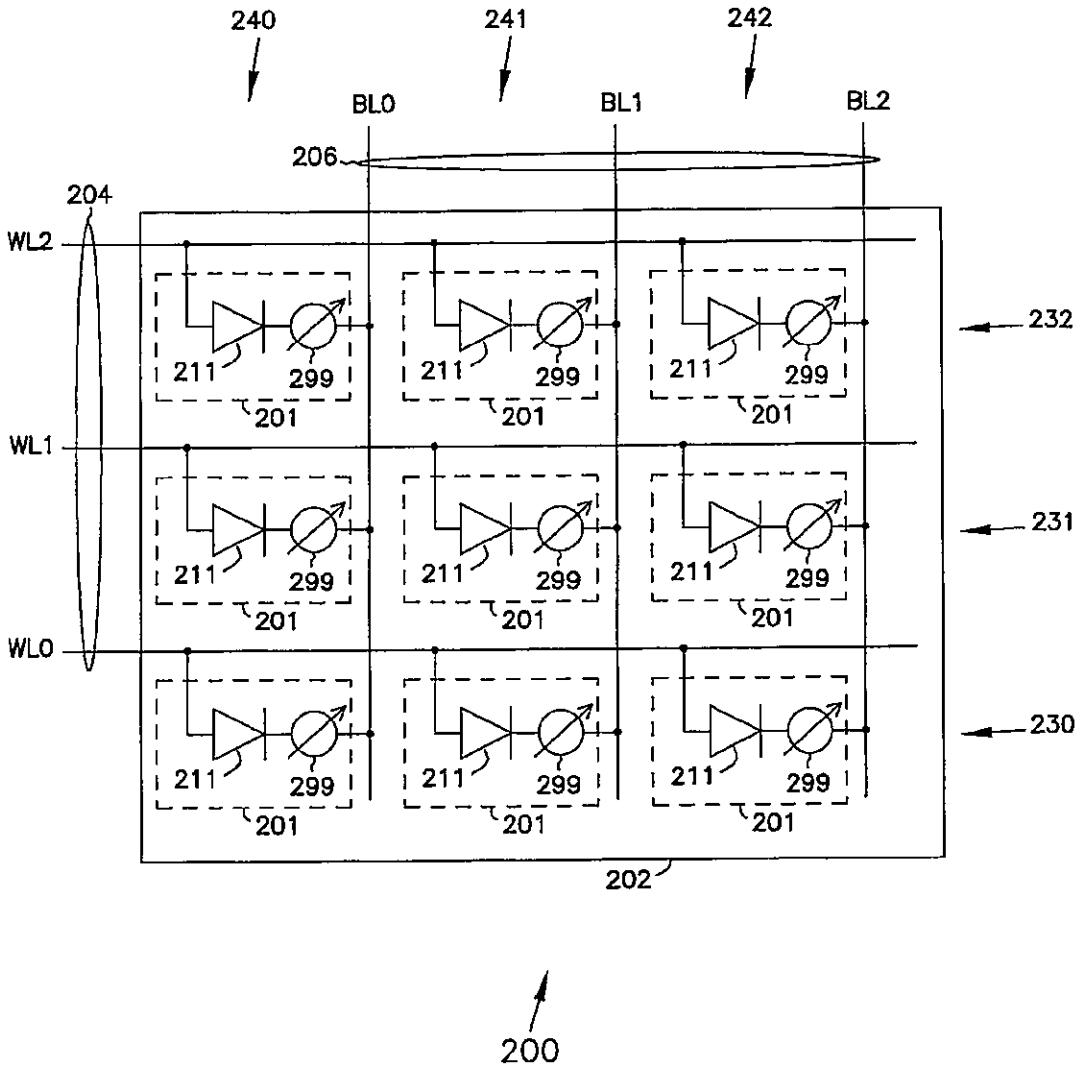

240
241
242
BL0
BL1
BL2
206
204
WL2
WL1
WL0
211
299
201
232
231
230
202
200

FIG. 2

FIG. 3

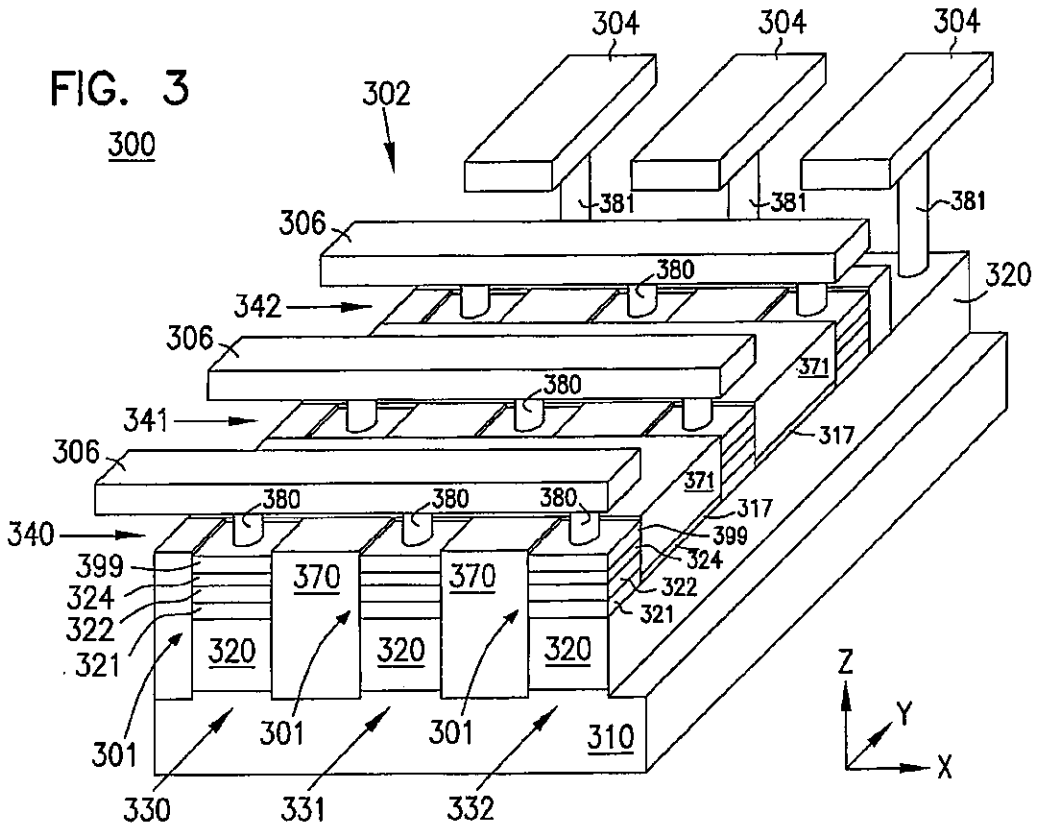

300
302
304
304
304
381
381
381
306
380
320
342
306
371
380
341
317
306
371
380
380
380
317
340
399
324
322
321
399
324
322
321
370
370
320
320
320
301
301
301
310
330
331
332
Z
Y
X

FIG. 4

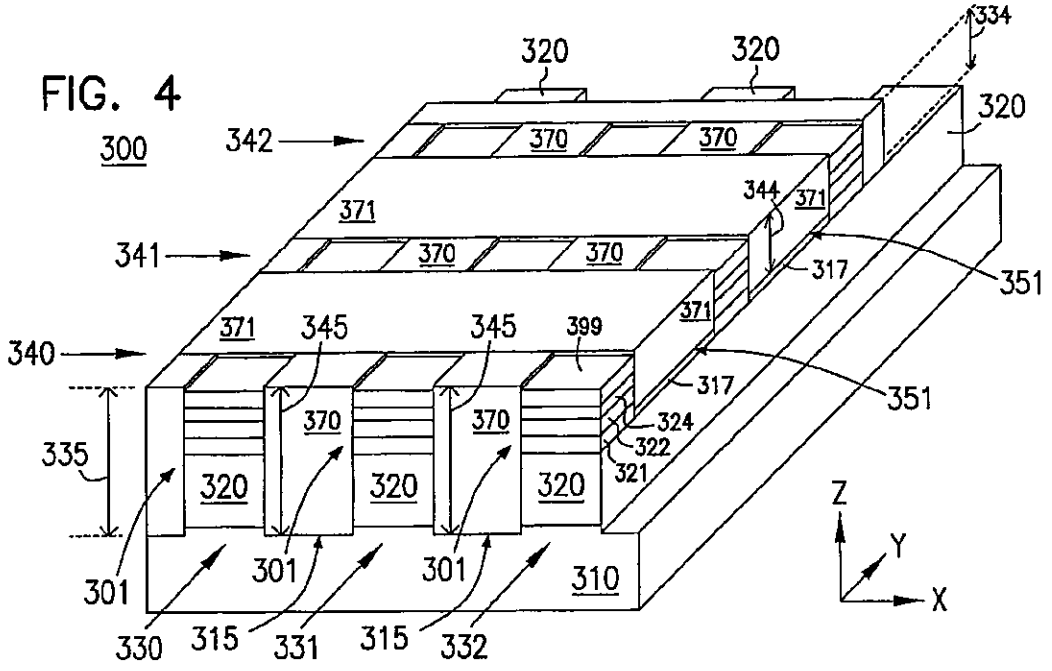

300
320
320
334
320
342
370
370
344
371
371
341
370
370
317
351
371
371
345
345
399
340
317
351
335
370
370
324
322
321
320
320
320
301
301
301
310
330
315
331
315
332
Z
Y
X

FIG. 5

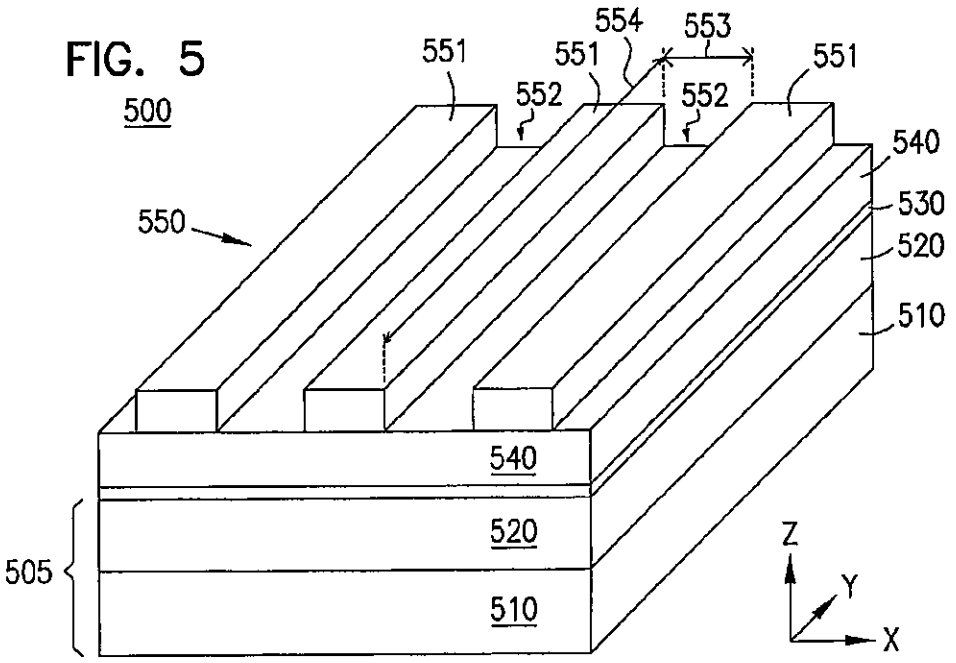

500
551
551
554
553
551
552
552
540
550
530
520
510
540
520
505
510
Z
Y
X

FIG. 6

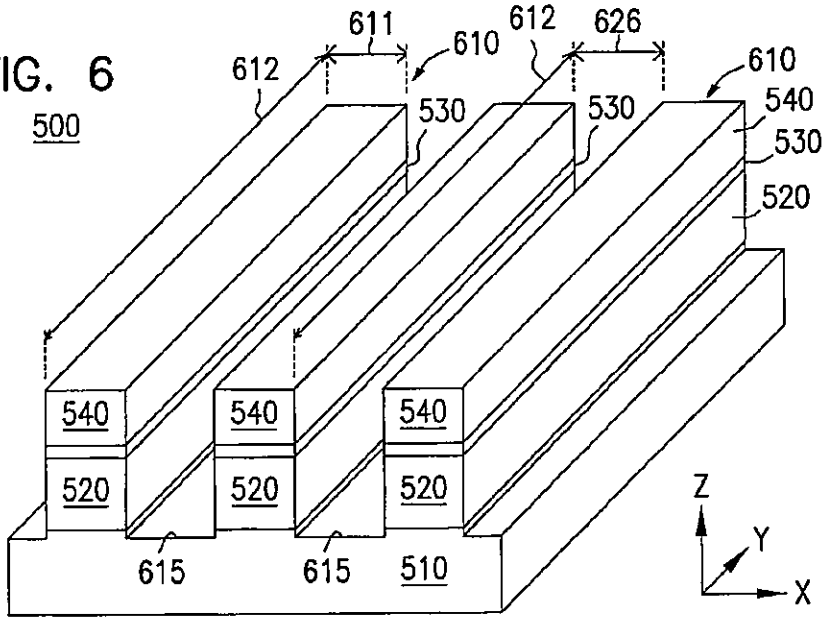

500
611
610
612
626
612
610
530
530
540
530
520
540
540
540
520
520
520
615
615
510
Z
Y
X

FIG. 7

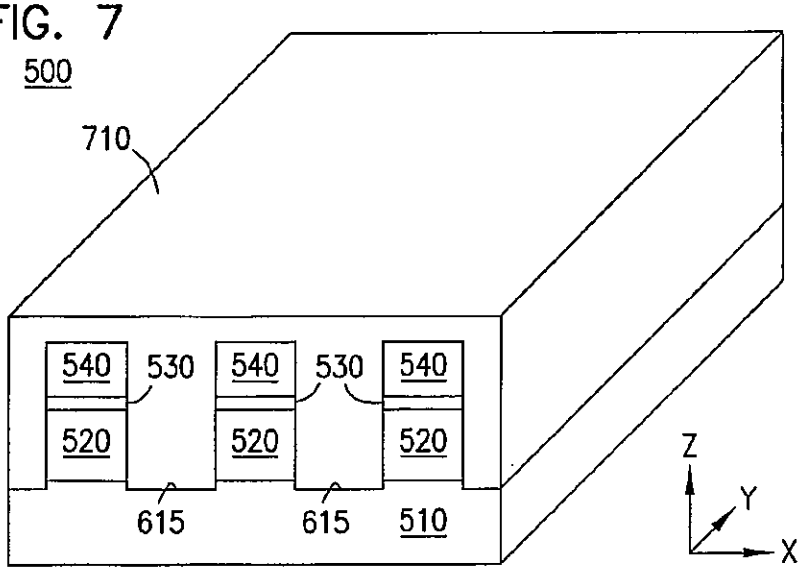

500
710
540
530
540
530
540
520
520
520
615
615
510
Z
Y
X

FIG. 8

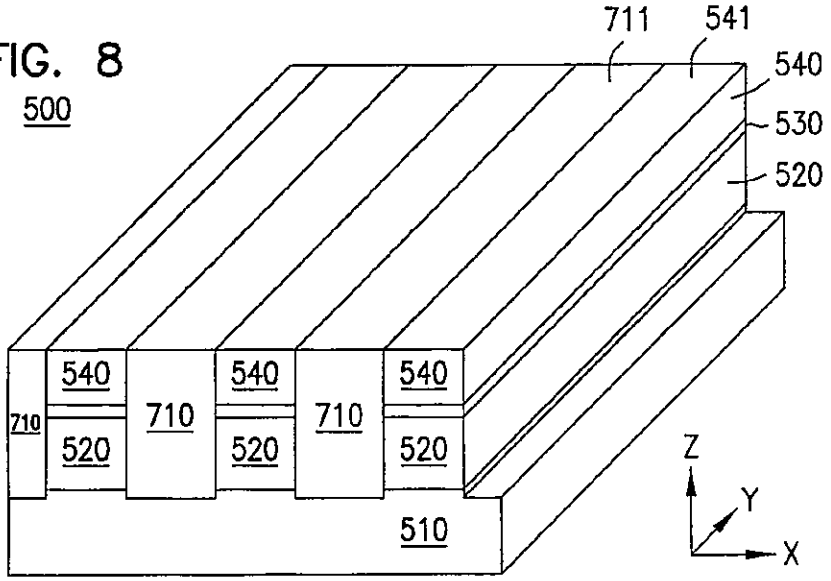

500
711
541
540
530
520
540
540
540
710
710
710
520
520
520
510
Z
Y
X

FIG. 9

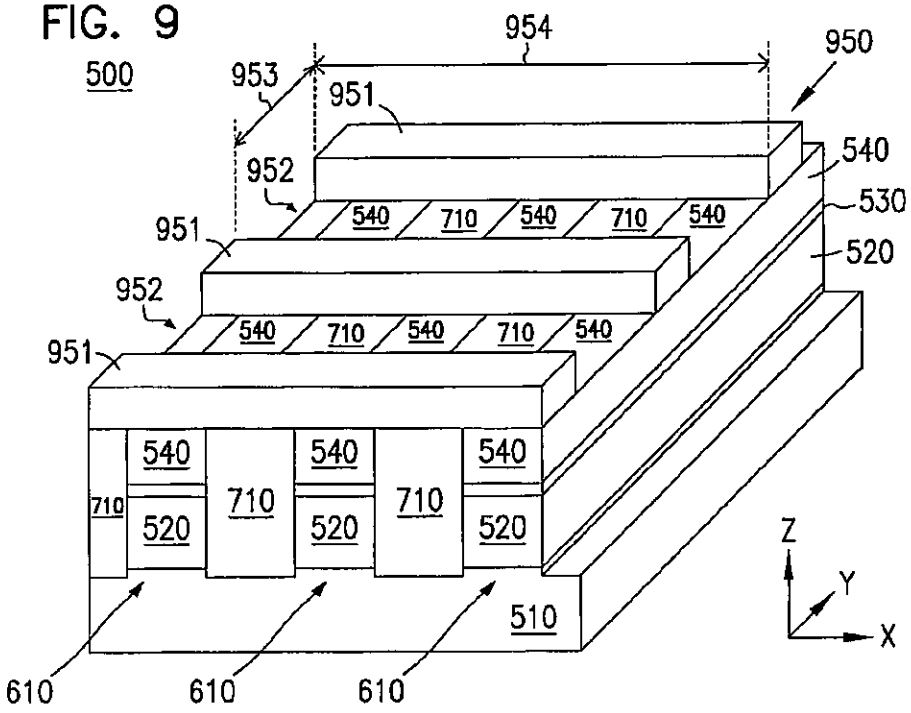

500
954
953
951
950
952
540
530
520
710
510
610
Z
Y
X

FIG. 10

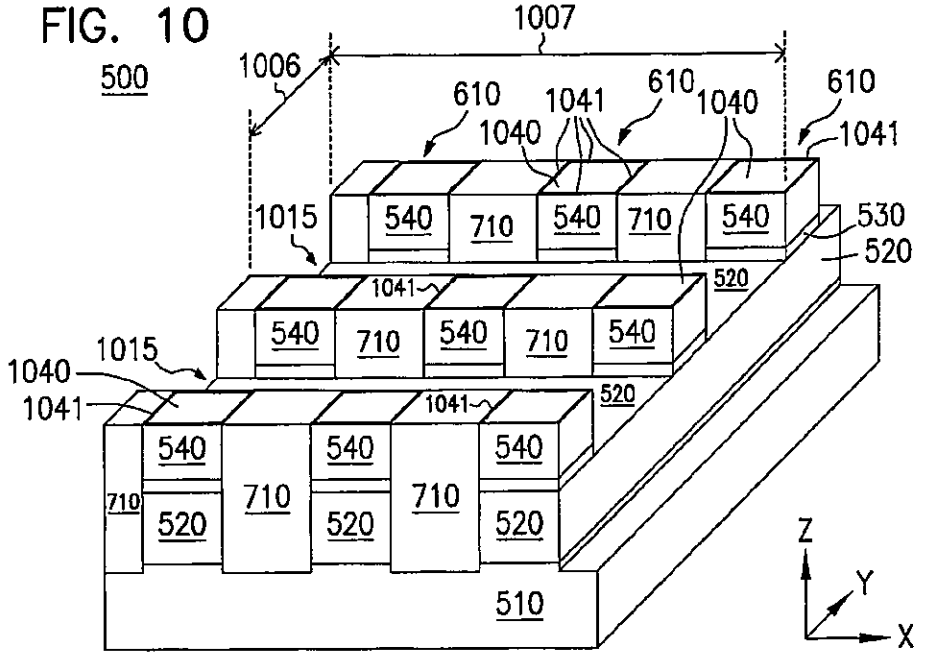

500
1007
1006
610
1041
1040
1015
530
520
710
510
Z
Y
X

FIG. 11

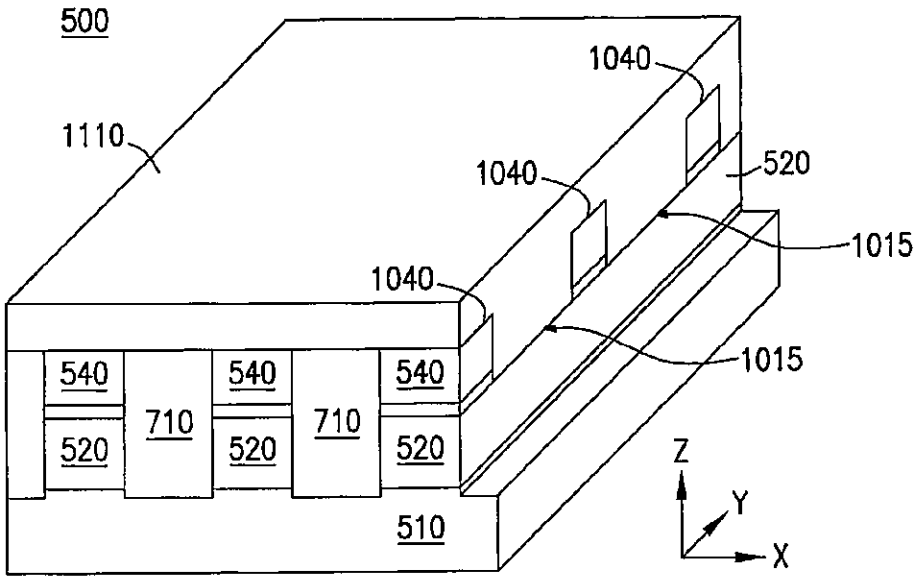

500
1040
1110
1040
520
1015
1040
1015
540
540
540
710
710
520
520
520
510
Z
Y
X

FIG. 12

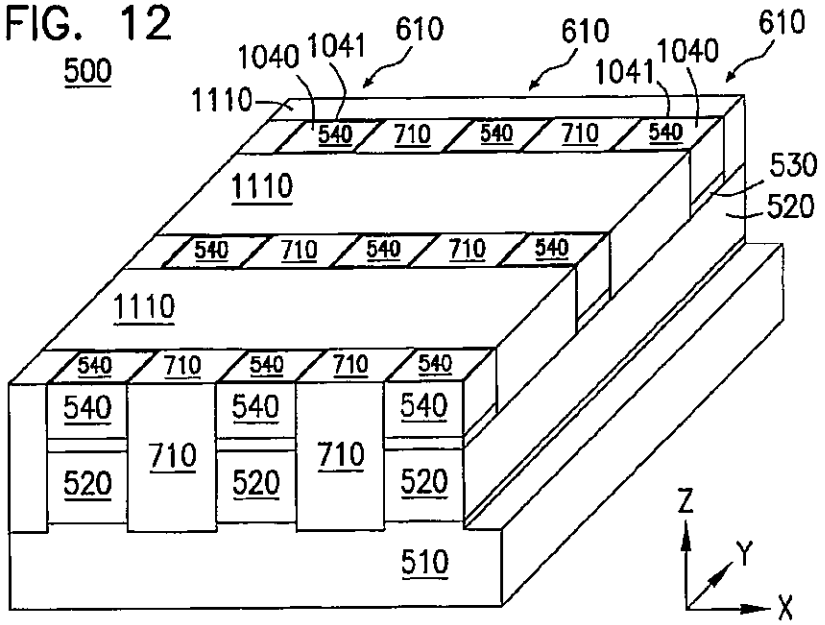

500
1040
1041
610
610
1041
1040
610
1110
540
710
540
710
540
530
520
1110
540
710
540
710
540
1110
540
710
540
710
540
540
540
540
710
710
520
520
520
510
Z
Y
X

FIG. 13

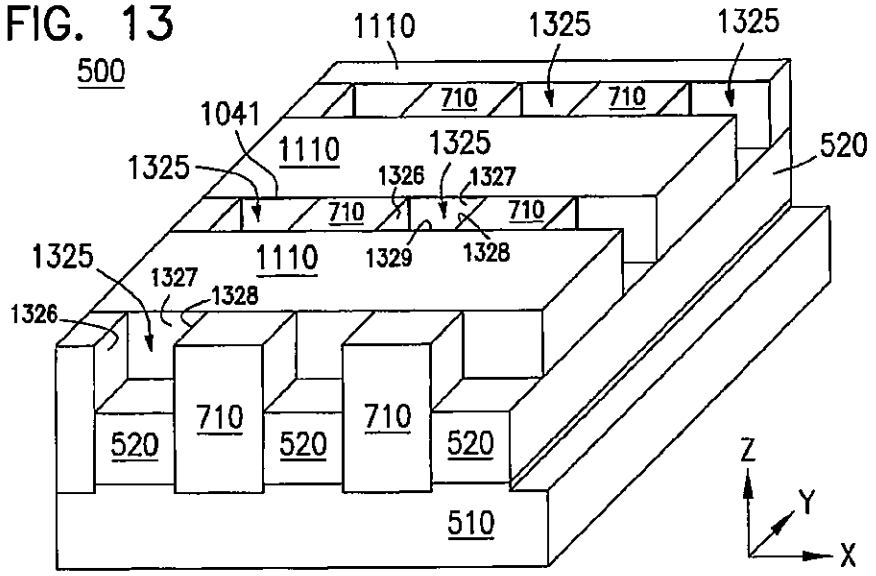

500
1110
1325
1325
710
710
1041
1110
1325
520
1325
1326
1327
710
710
1325
1327
1328
1110
1329
1328
1326
710
710
520
520
520
510
Z
Y
X

FIG. 14

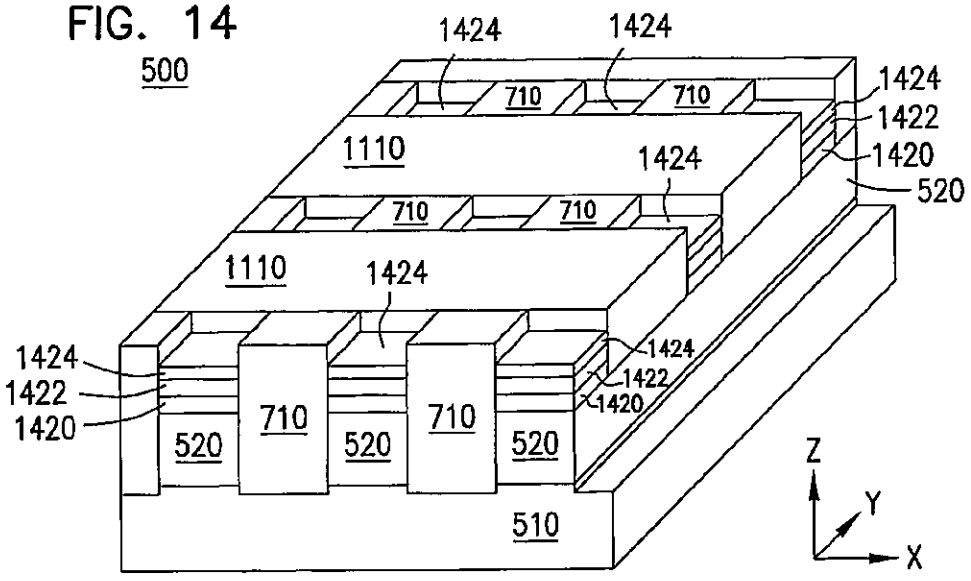

500
1424
1424
1424
710
710
1422
1110
1424
1420
520
710
710
1110
1424
1424
1424
1422
1420
1422
1420
710
710
520
520
520
510
Z
Y
X

FIG. 15

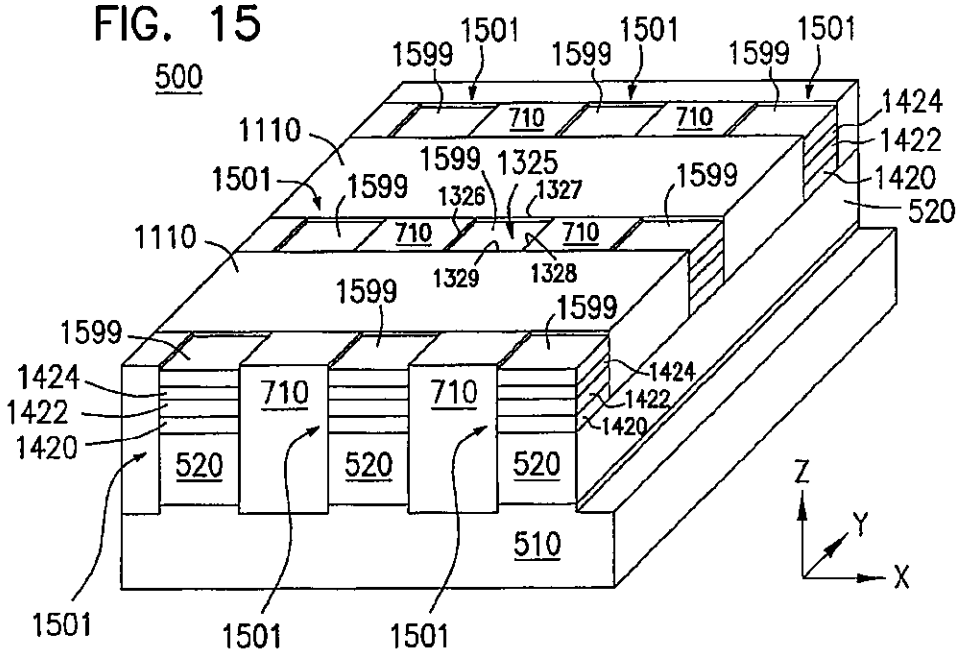

500
1599
1501
1599
1501
1599
1501
1424
1422
1420
520
1110
1599
1325
1501
1599
1326
1327
1599
710
710
1110
1329
1328
1599
1599
1599
1424
1422
1420
710
710
520
520
520
510
1501
1501
1501
Z
Y
X

FIG. 16

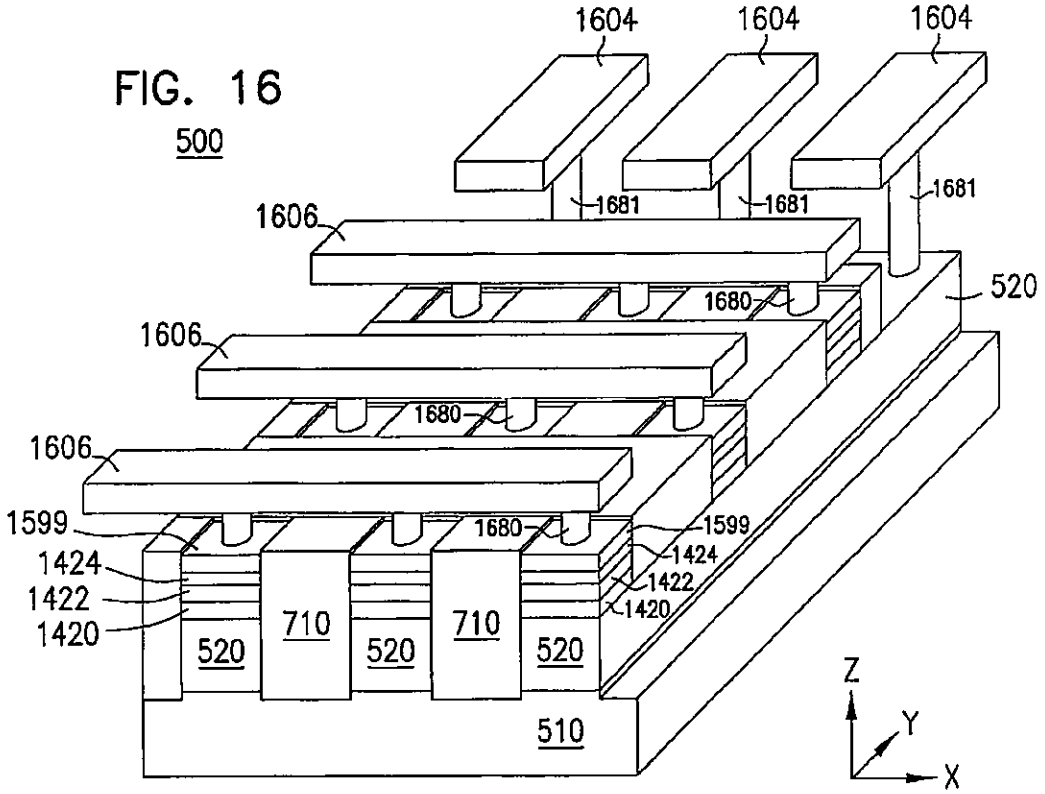

500
1604
1604
1604
1681
1681
1681
1606
520
1680
1606
1680
1606
1599
1680
1599
1424
1422
1420
710
710
520
520
520
510
Z
Y
X

FIG. 17

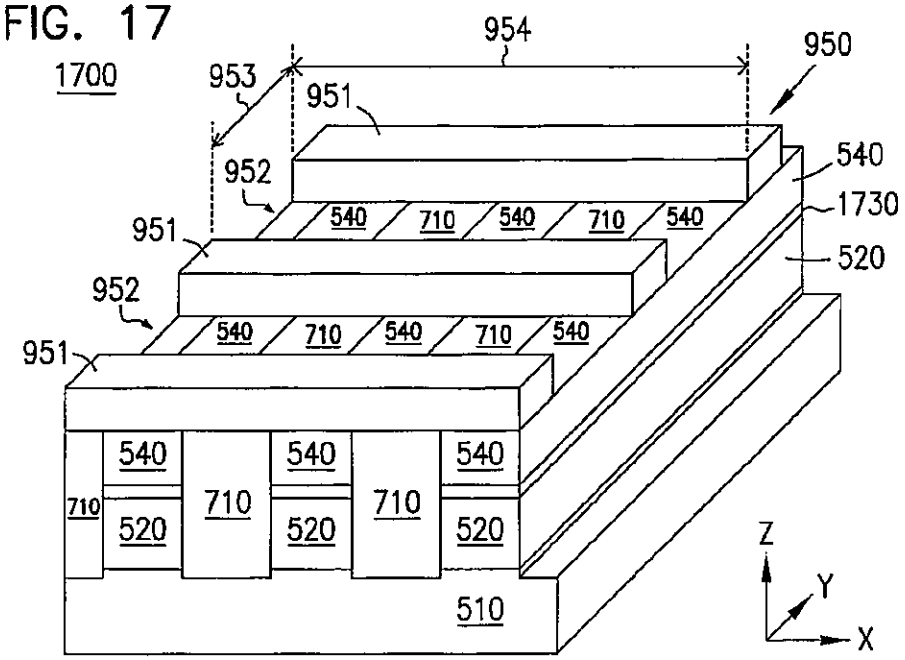

1700
954
953
951
950
952
540
710
1730
520
510
Z
Y
X

FIG. 18

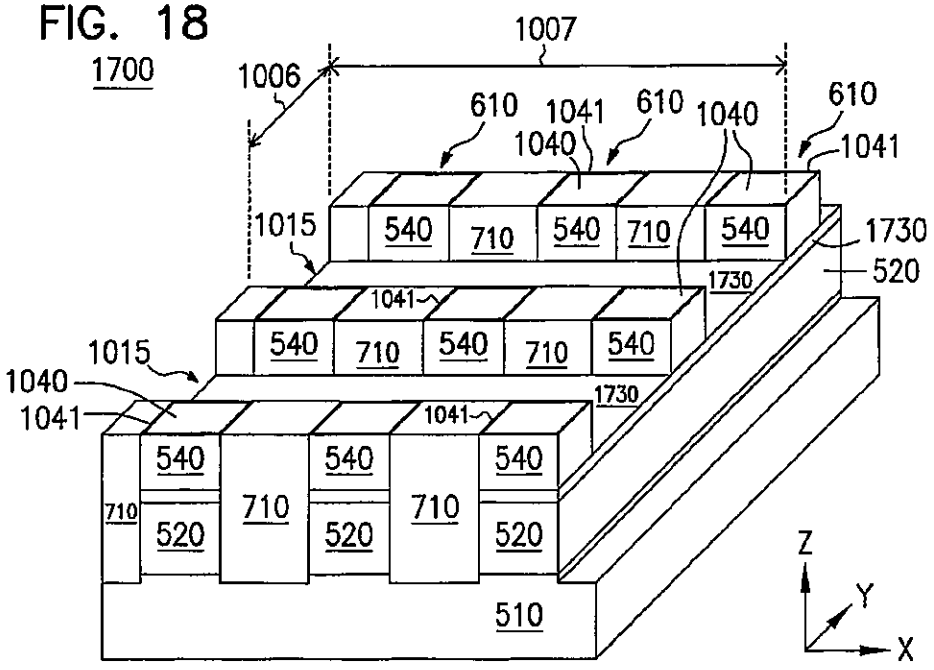

1700
1007
1006
610
1041
1040
1015
1730
520
510
Z
Y
X

FIG. 19

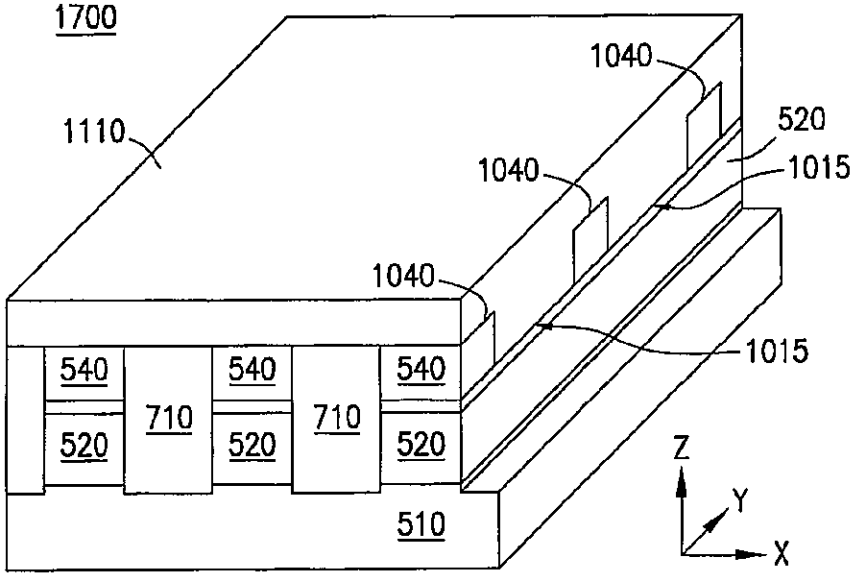

1700
1040
1110
520
1040
1015
1040
1015
540
540
540
710
710
520
520
520
510
Z
Y
X

FIG. 20

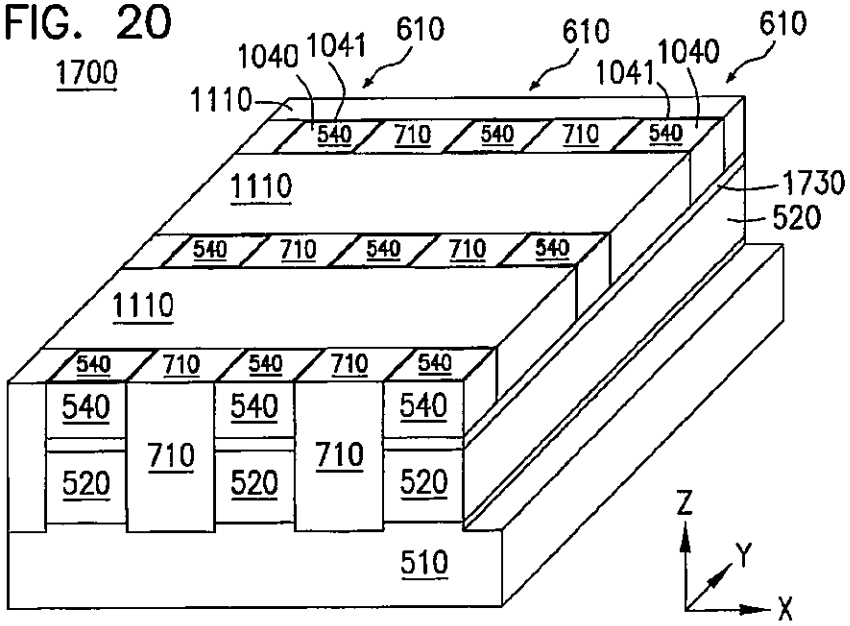

1700
1040
1041
610
610
1041
1040
610
1110
540
710
540
710
540
1730
520
1110
540
710
540
710
540
1110
540
710
540
710
540
540
540
540
710
710
520
520
520
510
Z
Y
X

FIG. 21

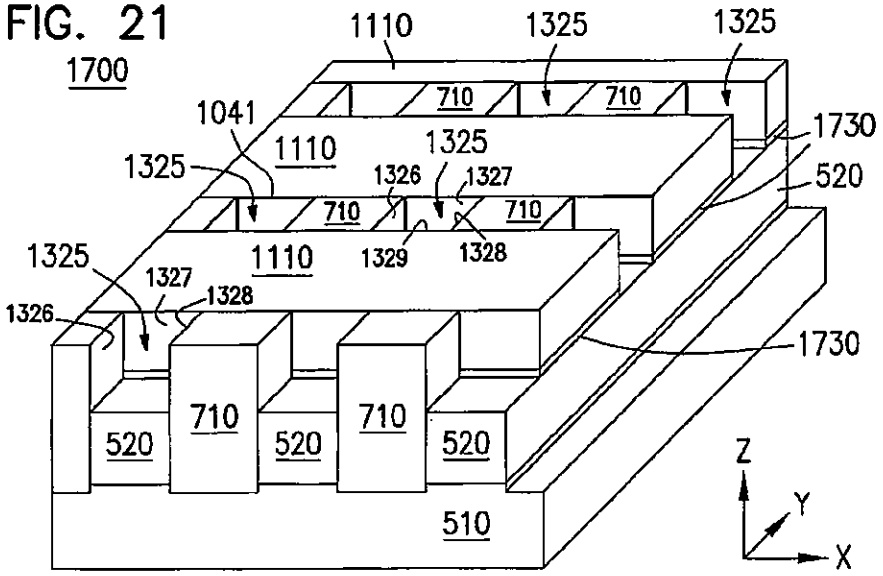

1700
1110
1325
1325
710
710
1041
1730
1110
1325
1325
1326
1327
520
710
710
1325
1110
1329
1328
1327
1328
1326
1730
710
710
520
520
520
510
Z
Y
X

FIG. 22

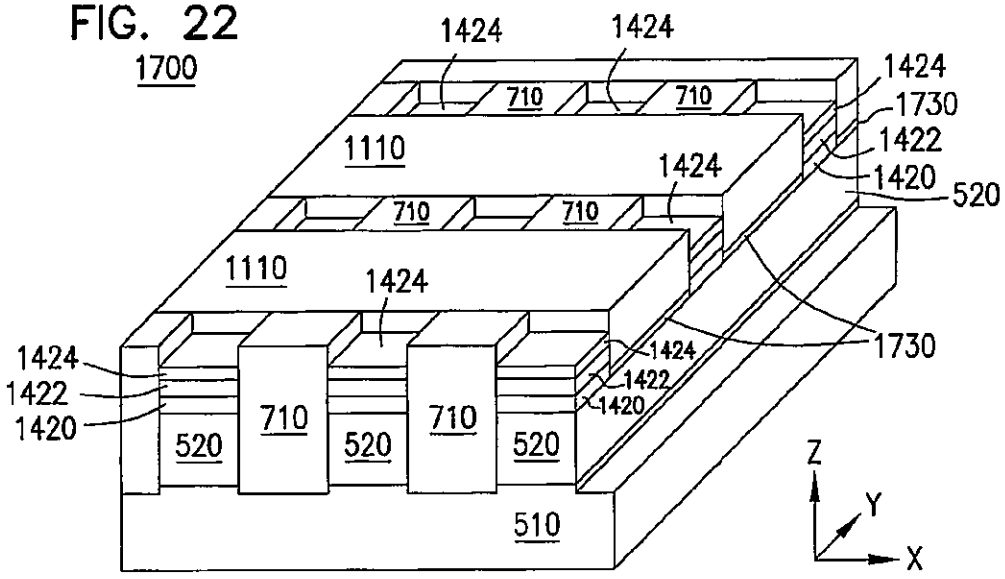

1700
1424
1424
1424
710
710
1730
1422
1110
1424
1420
520
710
710
1110
1424
1730
1424
1424
1422
1422
1420
1420
710
710
520
520
520
510
Z
Y
X

FIG. 23

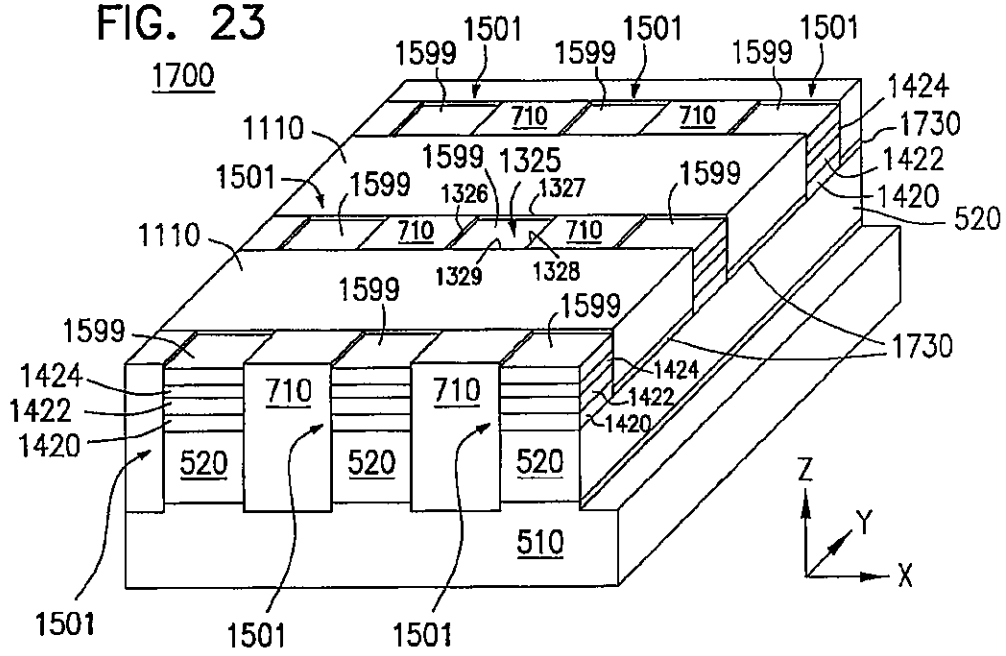

1700
1599
1501
1599
1501
1599
1501
1424
1730
1422
1420
520
710
710
1110
1599
1325
1326
1327
1329
1328
1730
1424
1422
1420
520
510
Z
Y
X

FIG. 24

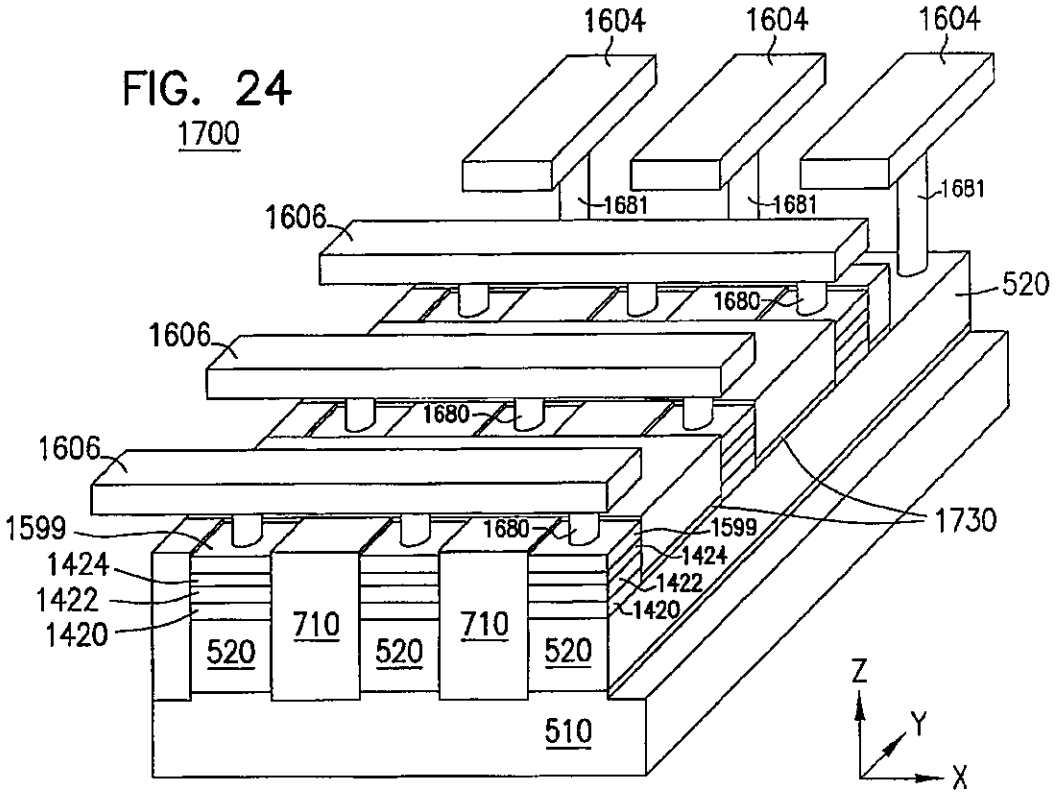

1700
1604
1604
1604
1681
1681
1681
1606
1606
1606
1680
1680
1680
520
1730
1599
1424
1422
1420
710
710
520
520
520
510
Z
Y
X

FIG. 25

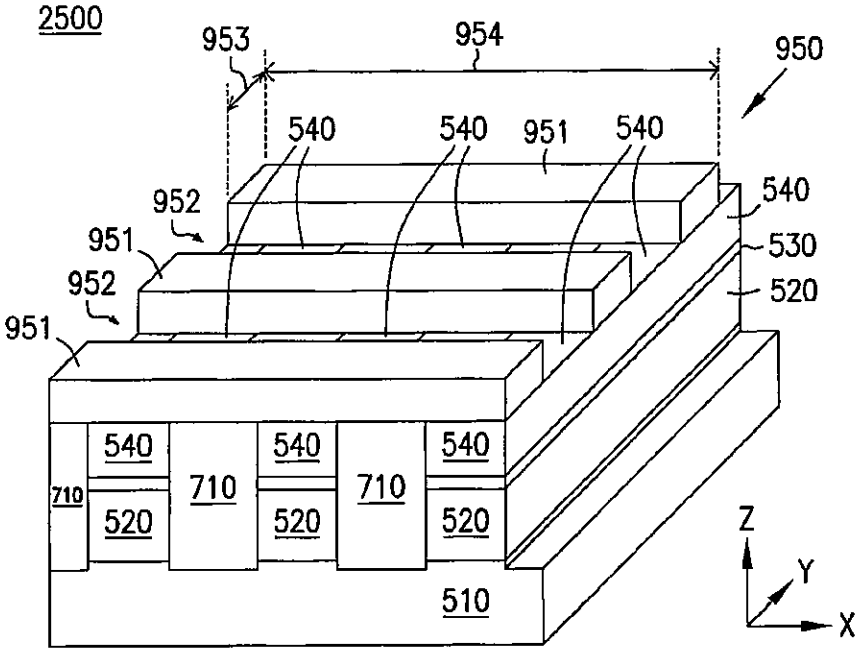

2500
953
954
950
540
540
951
540
952
951
540
530
952
520
951
540
540
540
710
710
710
520
520
520
510
Z
Y
X

FIG. 26

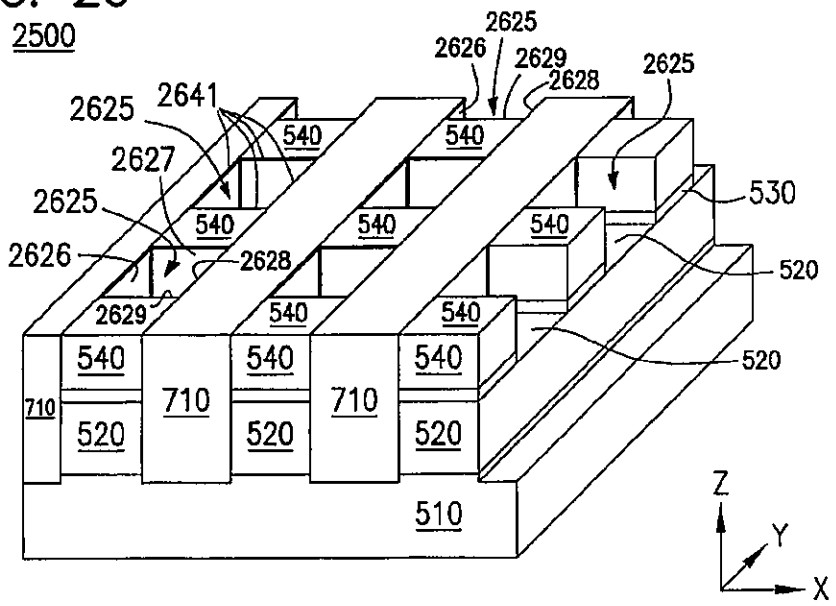

2500
2625
2626
2629
2628
2625
2641
2625
2627
2625
2626
2628
2629
540
530
520
520
710
510
Z
Y
X

FIG. 27

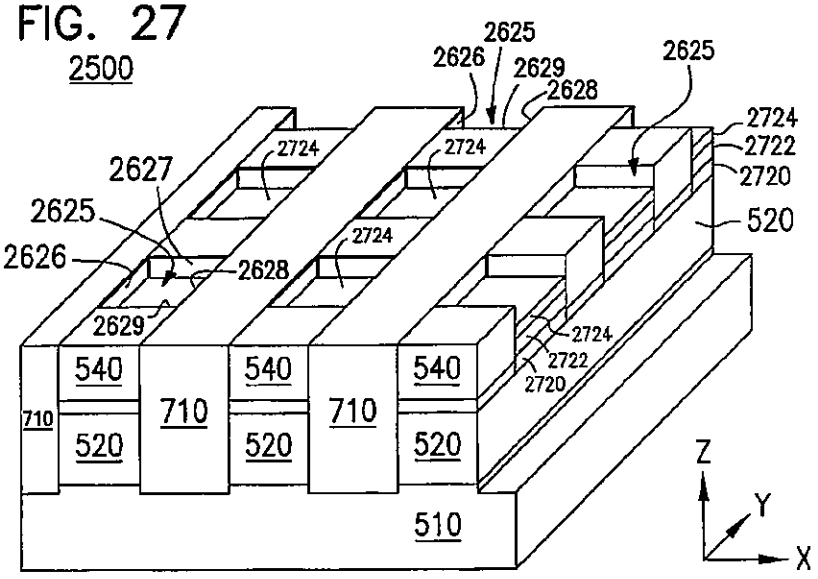

2500
2625
2626
2629
2628
2625
2724
2722
2720
2627
2625
2626
2628
2629
520
2724
2722
2720
710
510
Z
Y
X

FIG. 28

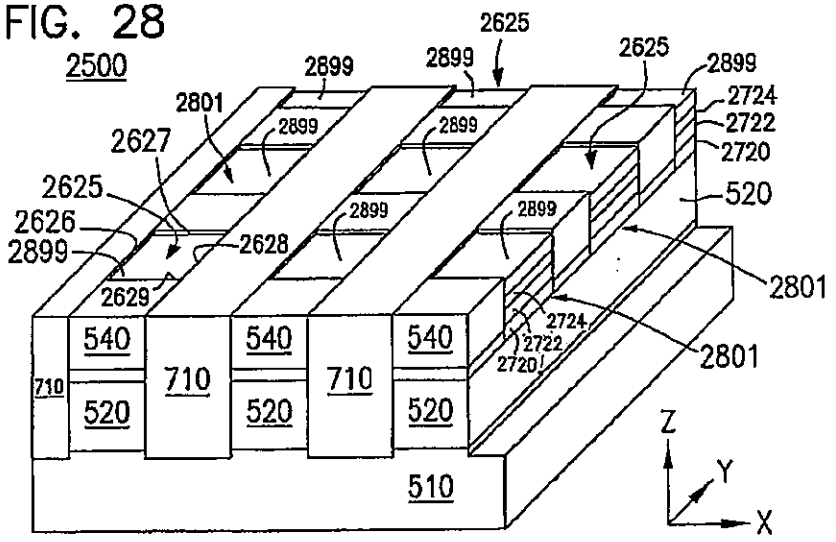

2500
2625
2899
2899
2625
2899
2724
2722
2720
520
2801
2801
2699
2801
2627
2899
2899
2625
2626
2899
2899
2899
2628
2899
2629
540
540
540
710
710
710
520
520
520
510
Z
Y
X

FIG. 29

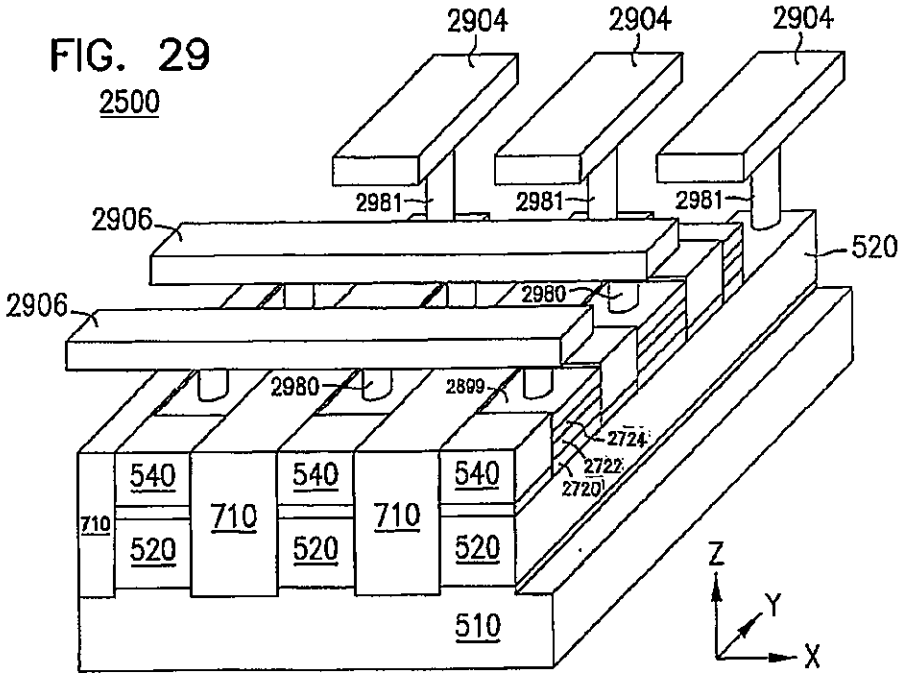

2500
2904
2904
2904
2981
2981
2981
2906
520
2906
2980
2980
2899
2724
2722
2720
540
540
540
710
710
710
520
520
520
510
Z
Y
X

FIG. 30

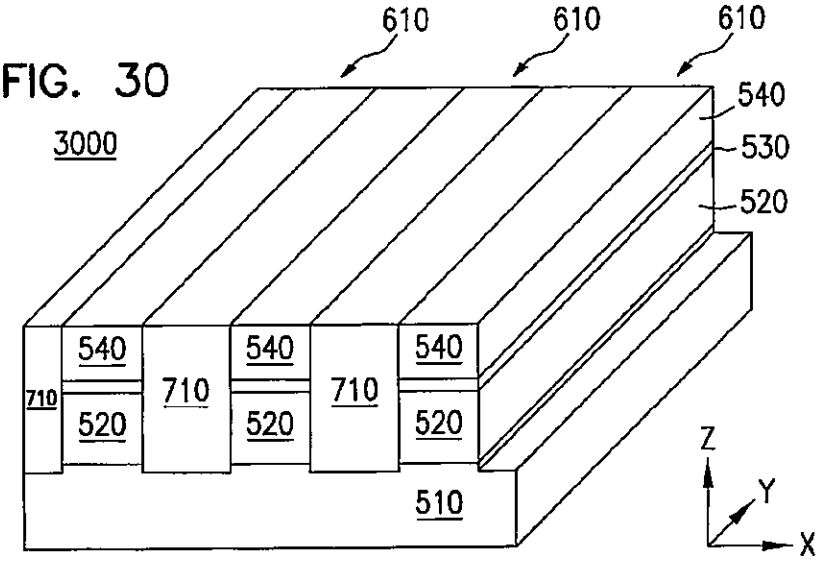

3000
610
610
610
540
530
520
540
540
540
710
710
710
710
520
520
520
510
Z
Y
X

FIG. 31

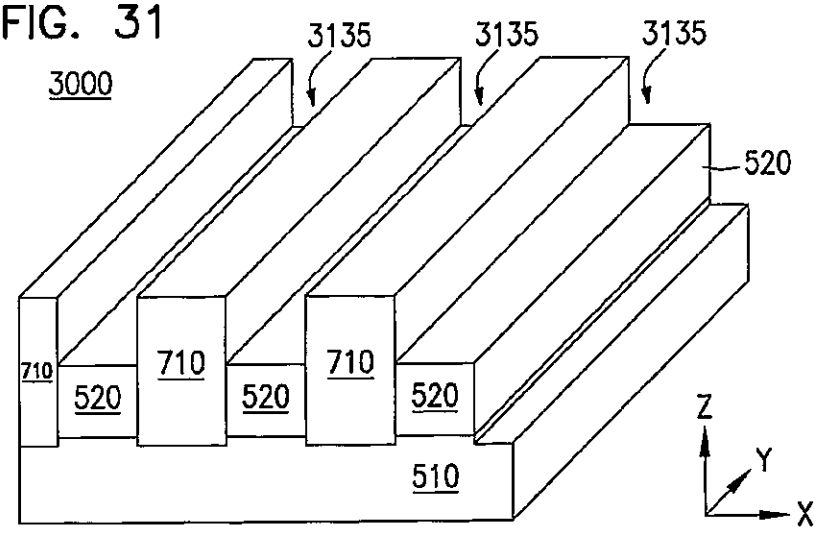

3000
3135
3135
3135
520
710
710
710
710
520
520
520
510
Z
Y
X

FIG. 32

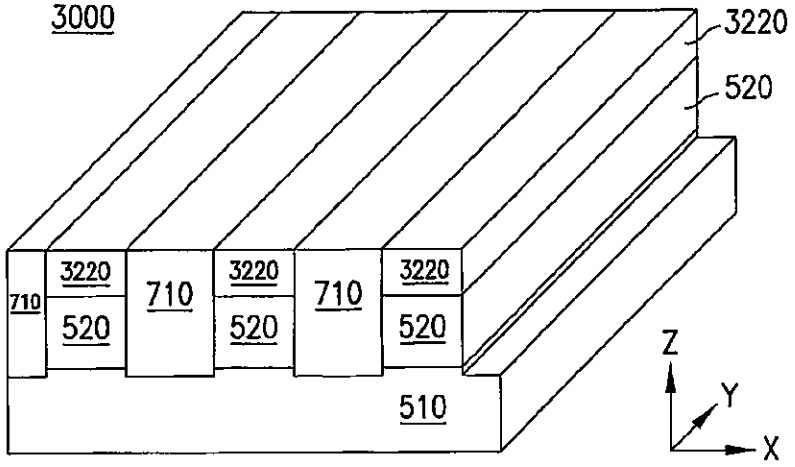

3000
3220
520
710
3220
520
710
3220
520
710
3220
520
510
Z
Y
X

FIG. 33

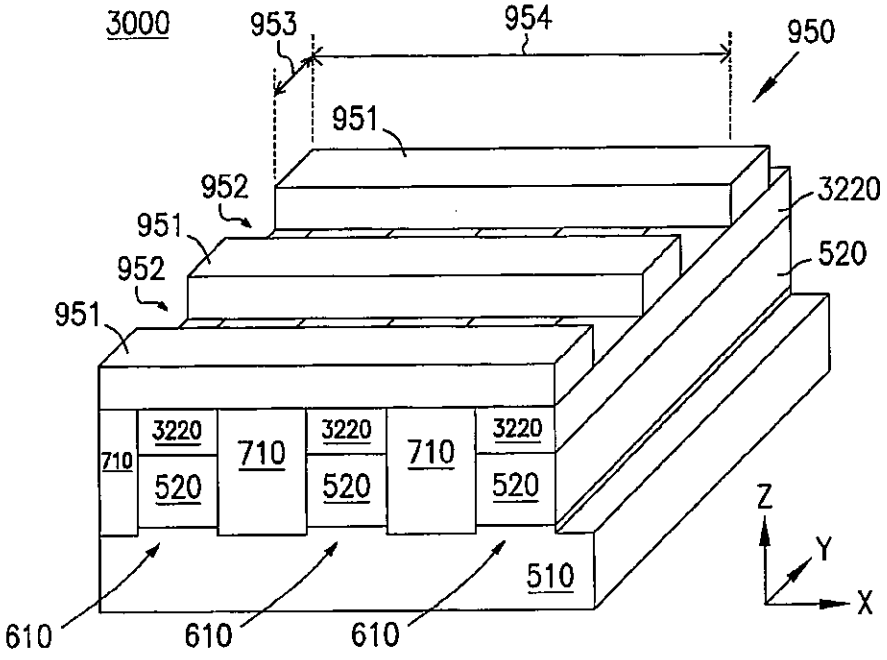

3000
953
954
950
951
952
951
952
951
3220
520
710
3220
520
710
3220
520
710
510
610
610
610
Z
Y
X

FIG. 34

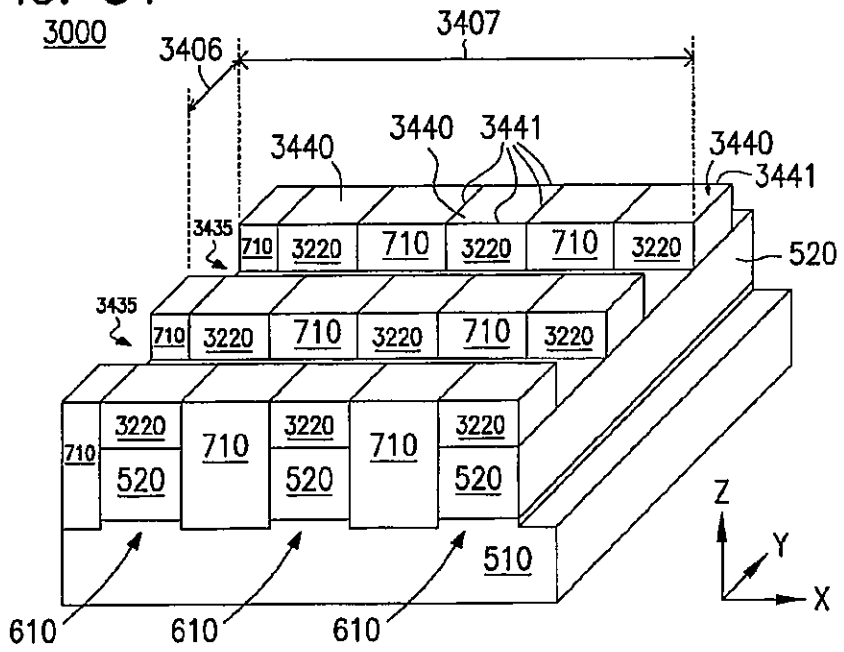

3000
3406
3407
3440
3440
3441
3440
3441
3435
710
3220
710
3220
710
3220
520
3435
710
3220
710
3220
710
3220
710
3220
520
710
3220
520
710
3220
520
510
610
610
610
Z
Y
X

FIG. 35

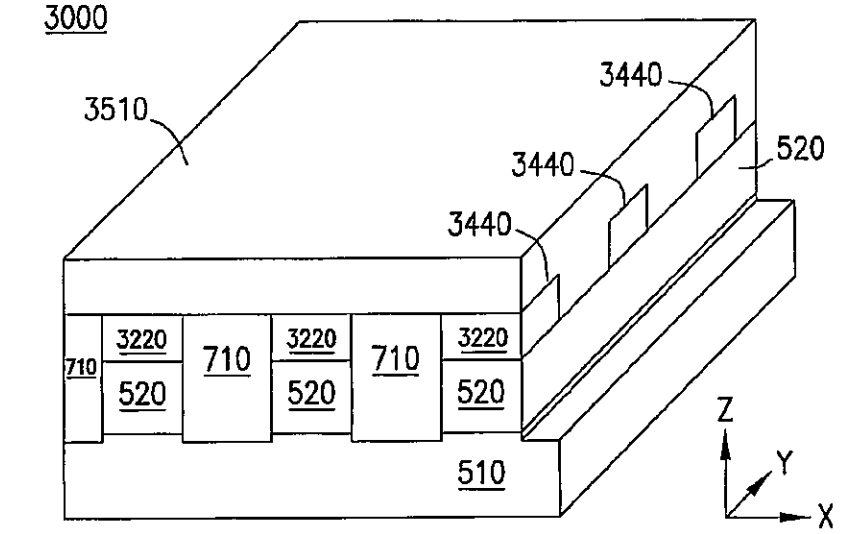

3000
3510
3440
3440
3440
520
710
3220
520
710
3220
520
710
3220
520
510
Z
Y
X

FIG. 36

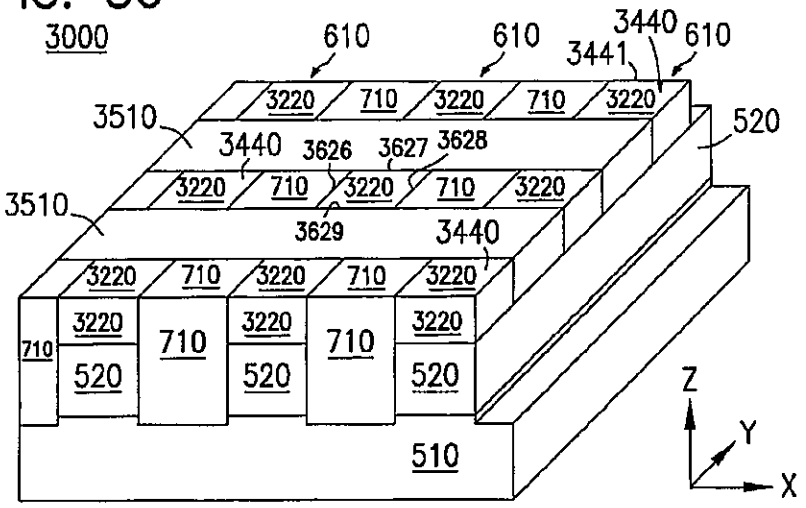

3000
610
610
3441
3440
610
3220
710
3220
710
3220
3510
520
3440
3626
3627
3628
3220
710
3220
710
3220
3510
3629
3440
3220
710
3220
710
3220
710
3220
710
3220
520
520
520
710
710
510
Z
Y
X

FIG. 37

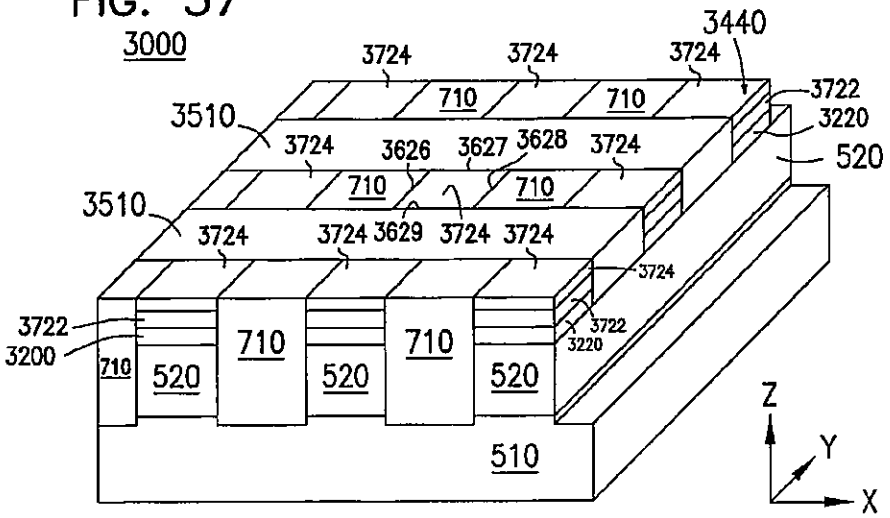

3000
3724
3724
3724
3440
710
710
3722
3220
3510
3724
3626
3627
3628
3724
520
710
710
3510
3724
3724
3629
3724
3724
3724
3722
3200
710
520
710
520
710
520
3722
3220
510
Z
Y
X

FIG. 38

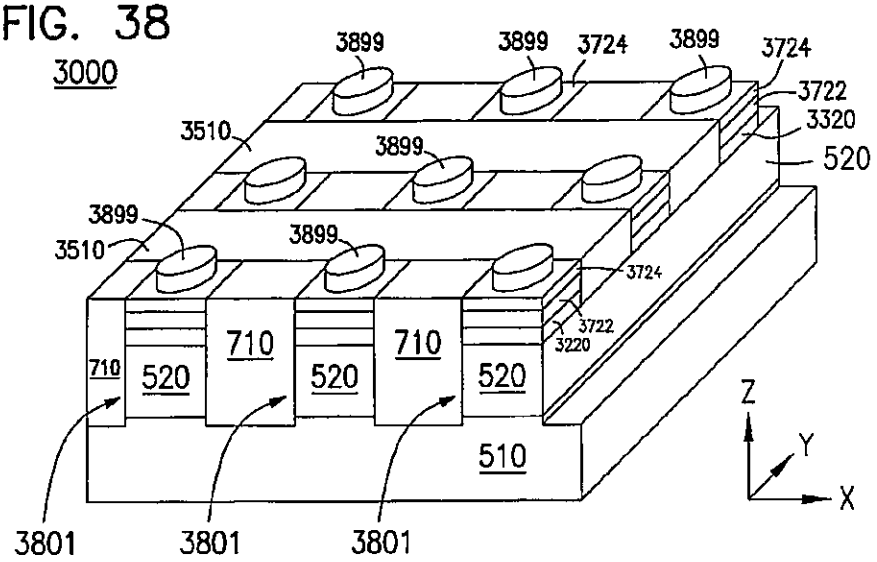

3000
3899
3899
3724
3899
3724
3722
3320
520
3510
3899
3899
3510
3899
3724
3722
3220
710
710
710
520
520
520
510
Z
Y
X
3801
3801
3801

FIG. 39

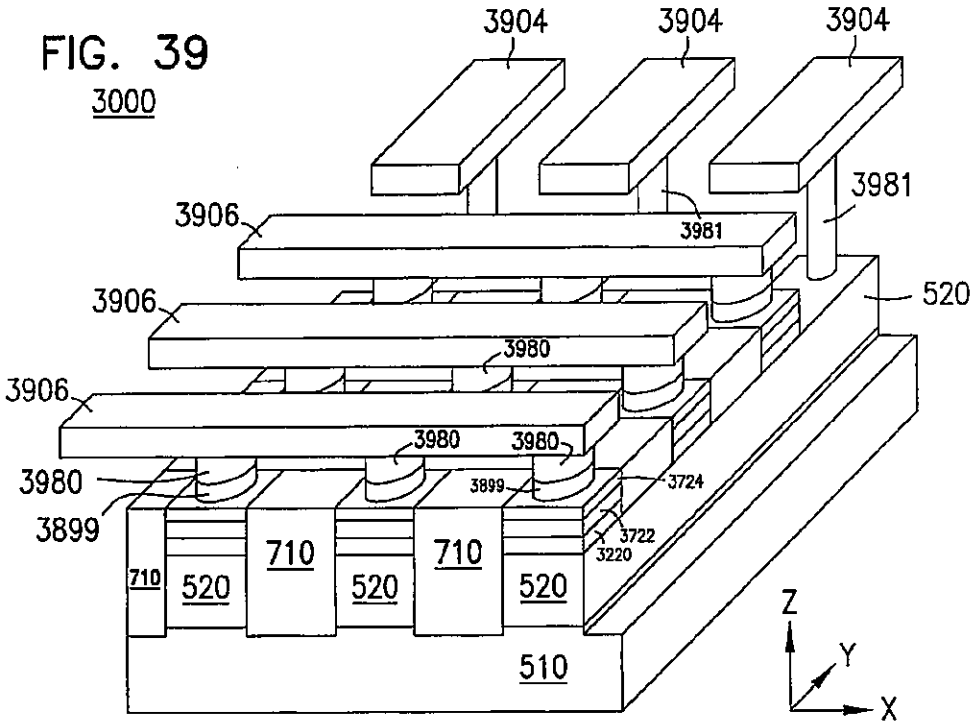

3000
3904
3904
3904
3981
3906
3981
520
3906
3980
3906
3980
3980
3980
3899
3899
3724
3722
3220
710
710
710
520
520
520
510
Z
Y
X

FIG. 40

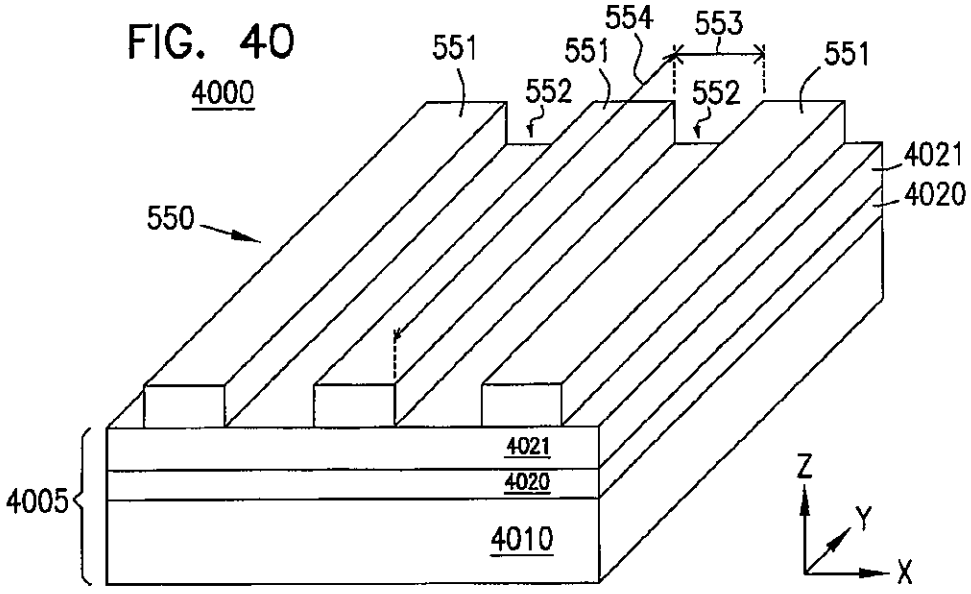

4000
551
551
554
553
551
552
552
4021
4020
550
4005
4021
4020
4010
Z
Y
X

FIG. 41

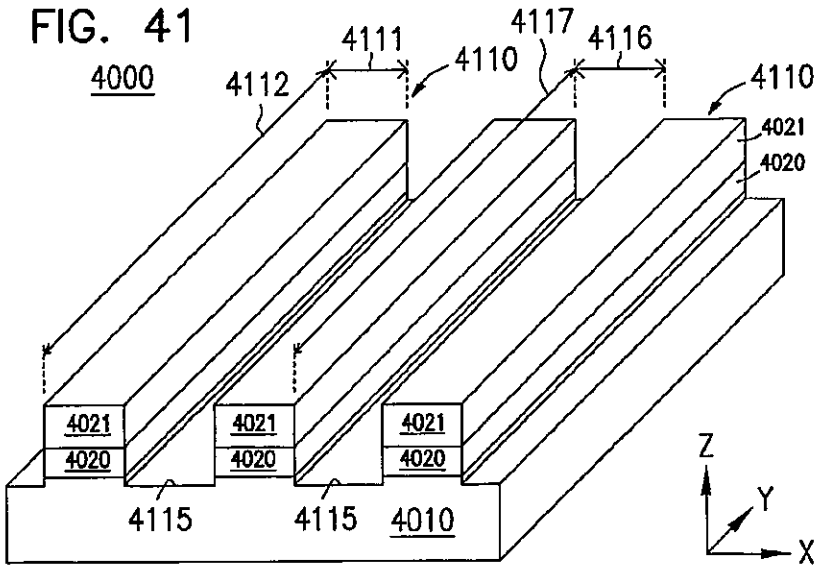

4000
4111
4117
4116
4112
4110
4110
4021
4020
4021
4020
4021
4020
4021
4020
4115
4115
4010
Z
Y
X

FIG. 42

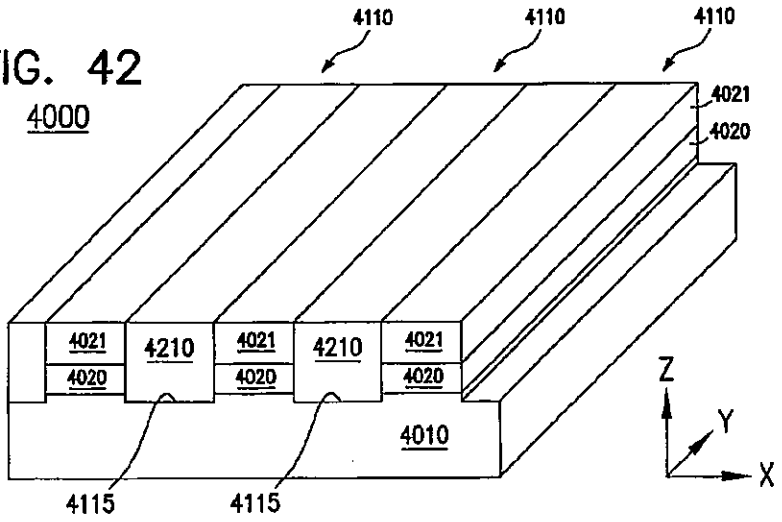

4000
4110
4110
4110
4021
4020
4021
4210
4021
4210
4021
4020
4020
4020
4010
4115
4115
Z
Y
X

FIG. 43

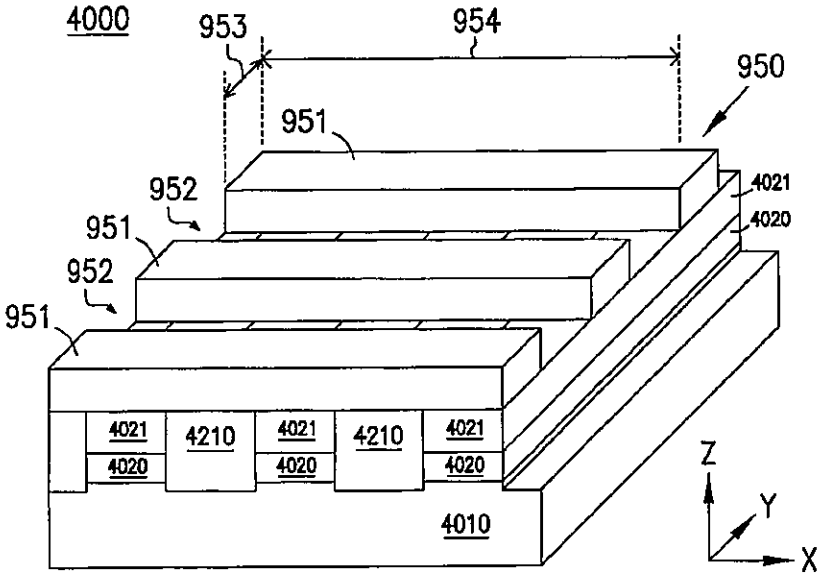

4000
953
954
950
951
952
951
952
951
4021
4020
4021
4210
4021
4210
4021
4020
4020
4020
4010
Z
Y
X

FIG. 44

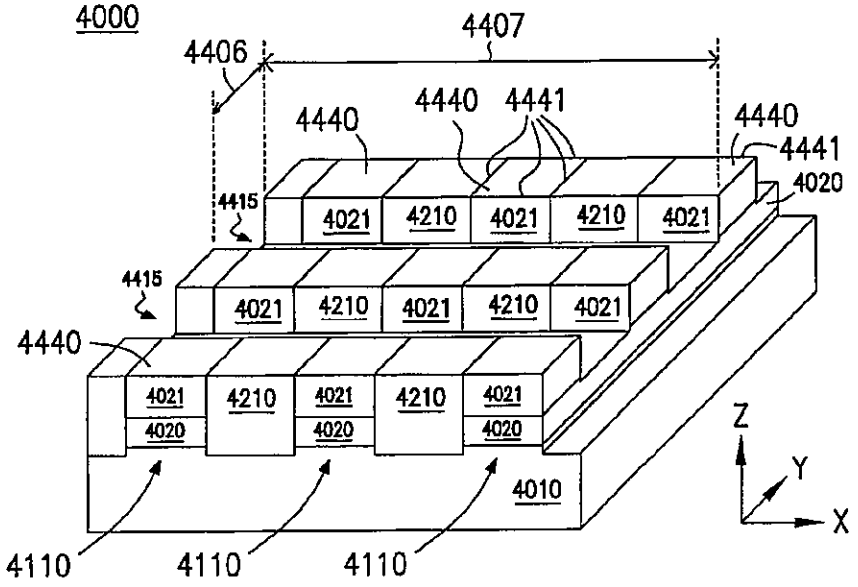

4000
4406
4407
4440
4440
4441
4440
4441
4020
4415
4415
4021
4210
4021
4210
4021
4021
4210
4021
4210
4021
4440
4021
4210
4021
4210
4021
4020
4020
4020
4010
Z
Y
X
4110
4110
4110

FIG. 45

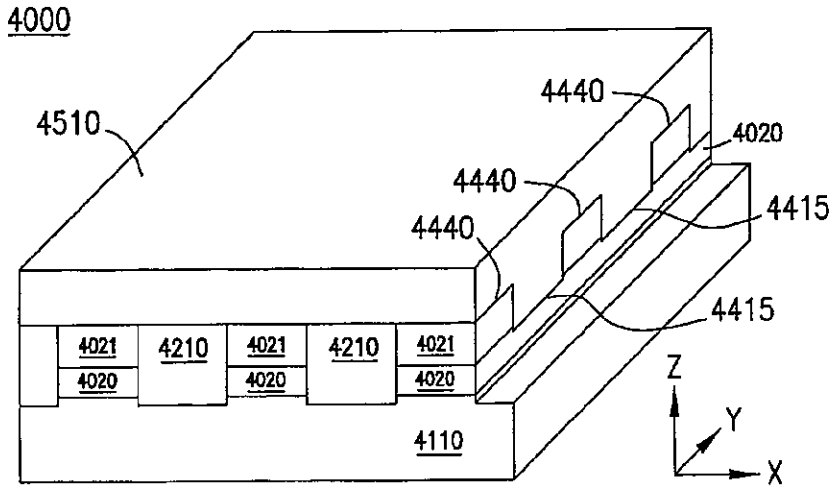

4000
4510
4440
4020
4440
4415
4440
4415
4021
4210
4021
4210
4021
4020
4020
4020
Z
Y
X
4110

FIG. 46

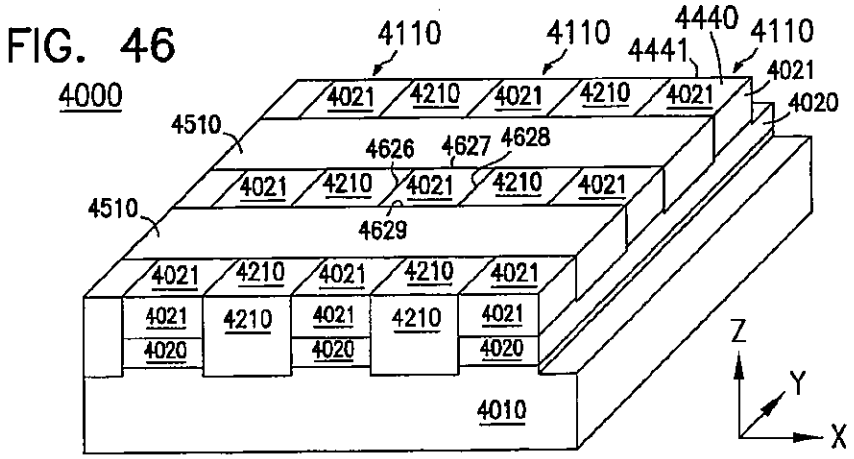

4000
4110
4110
4440
4110
4441
4021
4020
4510
4626
4627
4628
4510
4629
4021
4210
4020
4010
Z
Y
X

FIG. 47

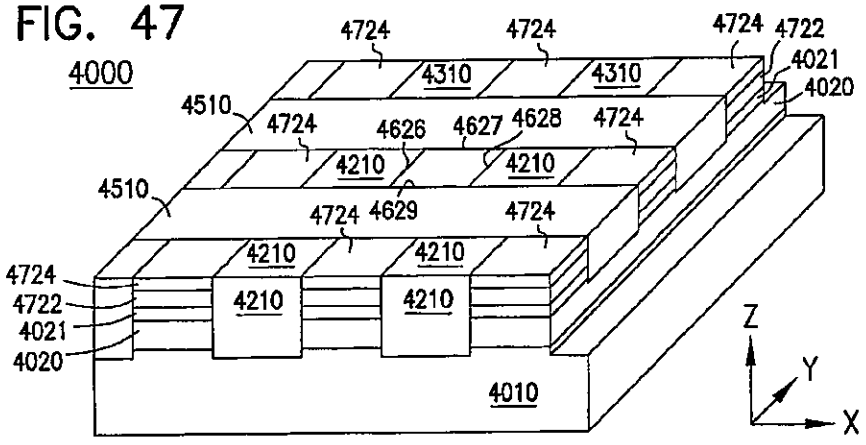

4000
4724
4724
4724
4722
4021
4020
4310
4510
4626
4627
4628
4510
4629
4210
4724
4722
4021
4020
4010
Z
Y
X

FIG. 48

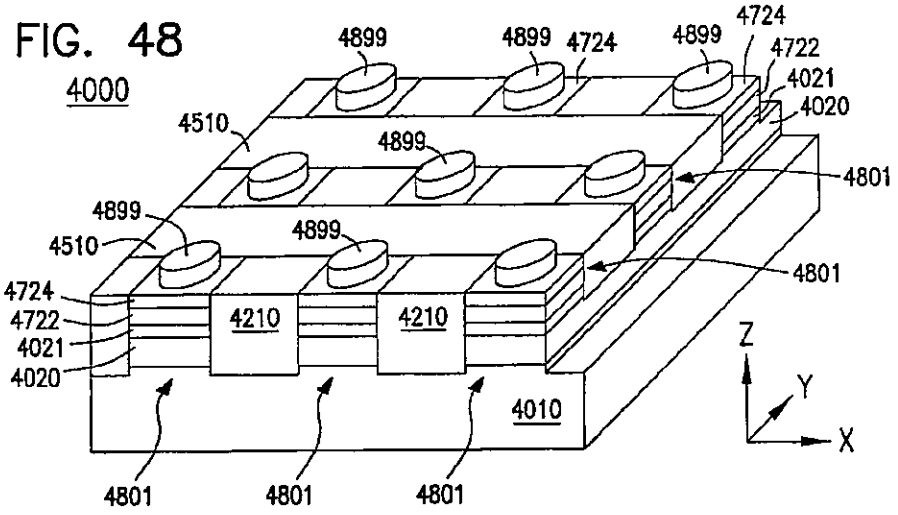

4000
4899
4899
4724
4899
4724
4722
4021
4020
4510
4899
4801
4899
4510
4899
4801
4724
4722
4021
4020
4210
4210
4010
Z
Y
X
4801
4801
4801

FIG. 49

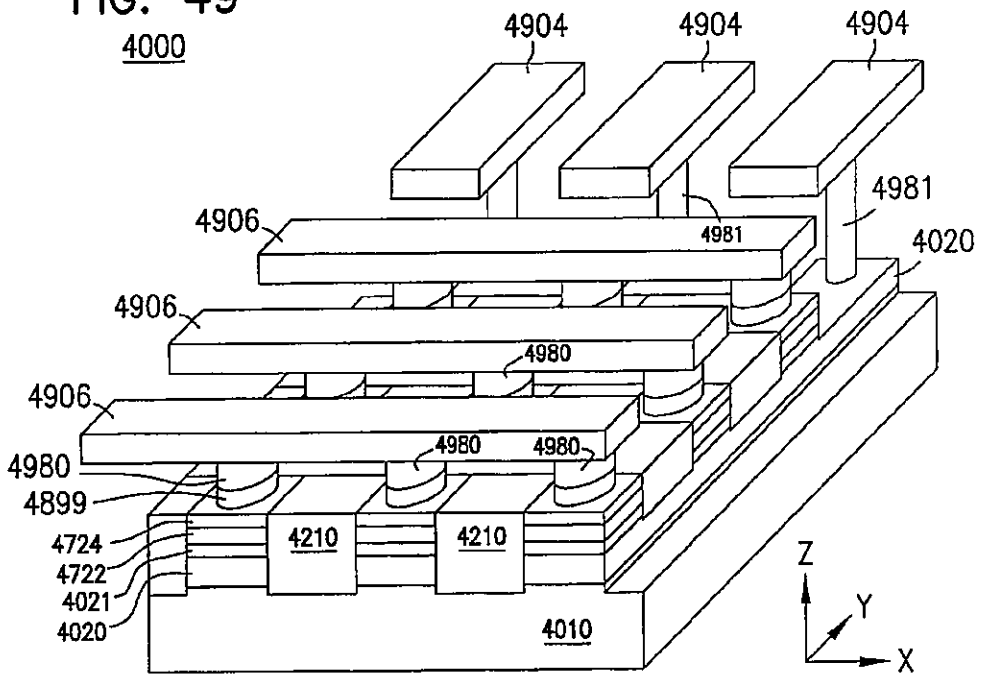

4000
4904
4904
4904
4981
4906
4981
4020
4906
4980
4906
4980
4980
4980
4899
4724
4722
4021
4020
4210
4210
4010
Z
Y
X

FIG. 50

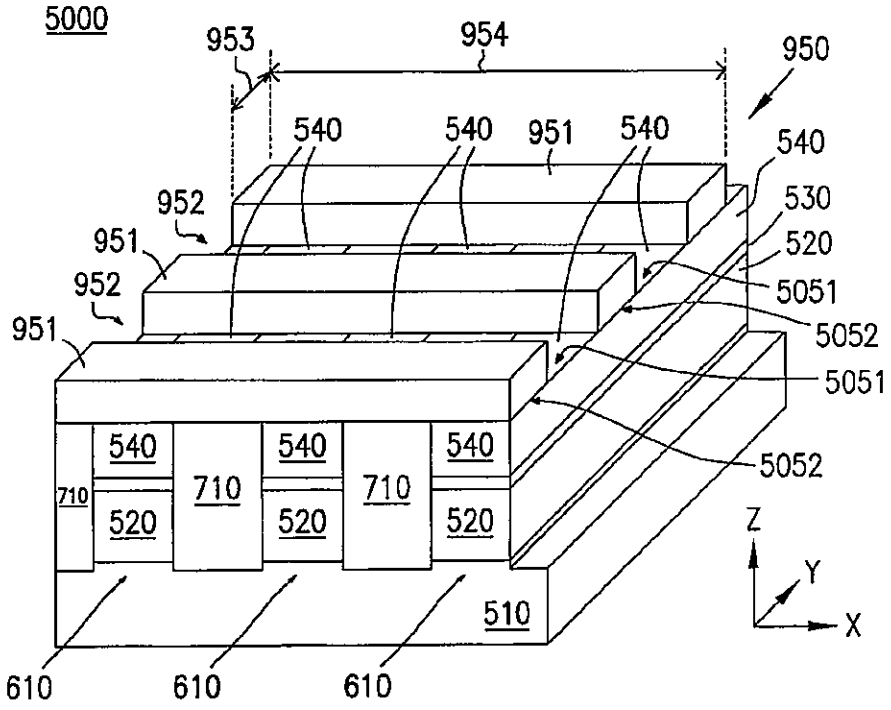

5000
953
954
950
540
540
951
540
540
952
530
951
520
952
5051
951
5052
5051
540
540
540
710
710
710
520
520
520
5052
Z
Y
X
510
610
610
610

FIG. 51

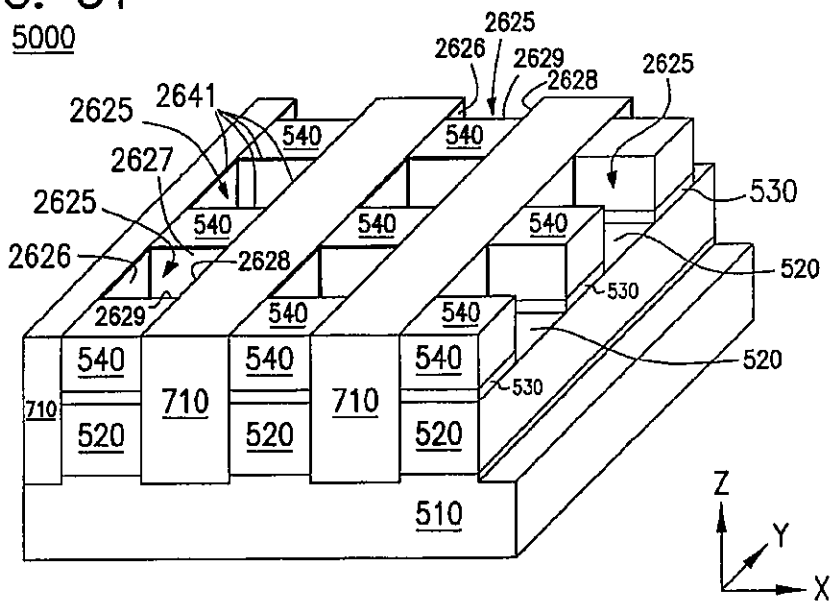

5000
2625
2626
2629
2628
2625
2625
2641
2627
2625
2626
2628
2629
540
530
520
710
510
Z
Y
X

FIG. 52

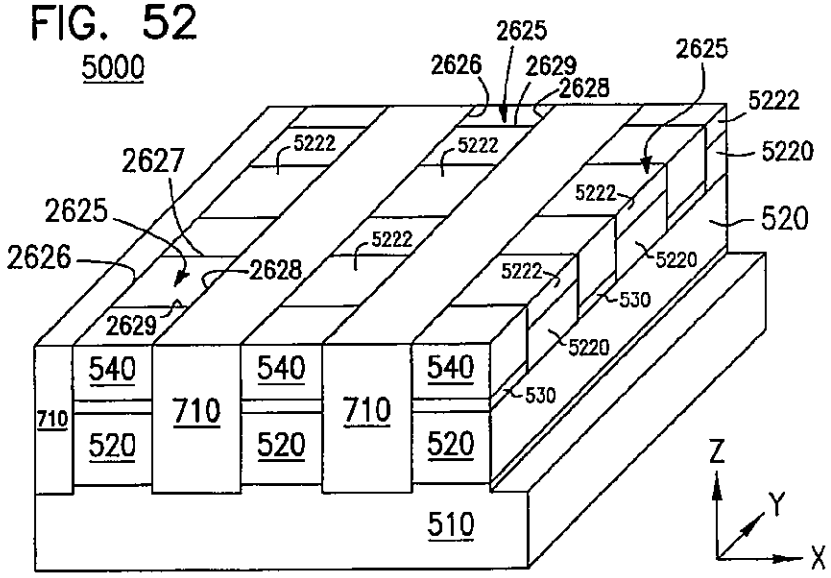

5000
2625
2626
2629
2628
2625
5222
5220
2627
2625
2626
2628
2629
520
530
710
510
Z
Y
X

FIG. 53

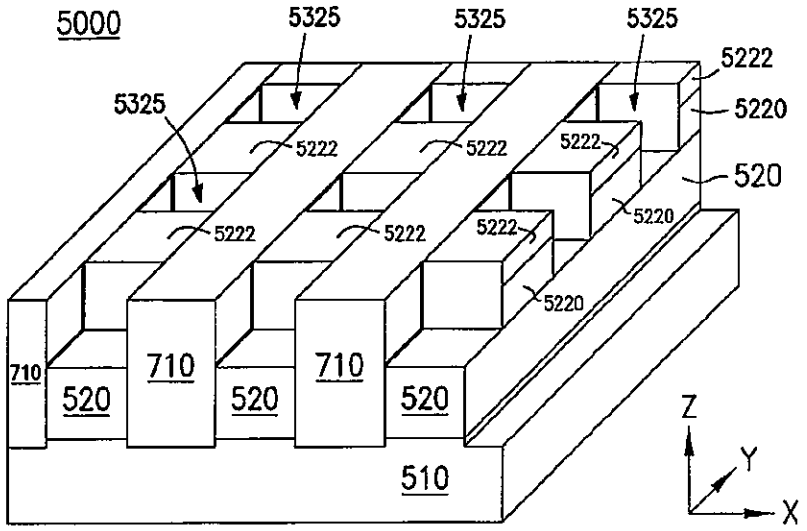

5000
5325
5325
5325
5222
5220
520
5325
5222
5222
5222
5222
5222
5222
5220
5220
710
710
710
520
520
520
510
Z
Y
X

FIG. 54

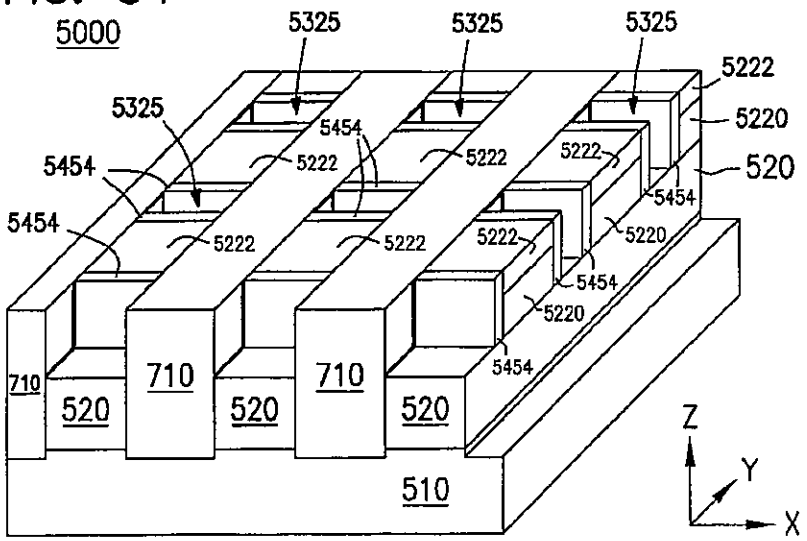

5000
5325
5325
5325
5222
5220
520
5325
5454
5454
5454
5222
5222
5222
5222
5222
5222
5220
5220
5454
5454
5454
710
710
710
520
520
520
510
Z
Y
X

FIG. 55

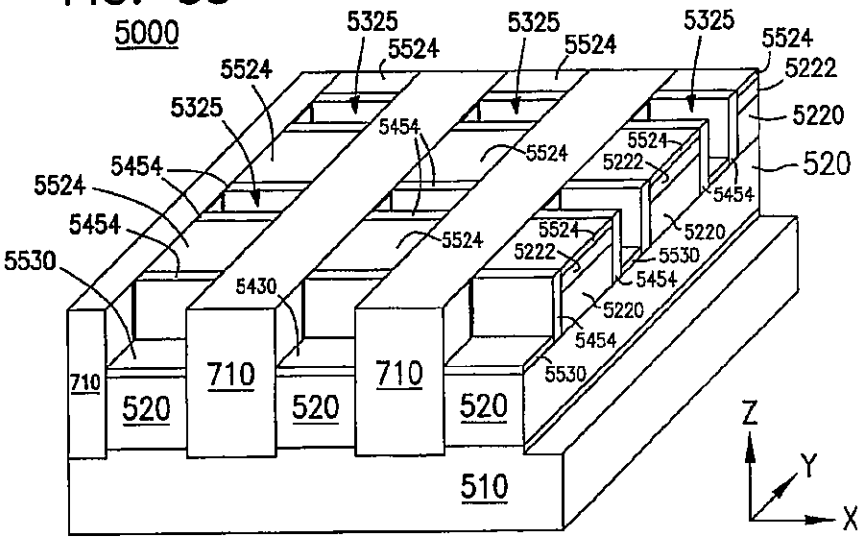

5000
5325
5524
5325
5524
5325
5524
5222
5220
520
5524
5454
5524
5454
5524
5454
5530
5430
5524
5222
5530
5454
5220
5454
5530
710
710
710
520
520
520
510
Z
Y
X

FIG. 56

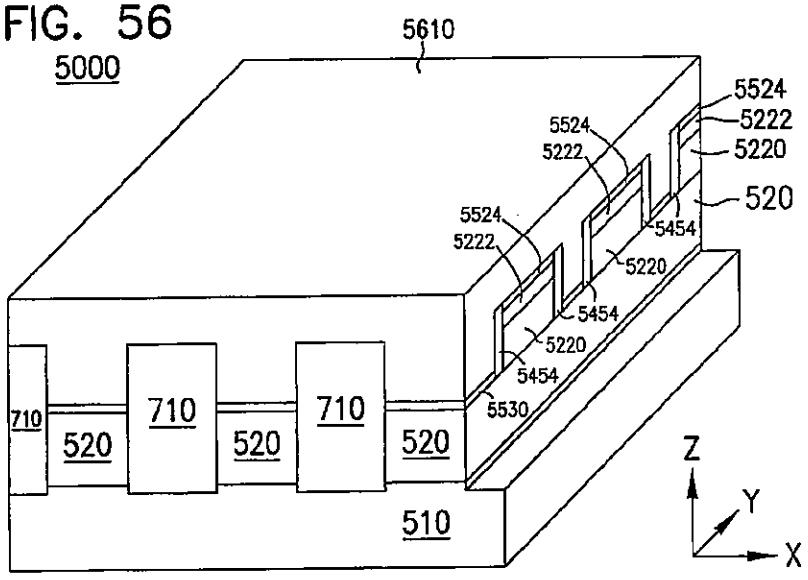

5610
5000
5524
5222
5220
520
5524
5222
5454
5524
5222
5220
5454
5220
5454
5530
710
710
710
520
520
520
510
Z
Y
X

FIG. 57

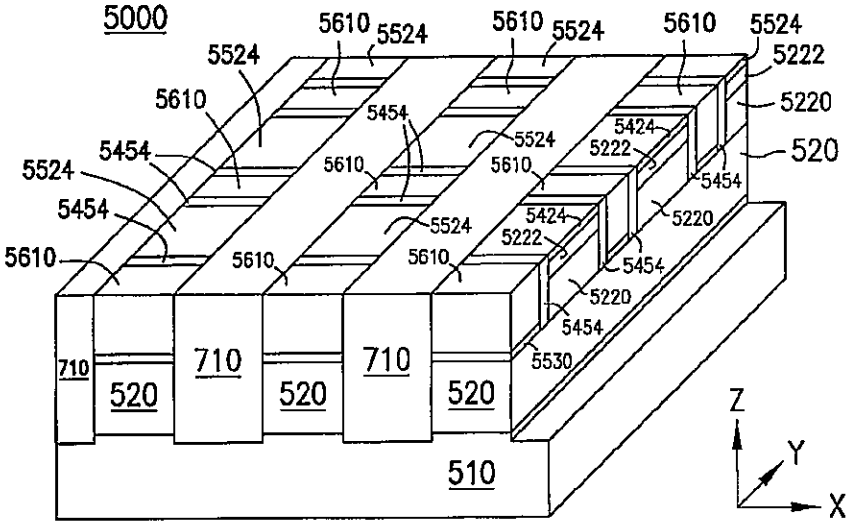

5000
5610
5524
5610
5524
5610
5524
5222
5220
520
5524
5454
5610
5454
5524
5610
5454
5610
5424
5222
5454
5220
5530
710
520
510
Z
Y
X

FIG. 58

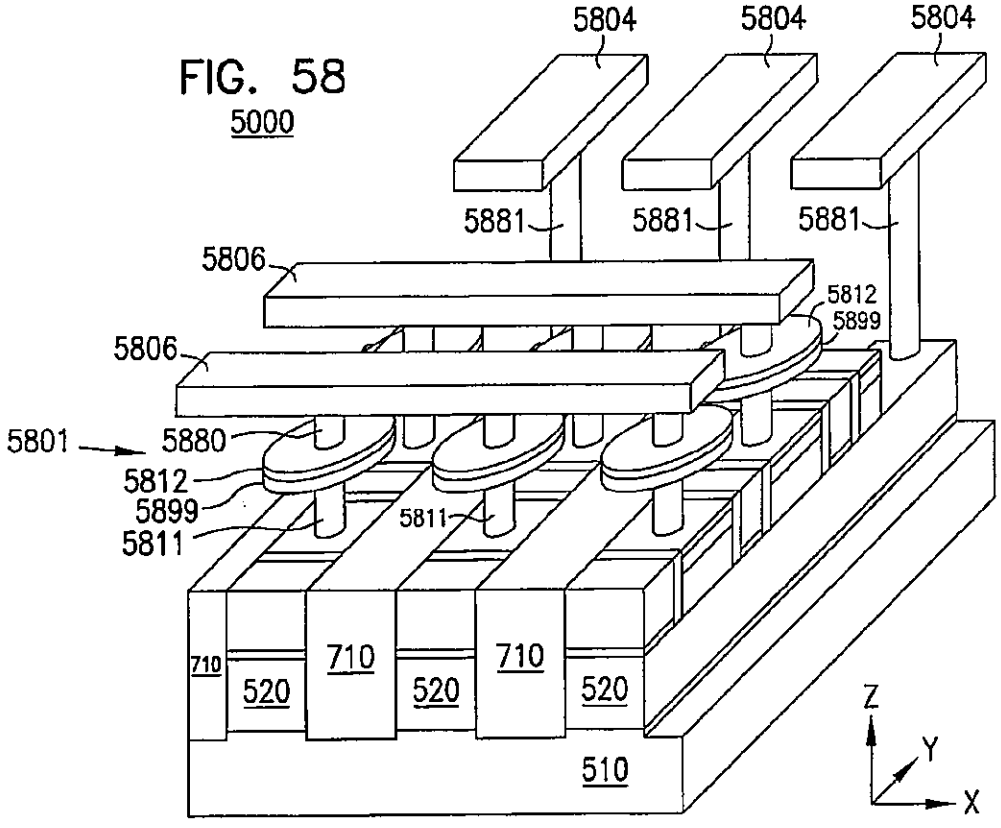

5000
5804
5804
5804
5881
5881
5881
5806
5812
5899
5806
5801
5880
5812
5899
5811
5811
710
520
510
Z
Y
X

FIG. 59
5900

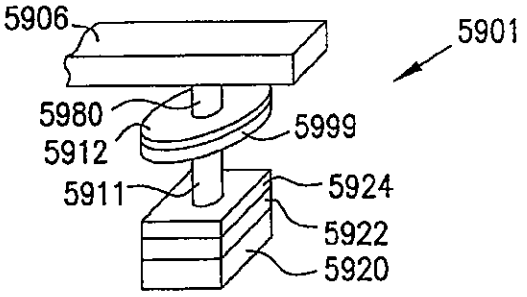



FIG. 60
6000

