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(54) **SEMICONDUCTOR MEMORY AND ITS PRODUCTION PROCESS**

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(21) Appl. No.: **10/107,380**

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(30) **Foreign Application Priority Data**

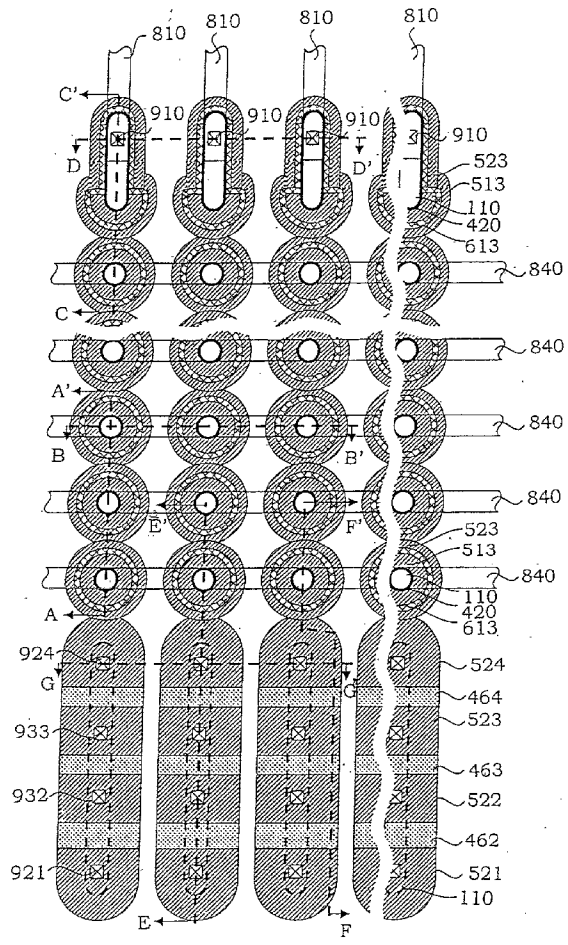
Mar. 30, 2001 (JP) 2001-142454
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Jun. 23, 2001 (JP) 2001-266490
Jun. 23, 2001 (JP) 2001-264928
Jun. 23, 2001 (JP) 2001-266491

Publication Classification

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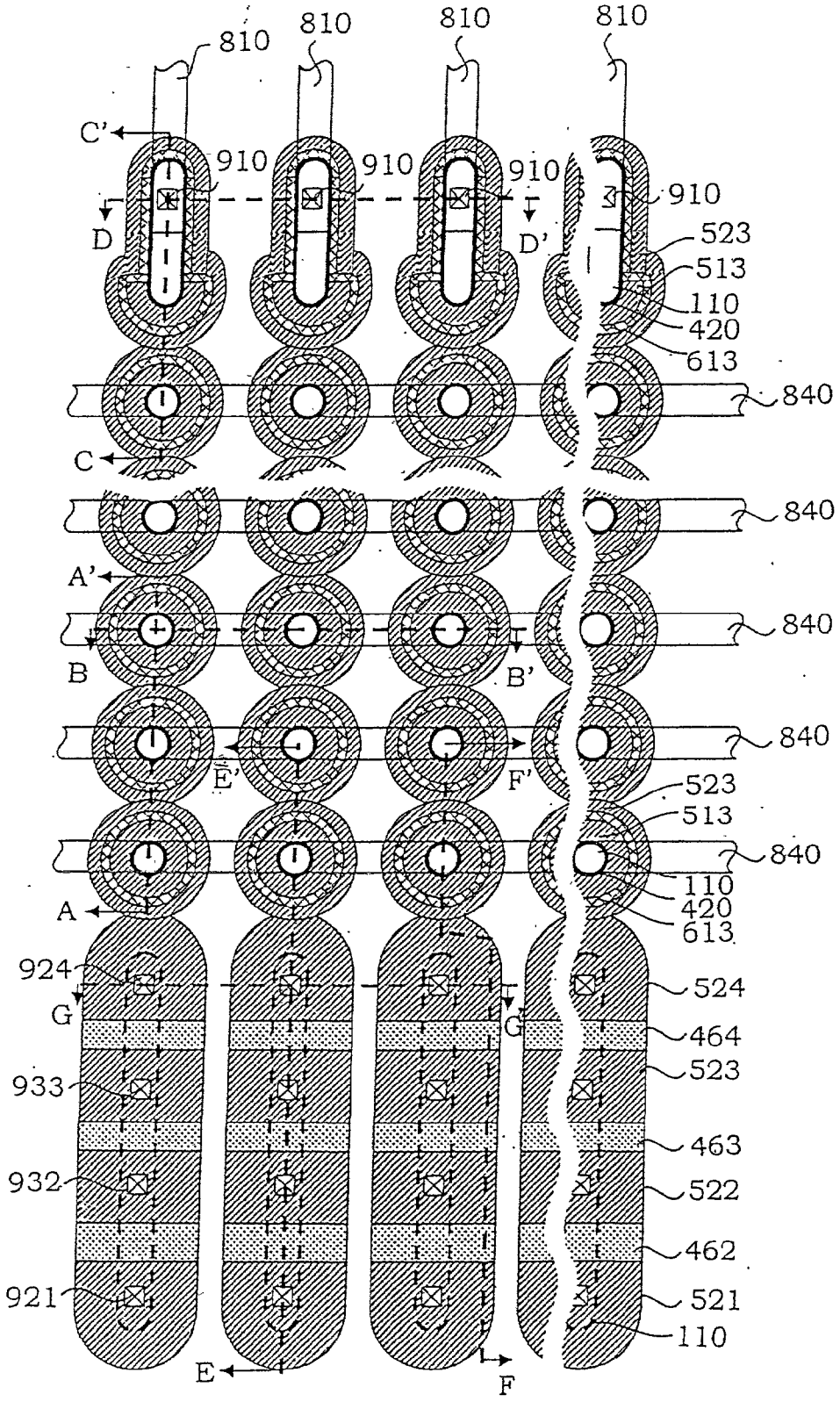
(57) **ABSTRACT**

A semiconductor memory comprises: a substrate; and one or more memory cells constituted of at least one island-like semiconductor layer, a charge storage layer and a control gate, the charge storage layer and the control gate being formed to entirely or partially encircle a sidewall of the island-like semiconductor layer, wherein at least one of said one or more memory cells is electrically insulated from the semiconductor substrate and has an insulating film allowing an electric charge to pass at least in a part of a region between the charge storage layer and the island-like semiconductor layer.



Petitioner Micron Ex-1006, 0001

Fig. 1



Petitioner Micron Ex-1006, 0002

Fig. 2

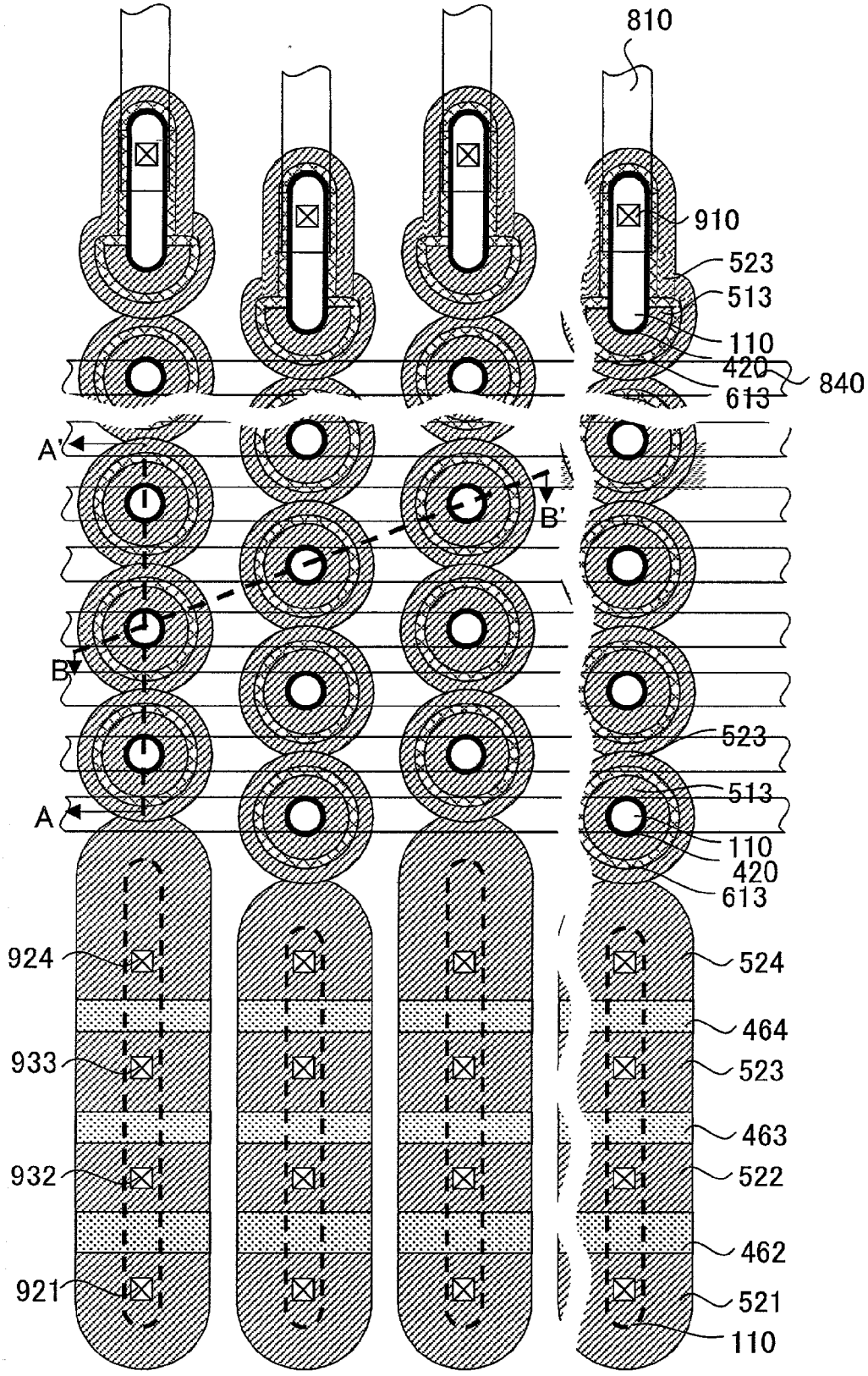

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Fig. 3

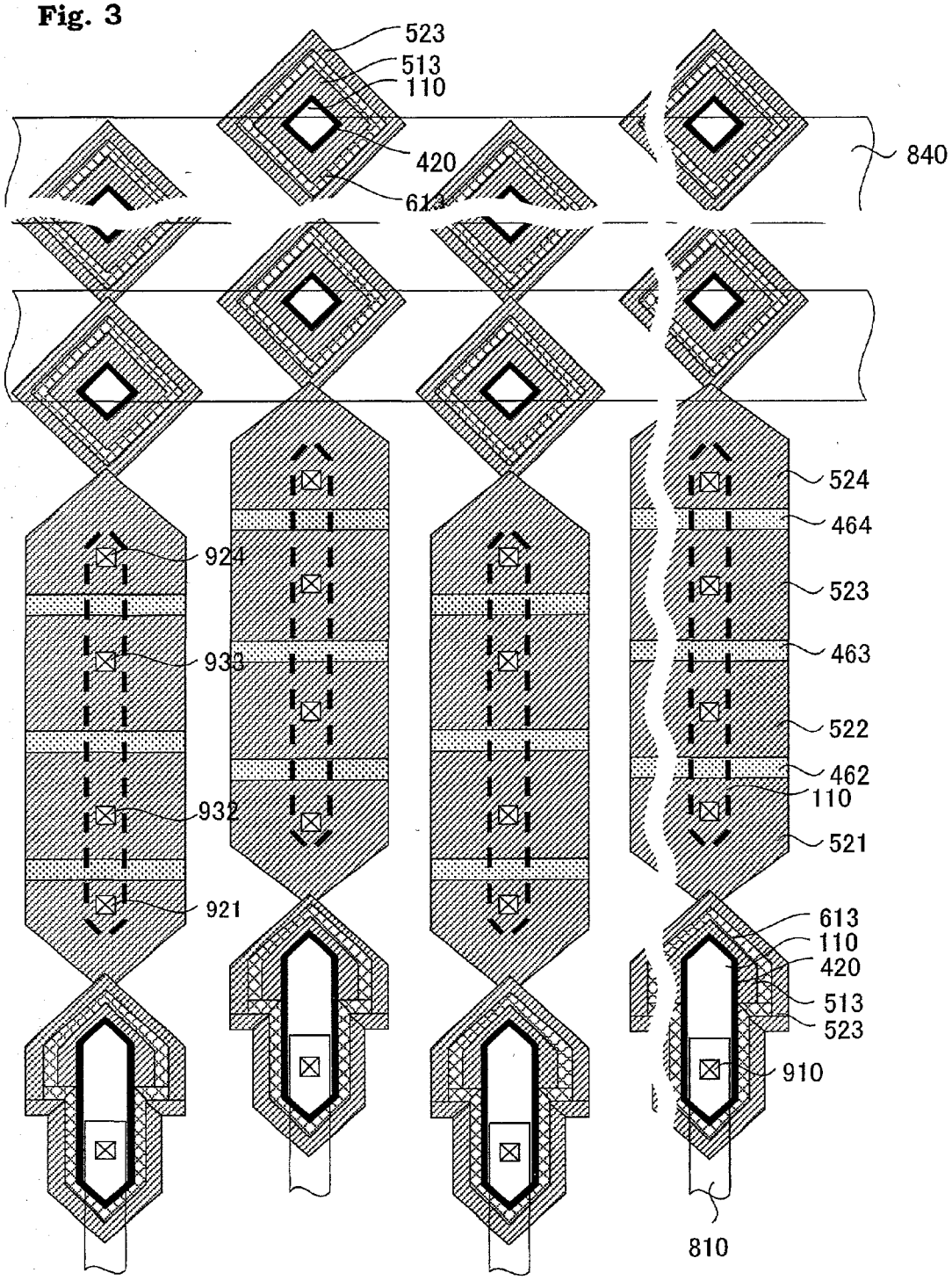

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Fig. 4

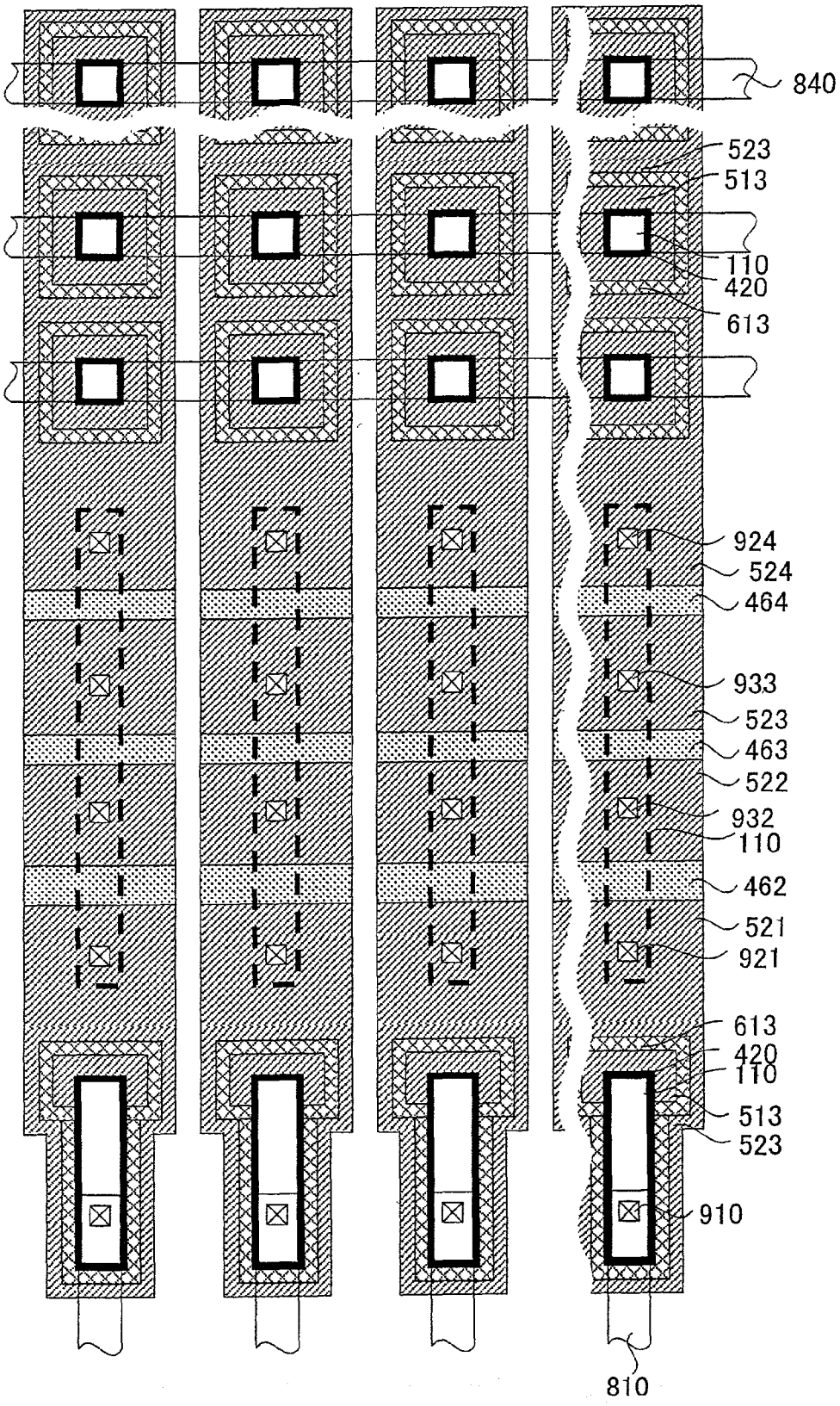

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Fig. 5

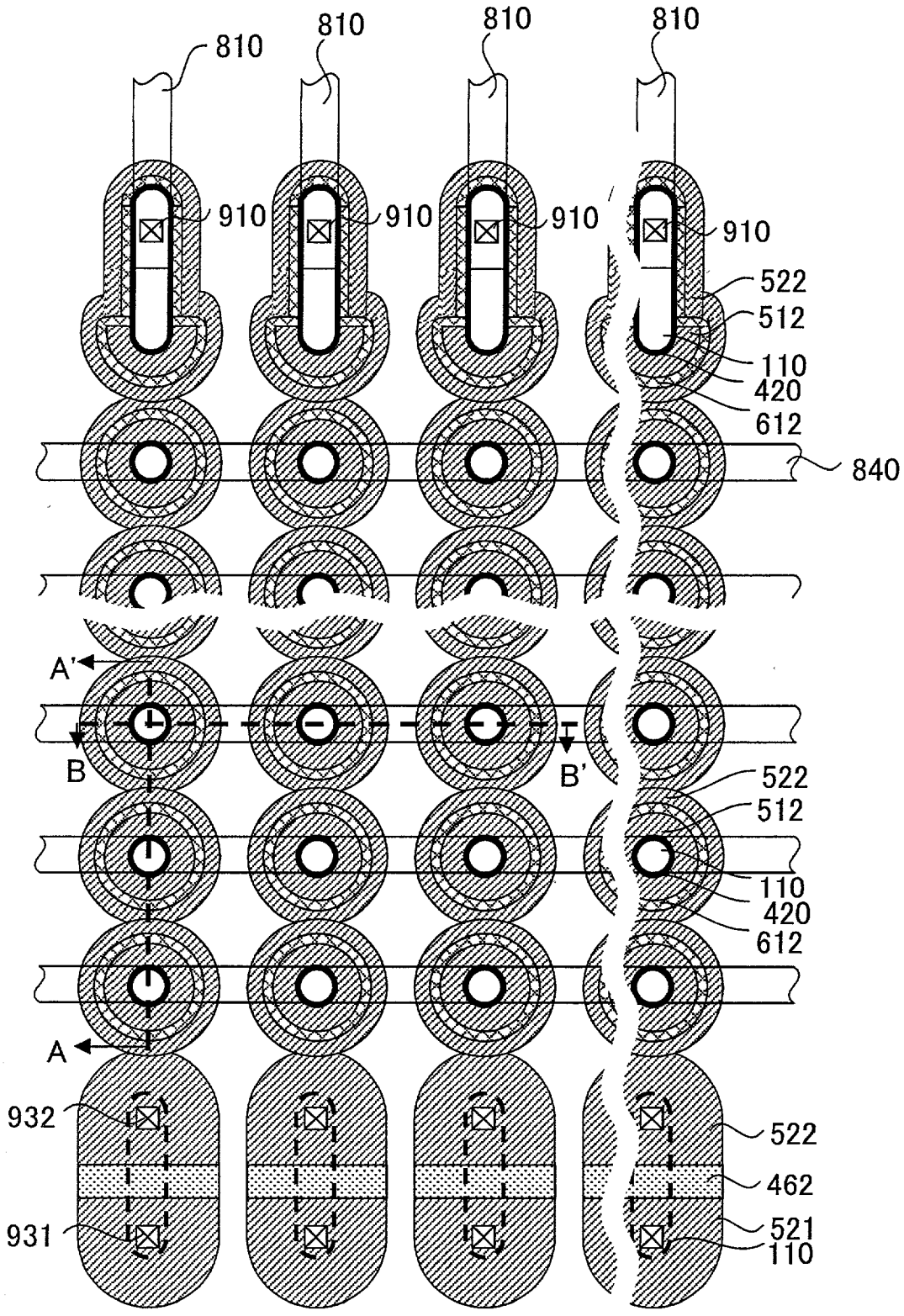

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Fig. 6

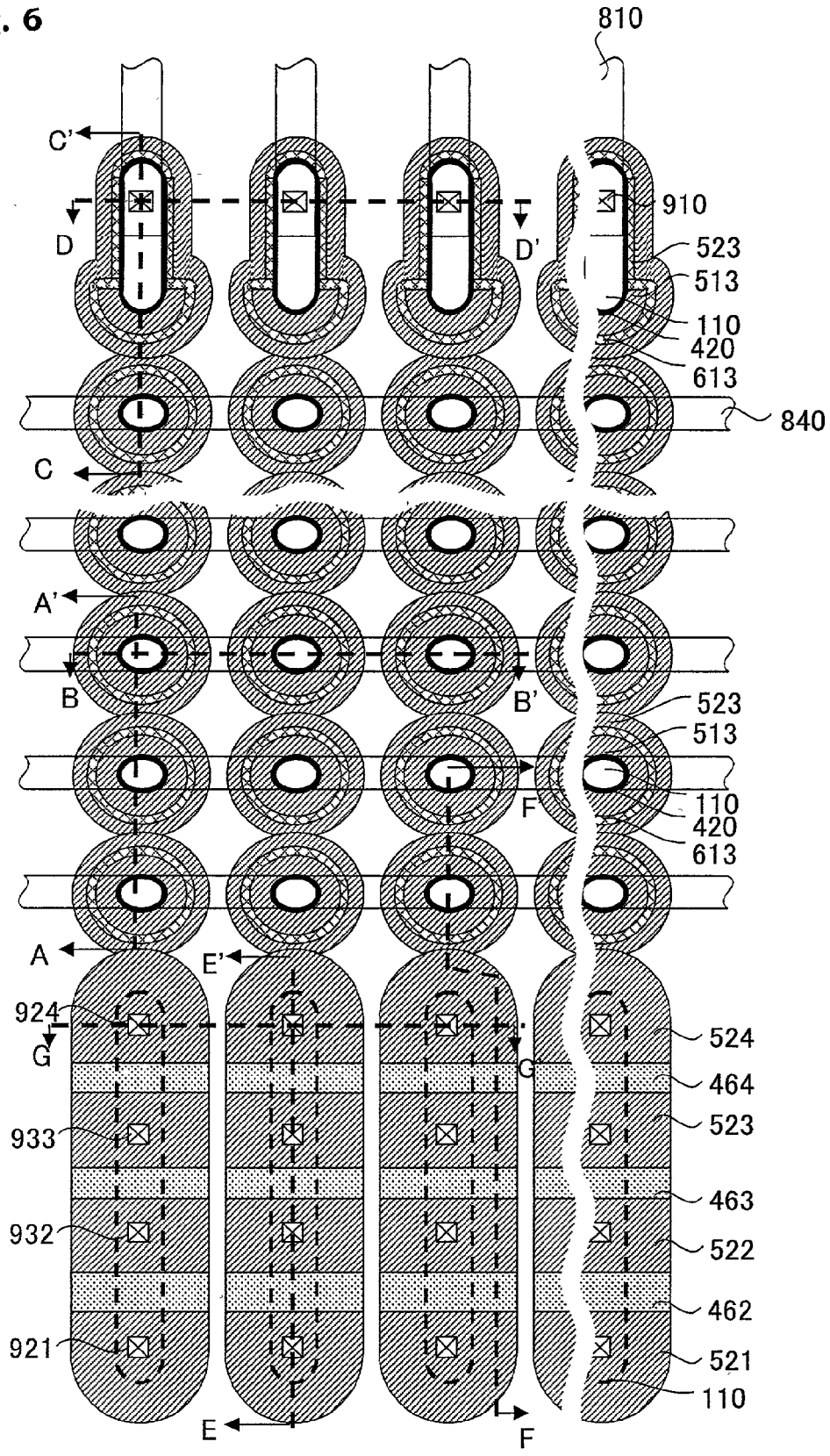

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Fig. 7

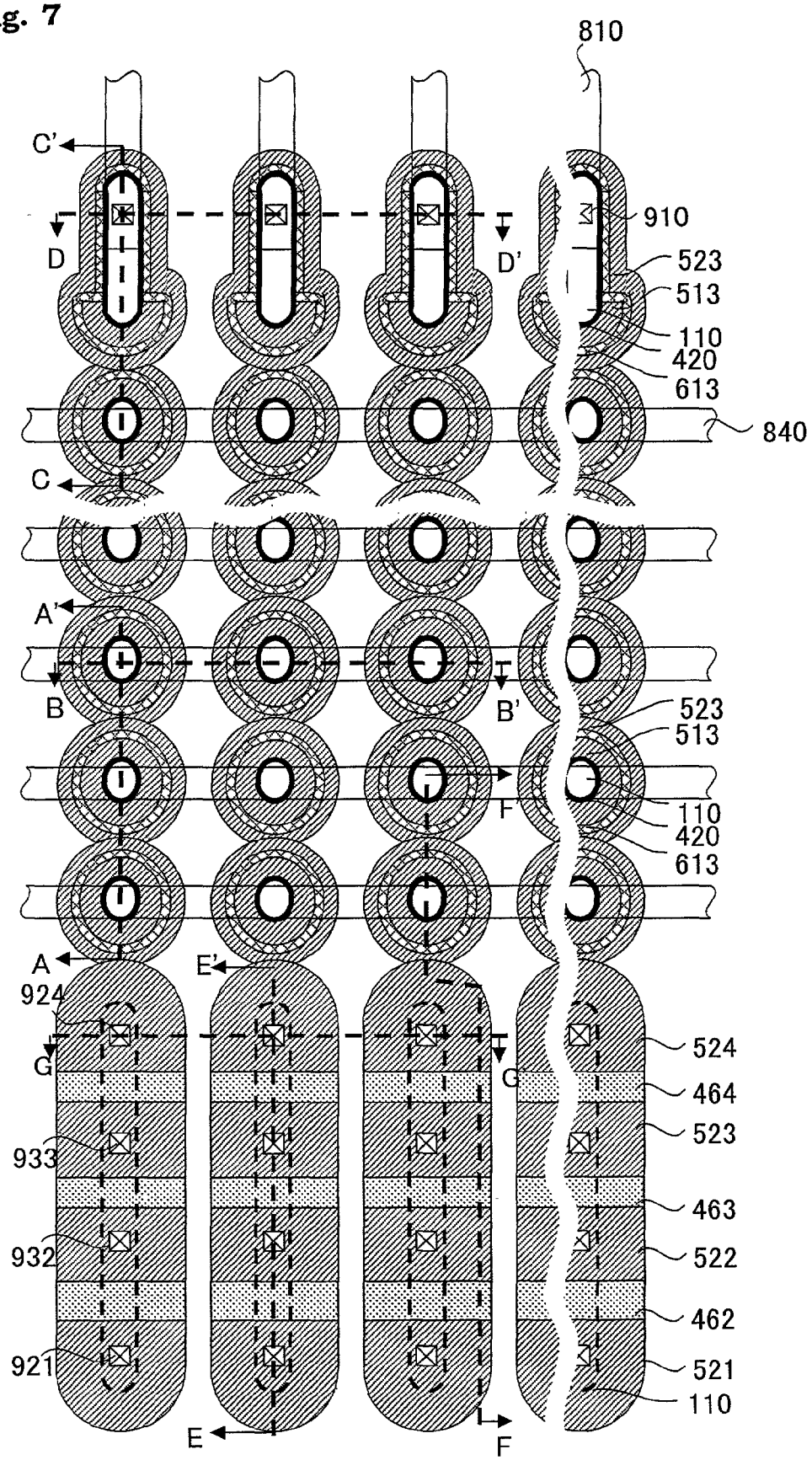

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Fig. 8

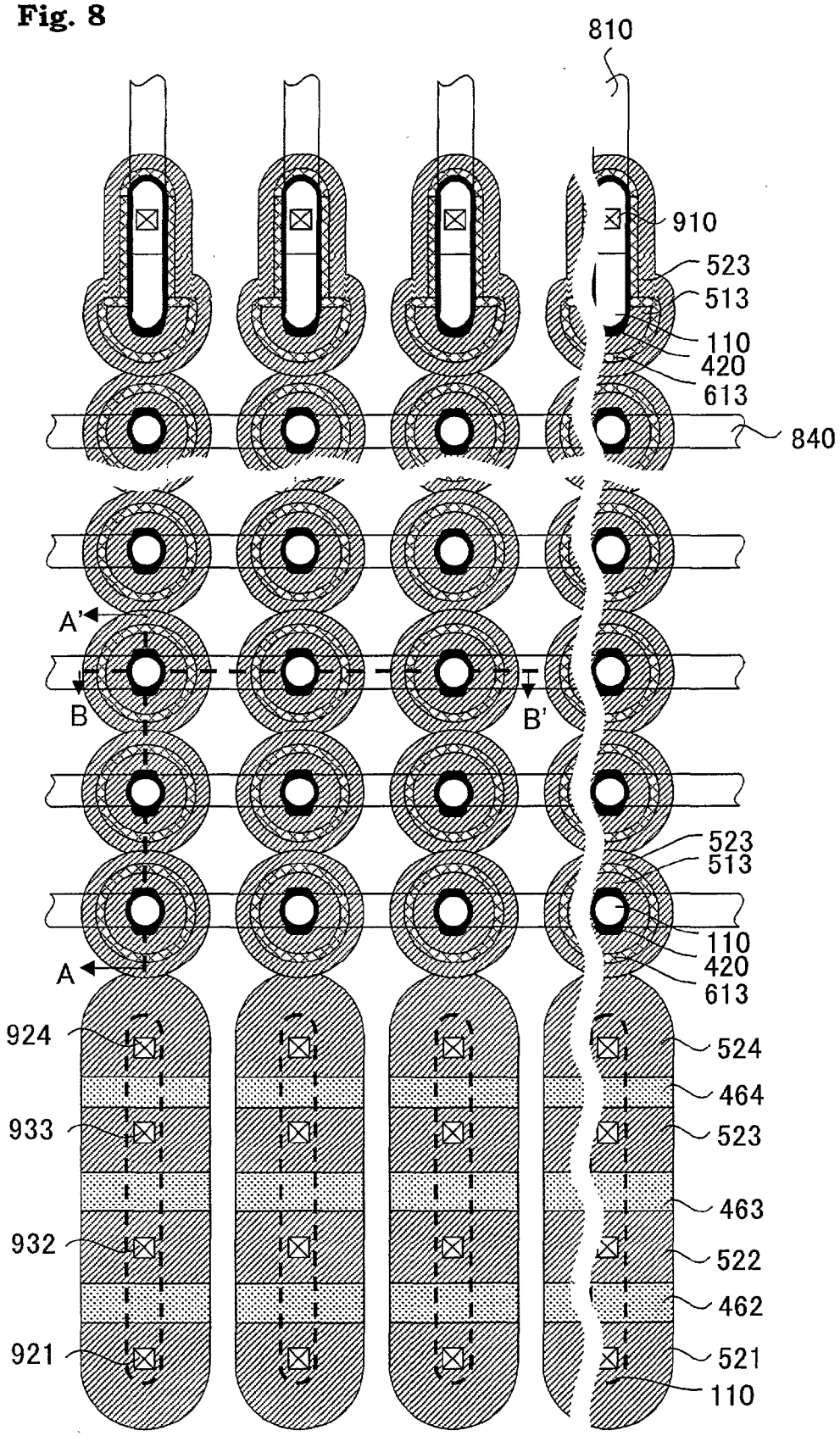

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Fig. 9

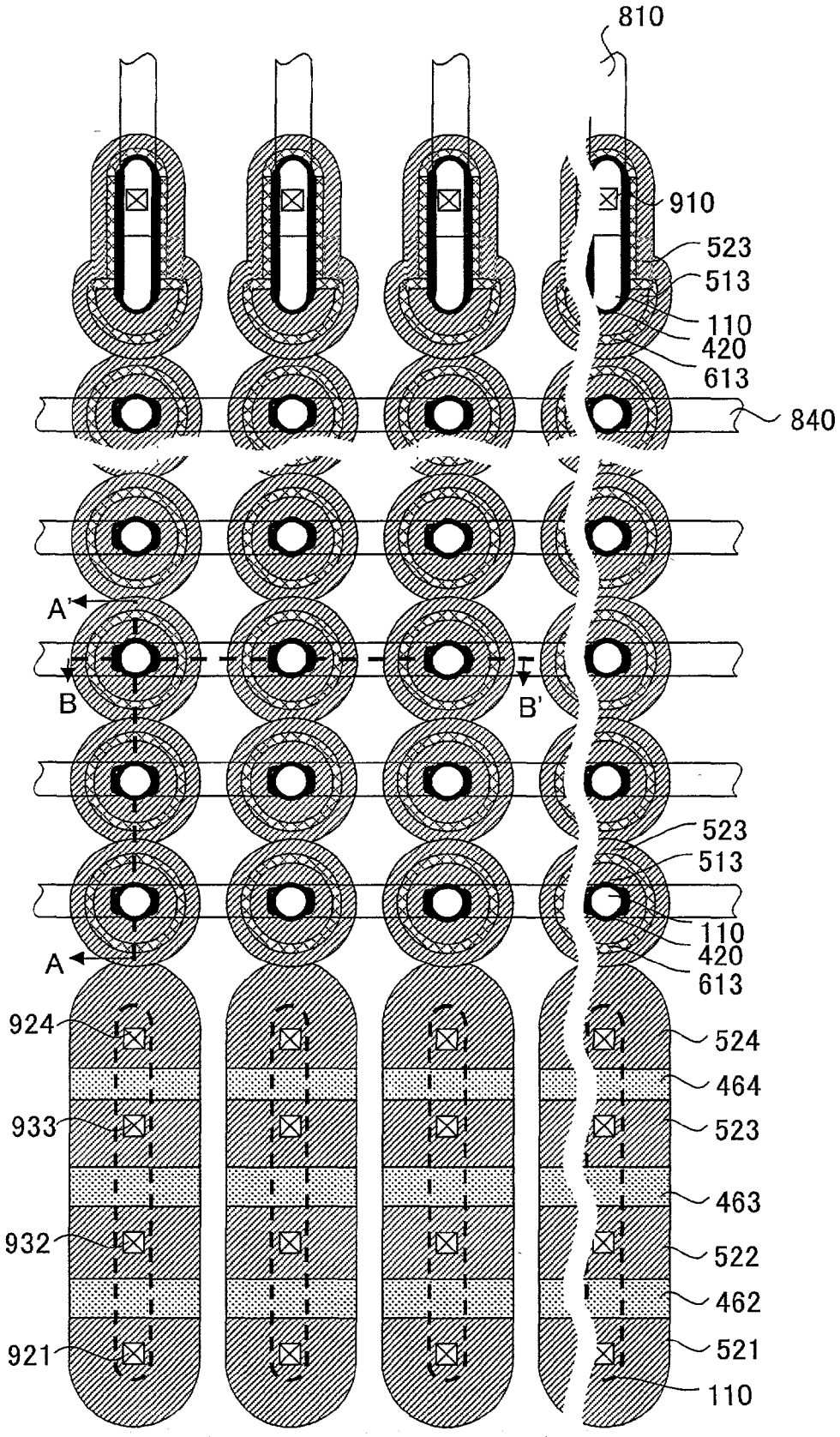

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Fig. 10

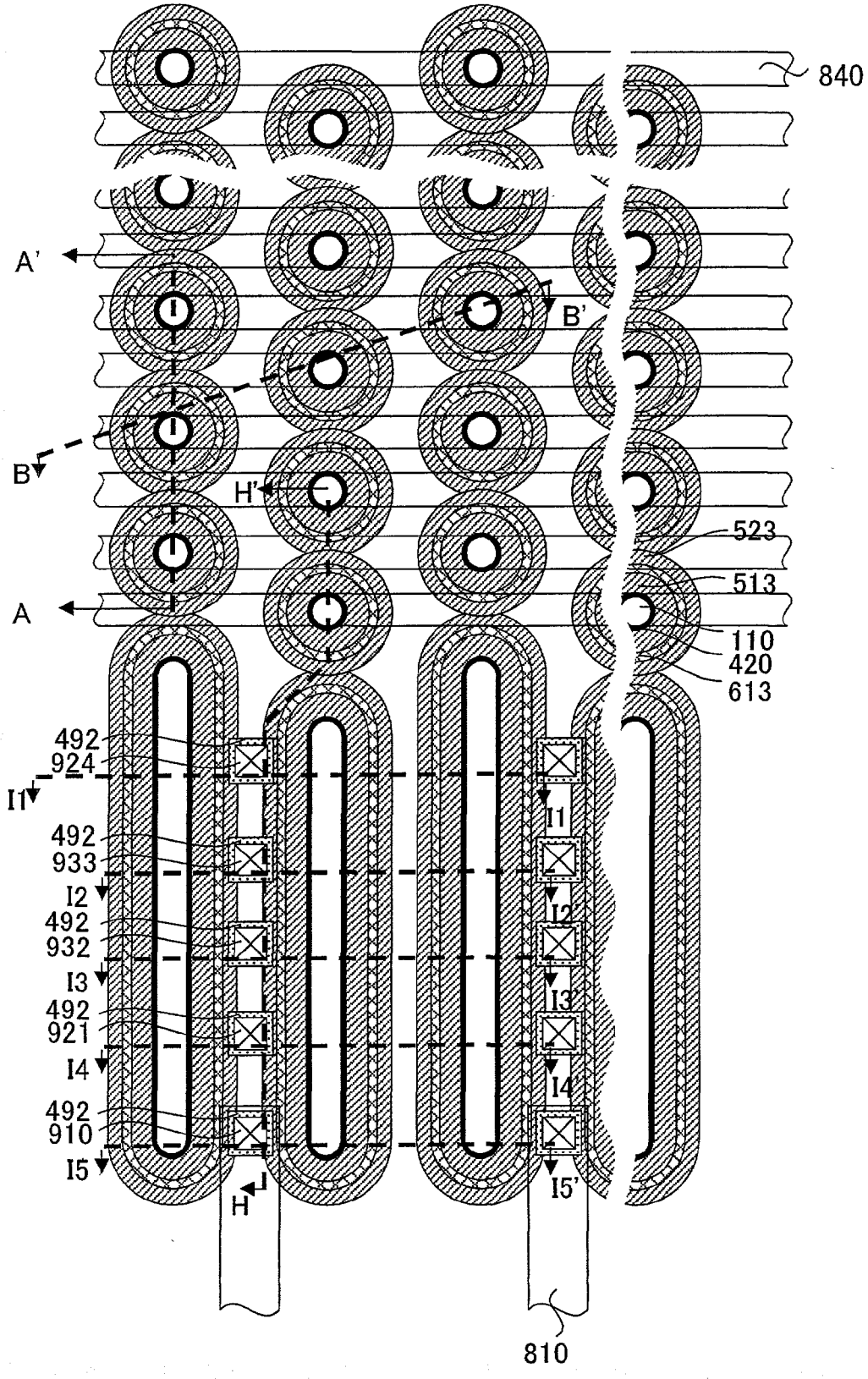

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I4'
I5'
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Fig. 11

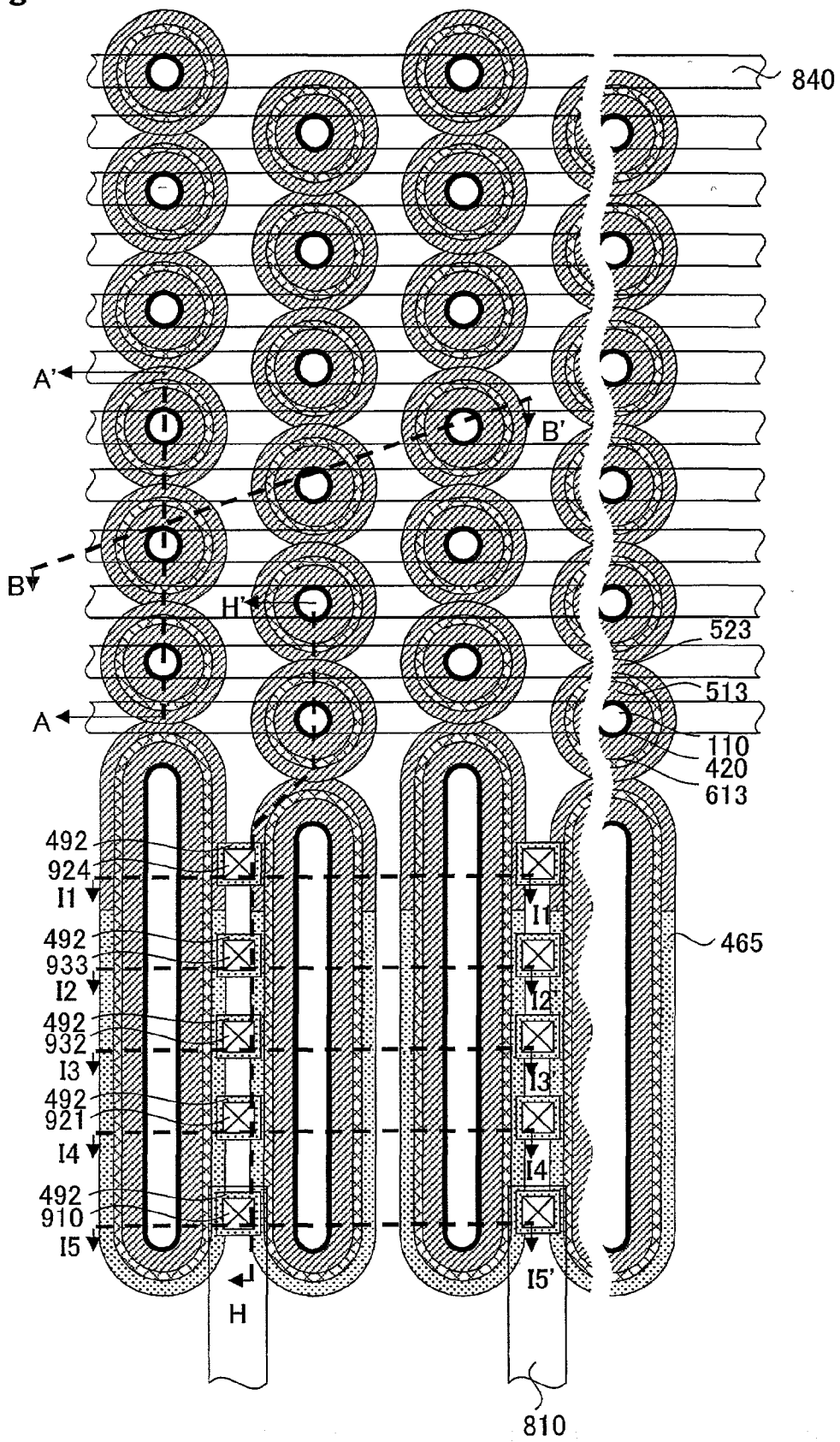

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Fig. 12

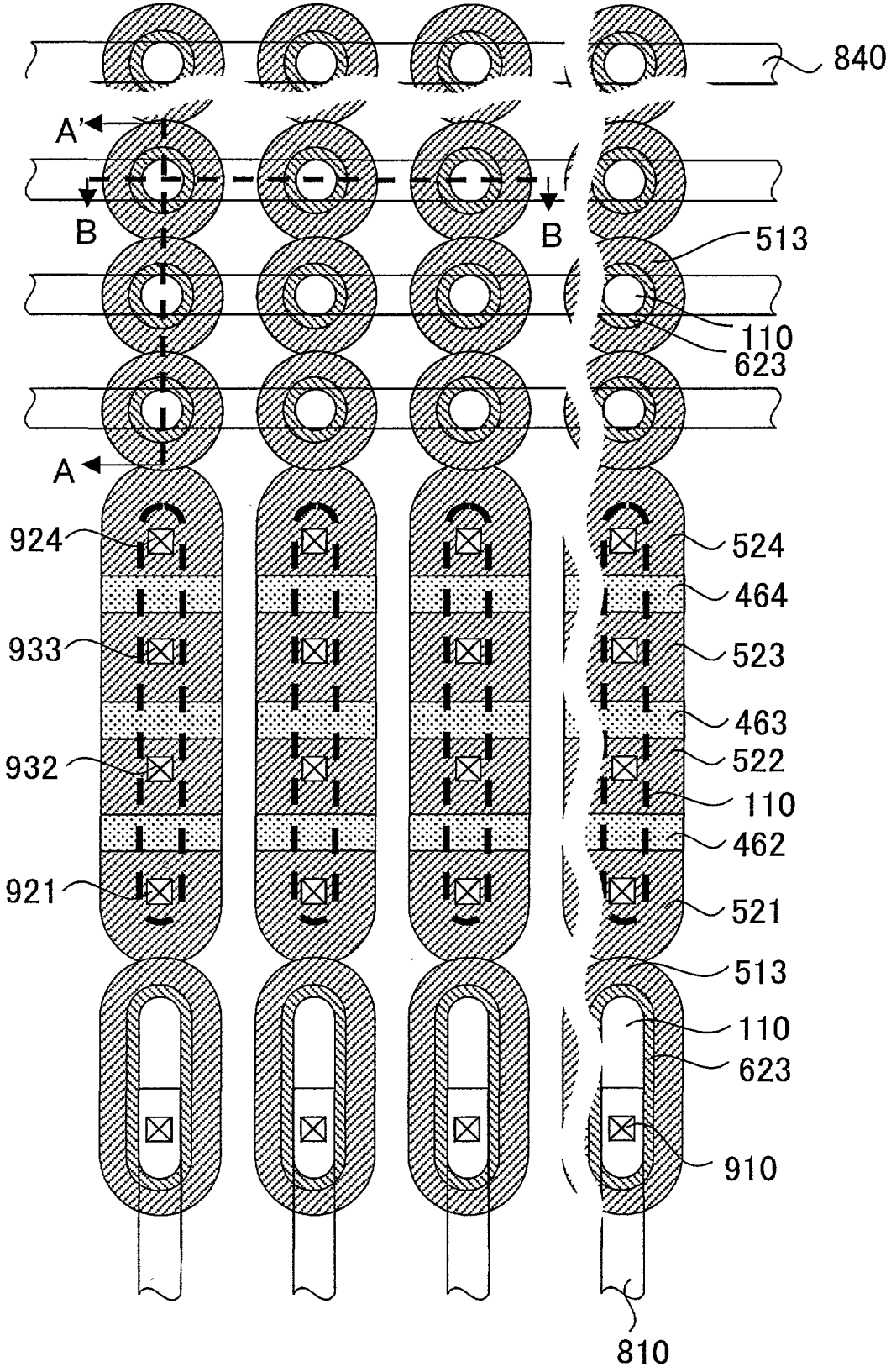

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Fig. 13

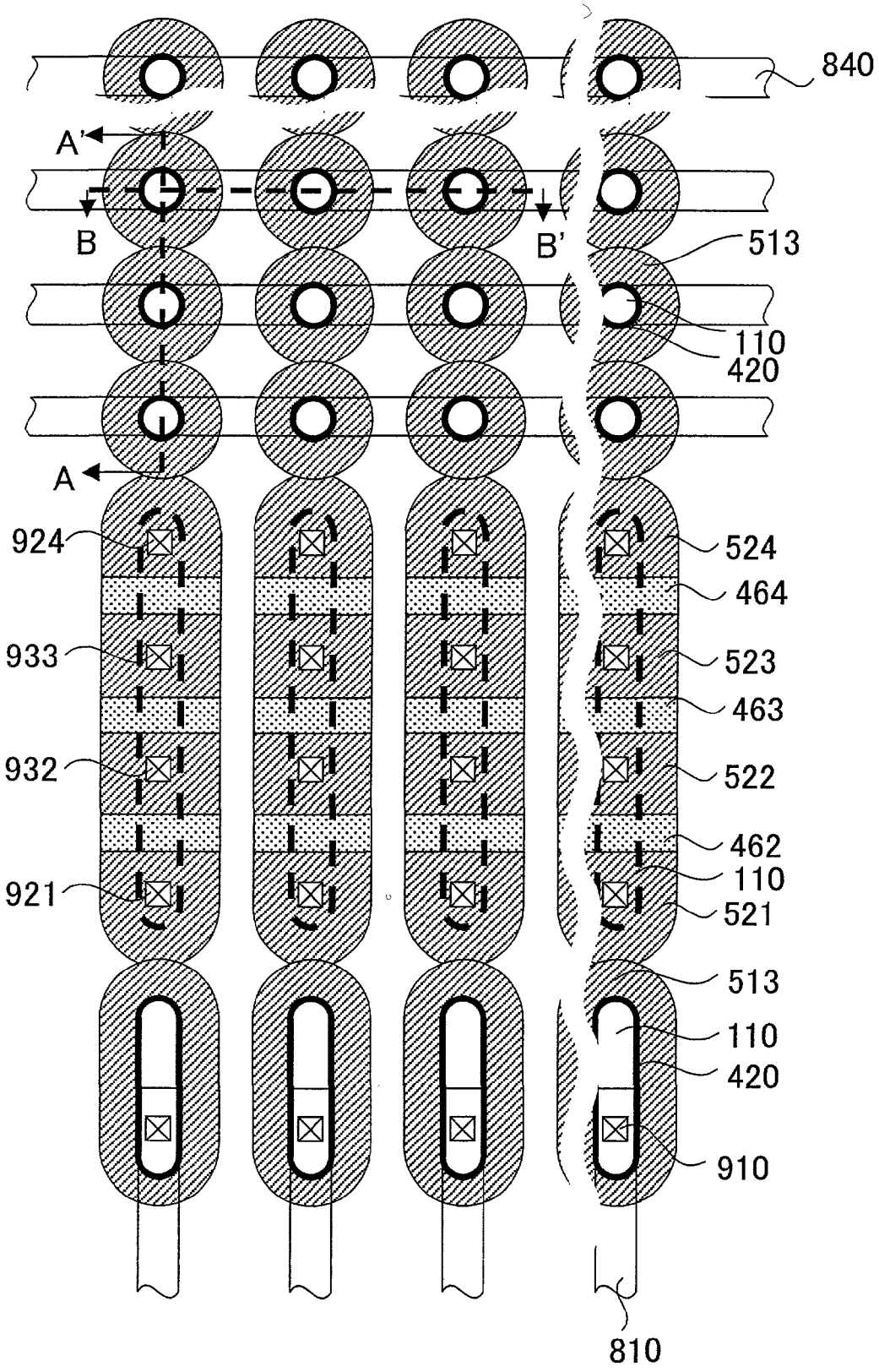

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Fig. 14

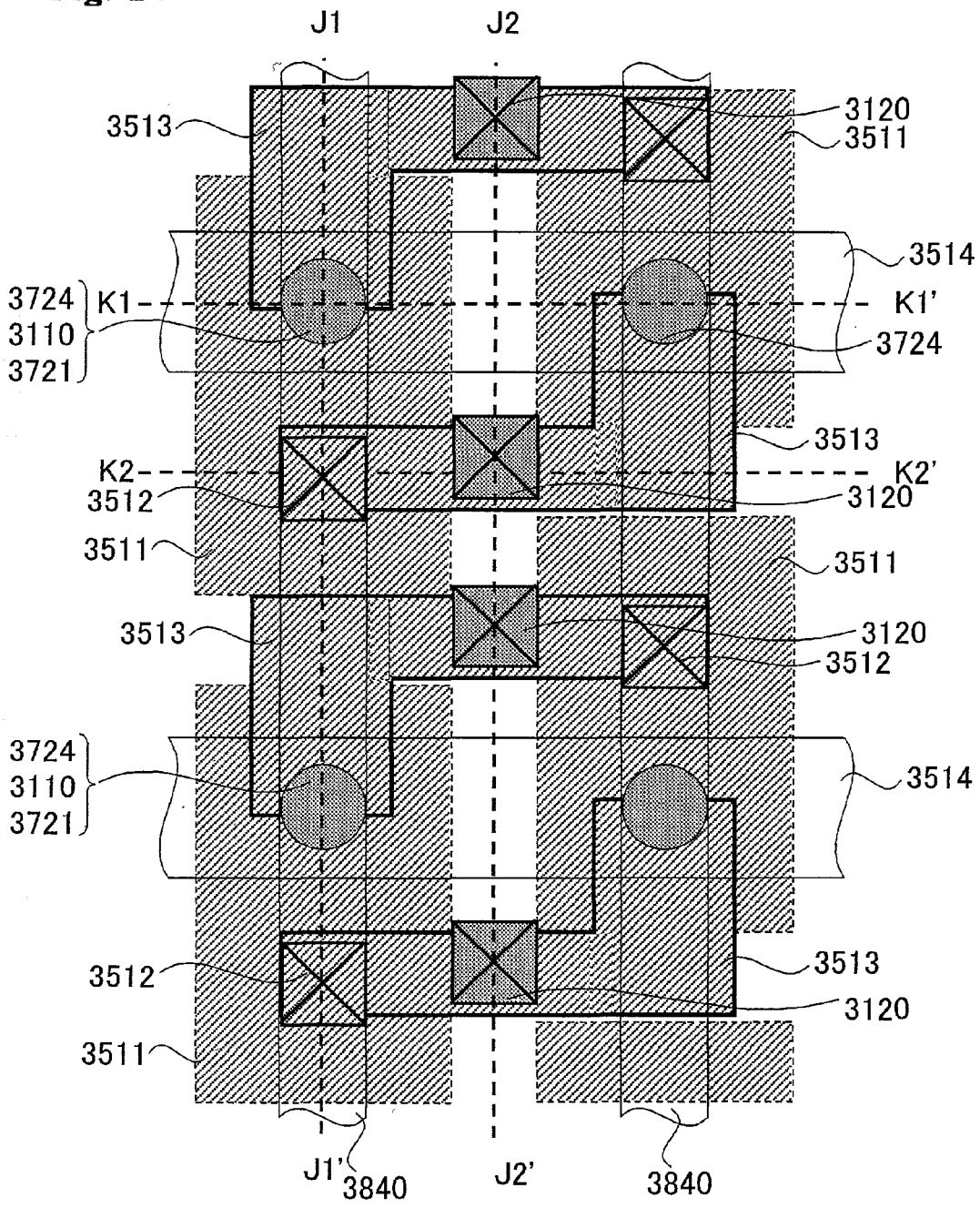

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Fig. 15

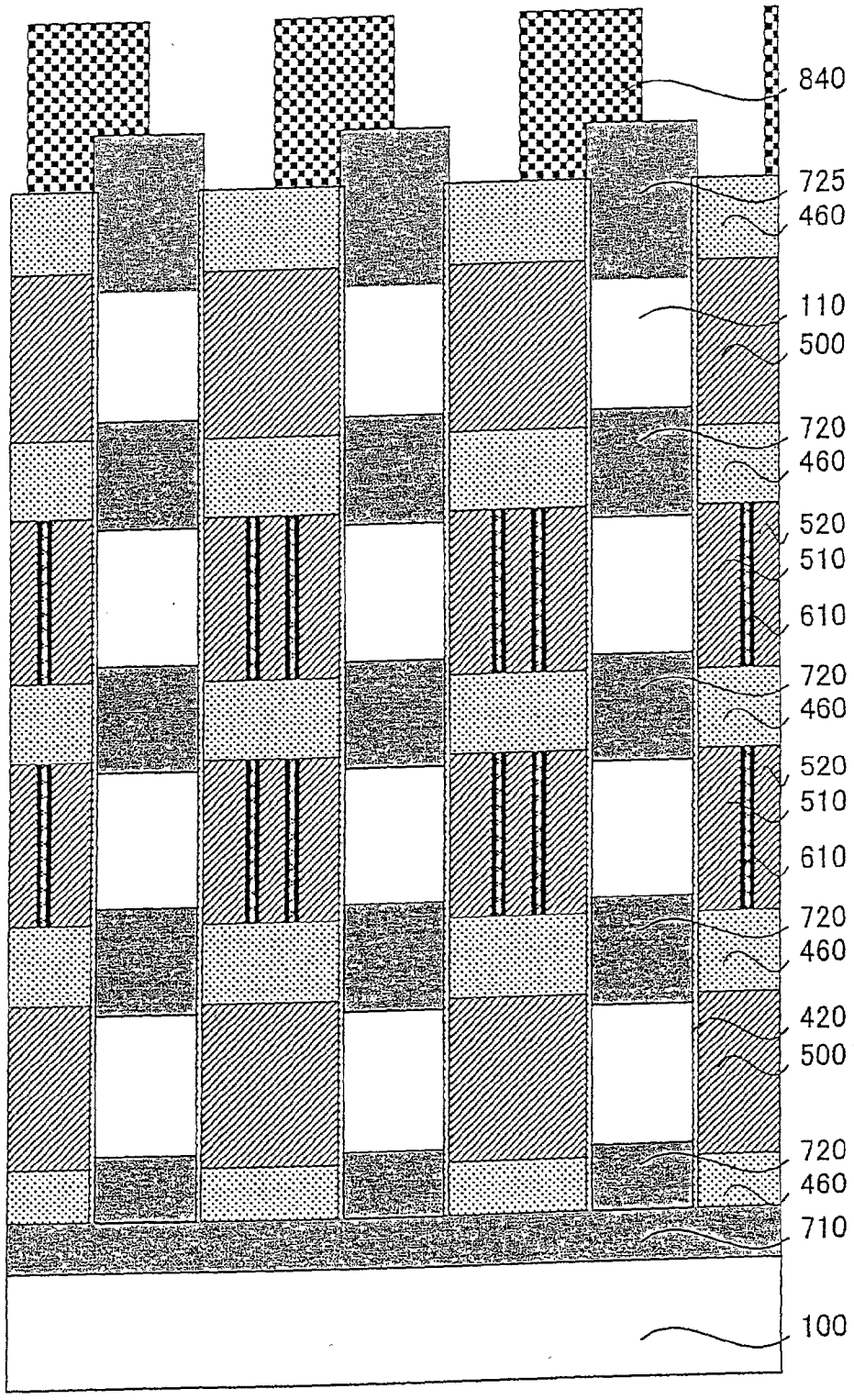

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Fig. 16

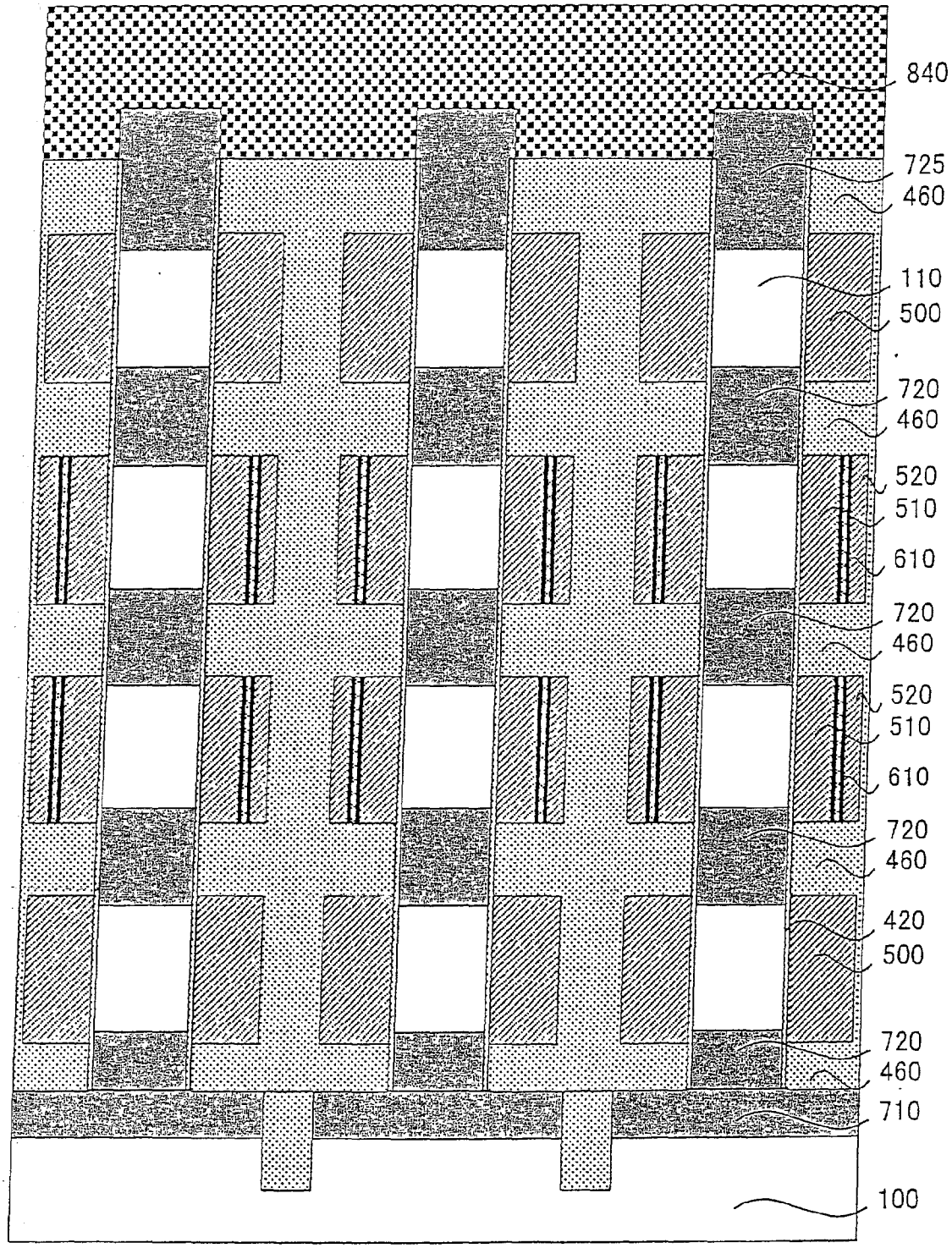

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Fig. 17

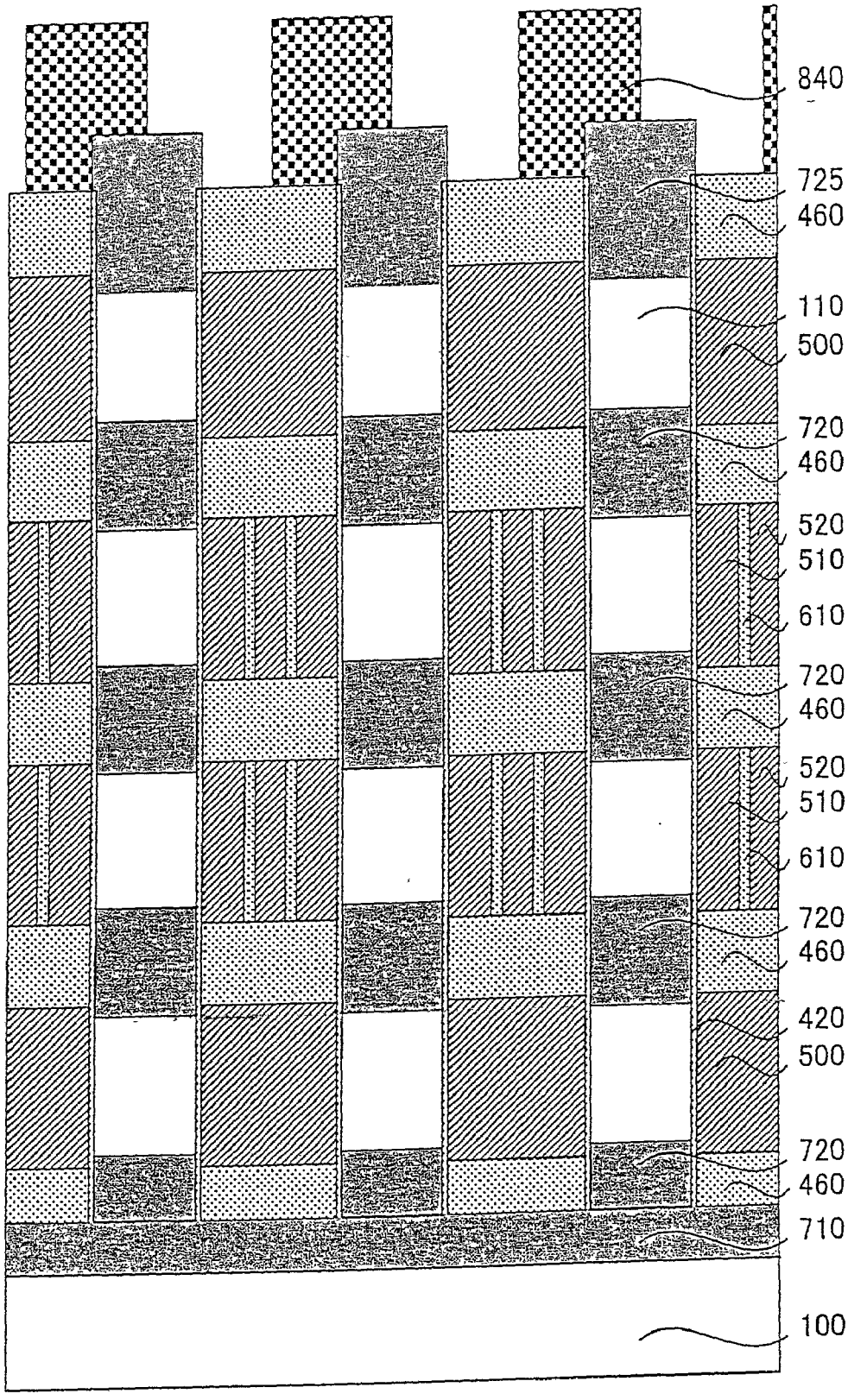

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Fig. 18

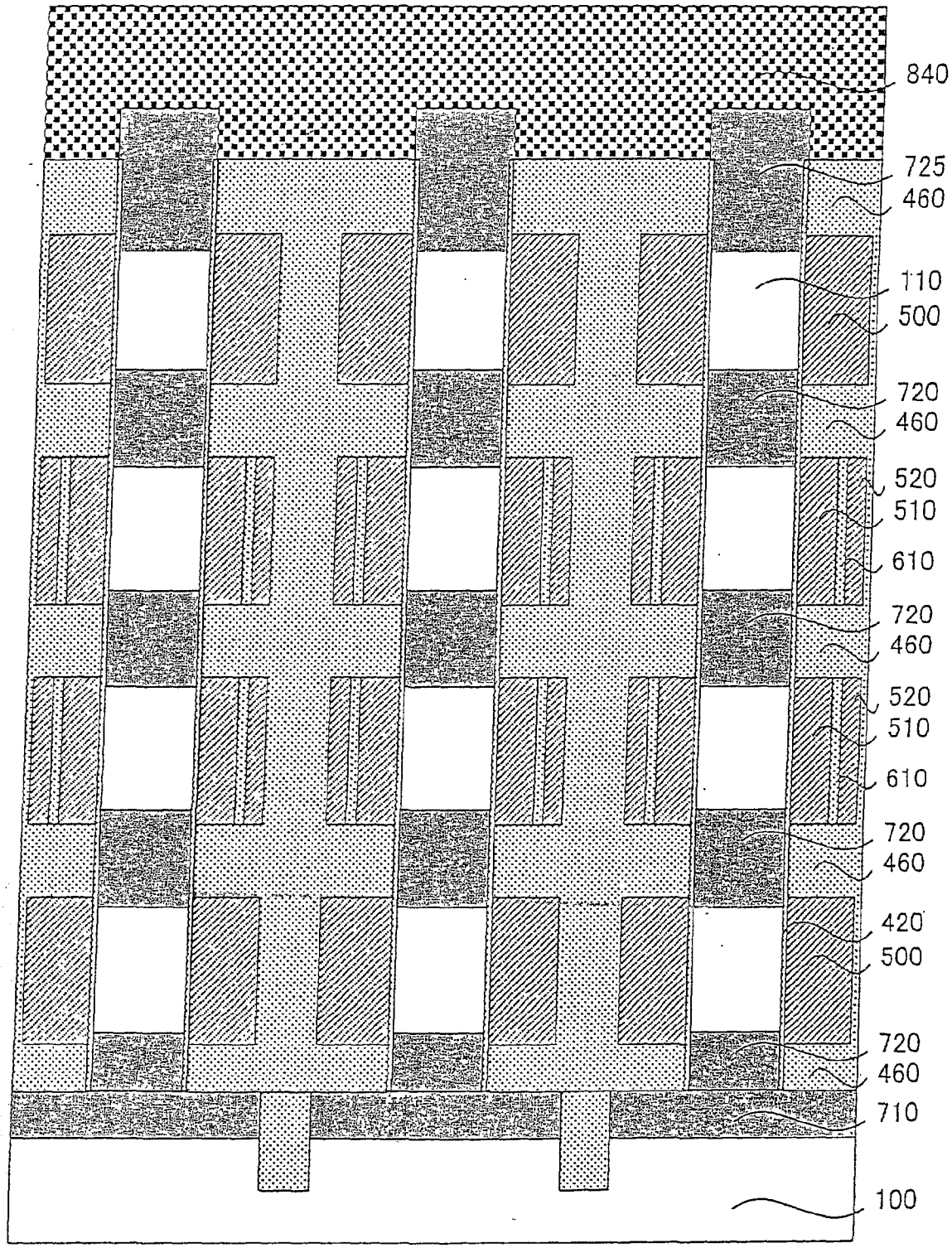

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Fig. 19

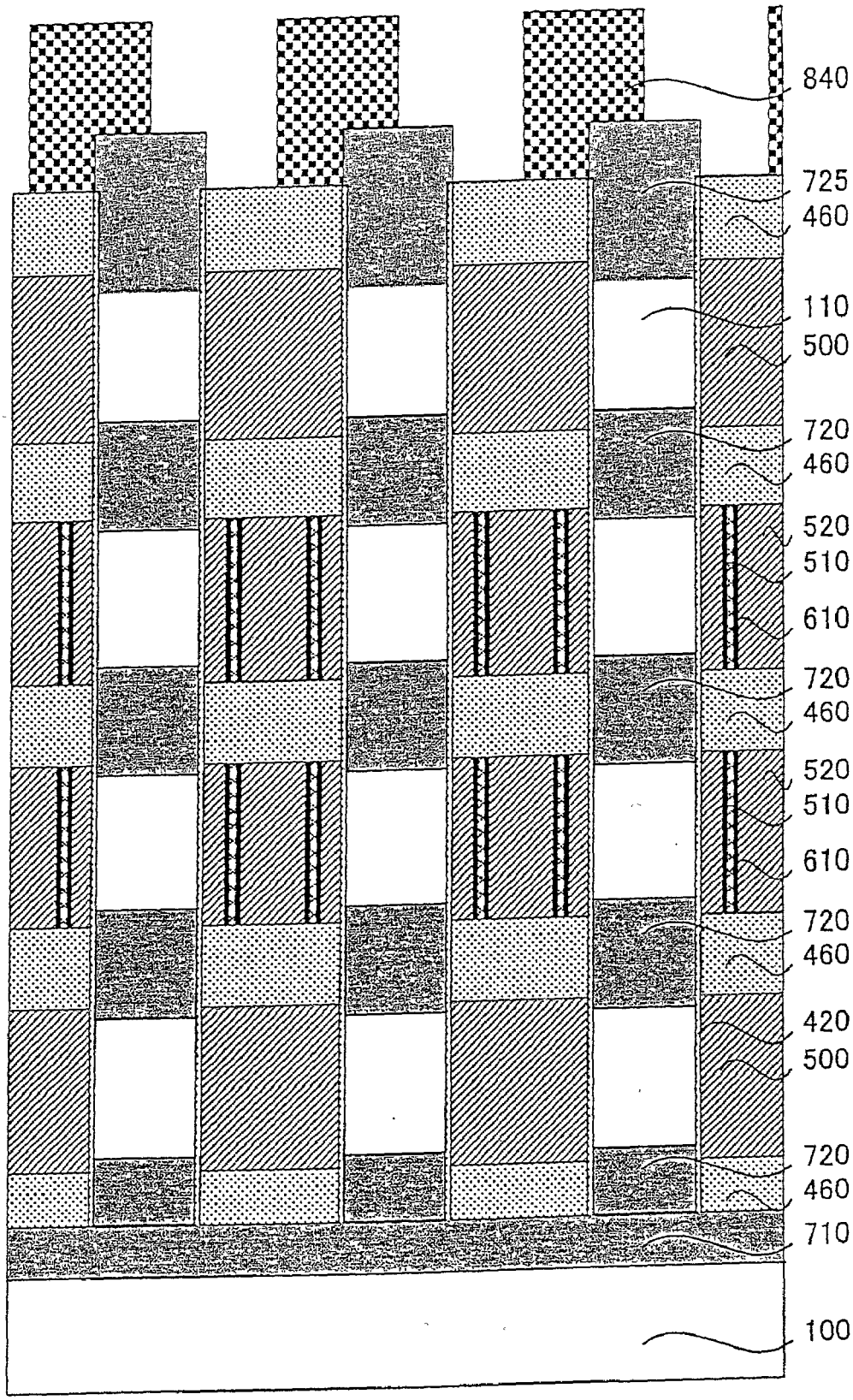

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Fig. 20

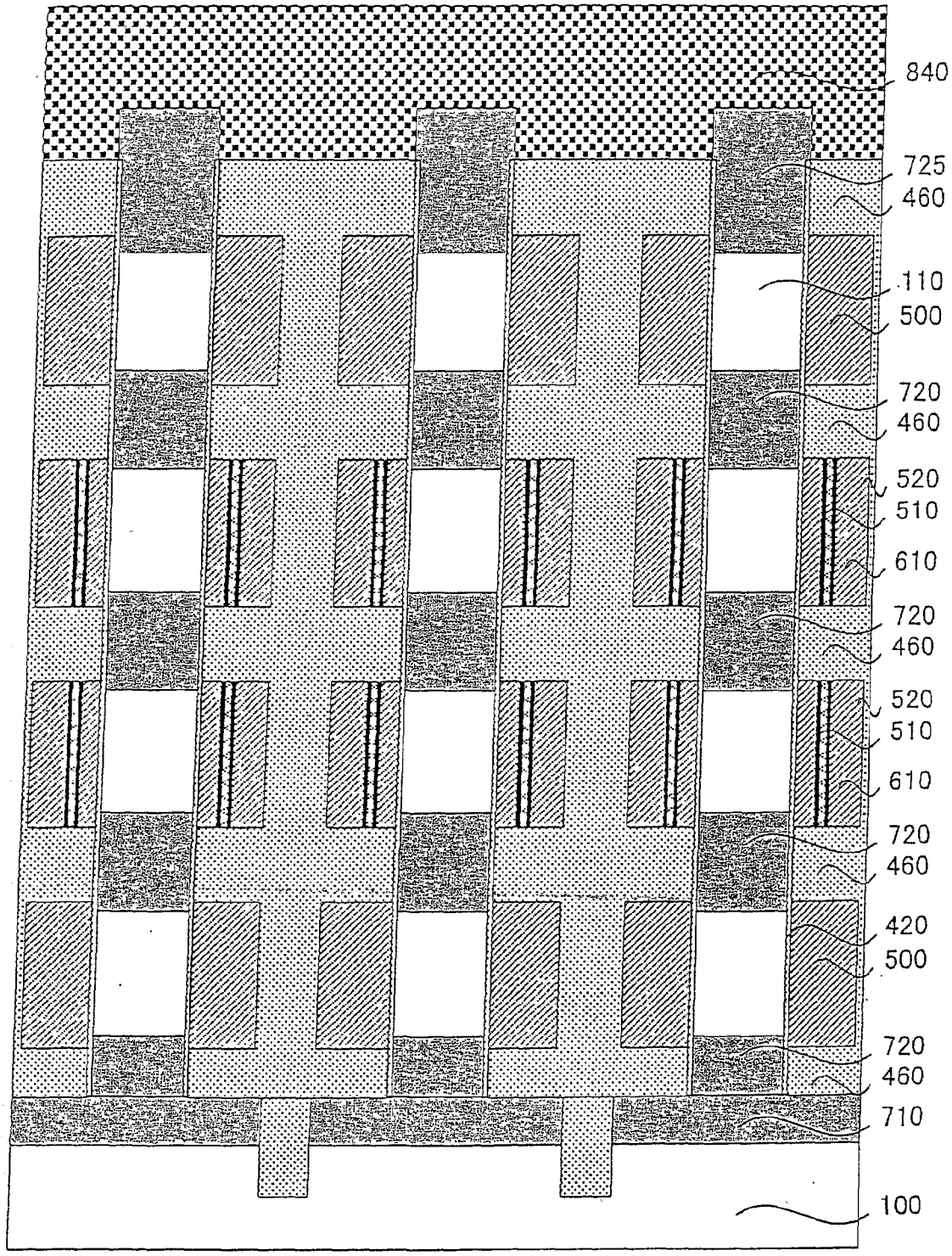

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Fig. 21

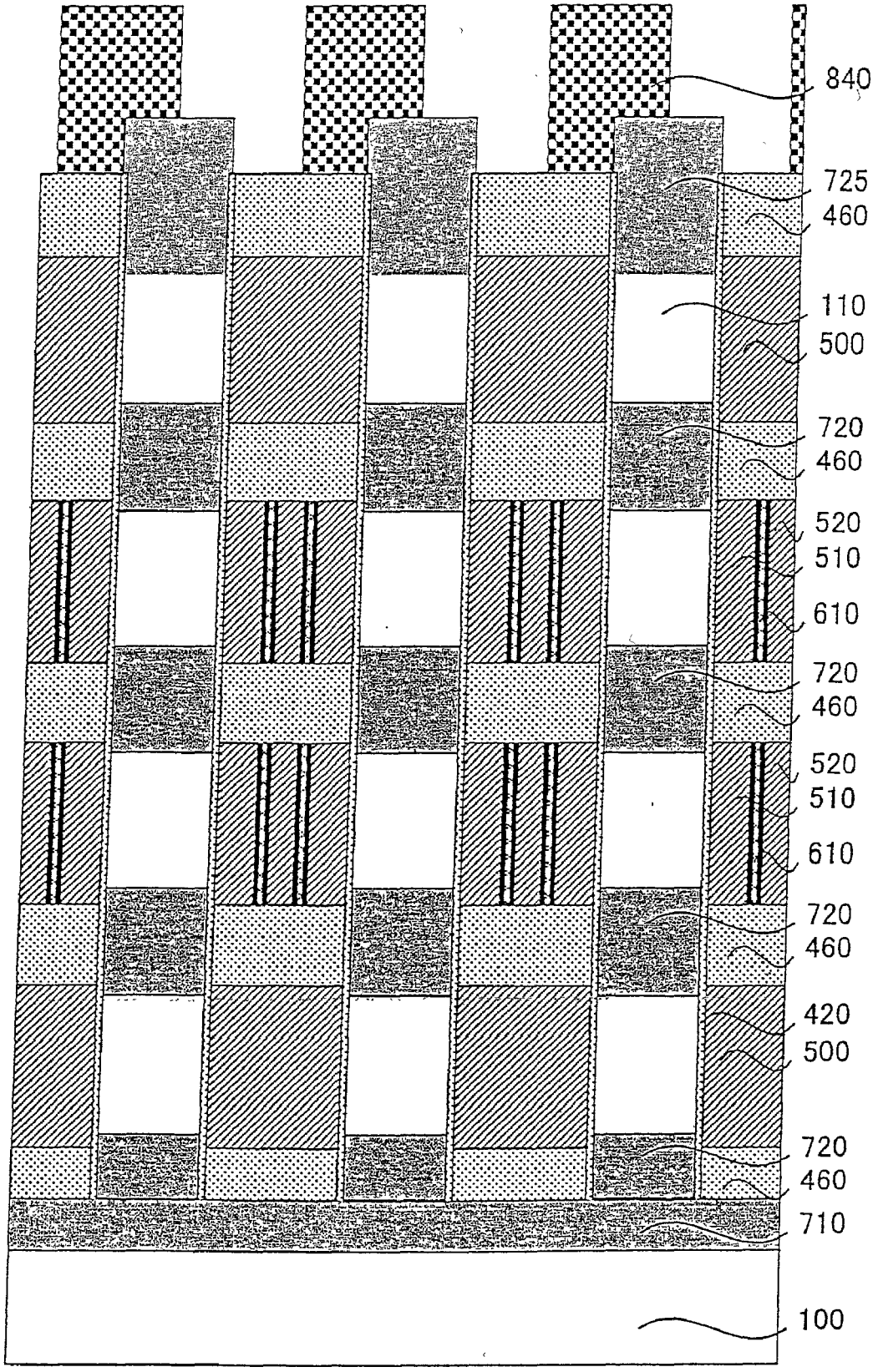

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Fig. 22

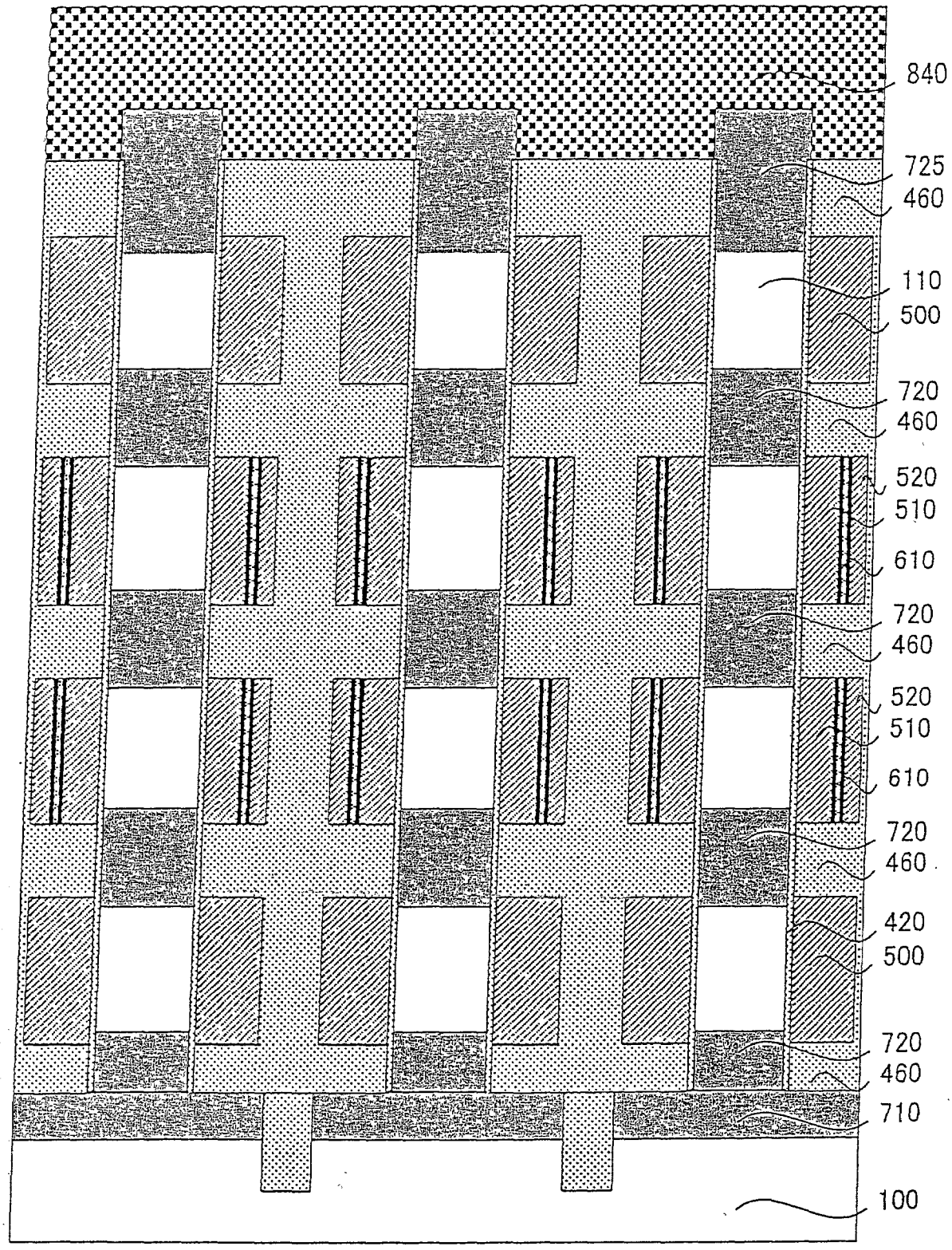

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Fig. 23

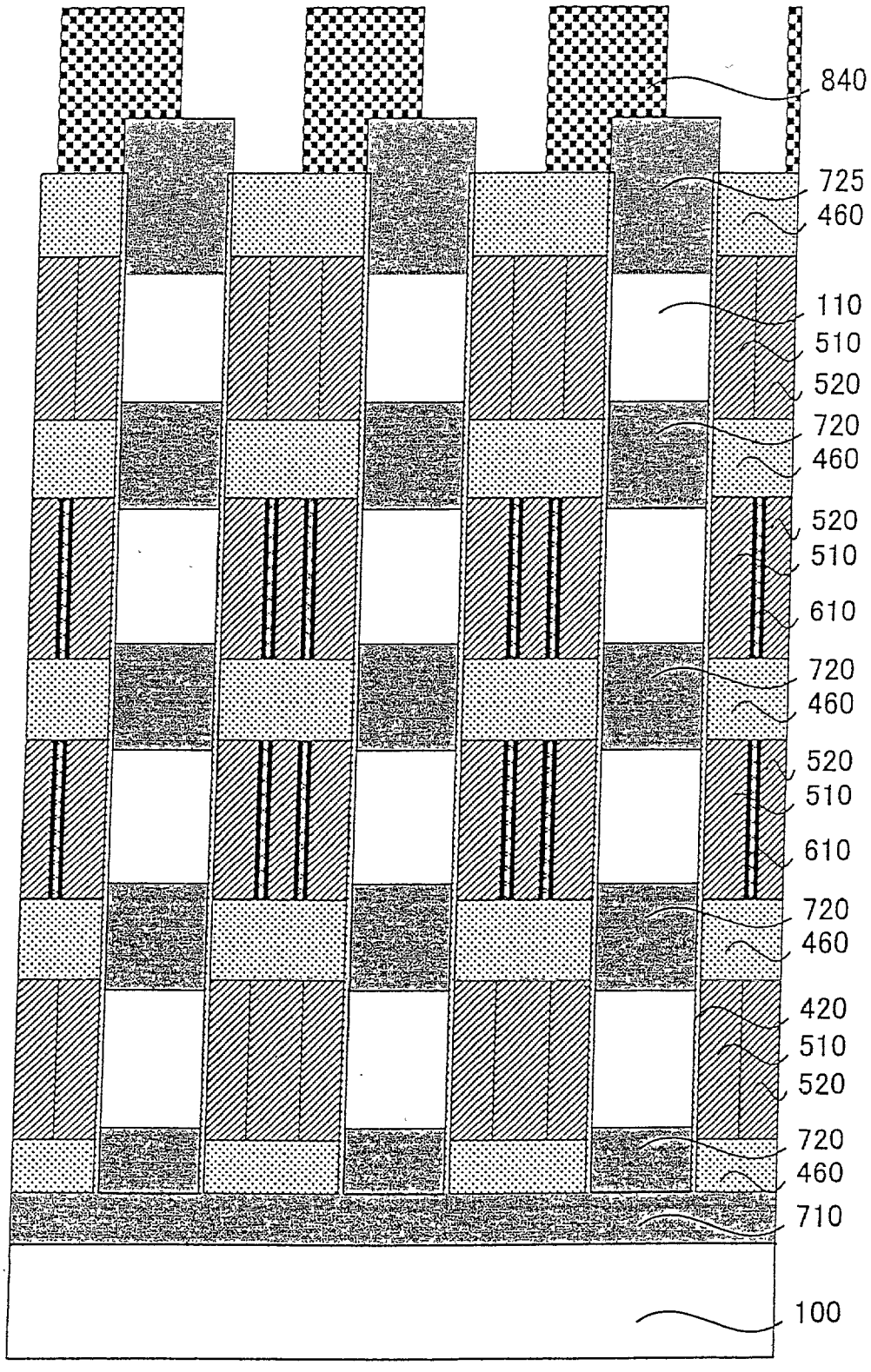

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Fig. 24

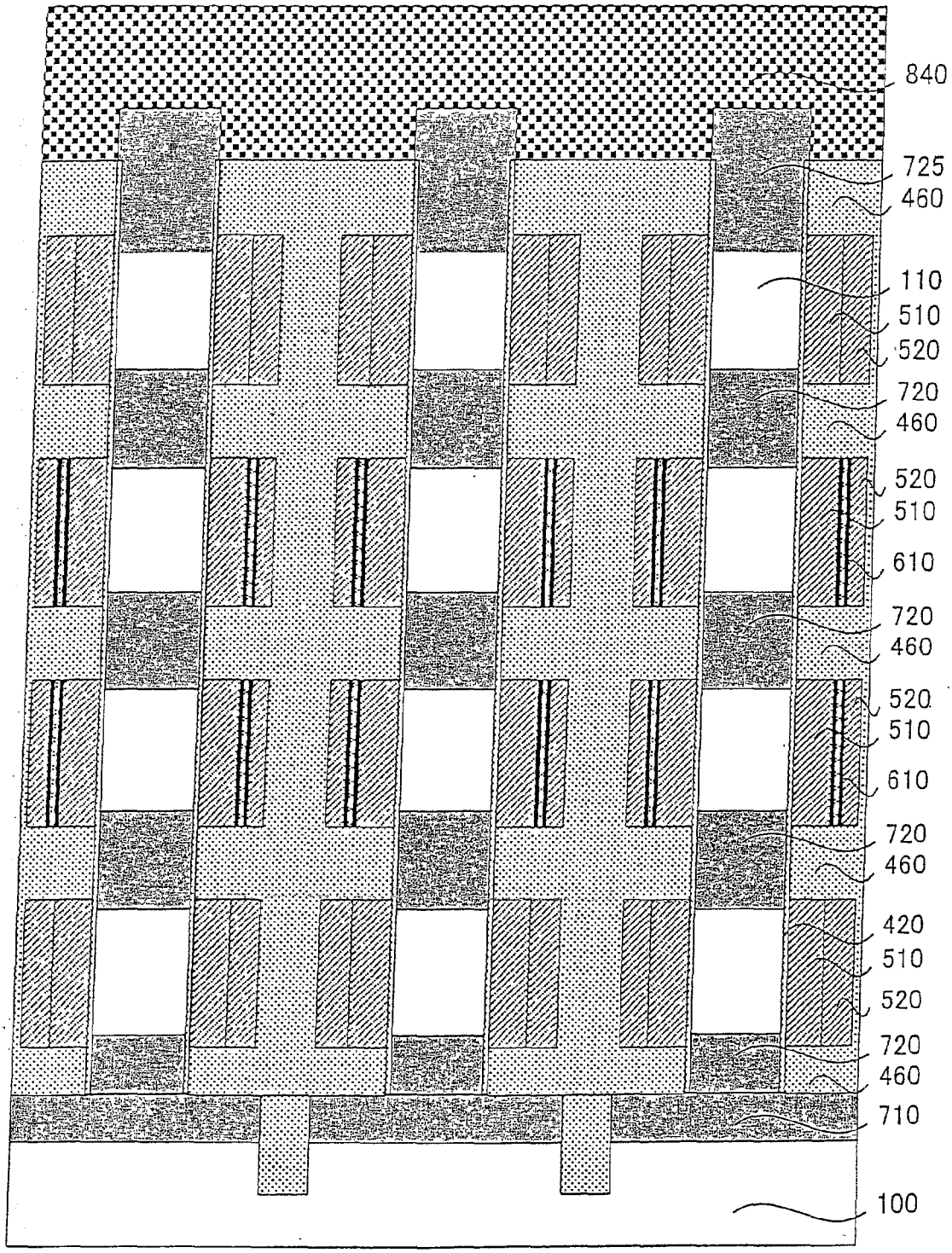

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Fig. 25

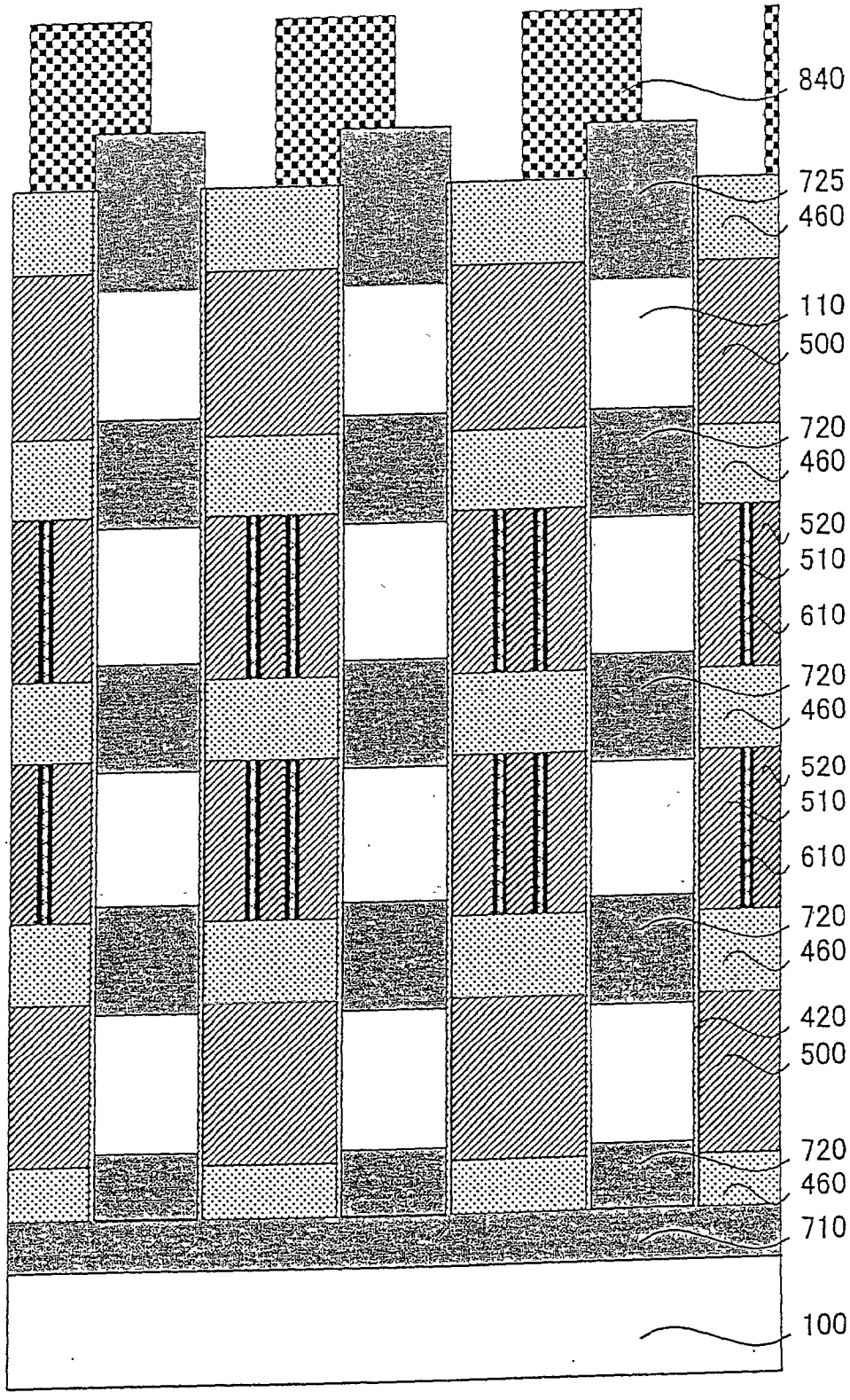

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Fig. 26

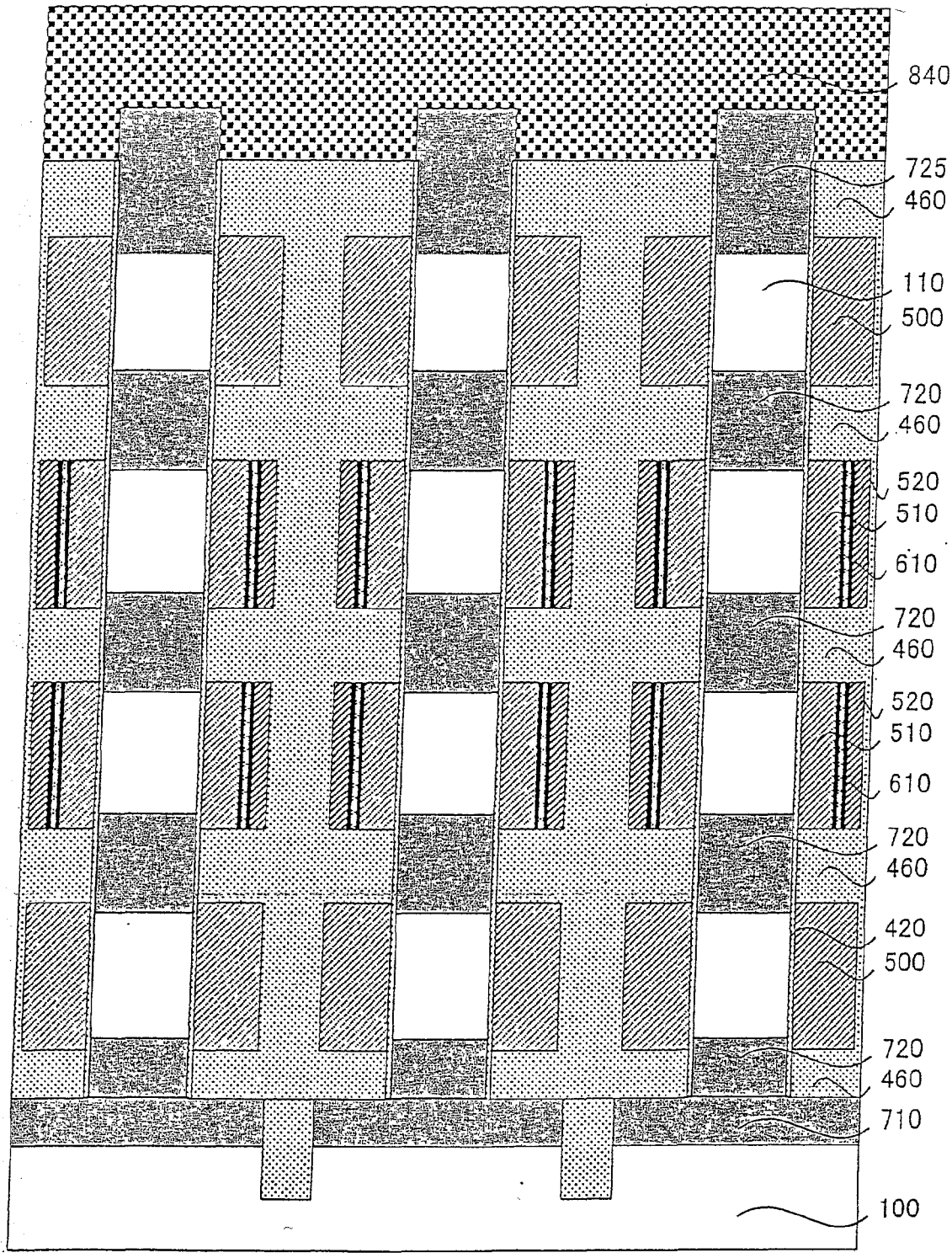

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Fig. 27

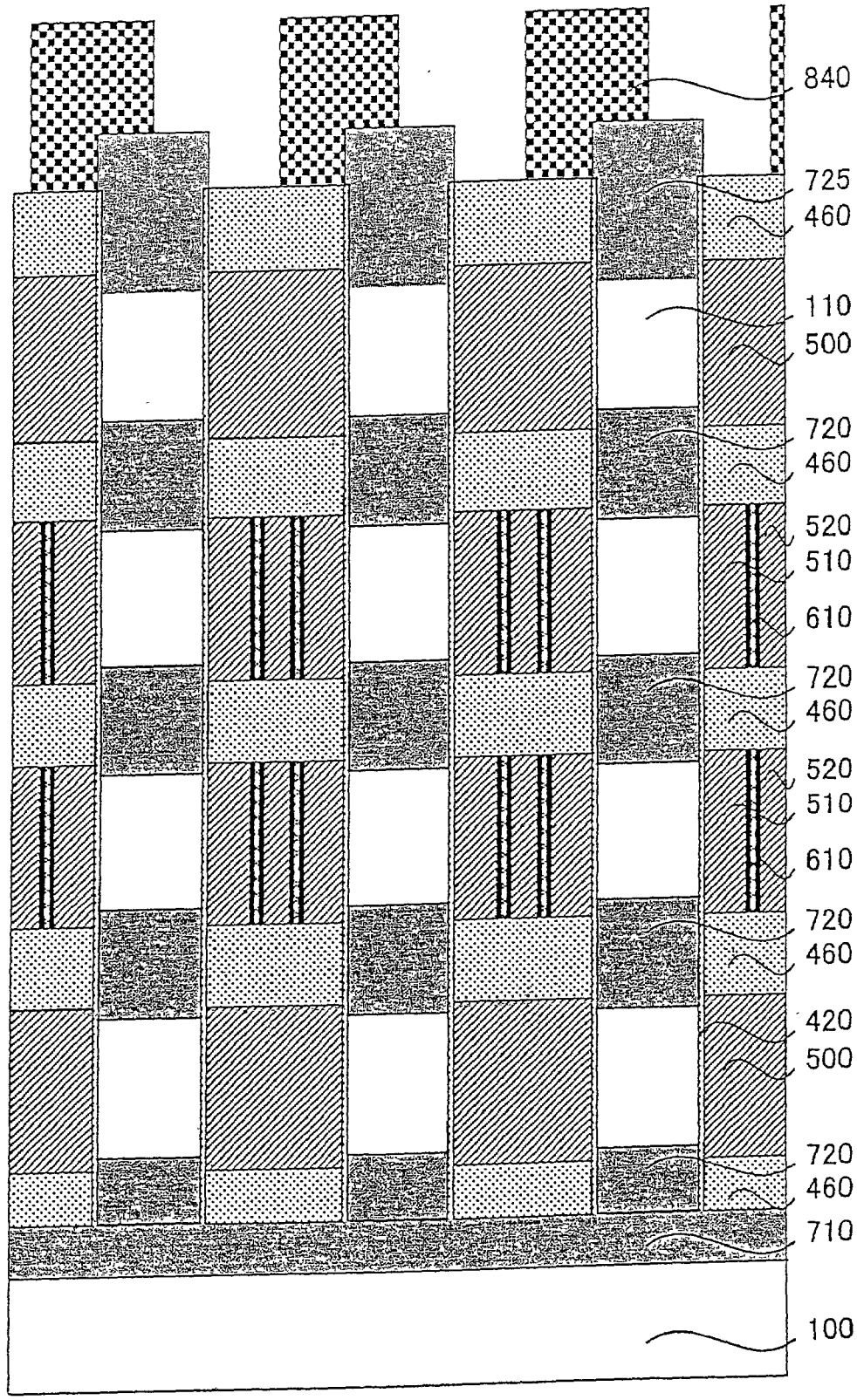

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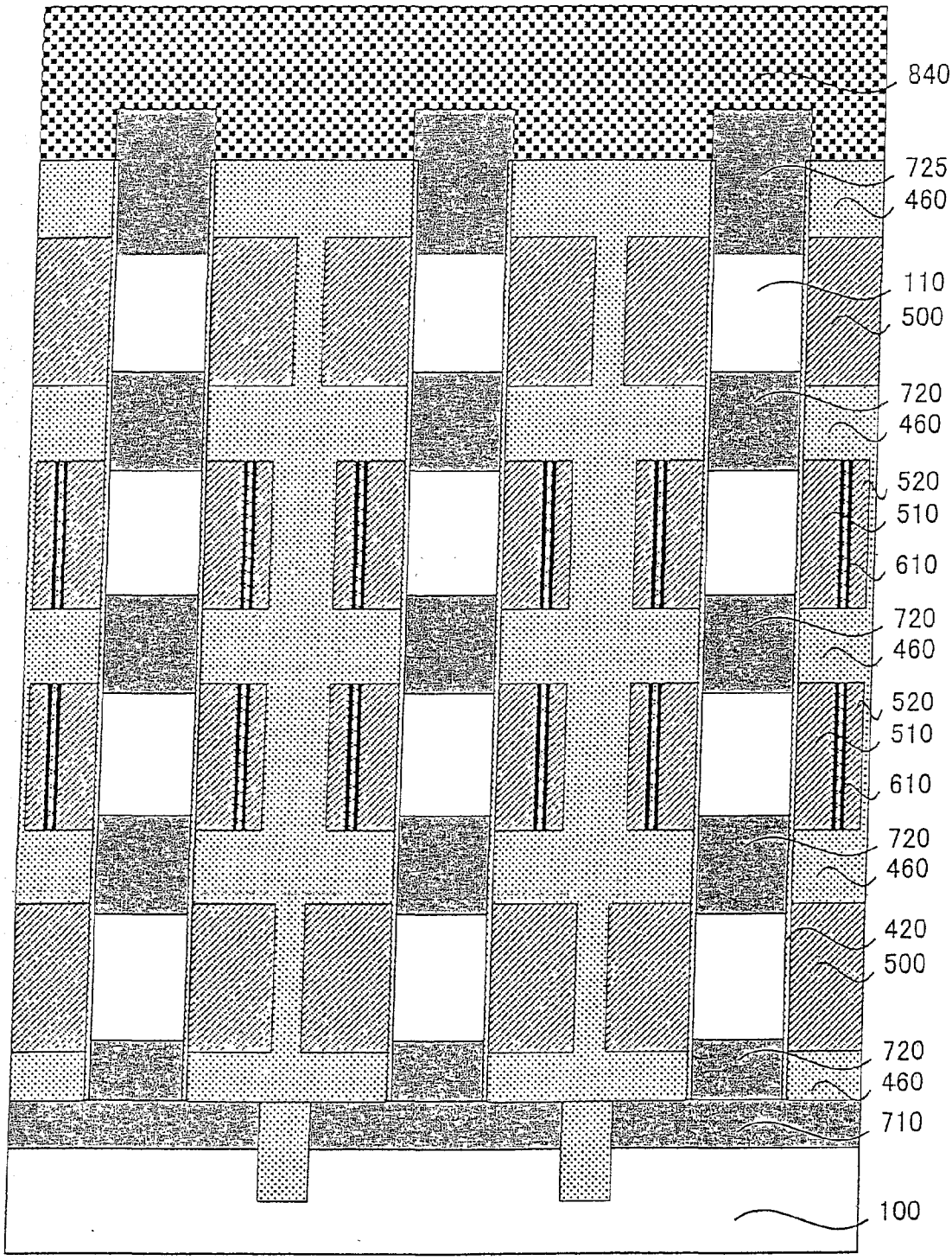

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Fig. 29

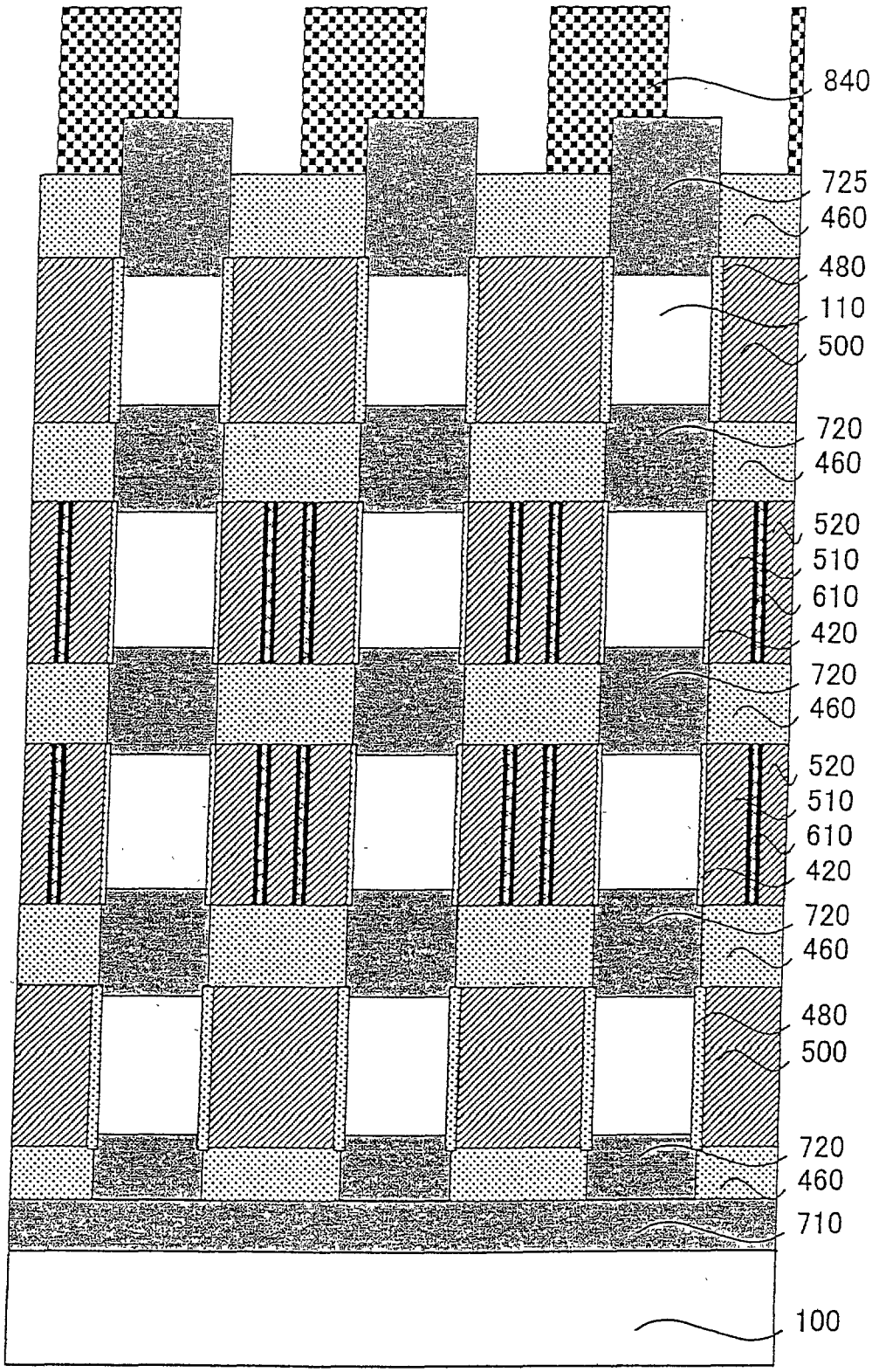

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Fig. 30

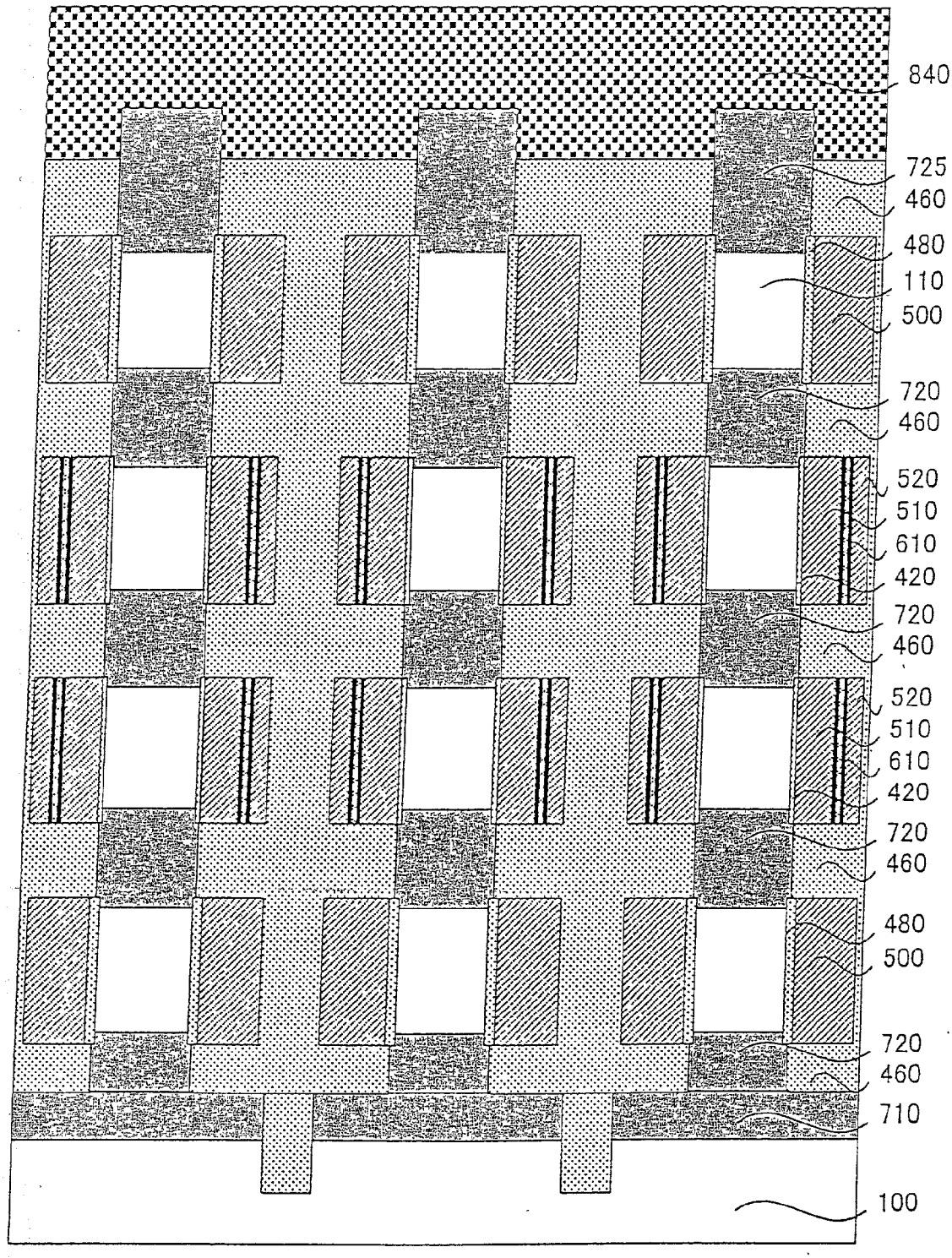

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Fig. 31

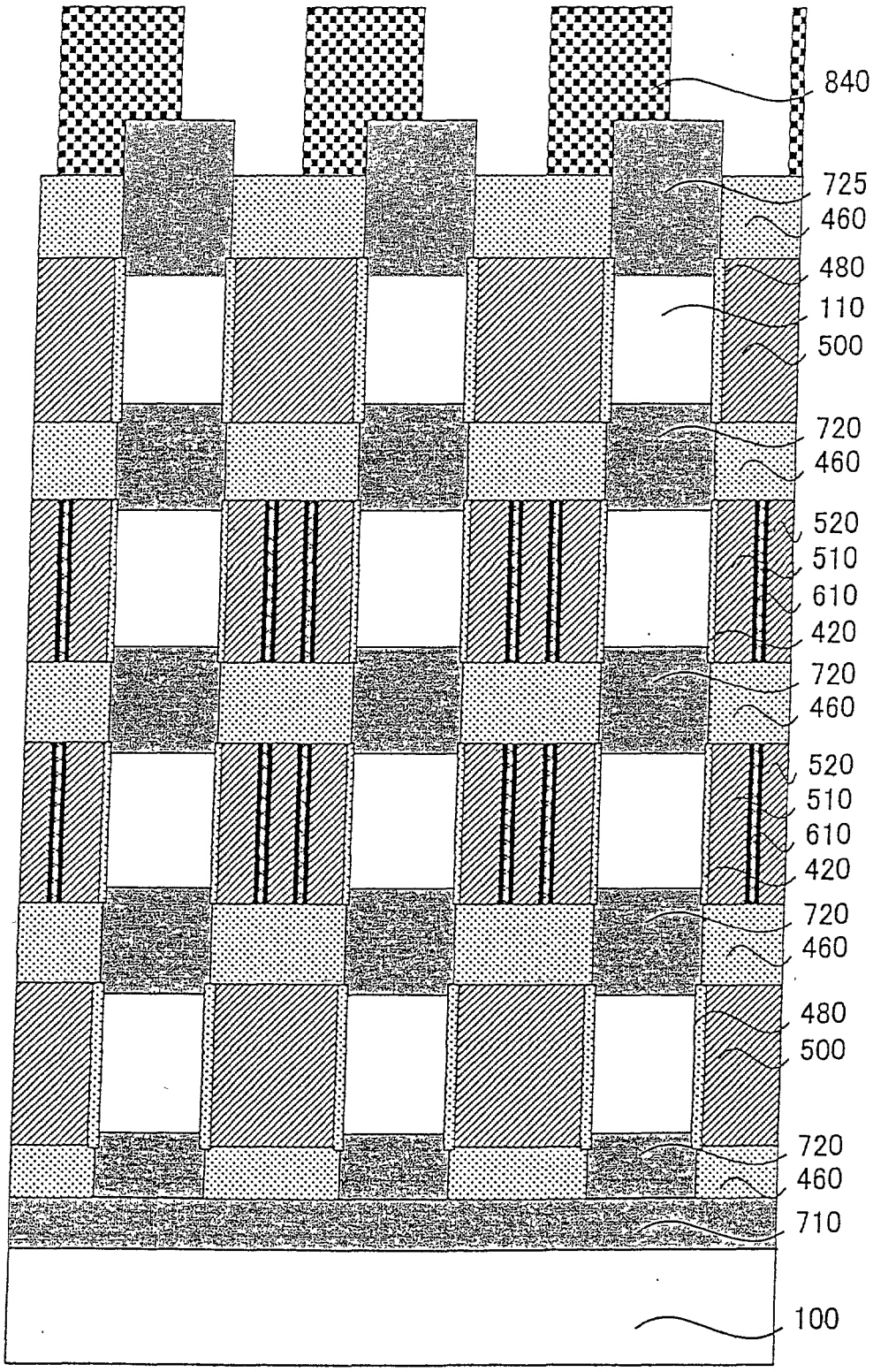

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Fig. 32

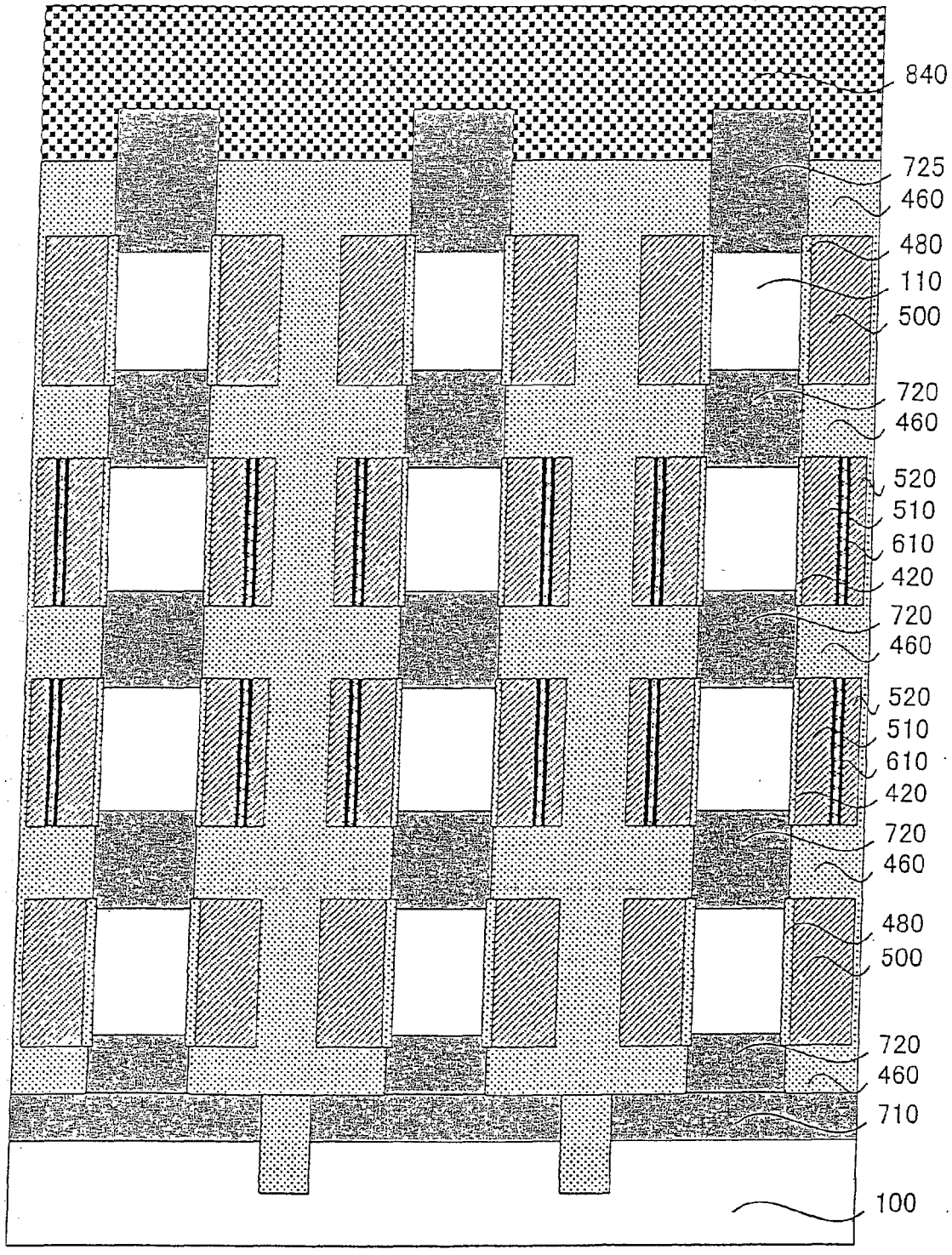

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Fig. 33

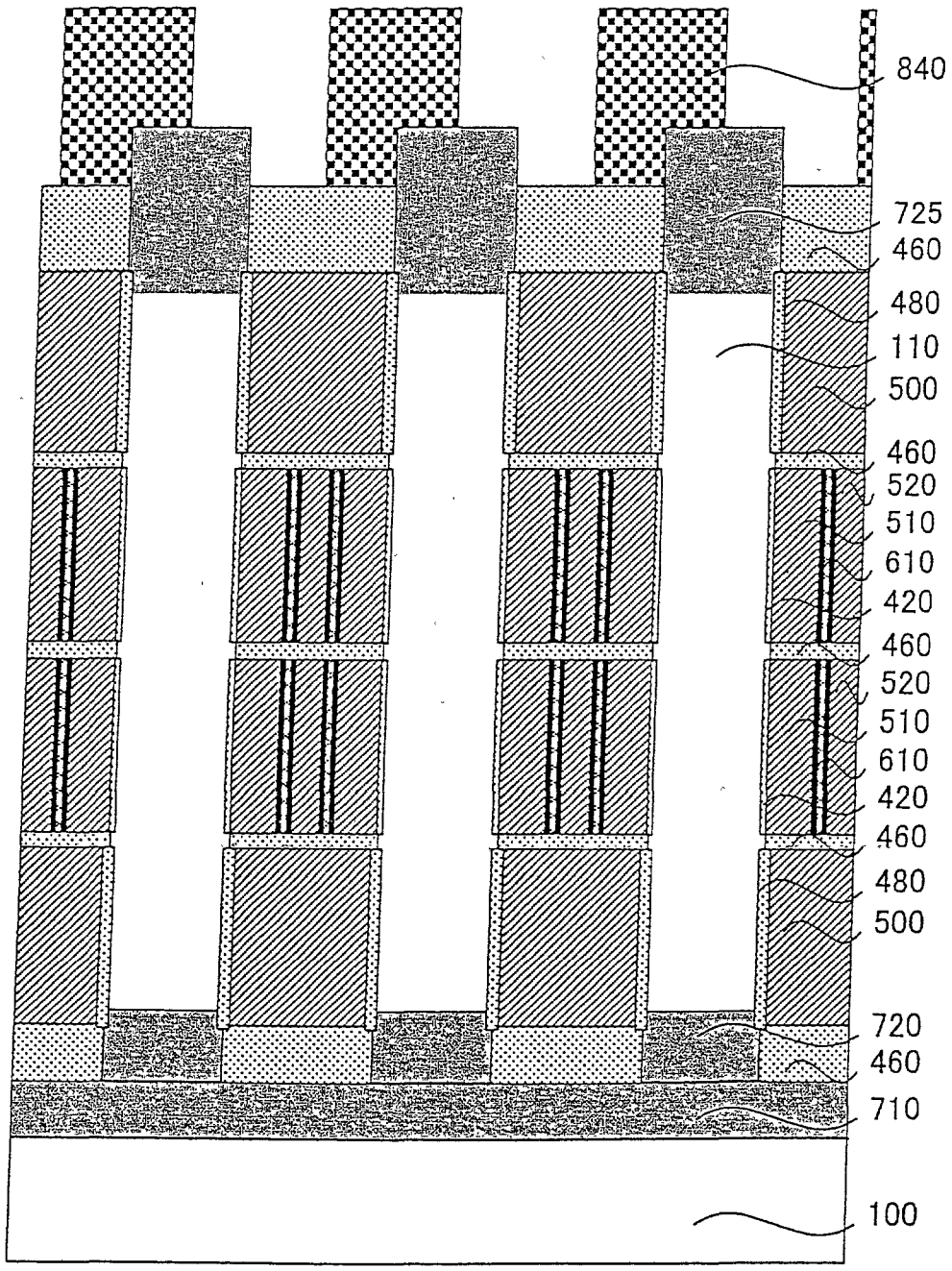

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Fig. 34

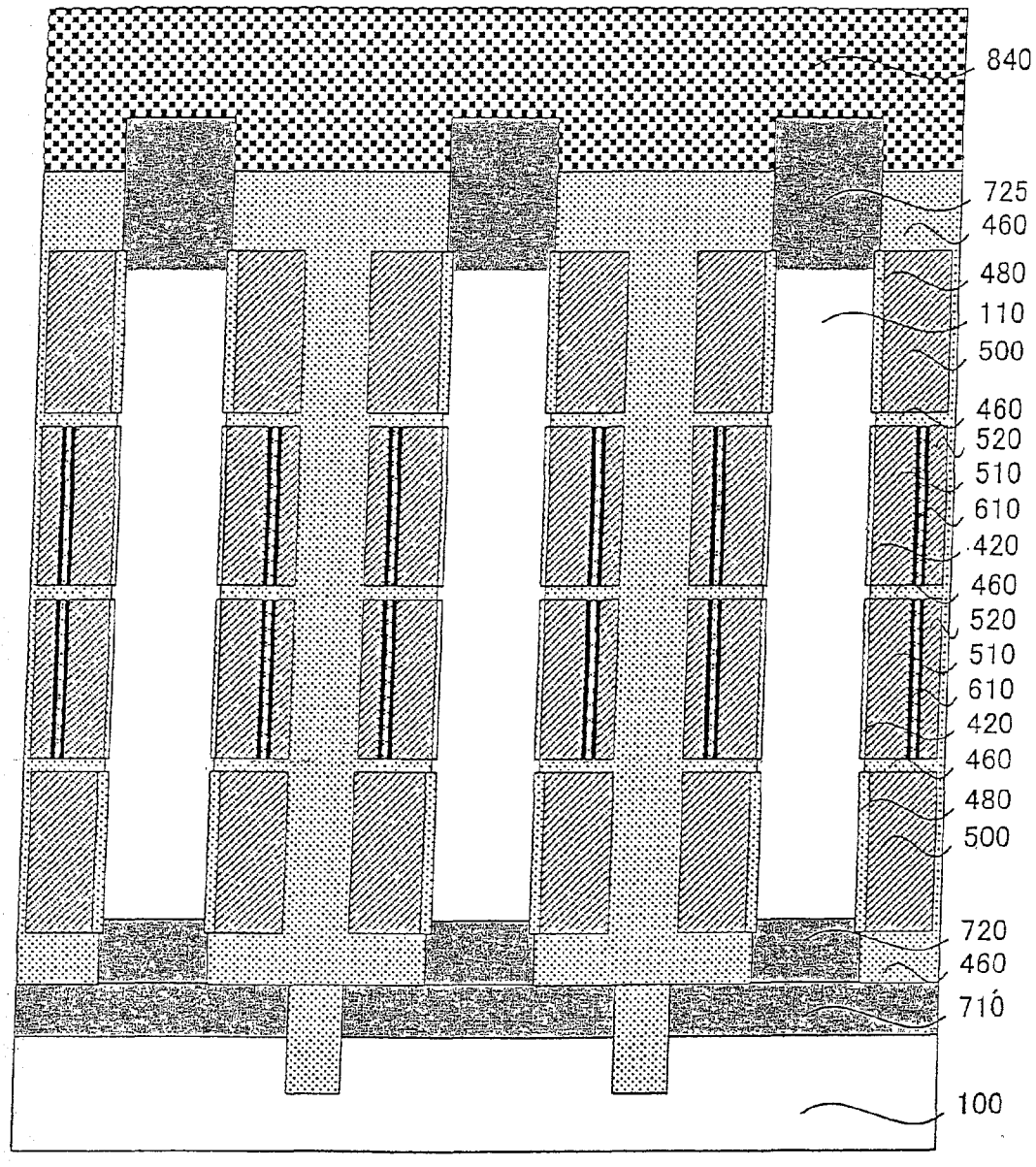

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Fig. 35

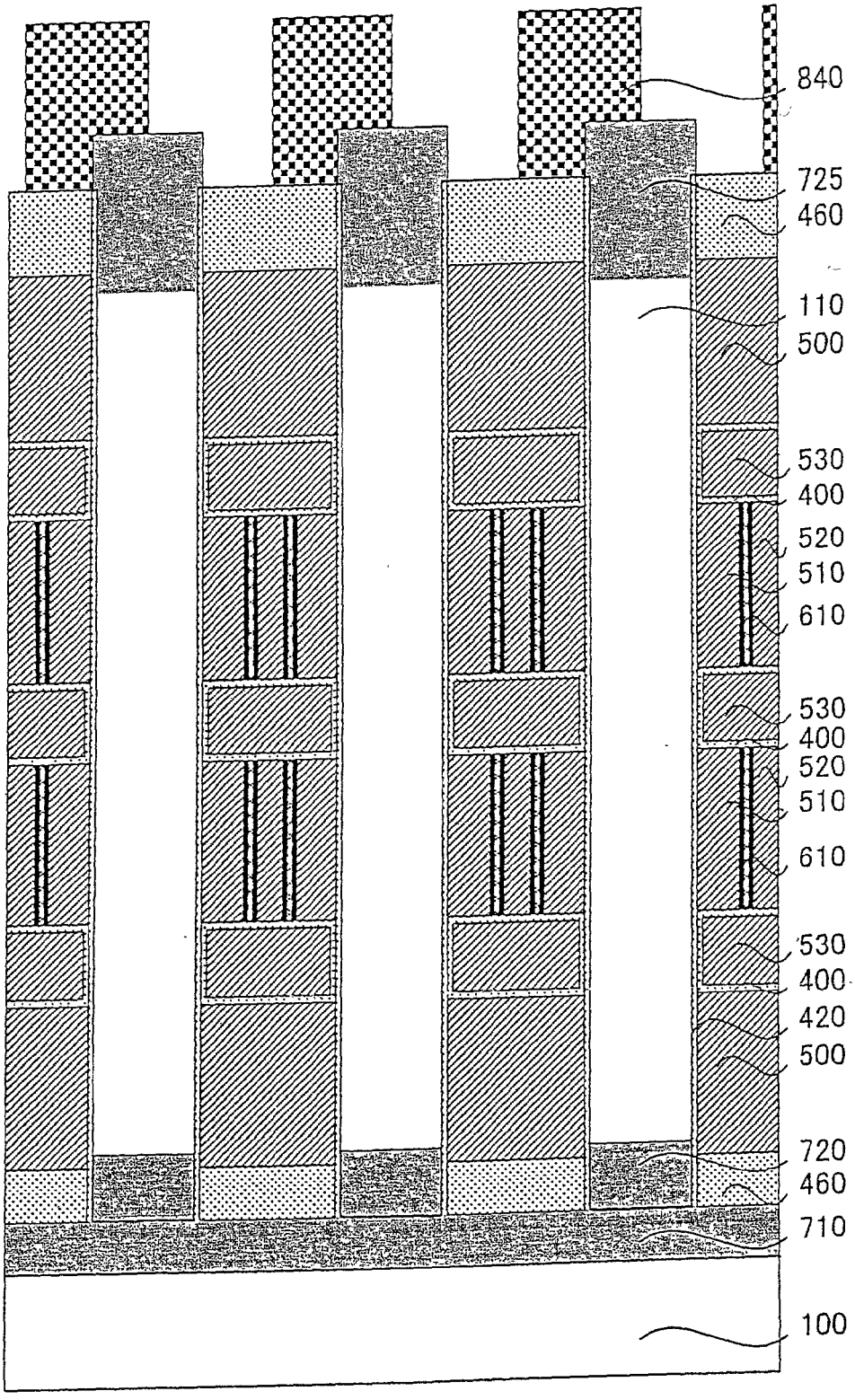

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720
460
710
100

Fig. 36

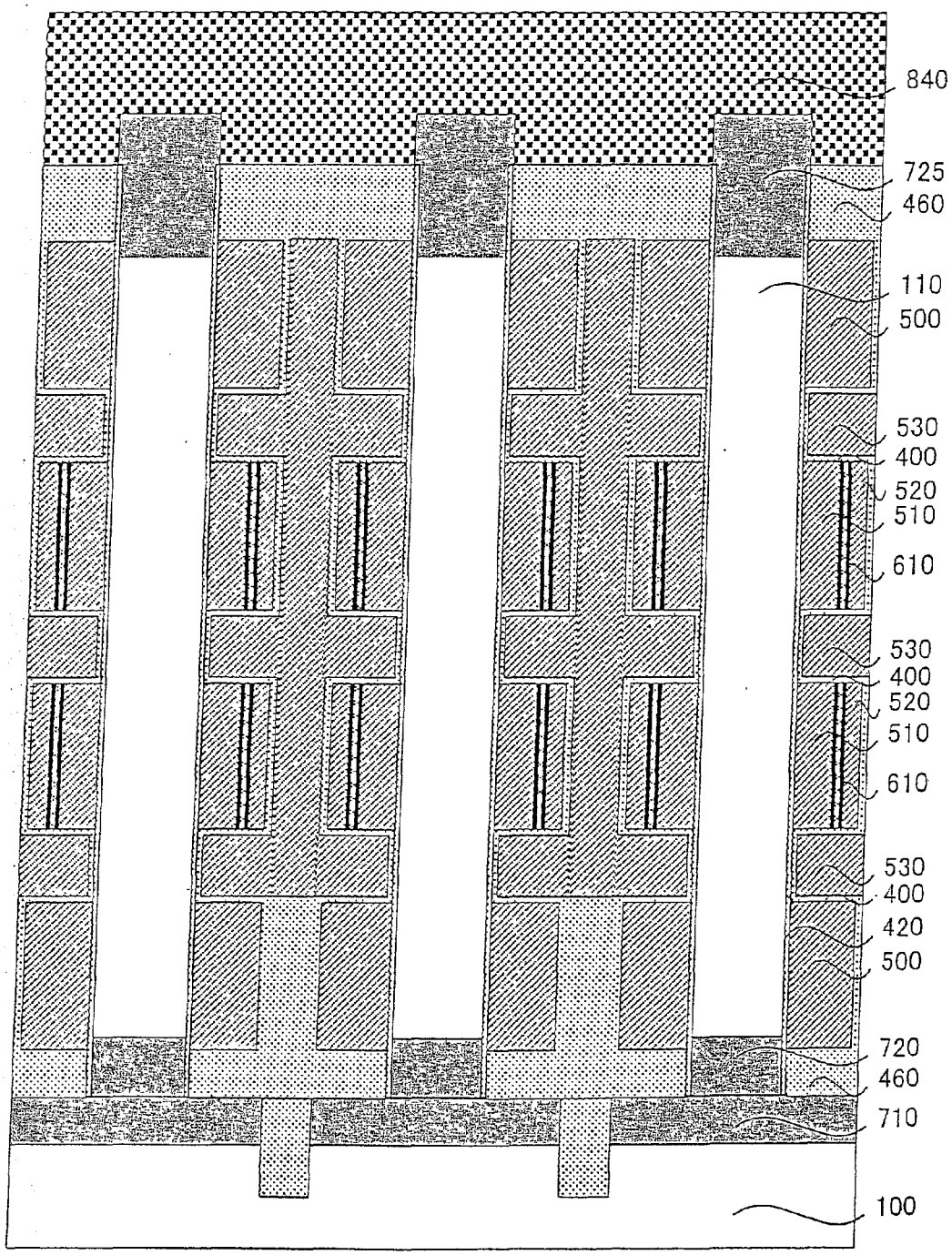

840
725
460
110
500
530
400
520
510
610
530
400
520
510
610
530
400
420
500
720
460
710
100

Fig. 37

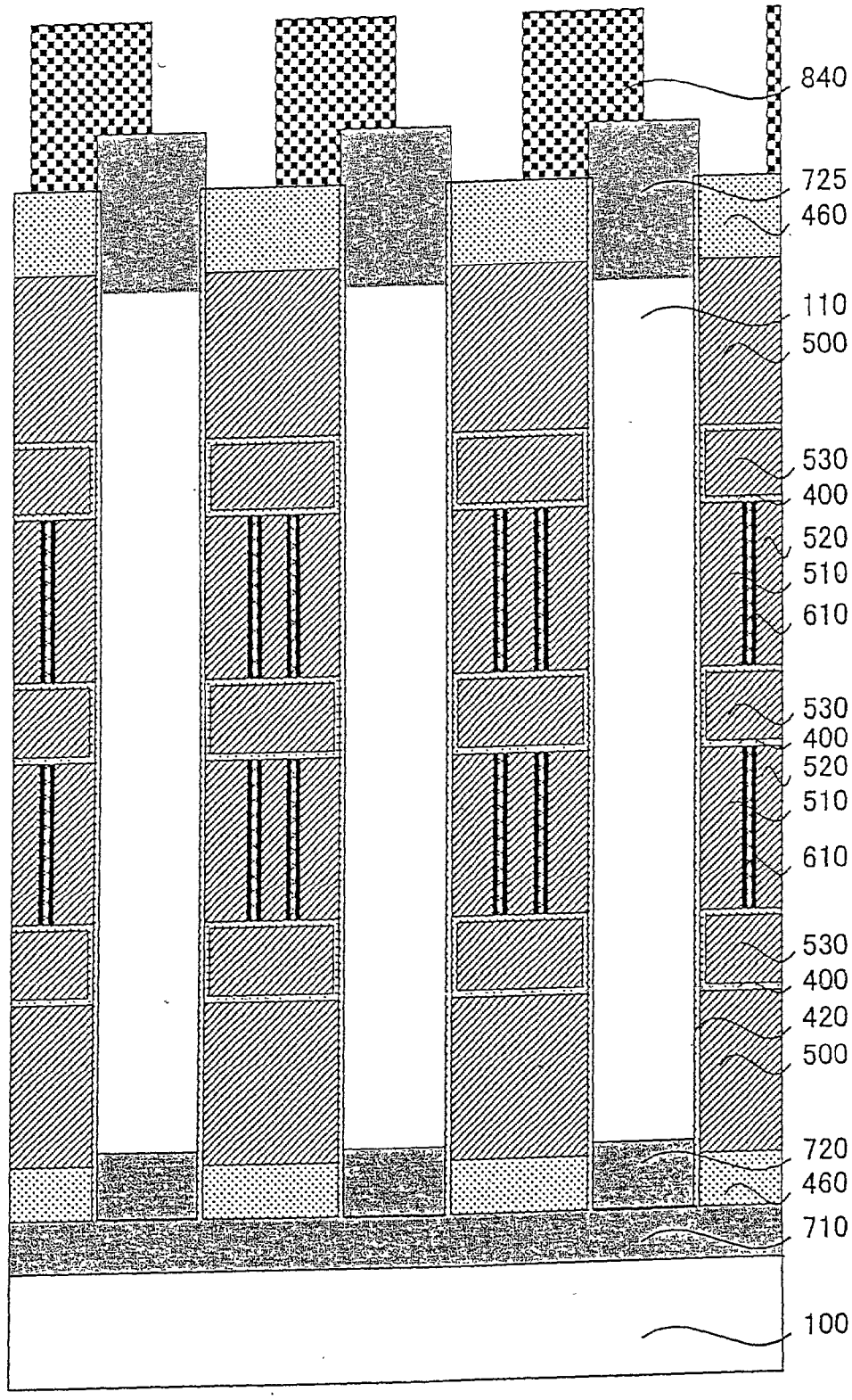

840
725
460
110
500
530
400
520
510
610
530
400
520
510
610
530
400
420
500
720
460
710
100

Fig. 38

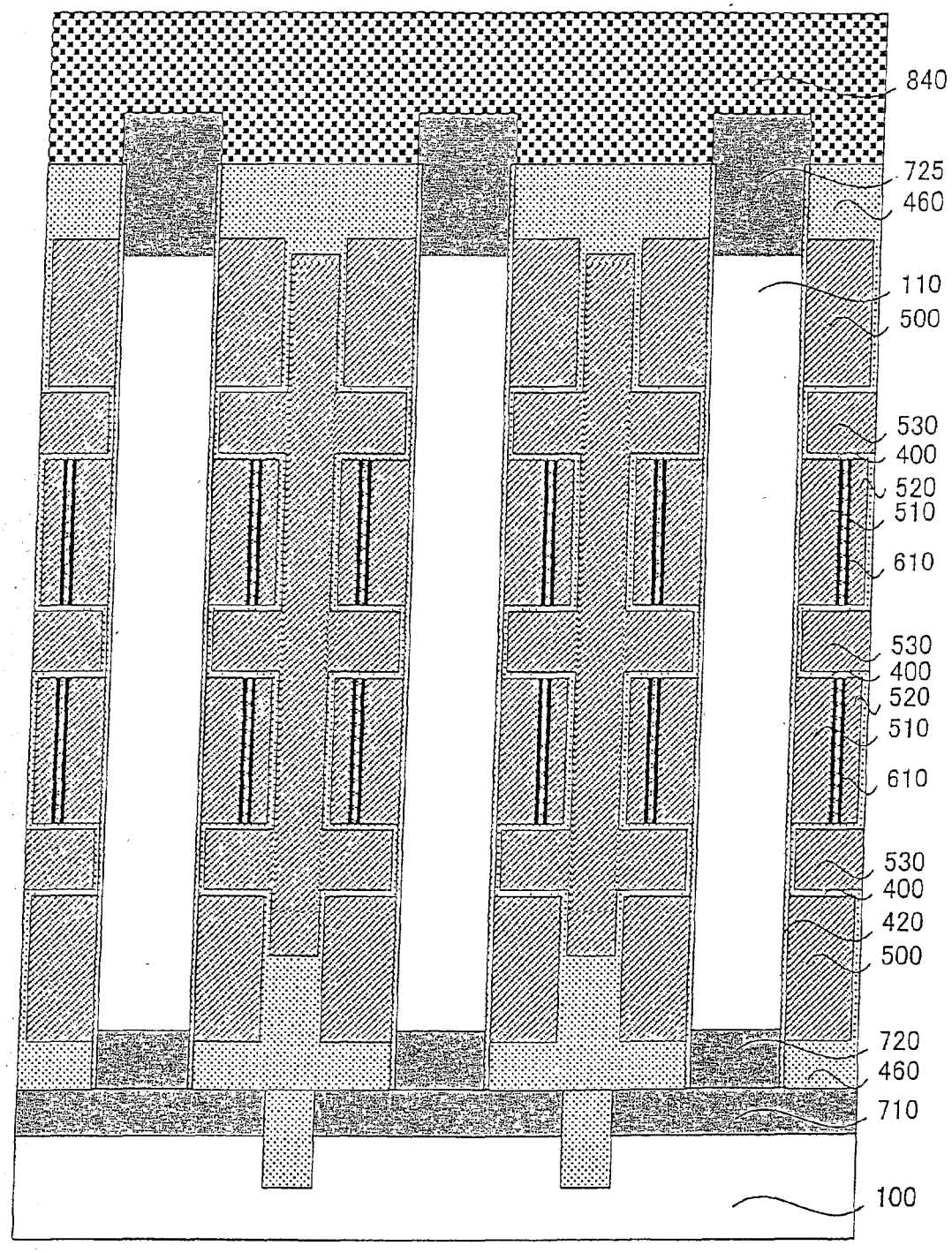

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725
460
110
500
530
400
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510
610
530
400
520
510
610
530
400
420
500
720
460
710
100

Fig. 39

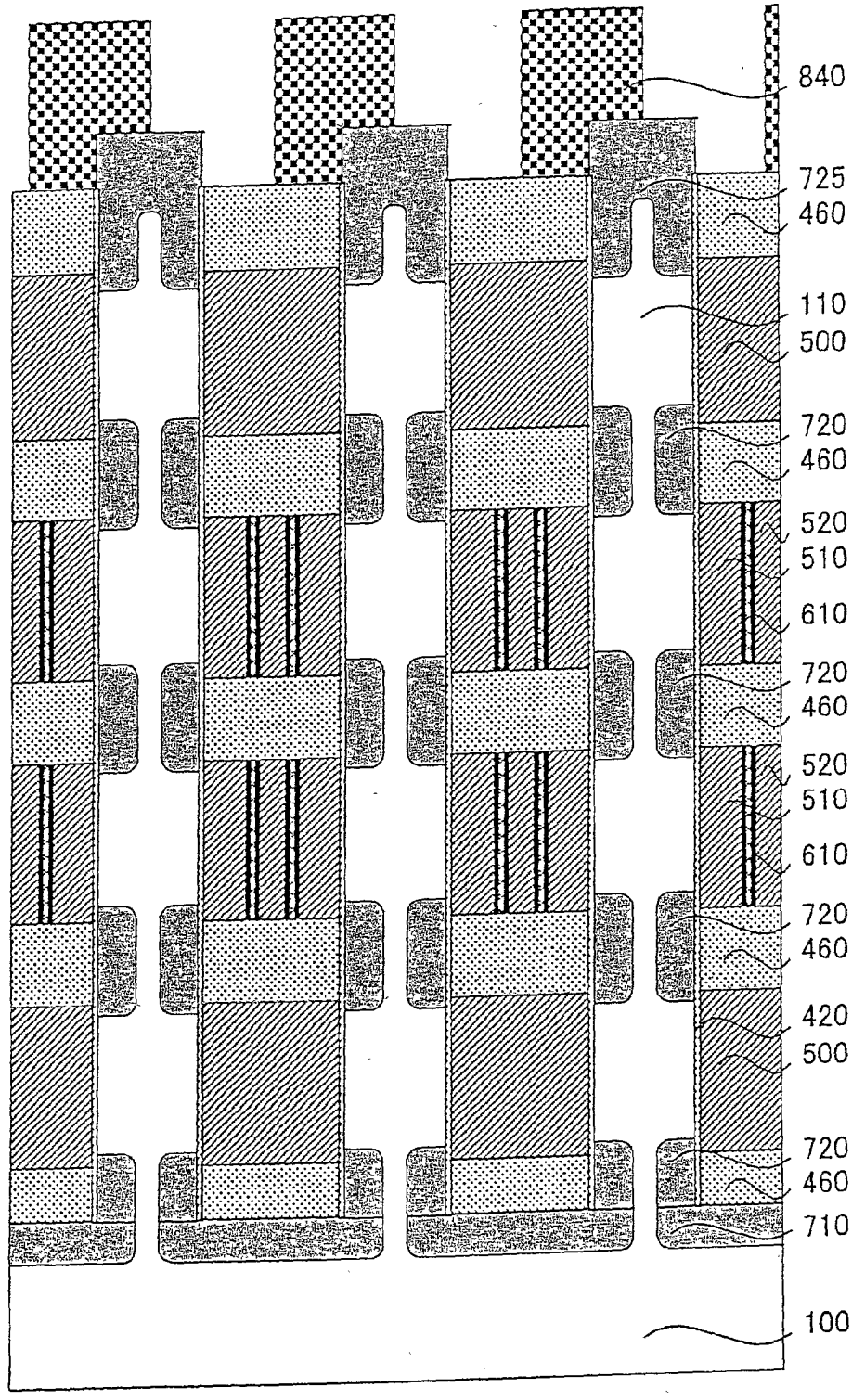

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725
460
110
500
720
460
520
510
610
720
460
520
510
610
720
460
420
500
720
460
710
100

Fig. 40

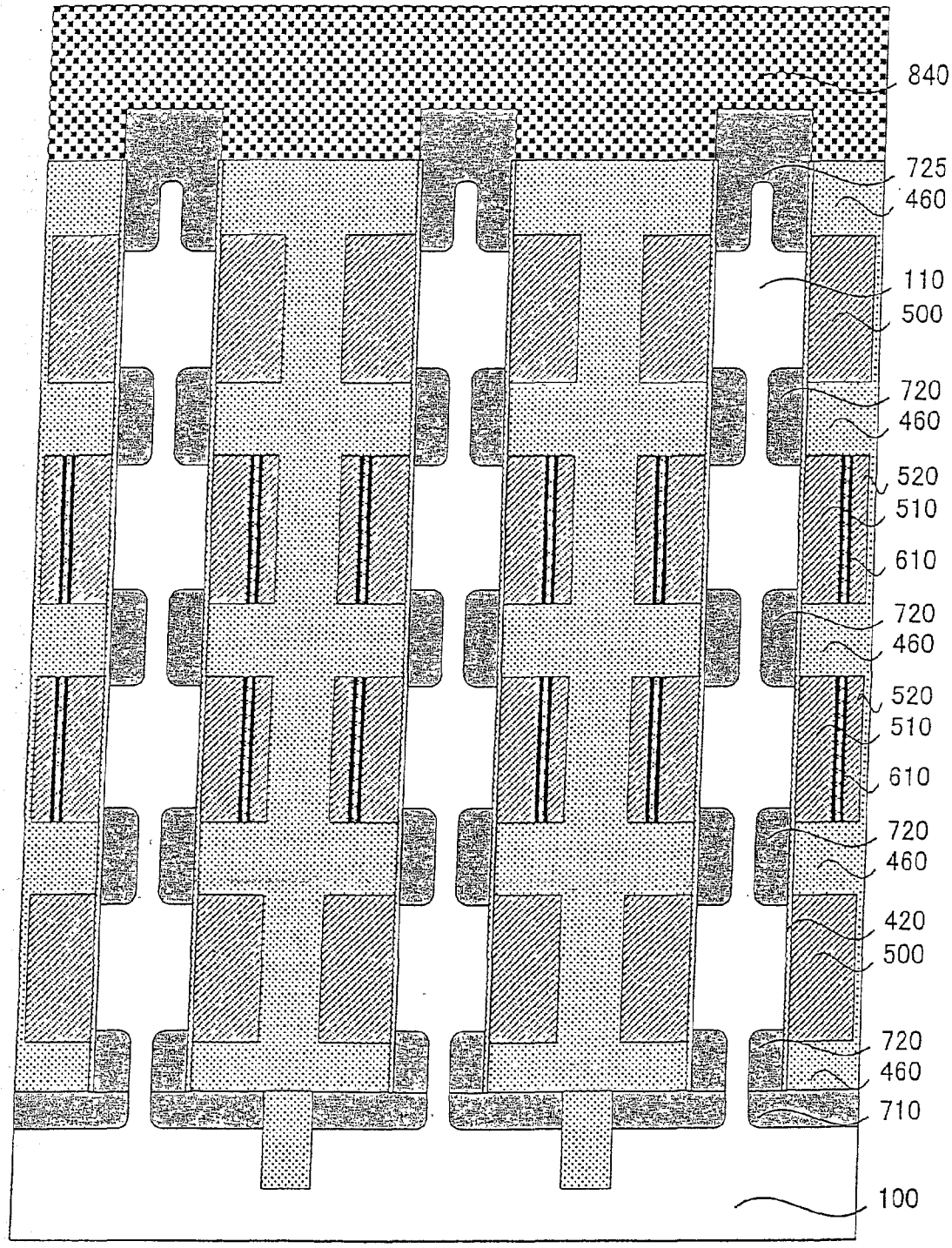

840
725
460
110
500
720
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510
610
720
460
520
510
610
720
460
420
500
720
460
710
100

Fig. 41

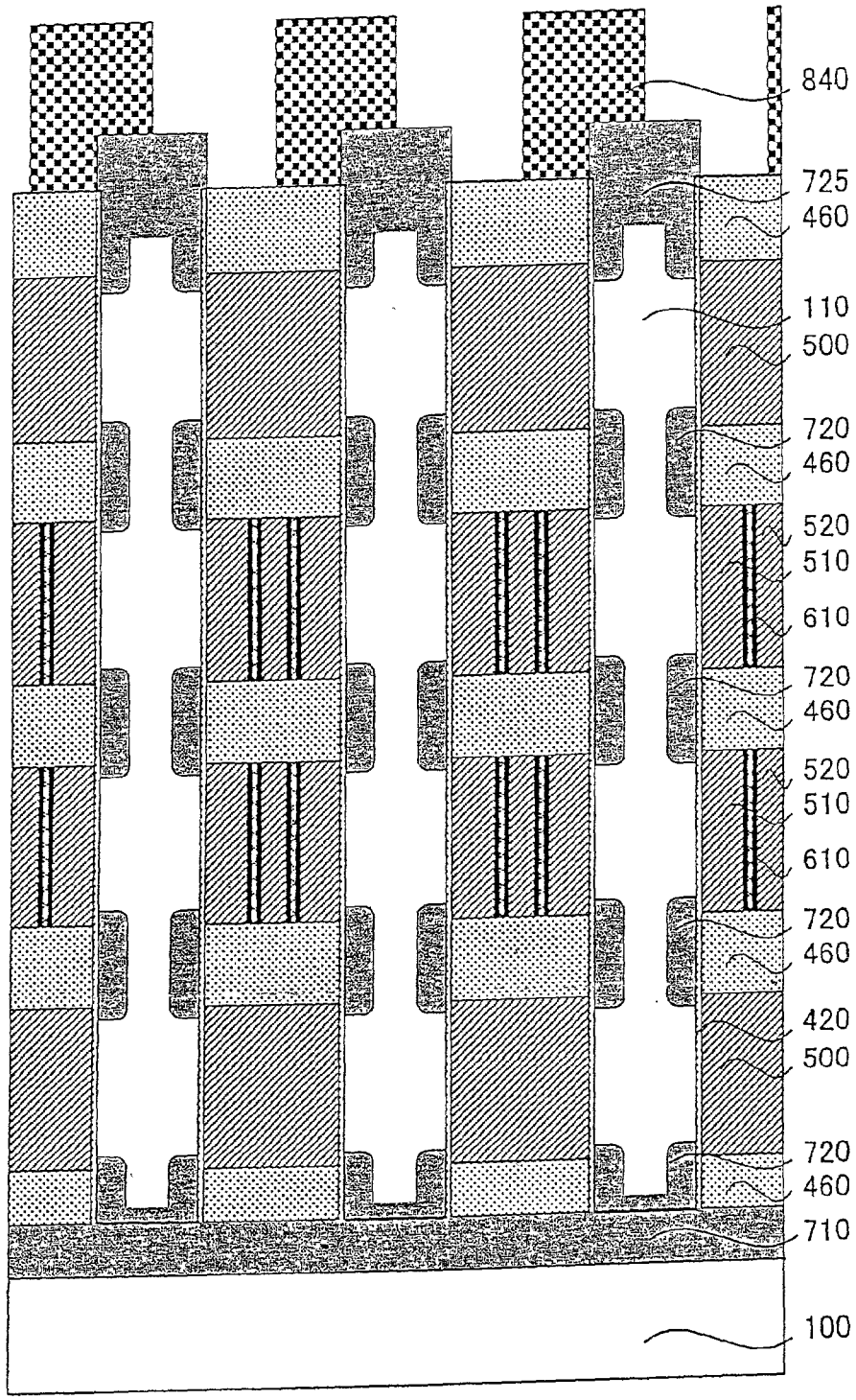

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725
460
110
500
720
460
520
510
610
720
460
520
510
610
720
460
420
500
720
460
710
100

Fig. 42

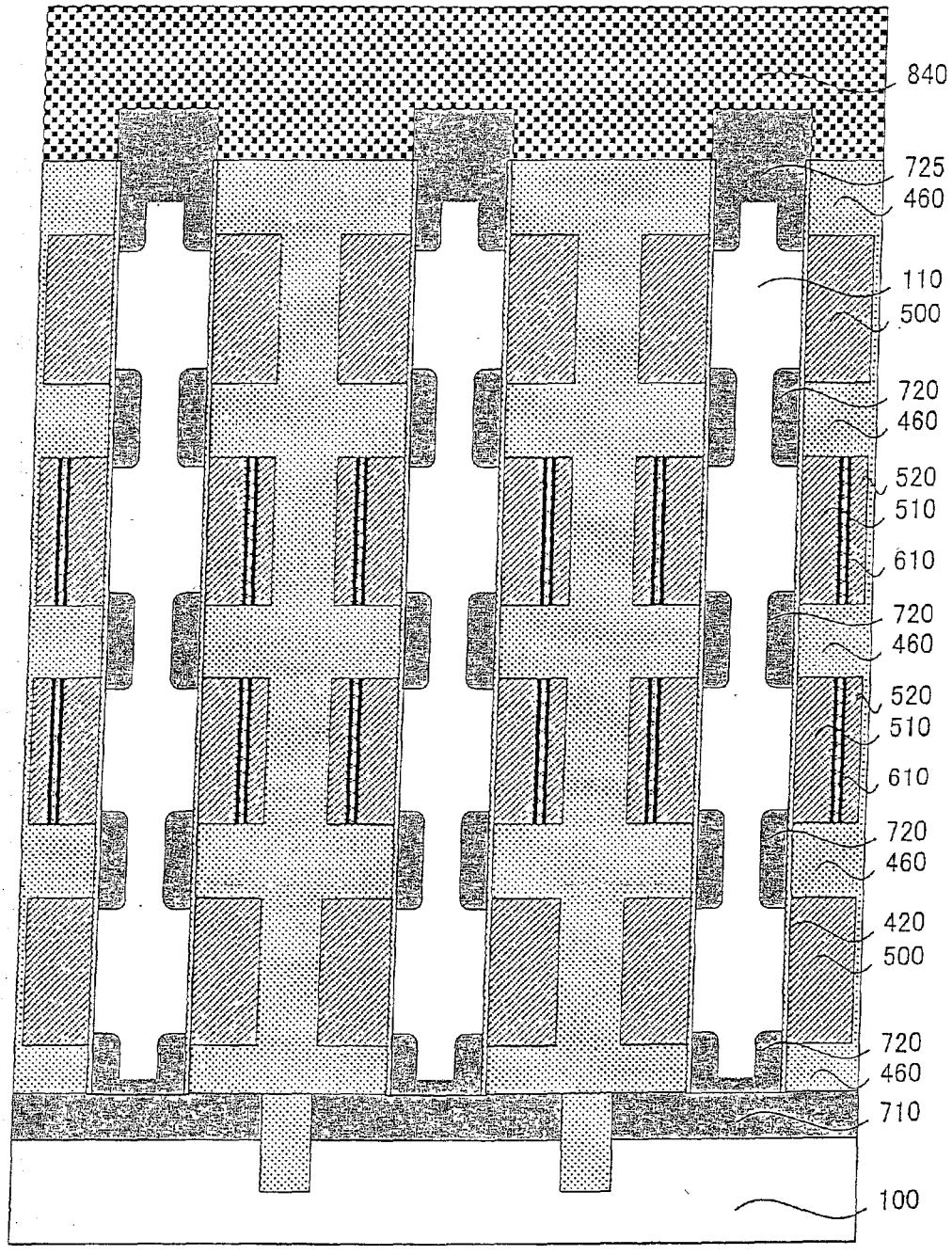

840
725
460
110
500
720
460
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510
610
720
460
520
510
610
720
460
420
500
720
460
710
100

Fig. 43

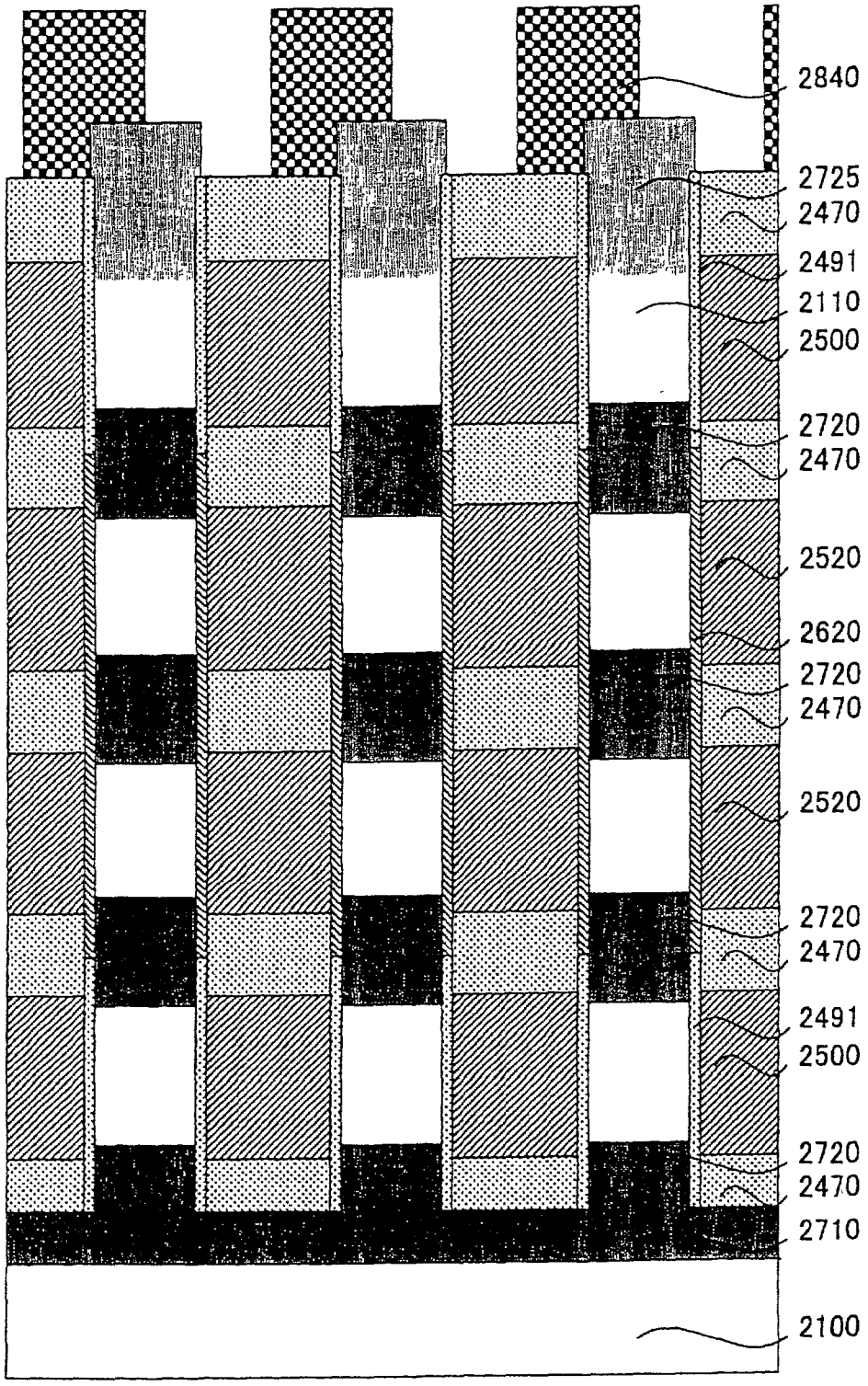

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2725
2470
2491
2110
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2720
2470
2520
2620
2720
2470
2520
2720
2470
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2500
2720
2470
2710
2100

Fig. 44

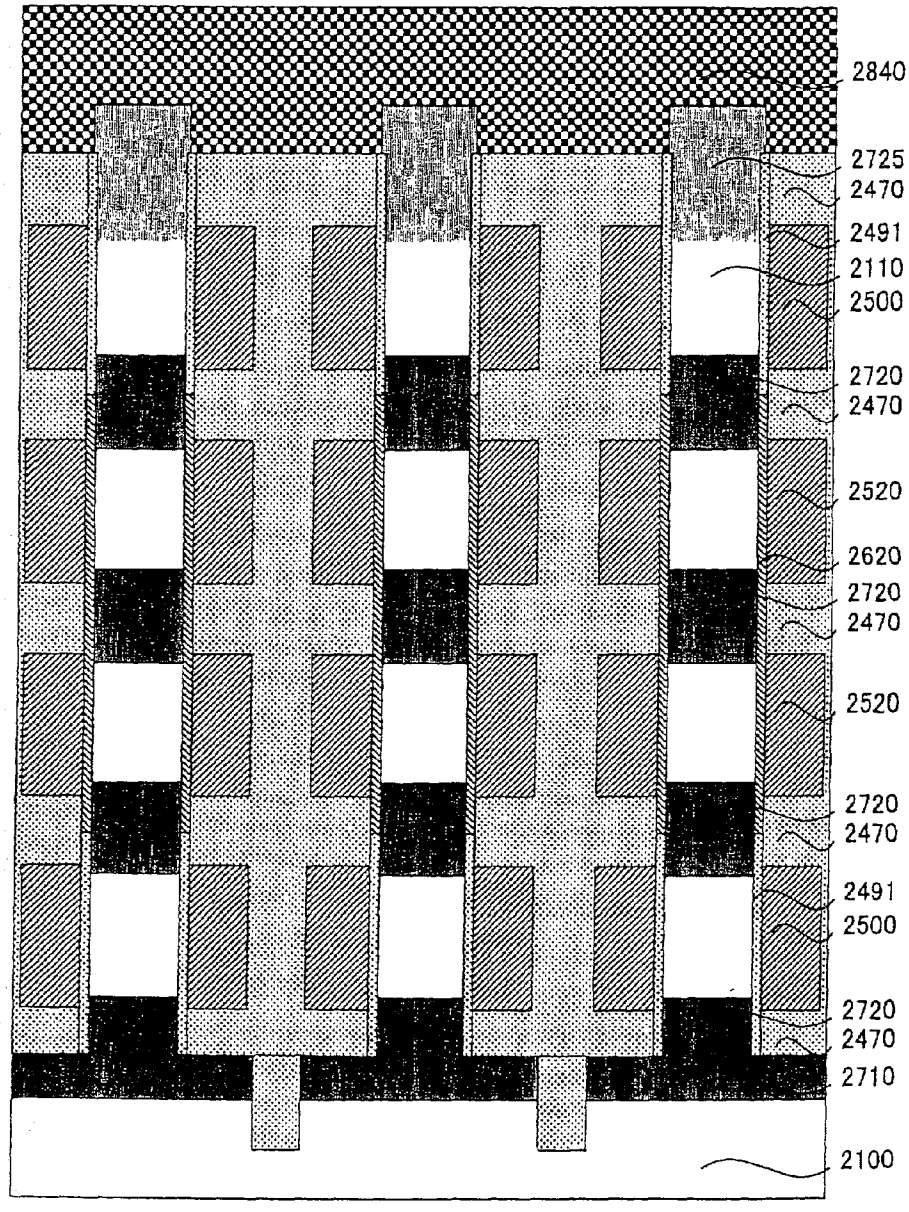

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2491
2110
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2520
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2720
2470
2520
2720
2470
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2500
2720
2470
2710
2100

Fig. 45

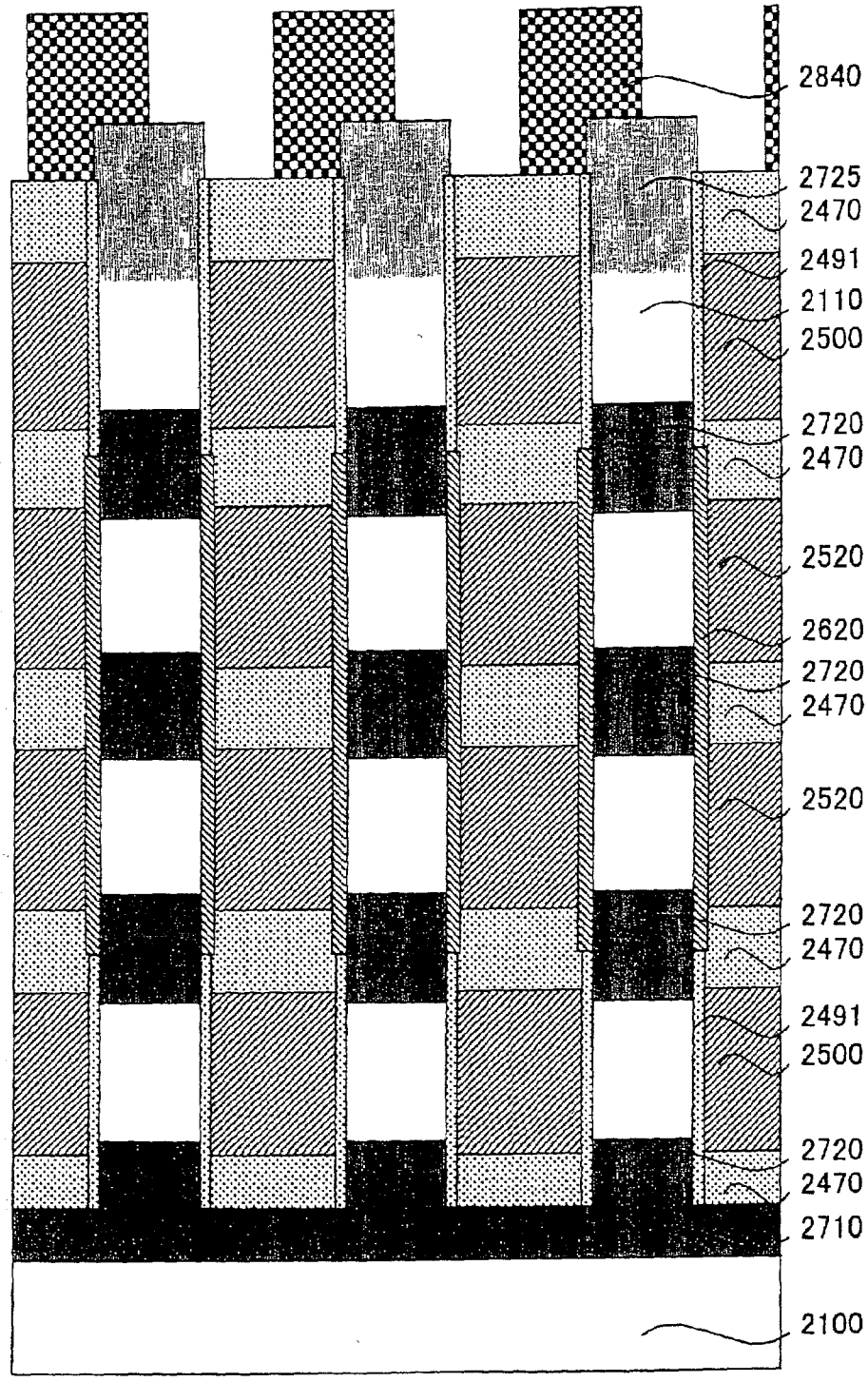

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2491
2110
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2520
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2720
2470
2520
2720
2470
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2470
2710
2100

Fig. 46

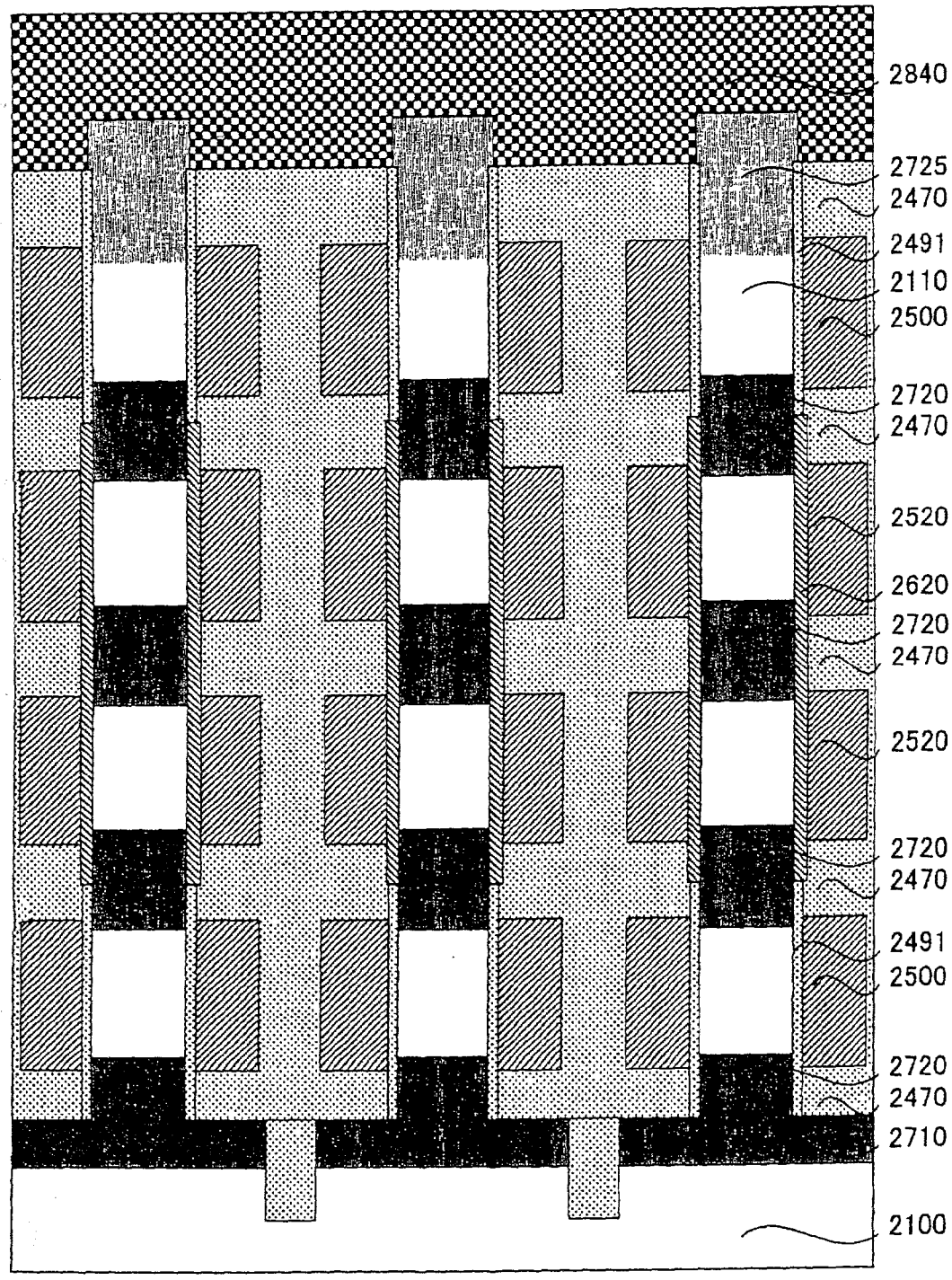

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2470
2520
2620
2720
2470
2520
2720
2470
2491
2500
2720
2470
2710
2100

Fig. 47

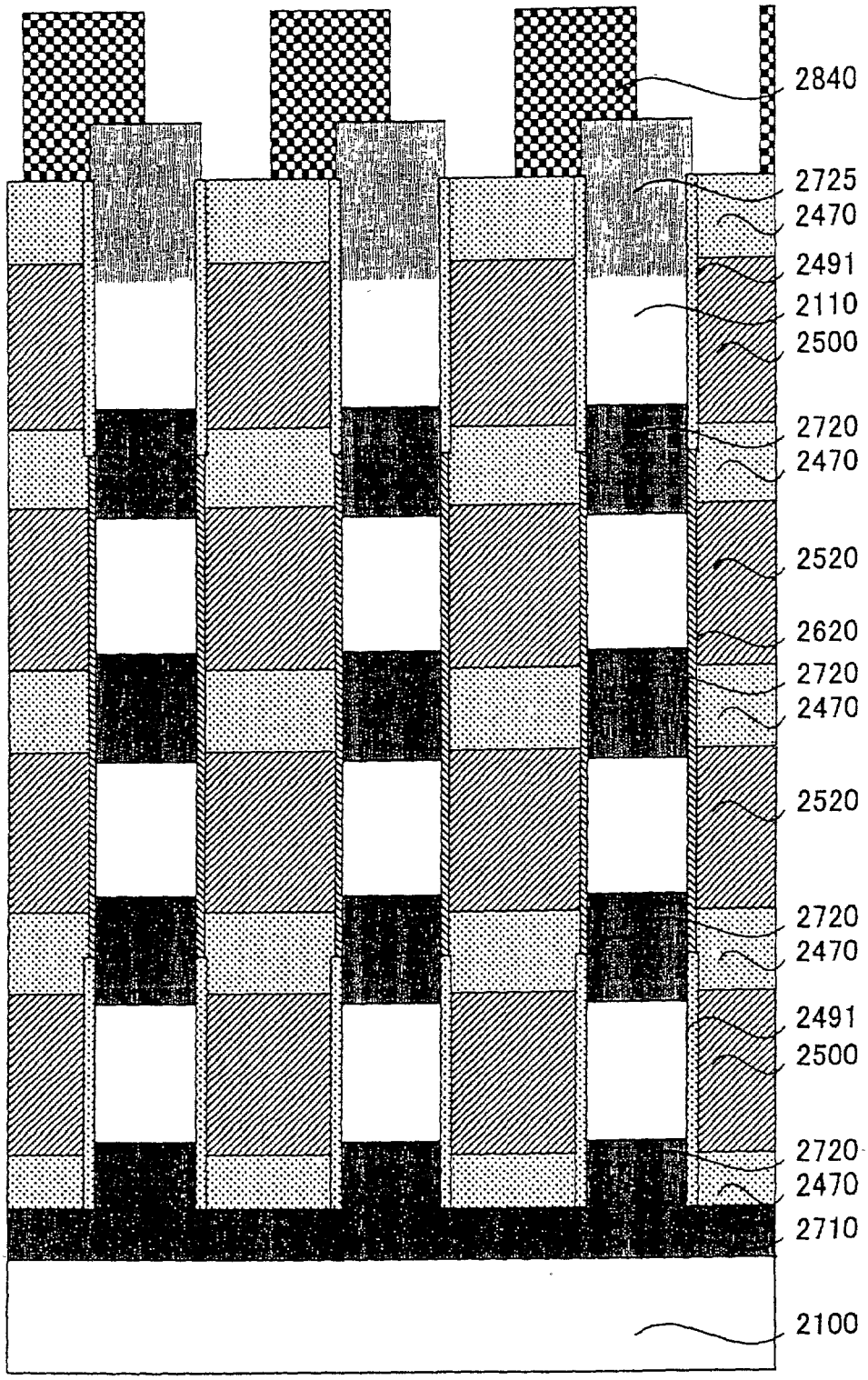

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2491
2110
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2520
2620
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2470
2520
2720
2470
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2500
2720
2470
2710
2100

Fig. 48

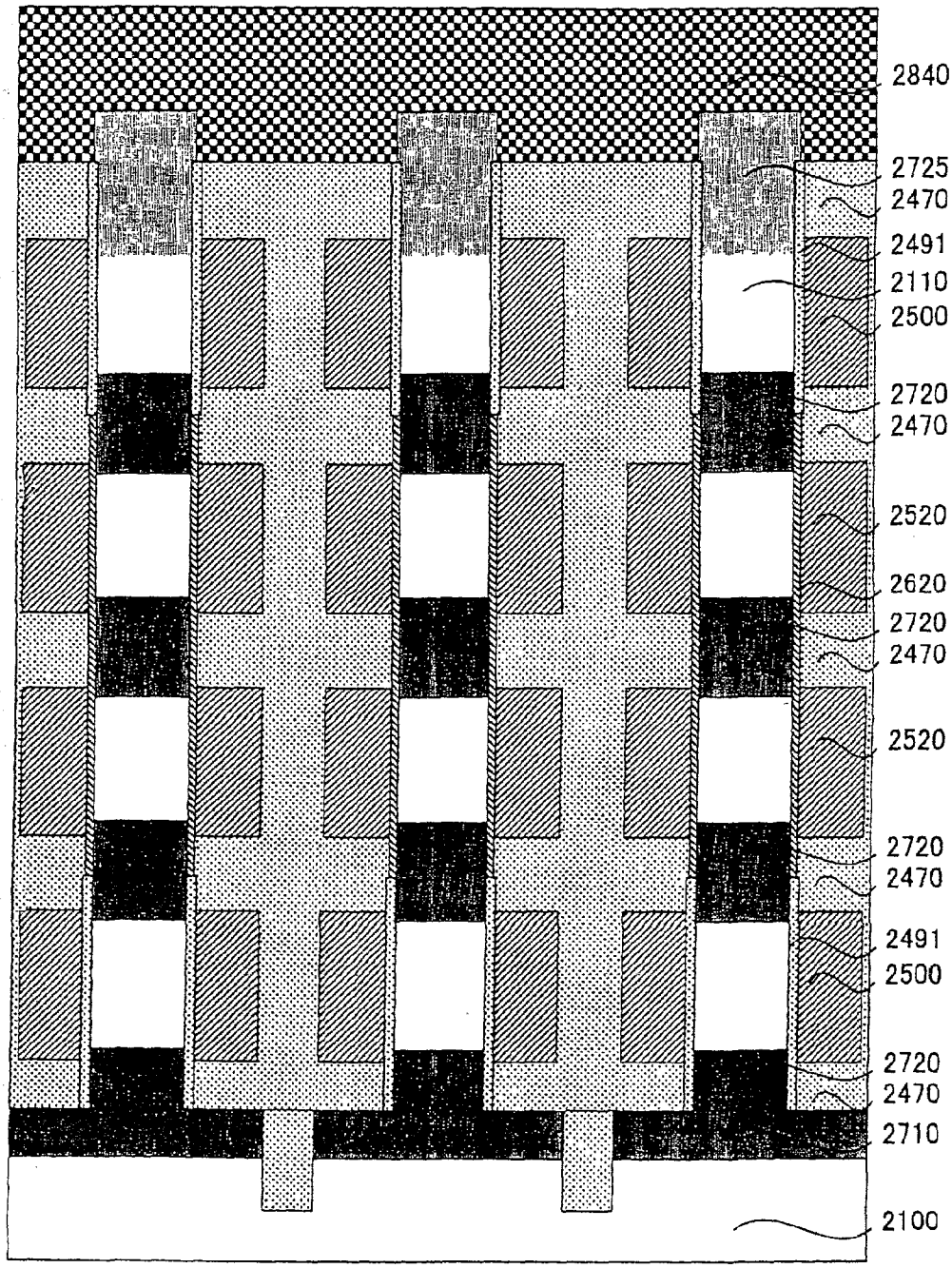

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2725
2470
2491
2110
2500
2720
2470
2520
2620
2720
2470
2520
2720
2470
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2500
2720
2470
2710
2100

Fig. 49

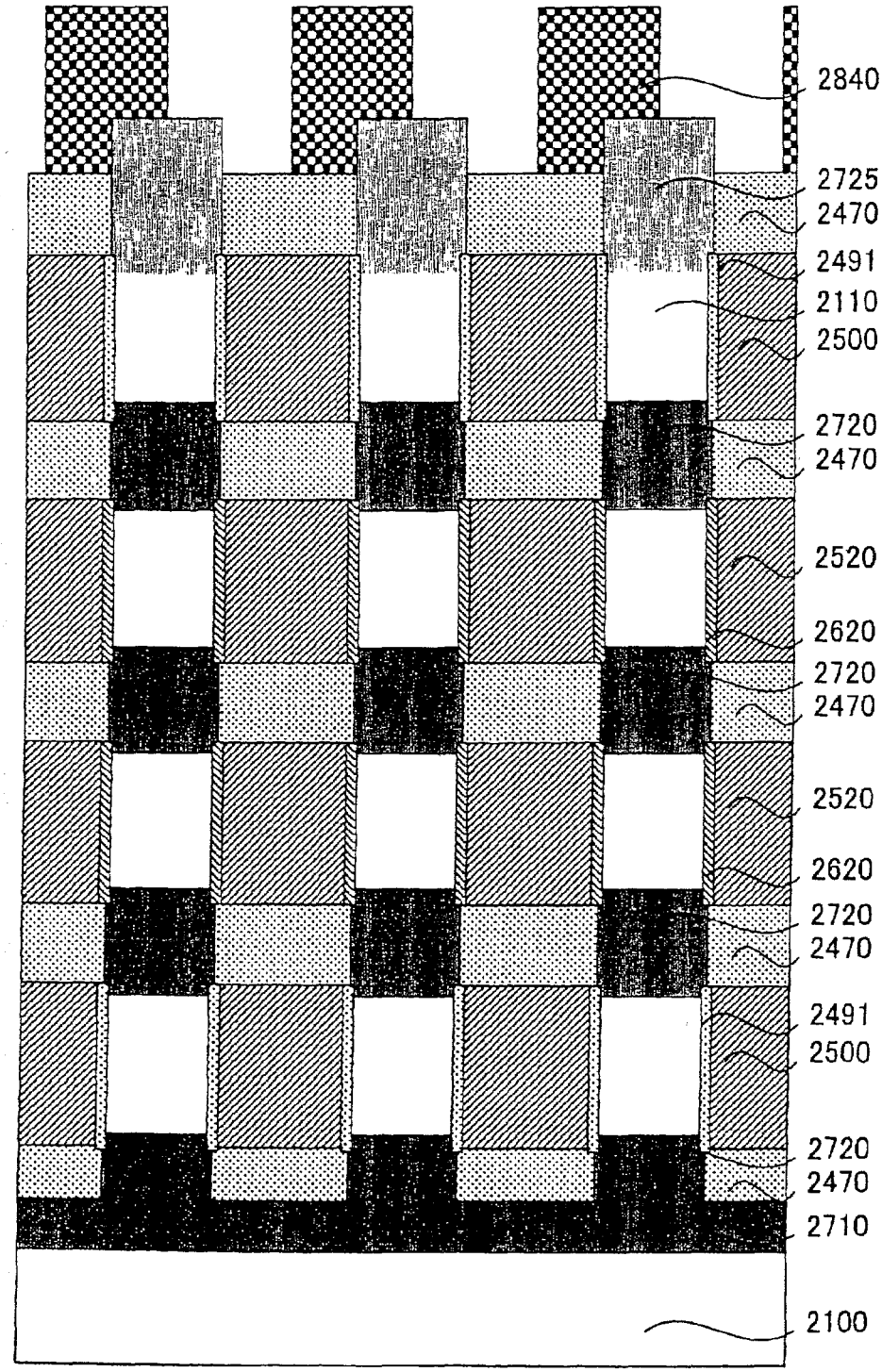

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2491
2110
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2720
2470
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2620
2720
2470
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2470
2710
2100

Fig. 50

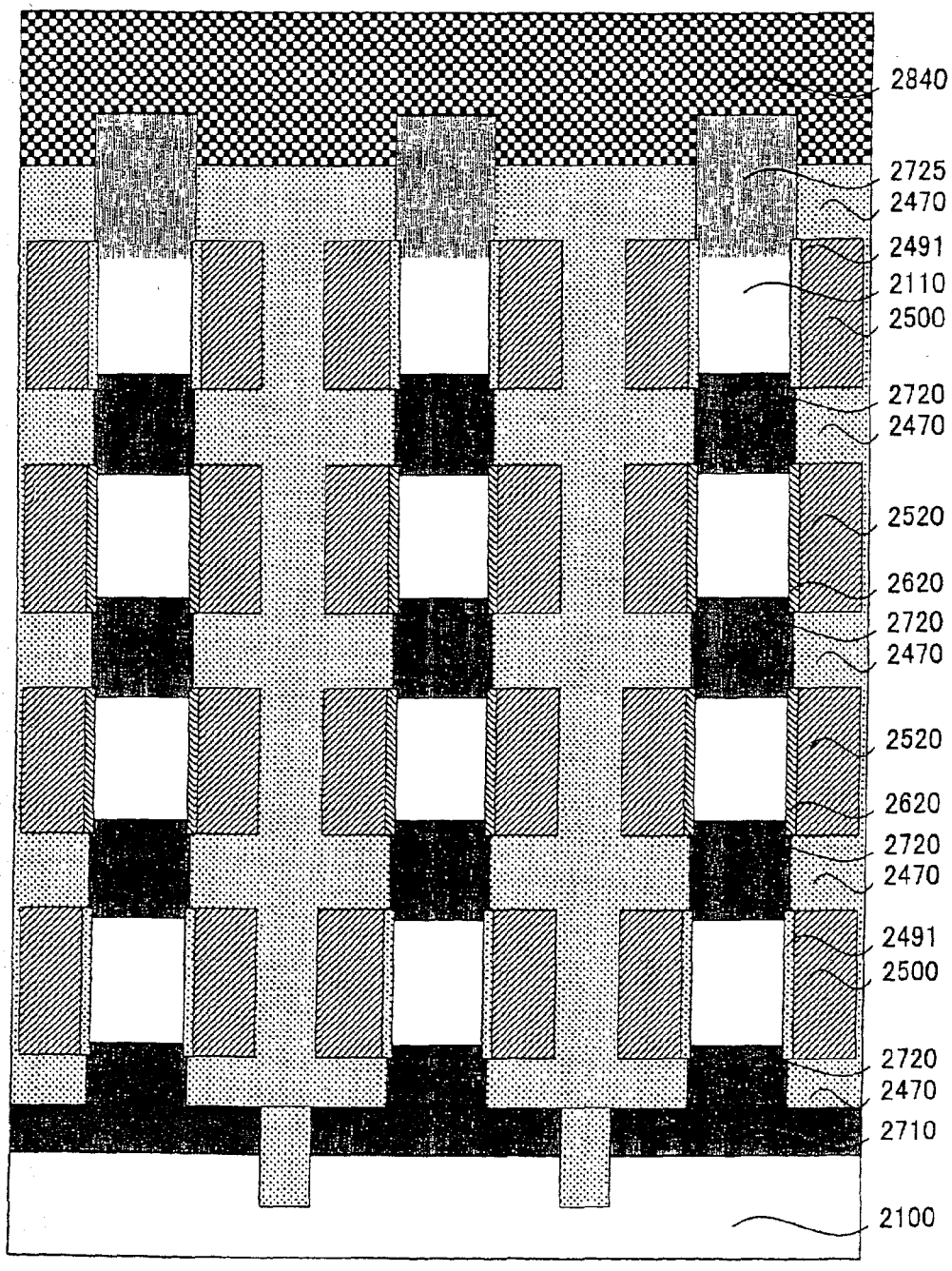

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2470
2491
2110
2500
2720
2470
2520
2620
2720
2470
2520
2620
2720
2470
2491
2500
2720
2470
2710
2100

Fig. 51

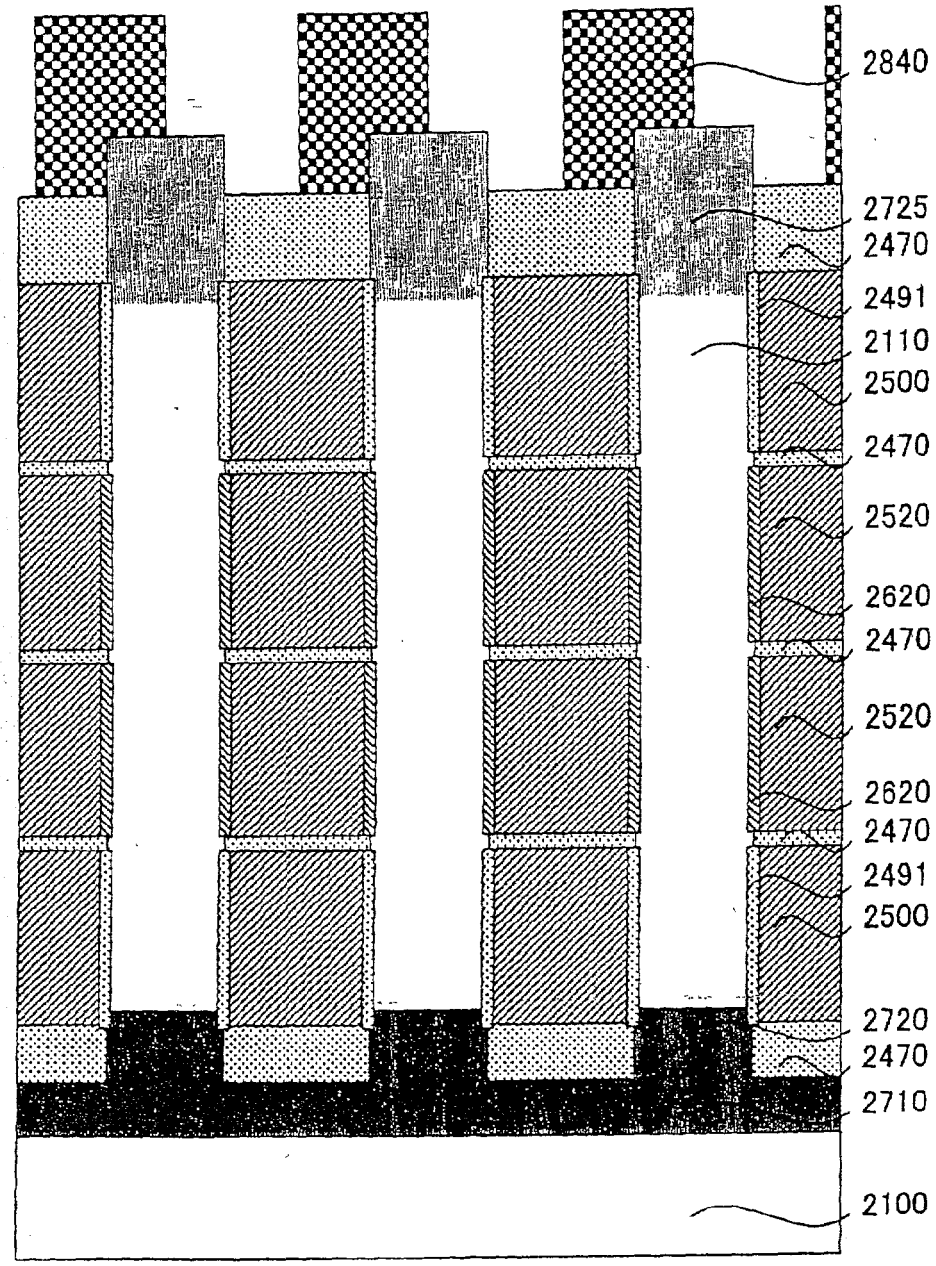

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2470
2491
2110
2500
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2520
2620
2470
2520
2620
2470
2491
2500
2720
2470
2710
2100

Fig. 52

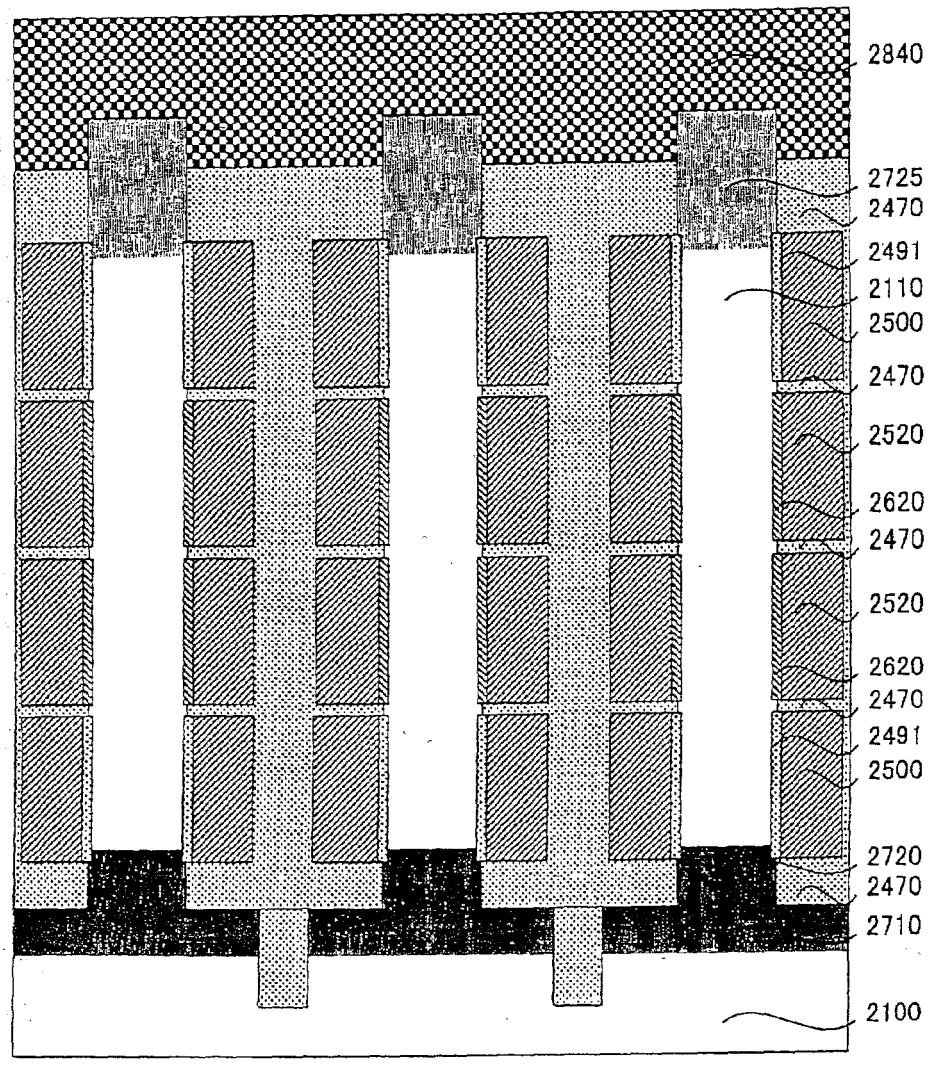

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2470
2491
2110
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2470
2520
2620
2470
2520
2620
2470
2491
2500
2720
2470
2710
2100

Fig. 53

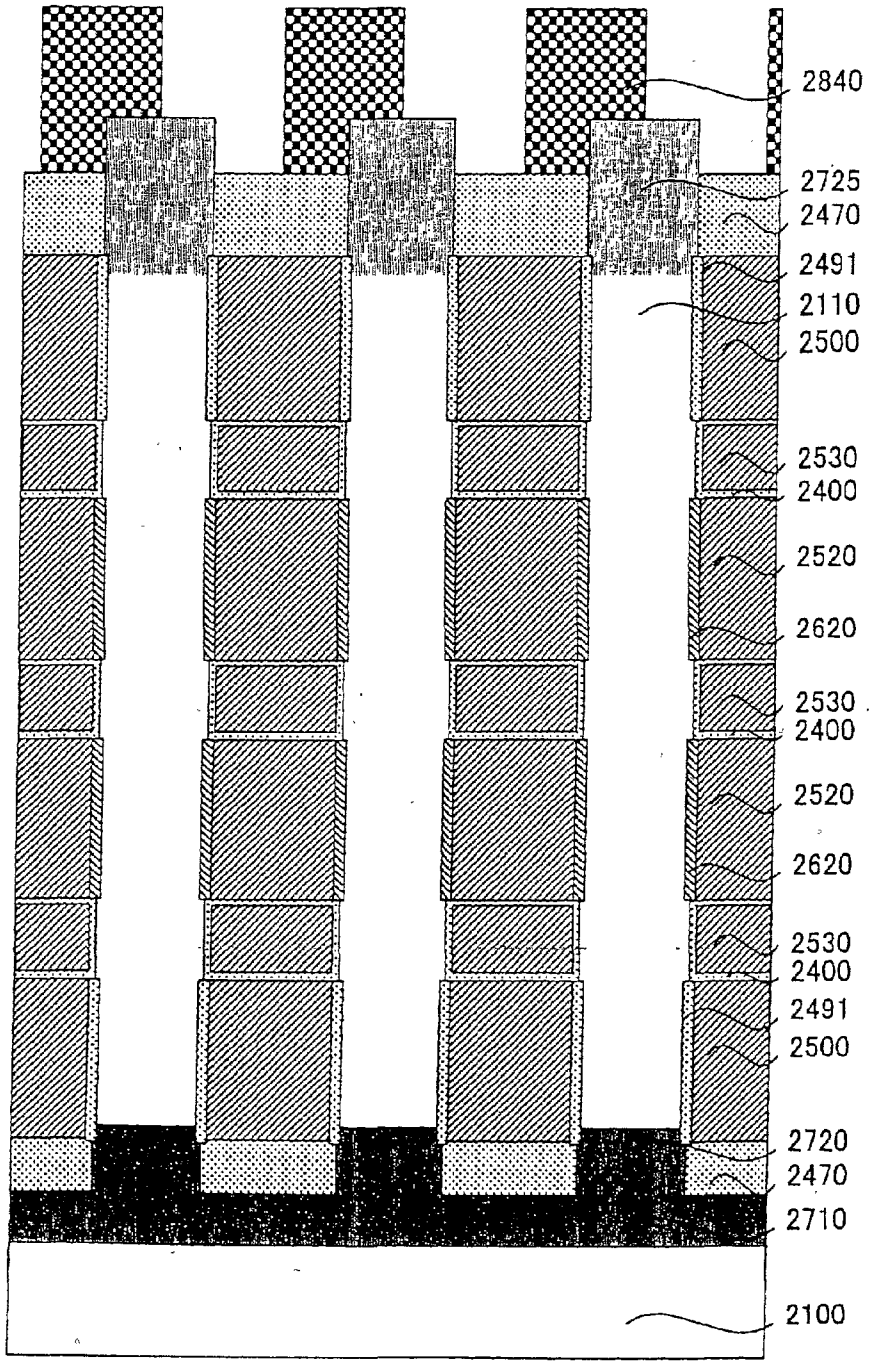

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2491
2110
2500
2530
2400
2520
2620
2530
2400
2520
2620
2530
2400
2491
2500
2720
2470
2710
2100

Fig. 54

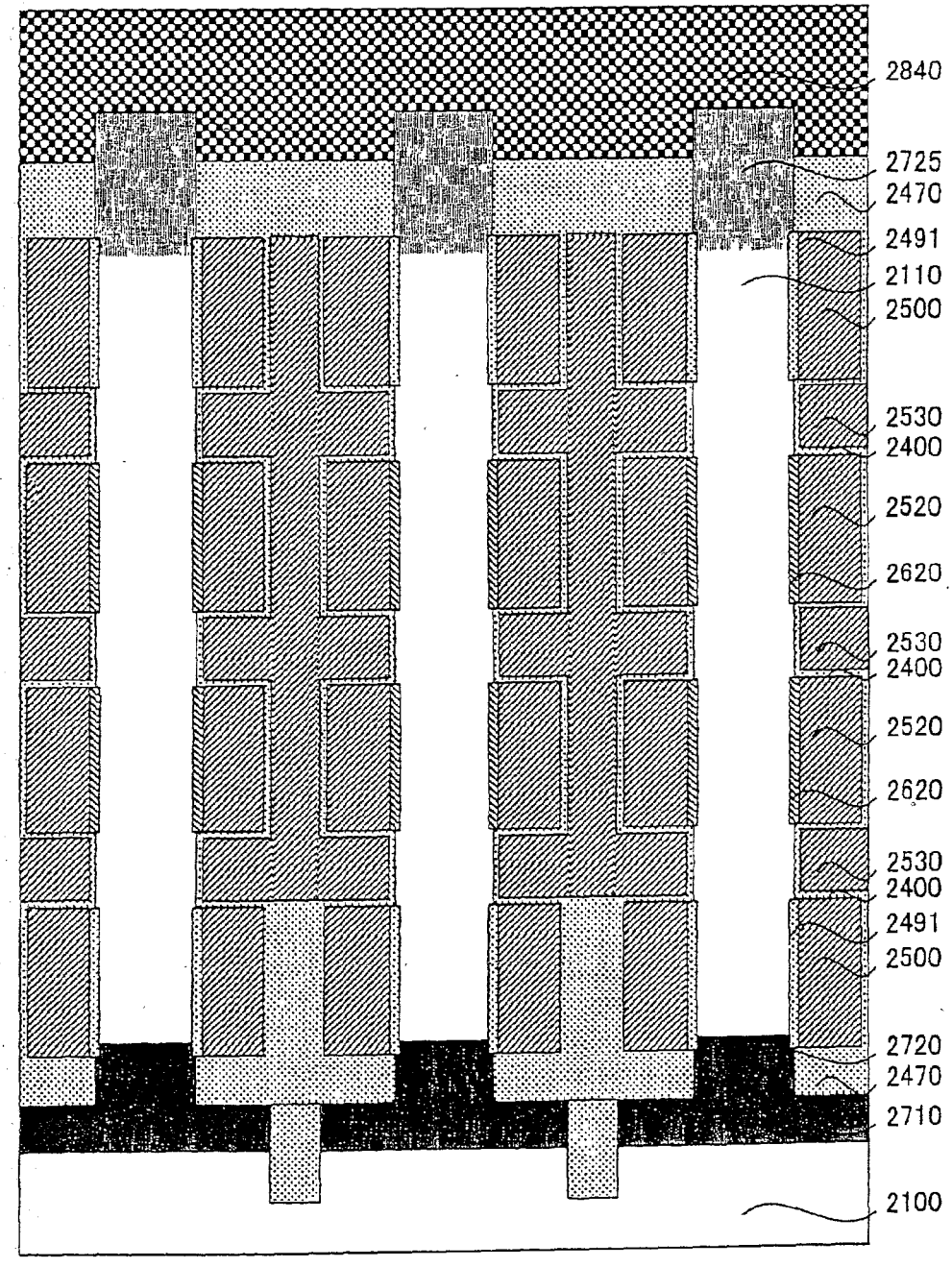

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2725
2470
2491
2110
2500
2530
2400
2520
2620
2530
2400
2520
2620
2530
2400
2491
2500
2720
2470
2710
2100

Fig. 55

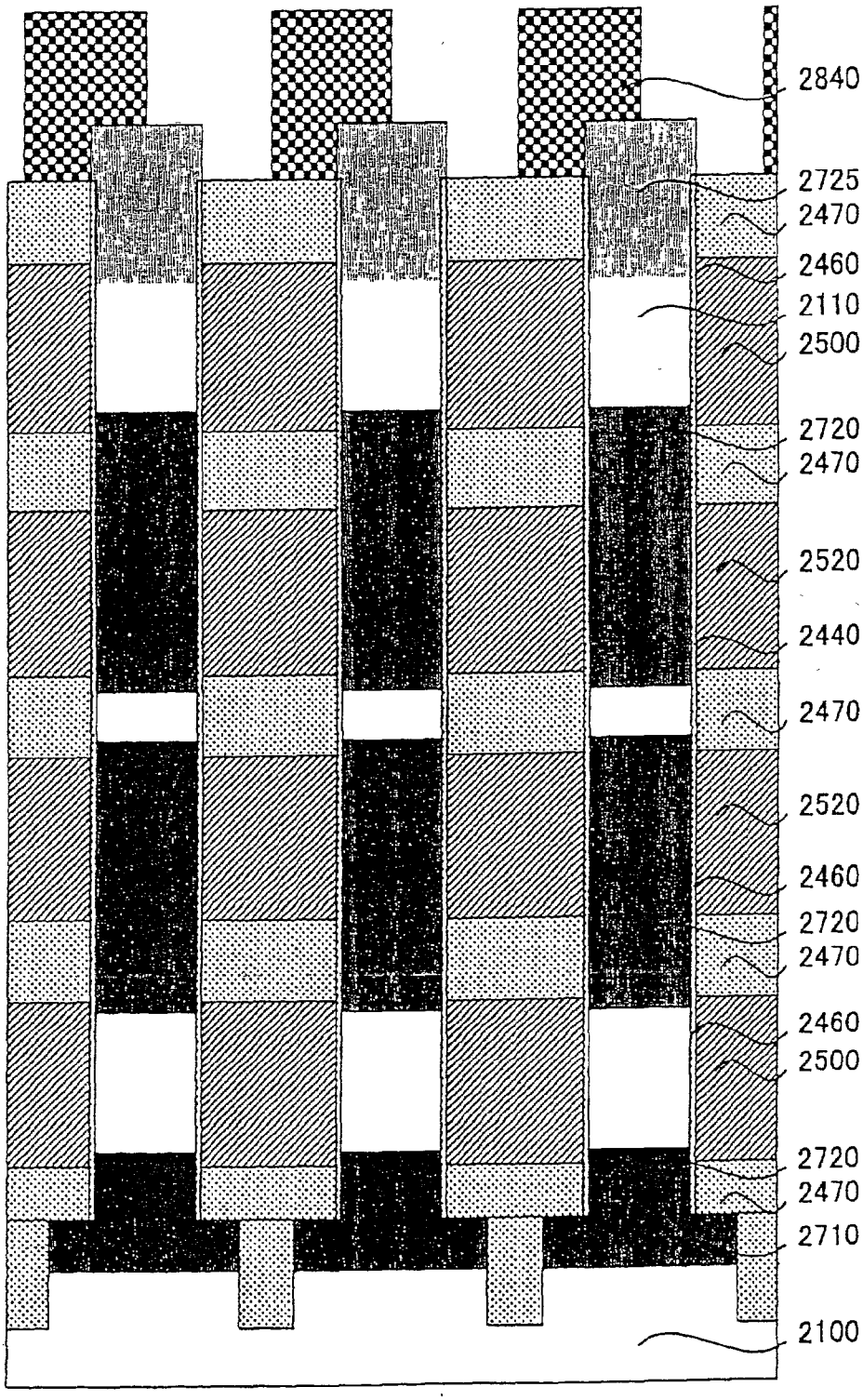

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2470
2460
2110
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2720
2470
2520
2440
2470
2520
2460
2720
2470
2460
2500
2720
2470
2710
2100

Fig. 56

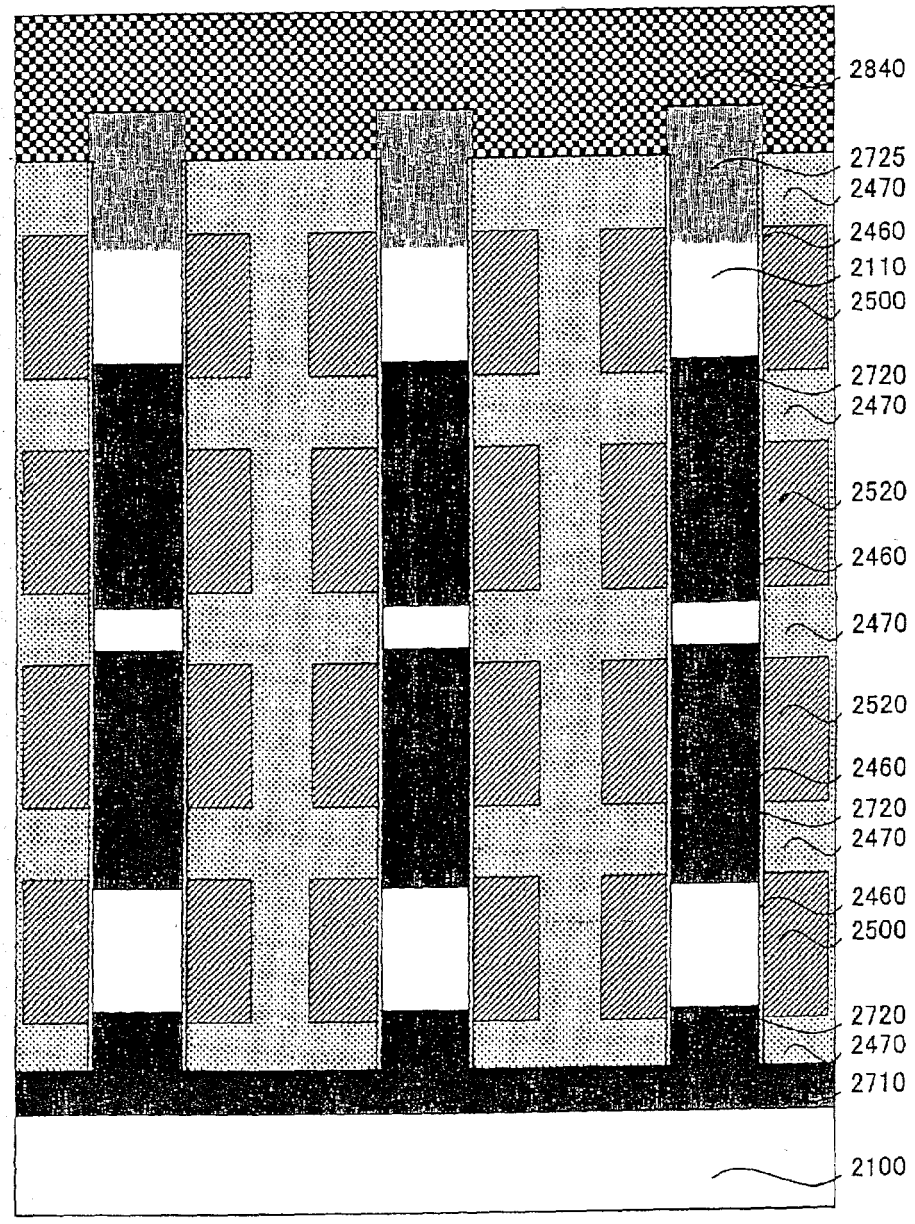

2840
2725
2470
2460
2110
2500
2720
2470
2520
2460
2470
2520
2460
2720
2470
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2500
2720
2470
2710
2100

Fig. 57

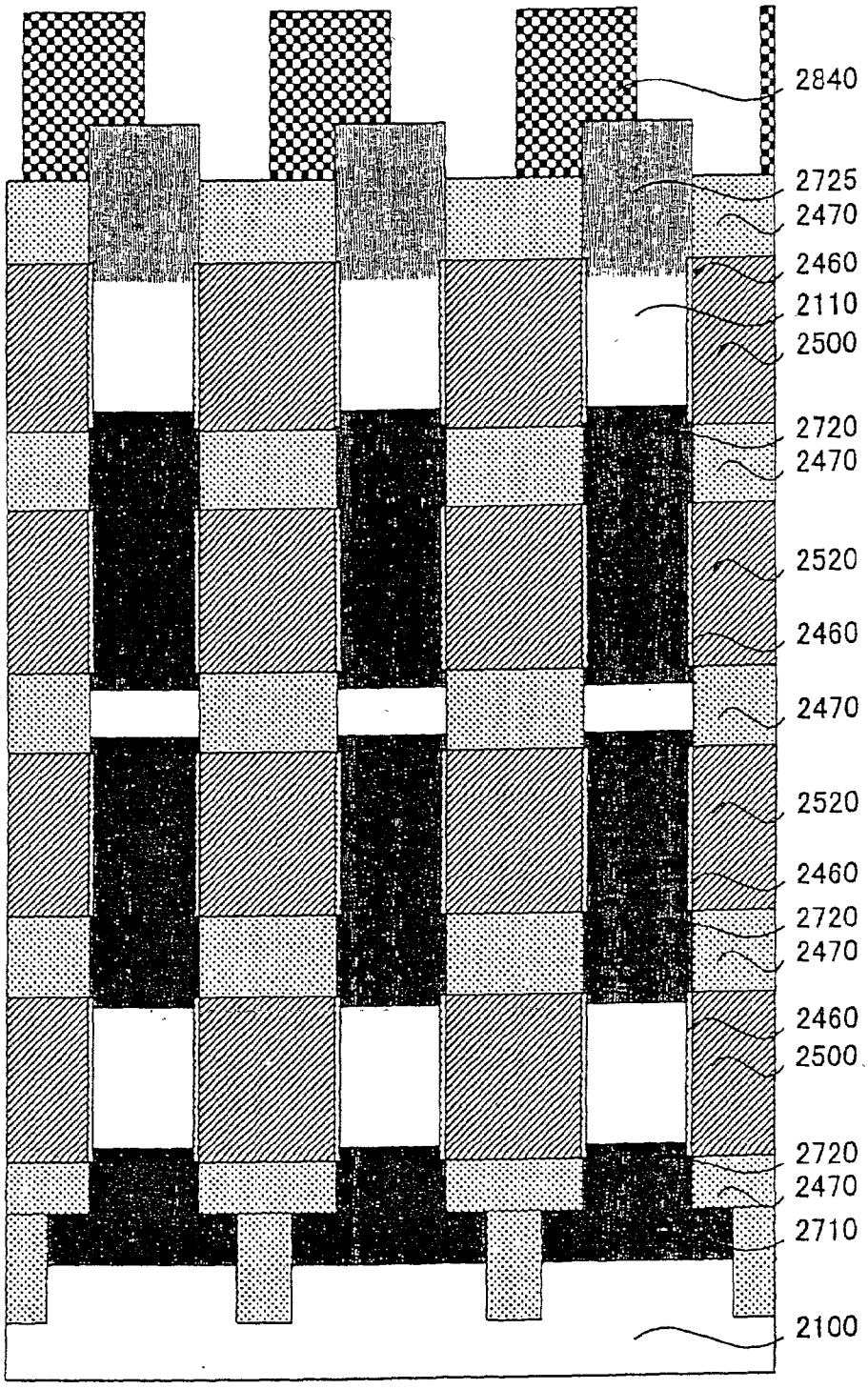

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2460
2110
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2720
2470
2520
2460
2470
2520
2460
2720
2470
2460
2500
2720
2470
2710
2100

Fig. 58

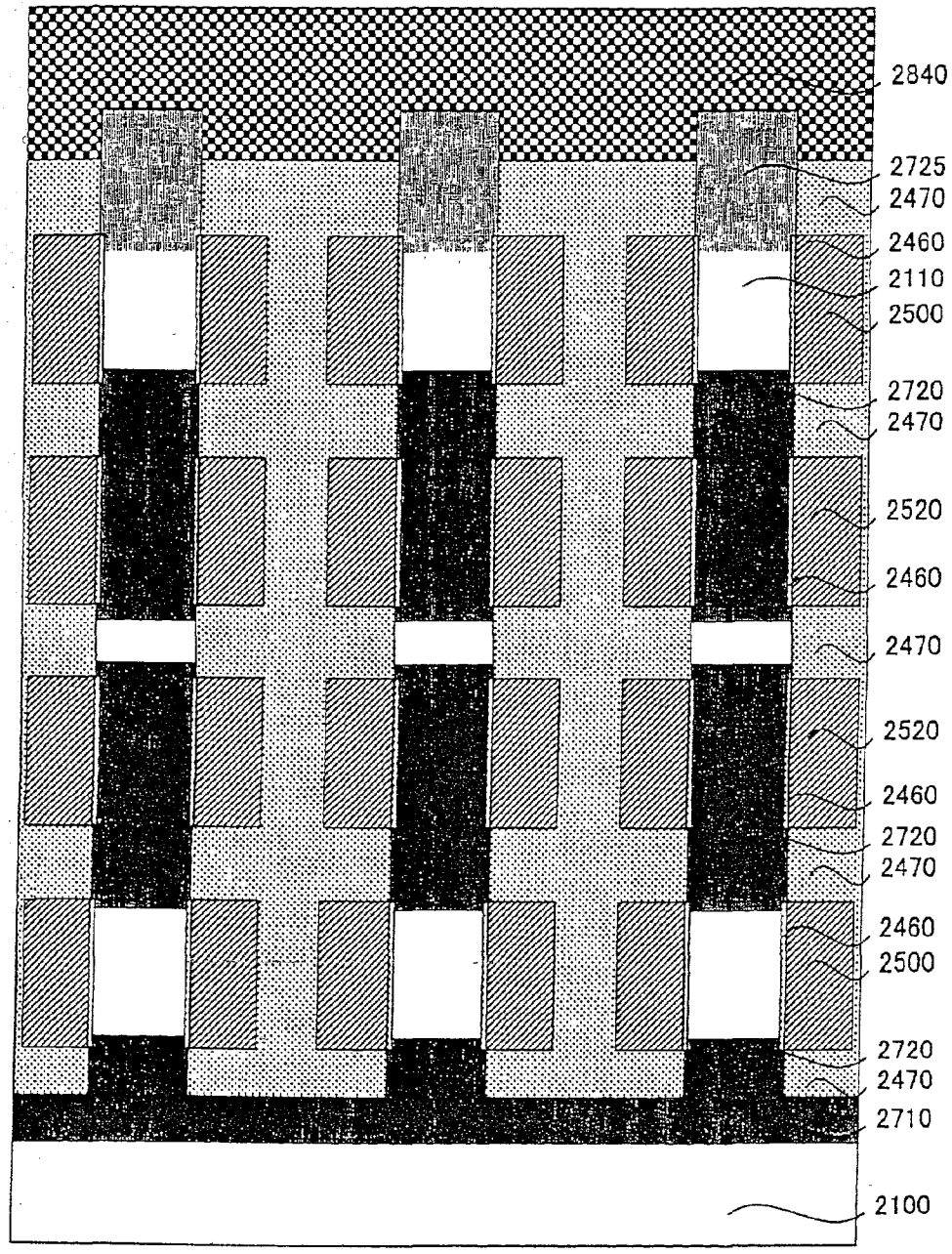

2840
2725
2470
2460
2110
2500
2720
2470
2520
2460
2470
2520
2460
2720
2470
2460
2500
2720
2470
2710
2100

Fig. 59

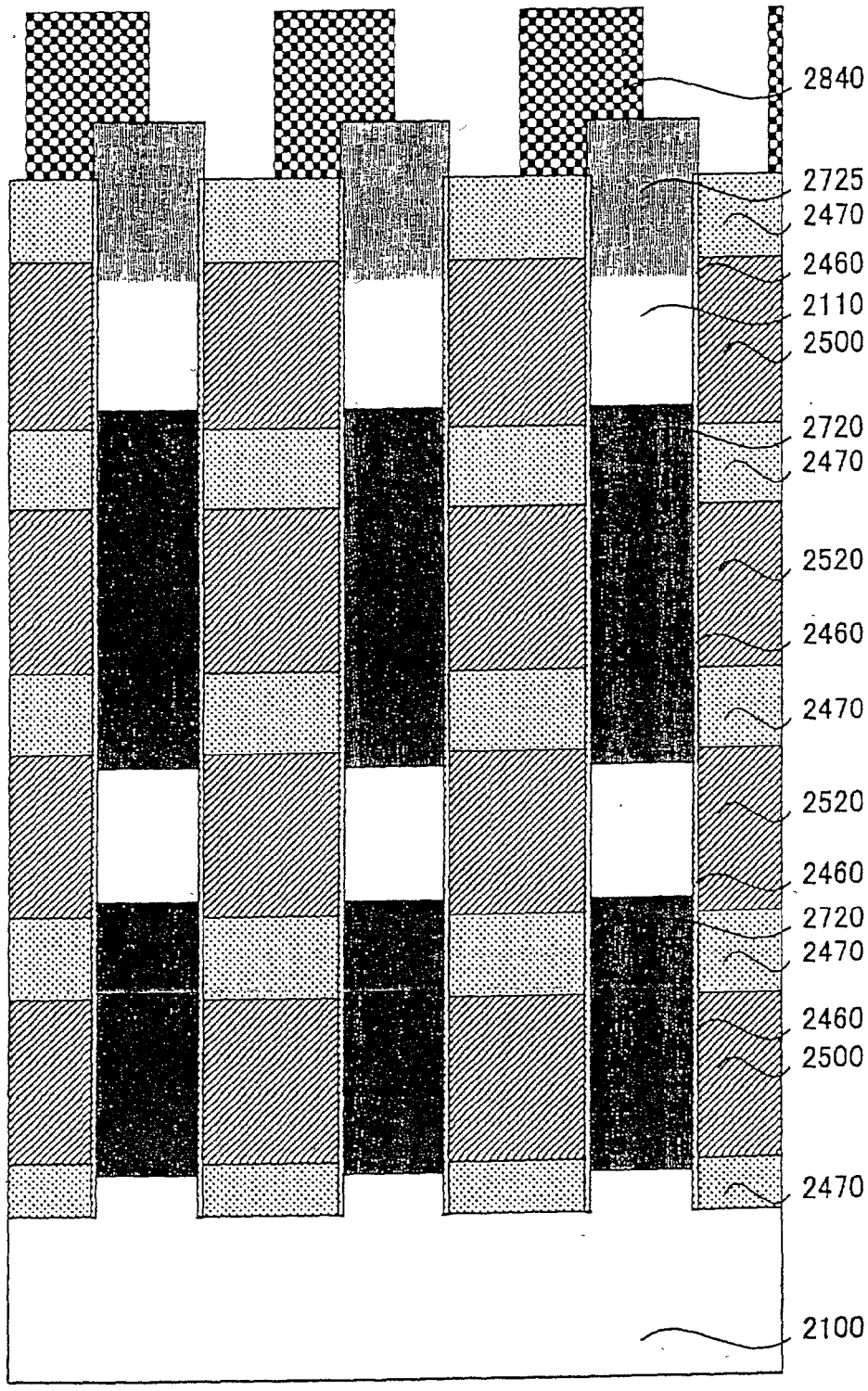

2840
2725
2470
2460
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2720
2470
2520
2460
2470
2520
2460
2720
2470
2460
2500
2470
2100

Fig. 60

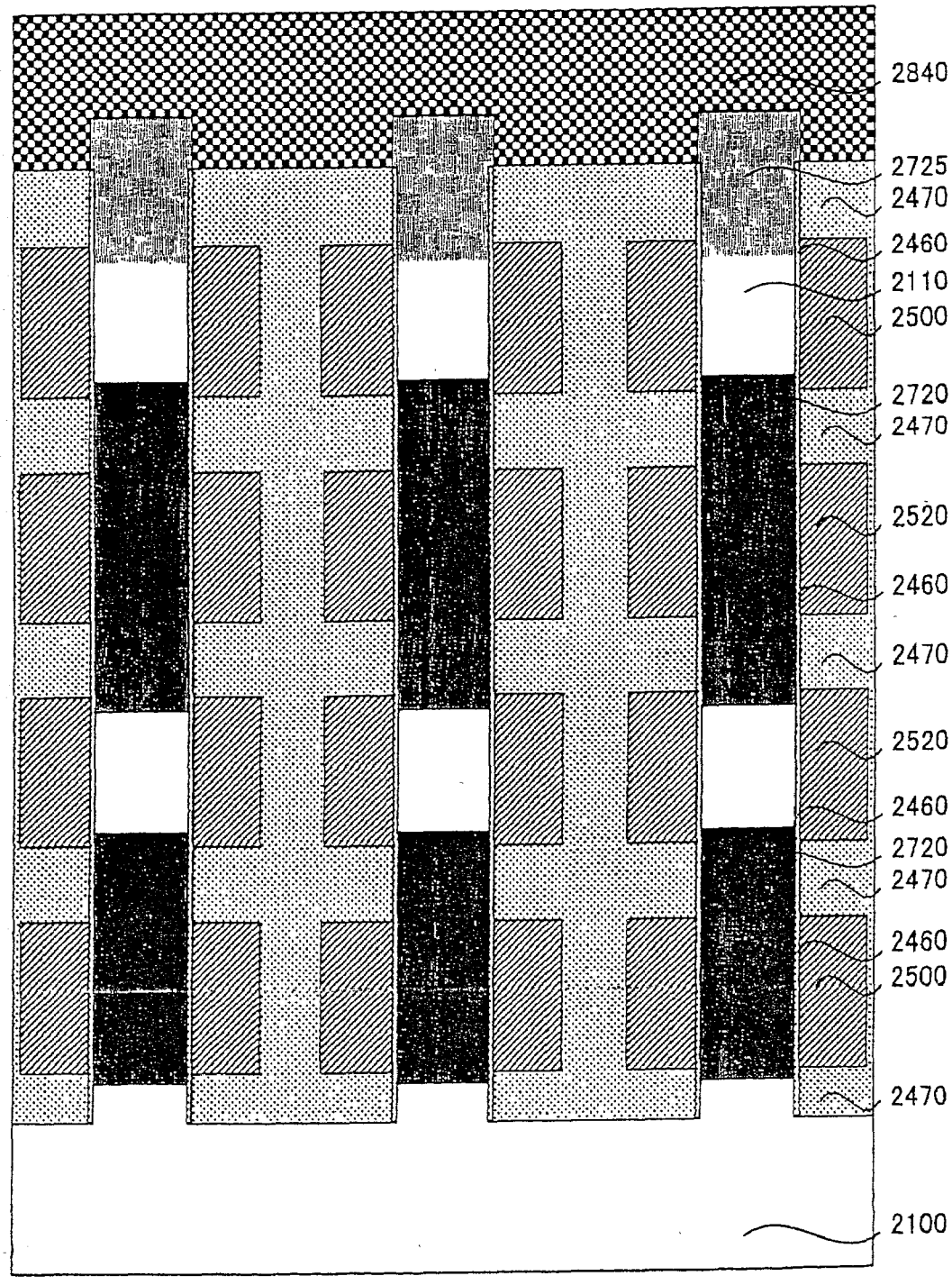

2840
2725
2470
2460
2110
2500
2720
2470
2520
2460
2470
2520
2460
2720
2470
2460
2500
2470
2100

Fig. 61

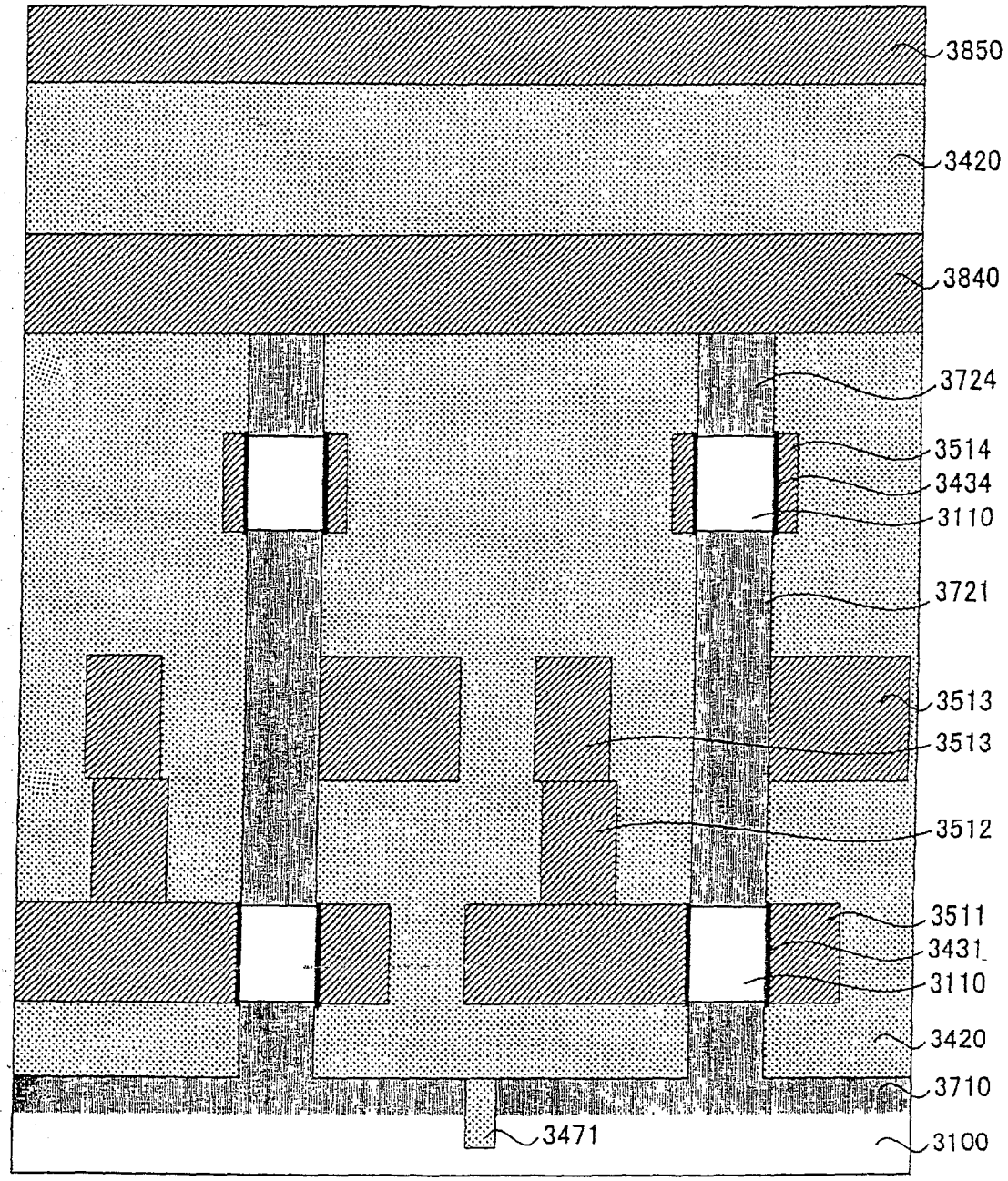

3850
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3840
3724
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3434
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3721
3513
3513
3512
3511
3431
3110
3420
3710
3471
3100

Fig. 62

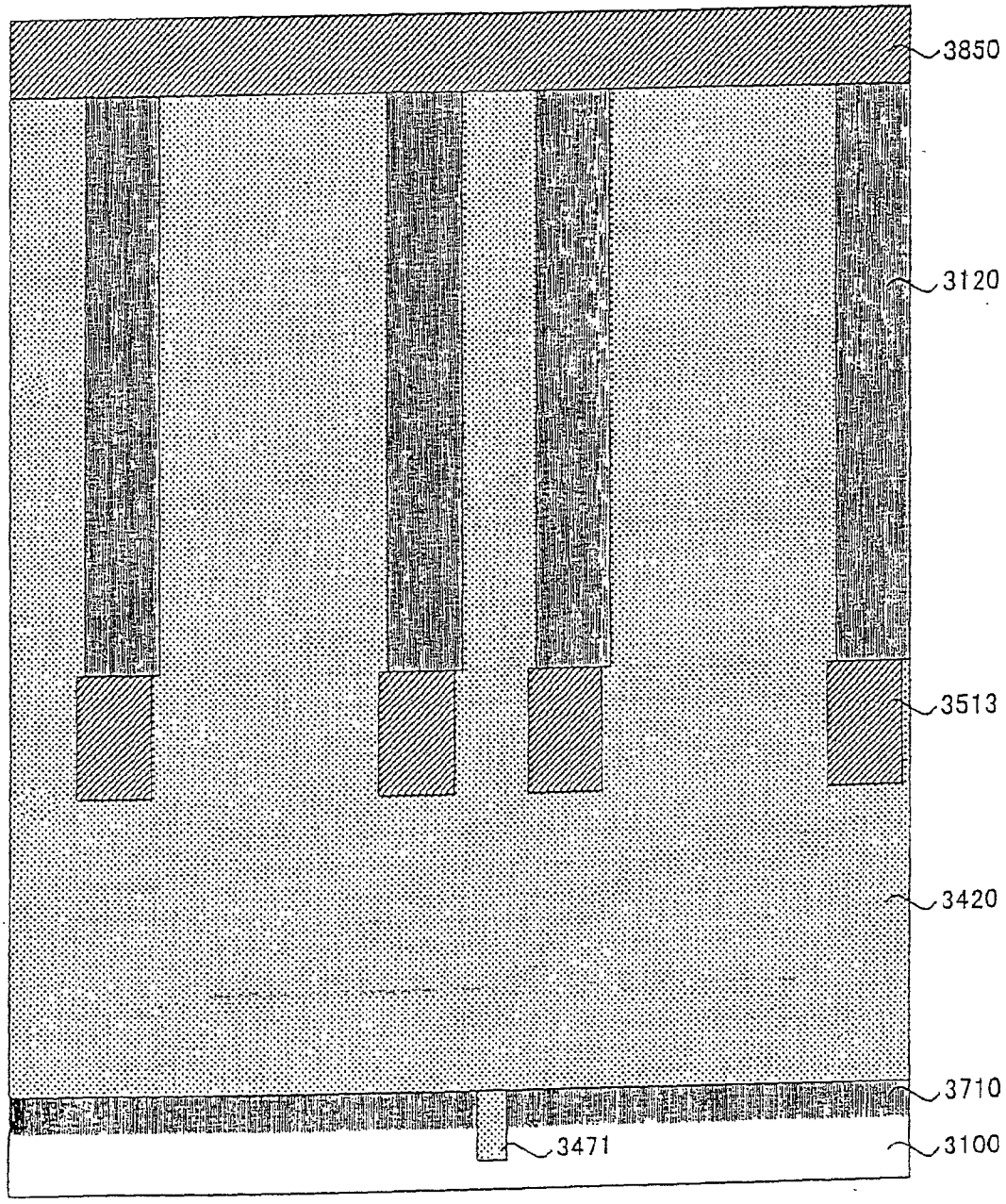


Fig. 63

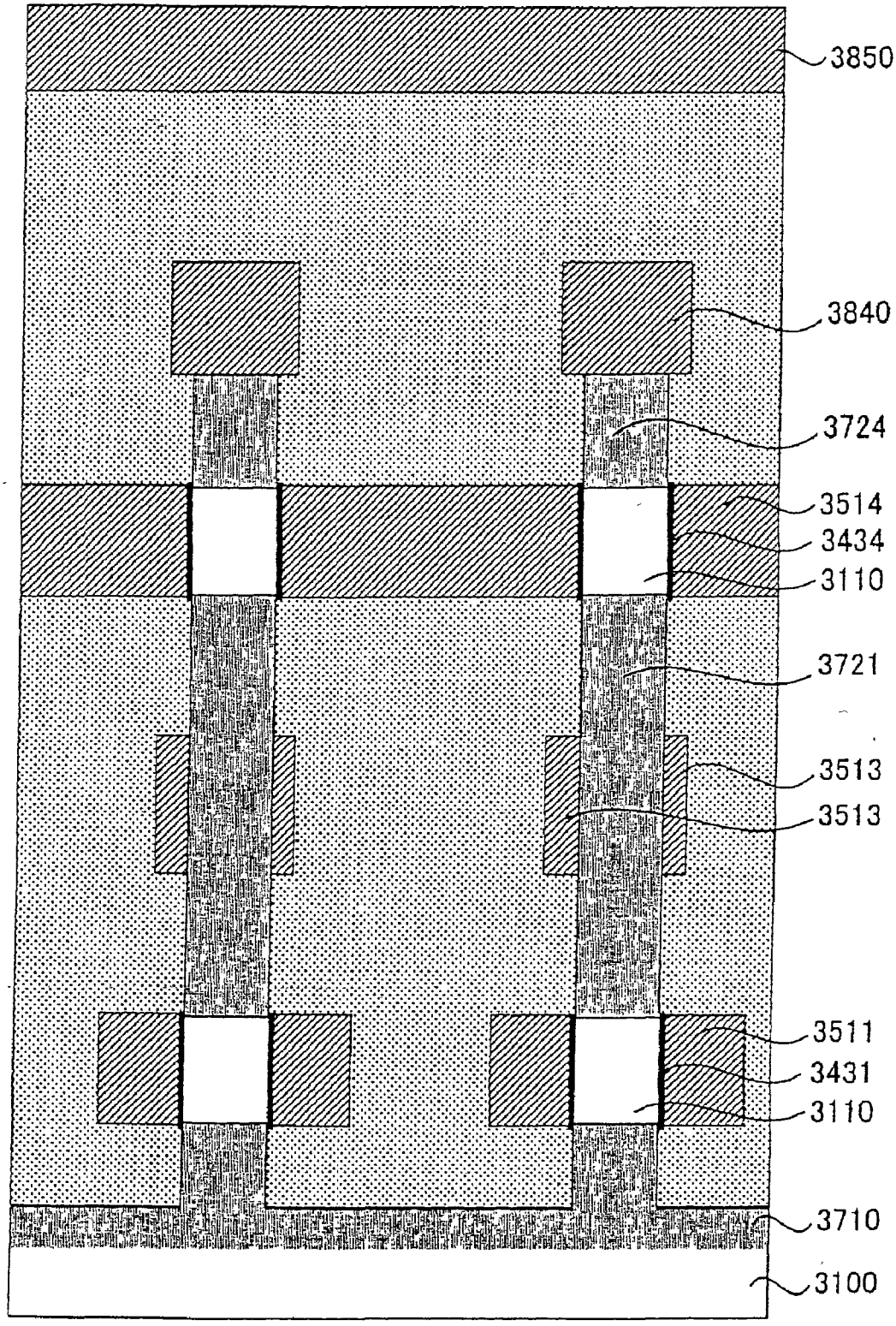

3850
3840
3724
3514
3434
3110
3721
3513
3513
3511
3431
3110
3710
3100

Fig. 64

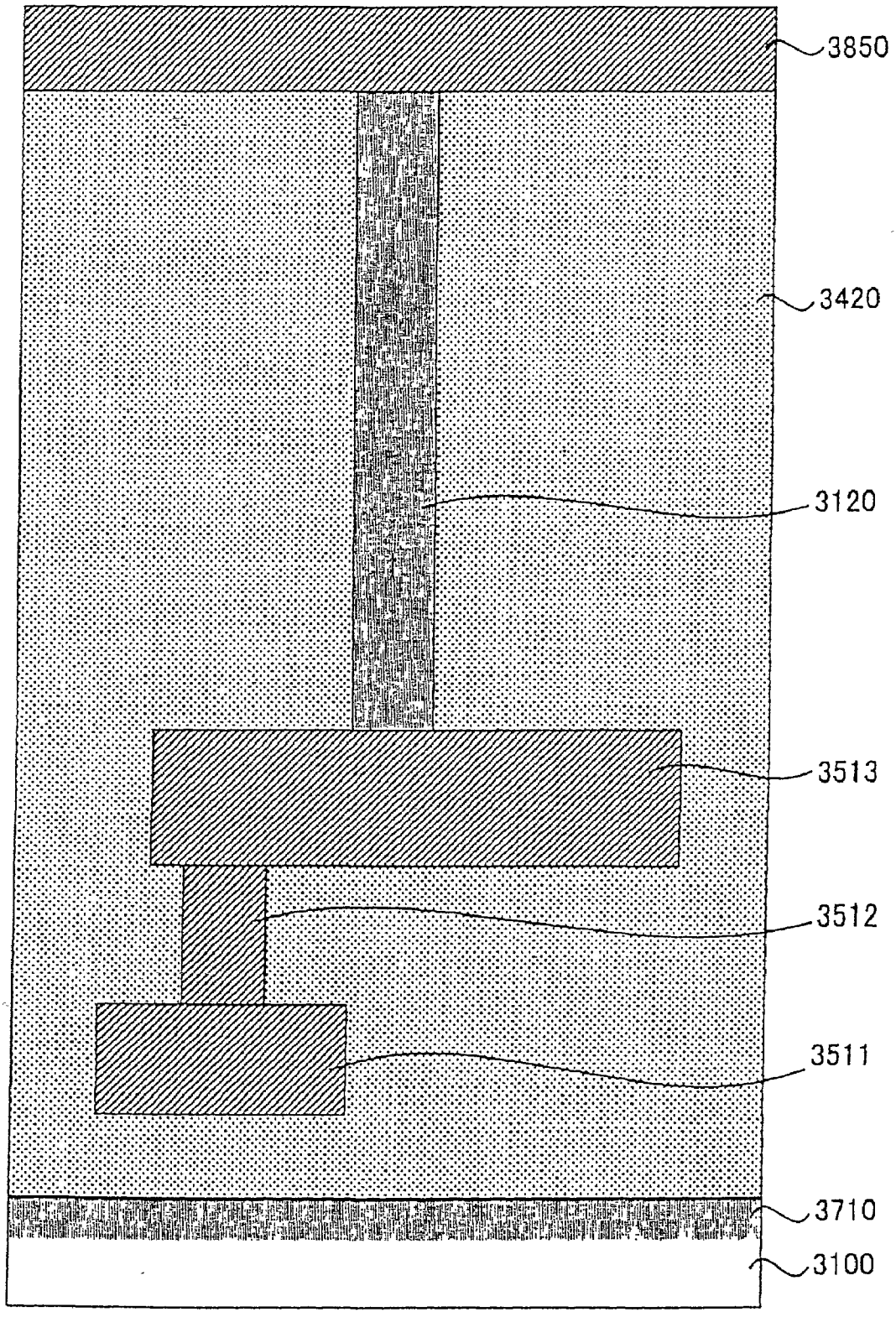


Fig. 65

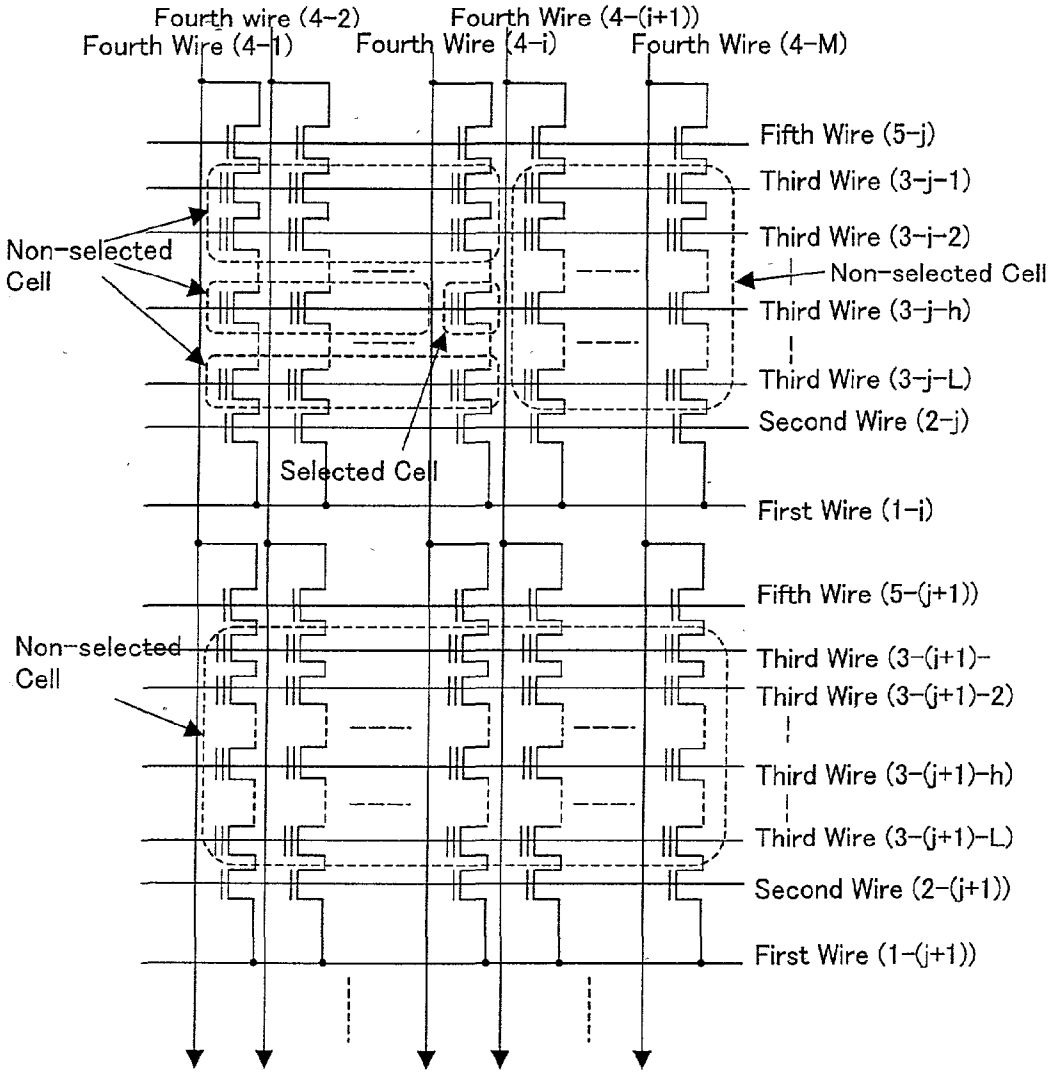

Fourth wire (4-2)
Fourth Wire (4-1)
Fourth Wire (4-(i+1))
Fourth Wire (4-i)
Fourth Wire (4-M)
Fifth Wire (5-j)
Third Wire (3-j-1)
Third Wire (3-j-2)
Non-selected Cell
Third Wire (3-j-h)
Third Wire (3-j-L)
Second Wire (2-j)
Non-selected Cell
Selected Cell
First Wire (1-i)
Fifth Wire (5-(j+1))
Non-selected Cell
Third Wire (3-(j+1)-
Third Wire (3-(j+1)-2)
Third Wire (3-(j+1)-h)
Third Wire (3-(j+1)-L)
Second Wire (2-(j+1))
First Wire (1-(j+1))

Fig. 66

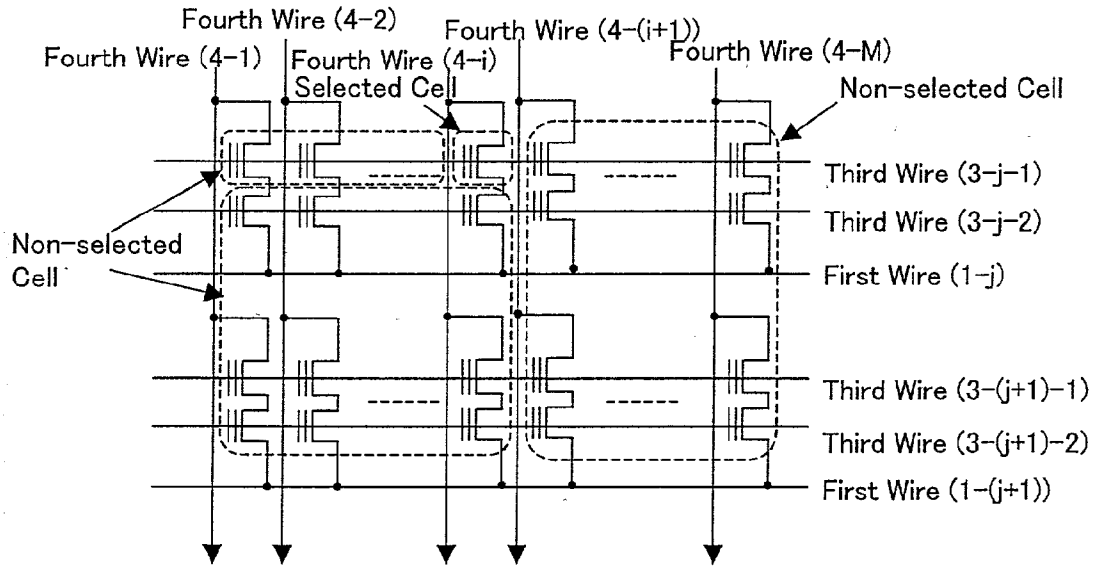

Fourth Wire (4-2)
Fourth Wire (4-(i+1))
Fourth Wire (4-1)
Fourth Wire (4-i)
Selected Cell
Fourth Wire (4-M)
Non-selected Cell
Third Wire (3-j-1)
Third Wire (3-j-2)
Non-selected Cell
First Wire (1-j)
Third Wire (3-(j+1)-1)
Third Wire (3-(j+1)-2)
First Wire (1-(j+1))

Fig. 67

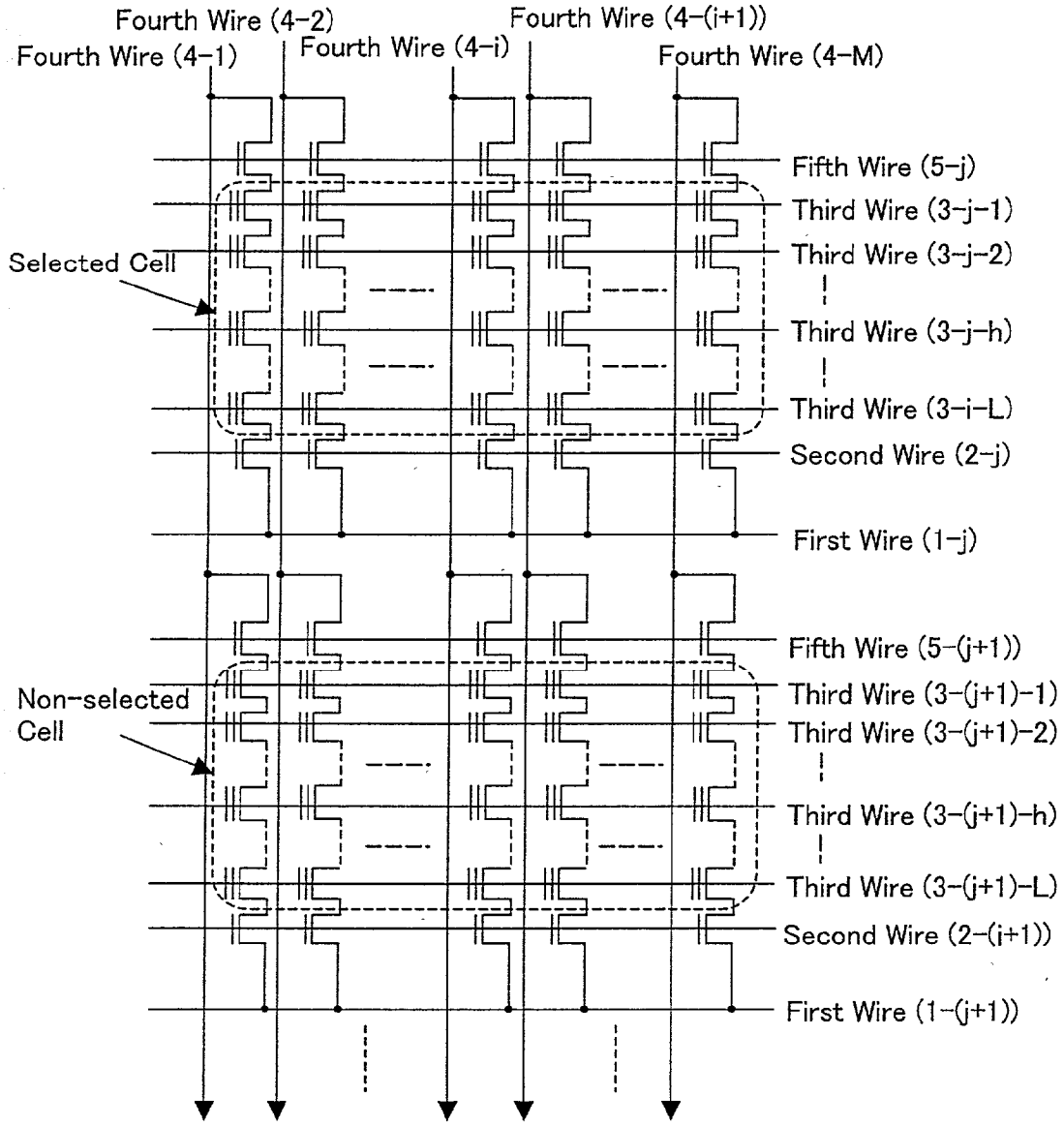

Fourth Wire (4-2)
Fourth Wire (4-1)
Fourth Wire (4-i)
Fourth Wire (4-(i+1))
Fourth Wire (4-M)
Fifth Wire (5-j)
Third Wire (3-j-1)
Third Wire (3-j-2)
Selected Cell
Third Wire (3-j-h)
Third Wire (3-i-L)
Second Wire (2-j)
First Wire (1-j)
Fifth Wire (5-(j+1))
Third Wire (3-(j+1)-1)
Non-selected Cell
Third Wire (3-(j+1)-2)
Third Wire (3-(j+1)-h)
Third Wire (3-(j+1)-L)
Second Wire (2-(i+1))
First Wire (1-(j+1))

Fig. 68

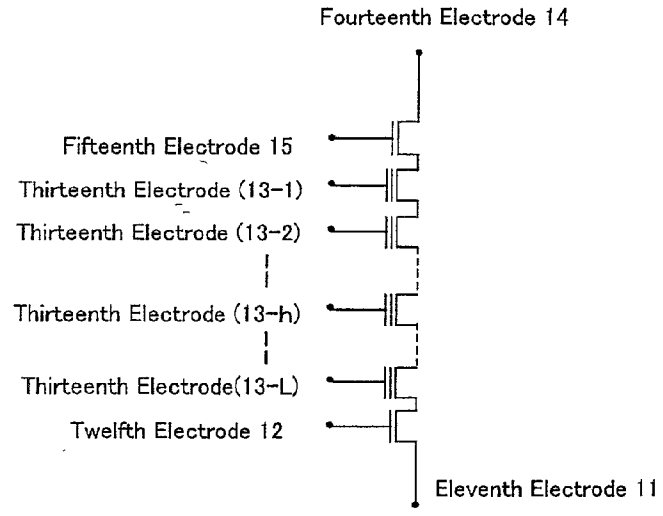

Fourteenth Electrode 14
Fifteenth Electrode 15
Thirteenth Electrode (13-1)
Thirteenth Electrode (13-2)
Thirteenth Electrode (13-h)
Thirteenth Electrode(13-L)
Twelfth Electrode 12
Eleventh Electrode 11

Fig. 69

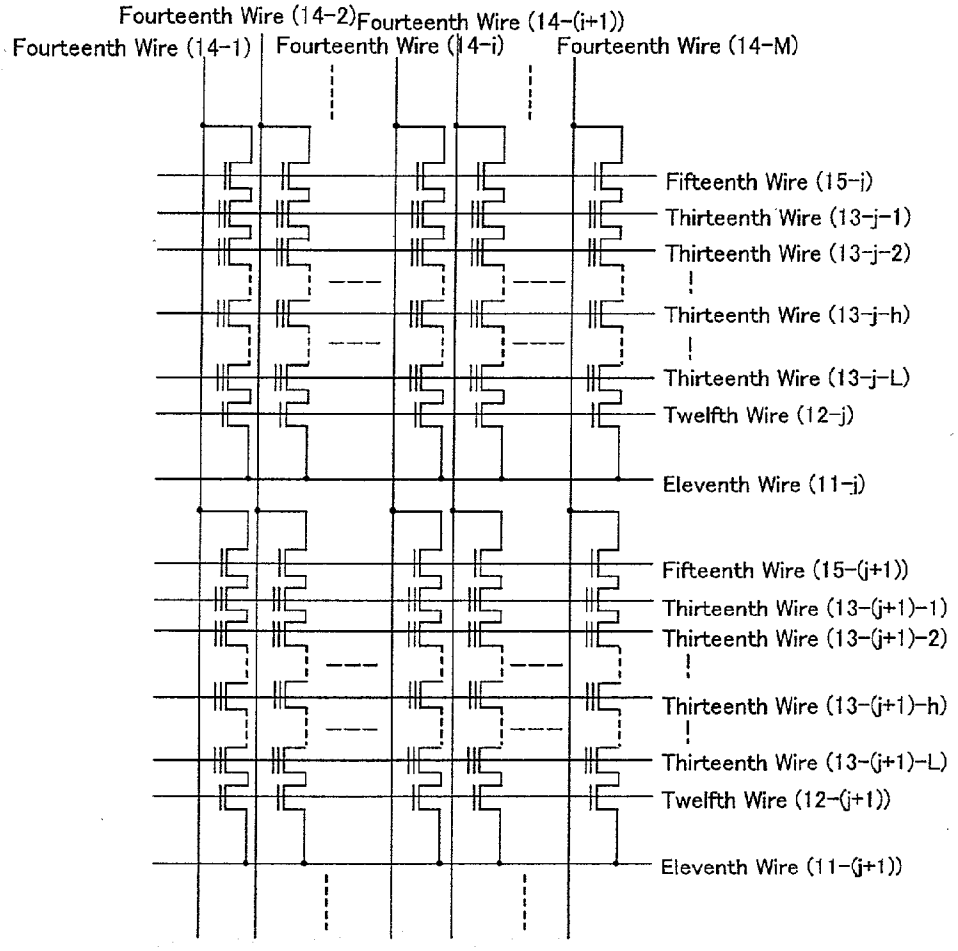

Fourteenth Wire (14-2)
Fourteenth Wire (14-(i+1))
Fourteenth Wire (14-1)
Fourteenth Wire (14-i)
Fourteenth Wire (14-M)
Fifteenth Wire (15-j)
Thirteenth Wire (13-j-1)
Thirteenth Wire (13-j-2)
Thirteenth Wire (13-j-h)
Thirteenth Wire (13-j-L)
Twelfth Wire (12-j)
Eleventh Wire (11-j)
Fifteenth Wire (15-(j+1))
Thirteenth Wire (13-(j+1)-1)
Thirteenth Wire (13-(j+1)-2)
Thirteenth Wire (13-(j+1)-h)
Thirteenth Wire (13-(j+1)-L)
Twelfth Wire (12-(j+1))
Eleventh Wire (11-(j+1))

Fig. 70

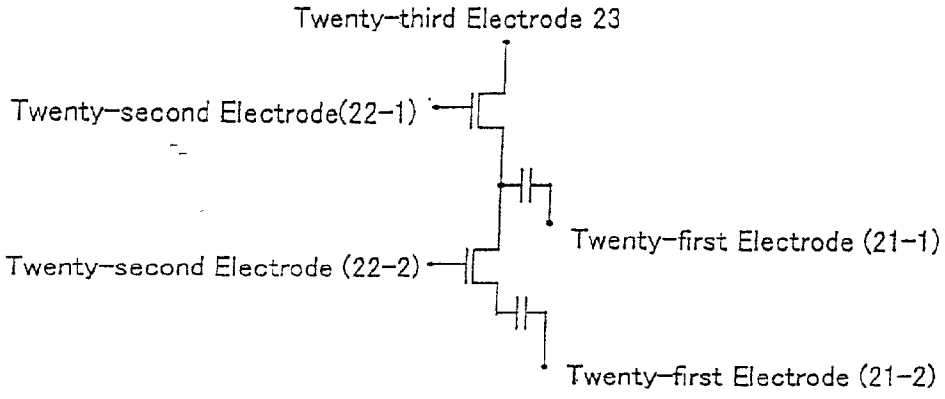

Twenty-third Electrode 23
Twenty-second Electrode(22-1)
Twenty-first Electrode (21-1)
Twenty-second Electrode (22-2)
Twenty-first Electrode (21-2)

Fig. 71

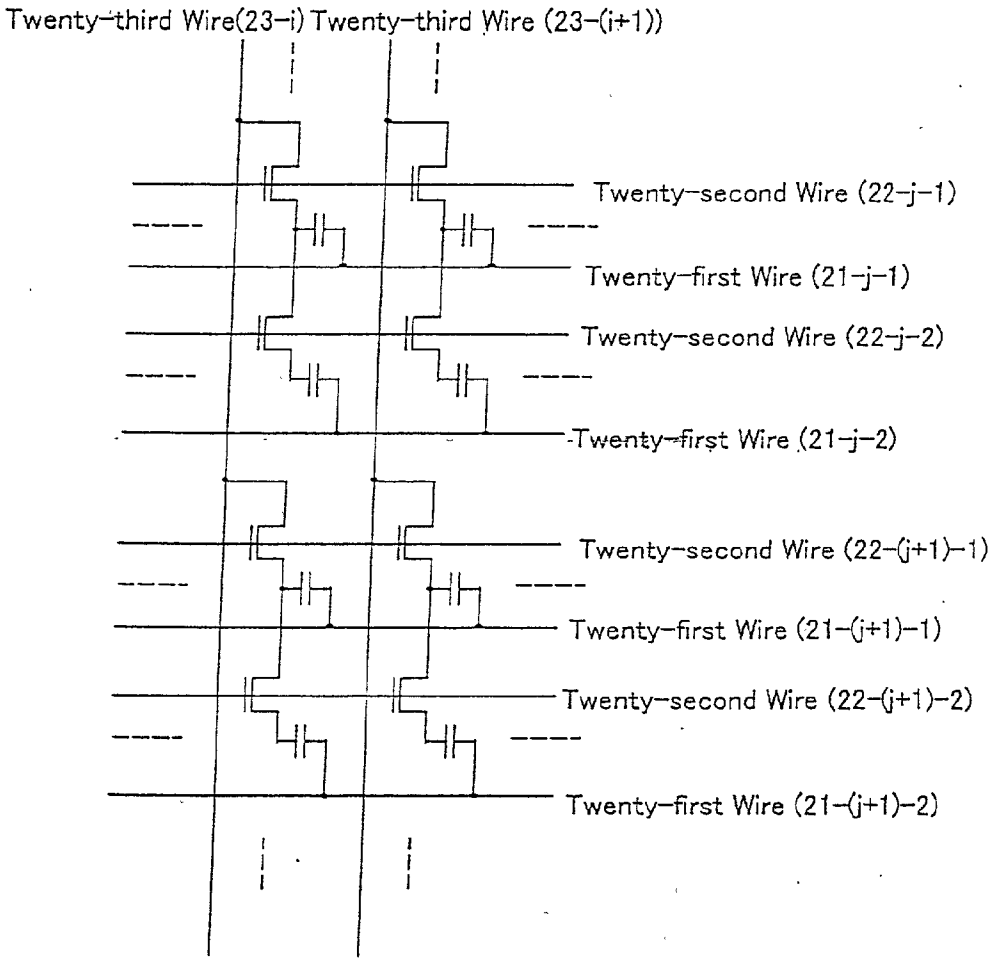

Twenty-third Wire(23-i)
Twenty-third Wire (23-(i+1))
Twenty-second Wire (22-j-1)
Twenty-first Wire (21-j-1)
Twenty-second Wire (22-j-2)
Twenty-first Wire (21-j-2)
Twenty-second Wire (22-(j+1)-1)
Twenty-first Wire (21-(j+1)-1)
Twenty-second Wire (22-(j+1)-2)
Twenty-first Wire (21-(j+1)-2)

Fig. 72

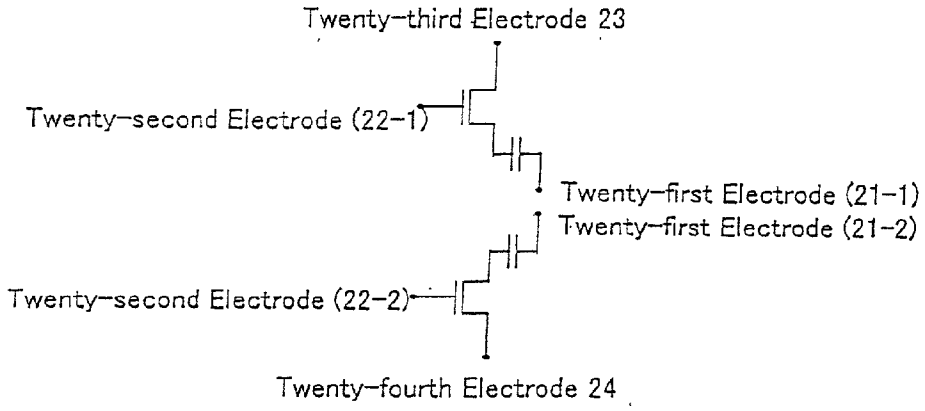

Twenty-third Electrode 23
Twenty-second Electrode (22-1)
Twenty-first Electrode (21-1)
Twenty-first Electrode (21-2)
Twenty-second Electrode (22-2)
Twenty-fourth Electrode 24

Fig. 73

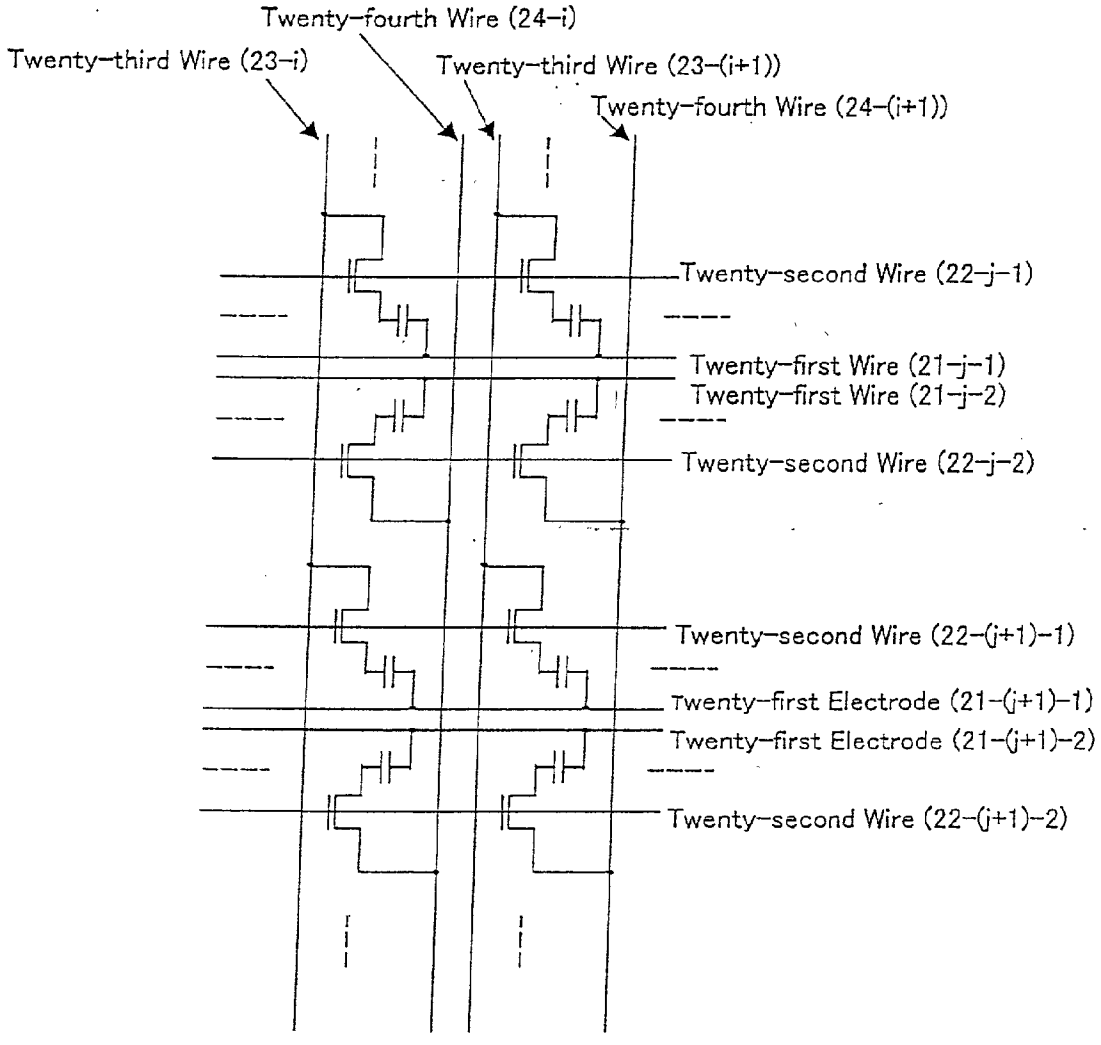

Twenty-fourth Wire (24-i)
Twenty-third Wire (23-i)
Twenty-third Wire (23-(i+1))
Twenty-fourth Wire (24-(i+1))
Twenty-second Wire (22-j-1)
Twenty-first Wire (21-j-1)
Twenty-first Wire (21-j-2)
Twenty-second Wire (22-j-2)
Twenty-second Wire (22-(j+1)-1)
Twenty-first Electrode (21-(j+1)-1)
Twenty-first Electrode (21-(j+1)-2)
Twenty-second Wire (22-(j+1)-2)

Fig. 74

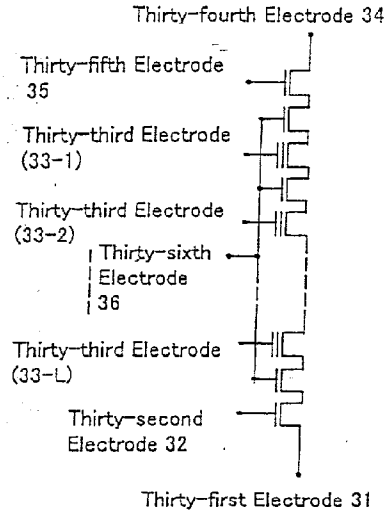

Thirty-fourth Electrode 34
Thirty-fifth Electrode 35
Thirty-third Electrode (33-1)
Thirty-third Electrode (33-2)
Thirty-sixth Electrode 36
Thirty-third Electrode (33-L)
Thirty-second Electrode 32
Thirty-first Electrode 31

Fig. 75

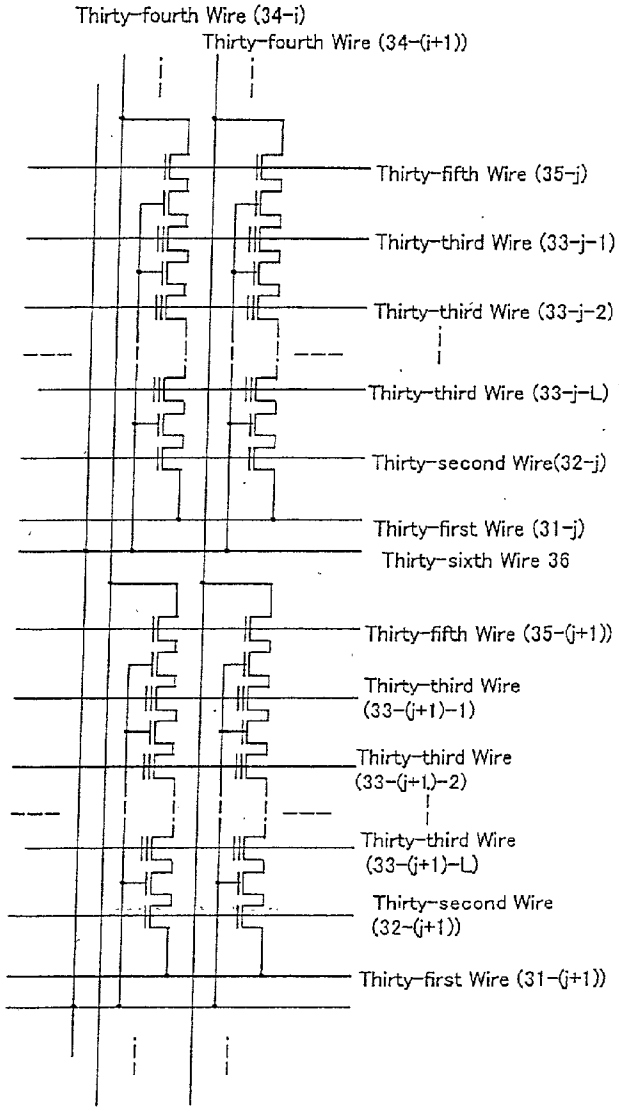

Thirty-fourth Wire (34-i)
Thirty-fourth Wire (34-(i+1))
Thirty-fifth Wire (35-j)
Thirty-third Wire (33-j-1)
Thirty-third Wire (33-j-2)
Thirty-third Wire (33-j-L)
Thirty-second Wire(32-j)
Thirty-first Wire (31-j)
Thirty-sixth Wire 36
Thirty-fifth Wire (35-(j+1))
Thirty-third Wire (33-(j+1)-1)
Thirty-third Wire (33-(j+1)-2)
Thirty-third Wire (33-(j+1)-L)
Thirty-second Wire (32-(j+1))
Thirty-first Wire (31-(j+1))

Fig. 76

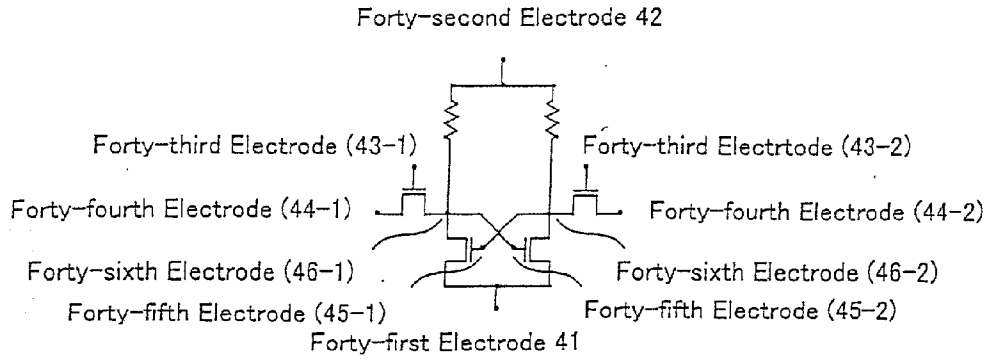

Forty-second Electrode 42
Forty-third Electrode (43-1)
Forty-third Electrtode (43-2)
Forty-fourth Electrode (44-1)
Forty-fourth Electrode (44-2)
Forty-sixth Electrode (46-1)
Forty-sixth Electrode (46-2)
Forty-fifth Electrode (45-1)
Forty-fifth Electrode (45-2)
Forty-first Electrode 41

Fig. 77

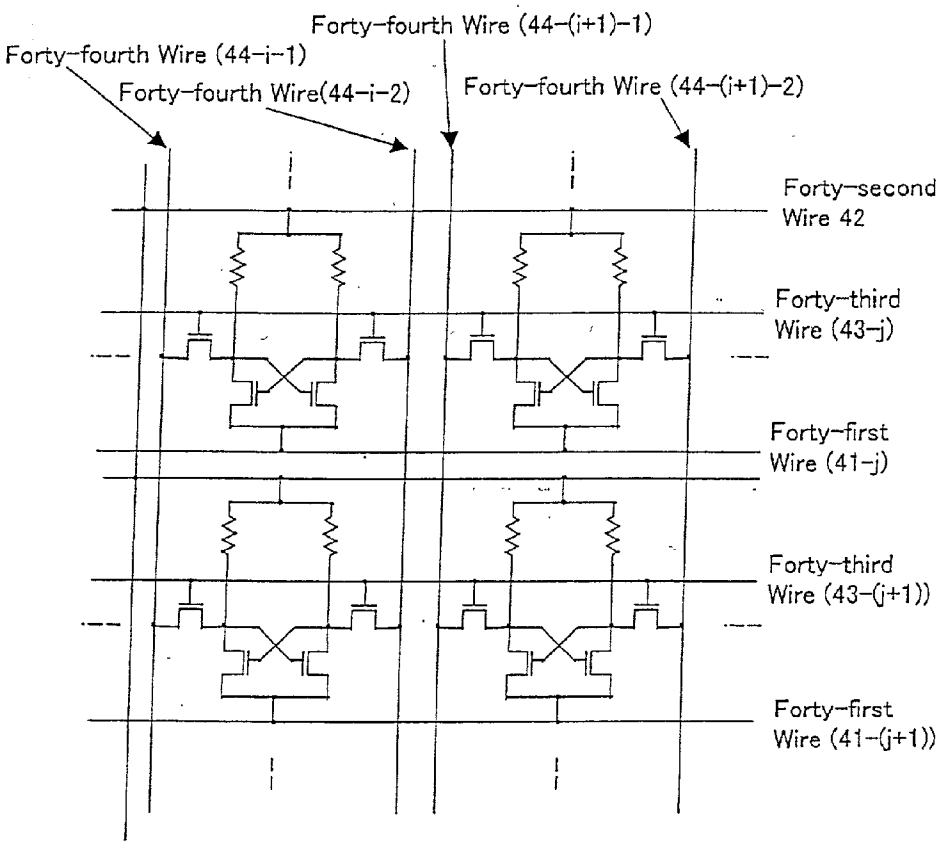

Forty-fourth Wire (44-(i+1)-1)
Forty-fourth Wire (44-i-1)
Forty-fourth Wire(44-i-2)
Forty-fourth Wire (44-(i+1)-2)
Forty-second Wire 42
Forty-third Wire (43-j)
Forty-first Wire (41-j)
Forty-third Wire (43-(j+1))
Forty-first Wire (41-(j+1))

Fig. 78

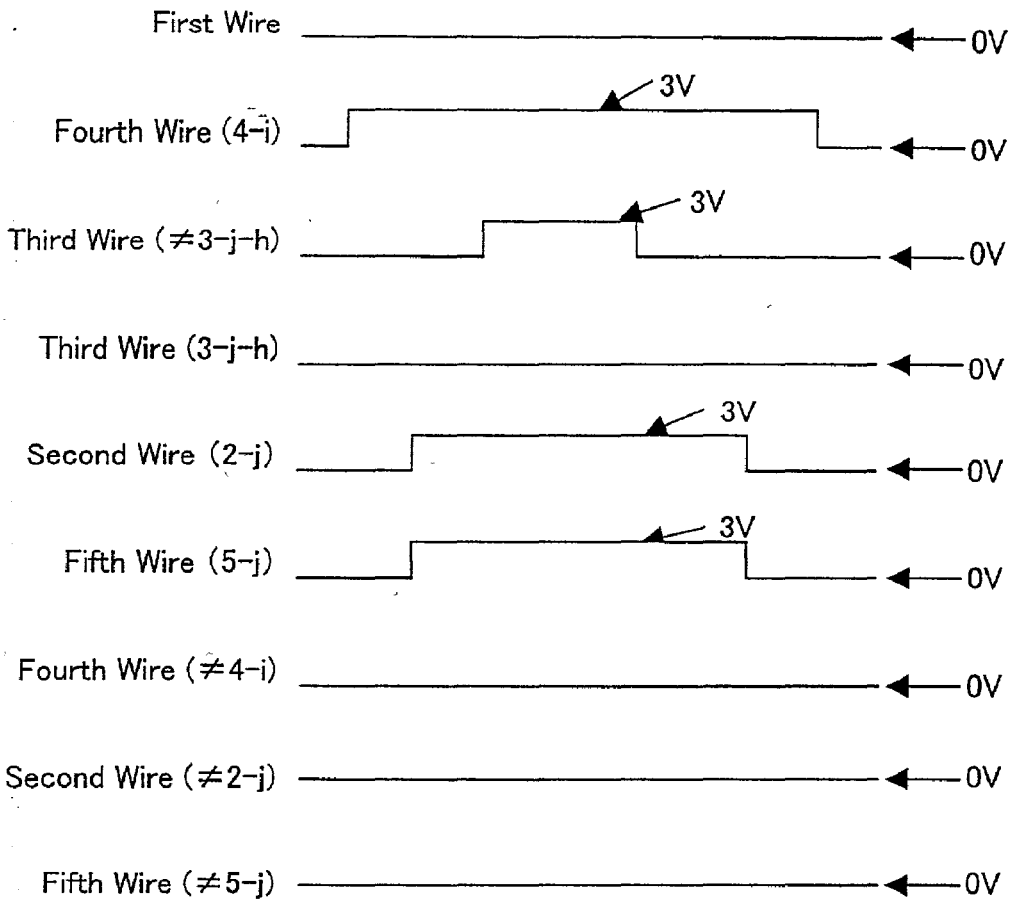

First Wire
0V
3V
Fourth Wire (4-i)
0V
3V
Third Wire (≠3-j-h)
0V
Third Wire (3-j-h)
0V
3V
Second Wire (2-j)
0V
3V
Fifth Wire (5-j)
0V
Fourth Wire (≠4-i)
0V
Second Wire (≠2-j)
0V
Fifth Wire (≠5-j)
0V

Fig. 79

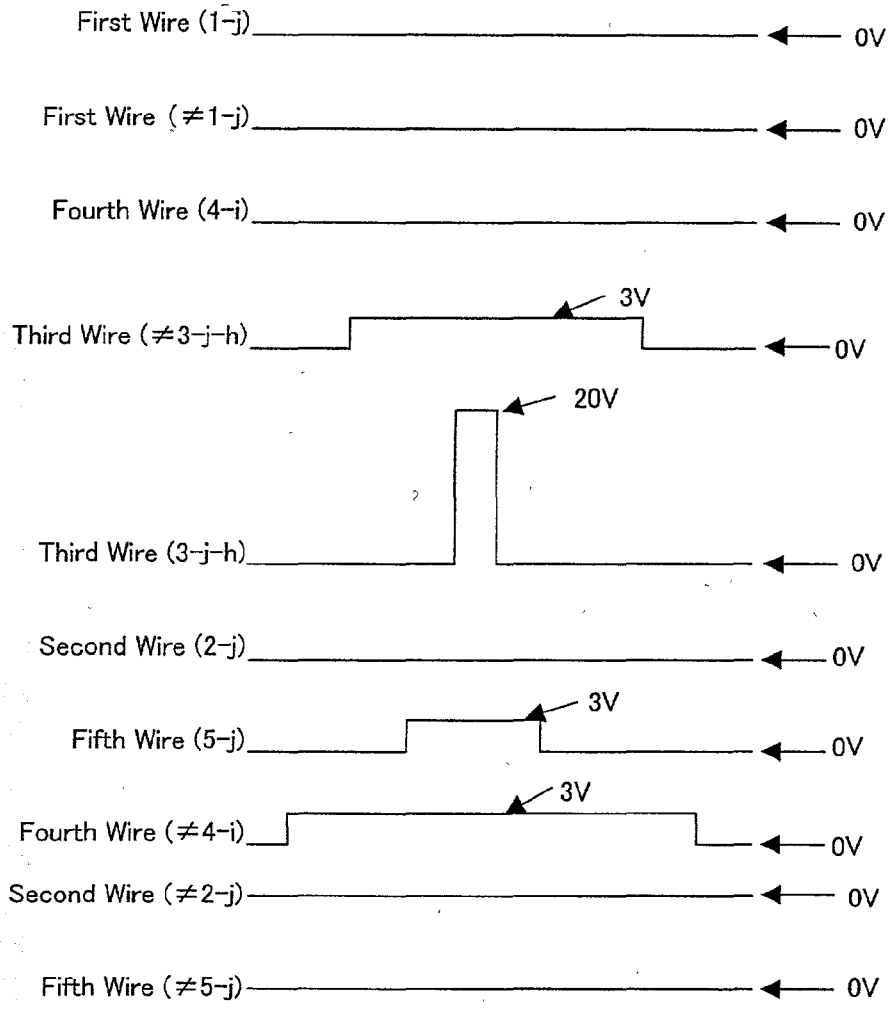

First Wire (1-j)
0V
First Wire (≠1-j)
0V
Fourth Wire (4-i)
0V
3V
Third Wire (≠3-j-h)
0V
20V
Third Wire (3-j-h)
0V
Second Wire (2-j)
0V
3V
Fifth Wire (5-j)
0V
3V
Fourth Wire (≠4-i)
0V
Second Wire (≠2-j)
0V
Fifth Wire (≠5-j)
0V

Fig. 80

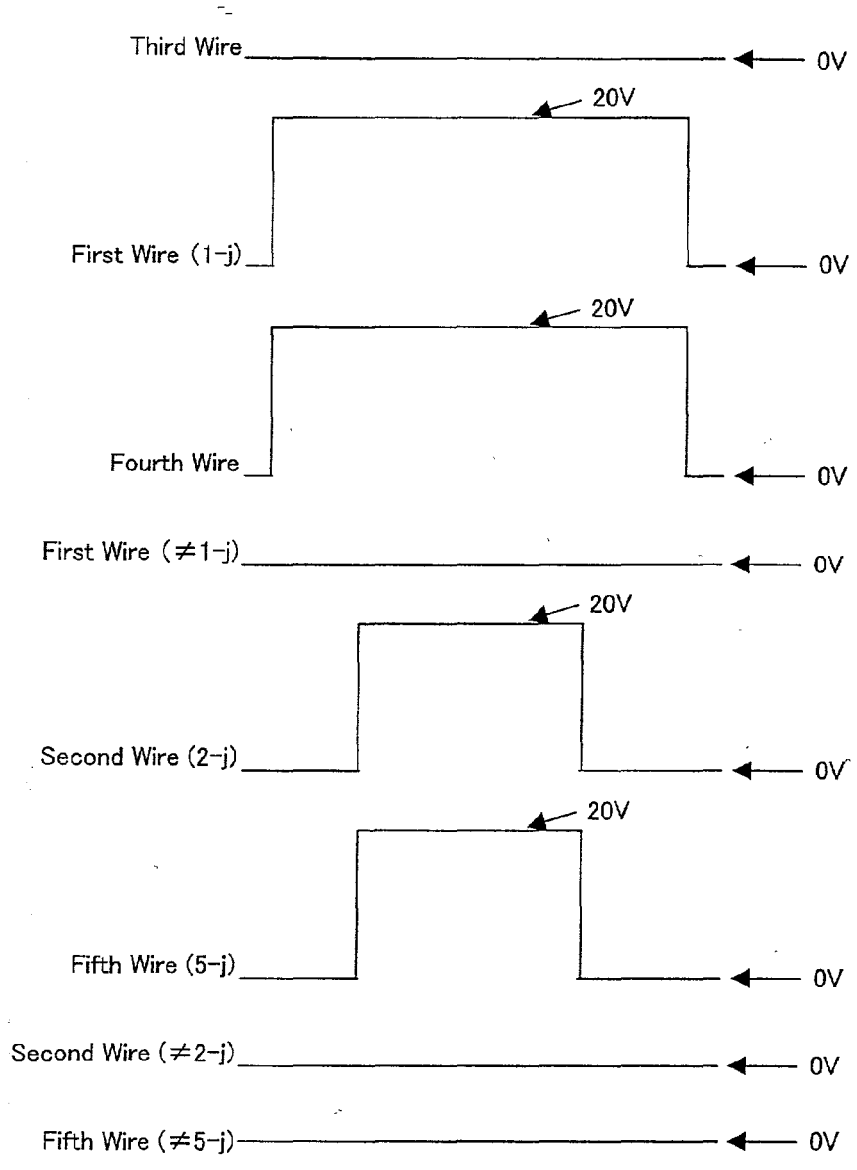

Third Wire
0V
20V
First Wire (1-j)
0V
20V
Fourth Wire
0V
First Wire (≠1-j)
0V
20V
Second Wire (2-j)
0V
20V
Fifth Wire (5-j)
0V
Second Wire (≠2-j)
0V
Fifth Wire (≠5-j)
0V

Fig. 81

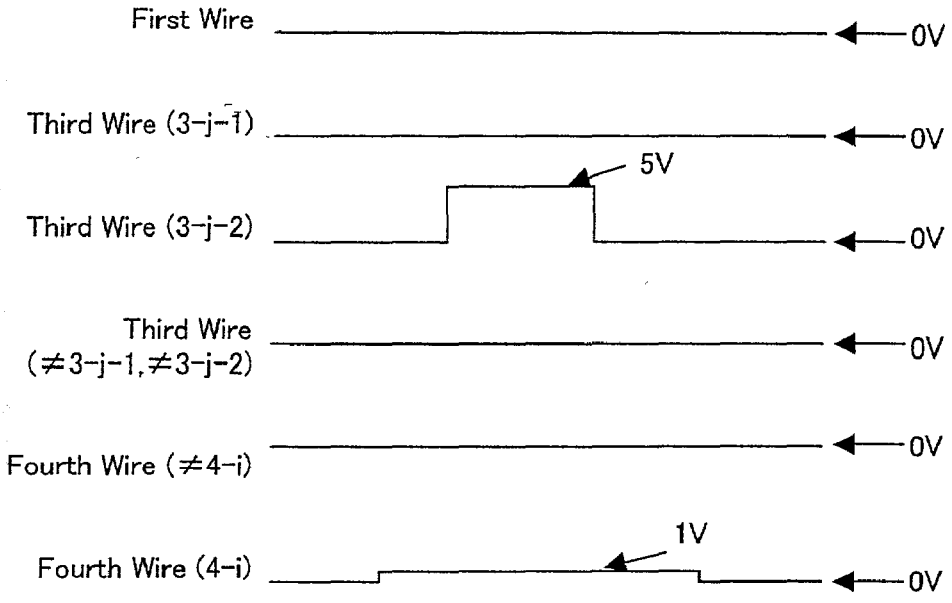

First Wire
0V
Third Wire (3-j-1)
0V
5V
Third Wire (3-j-2)
0V
Third Wire
(≠3-j-1,≠3-j-2)
0V
Fourth Wire (≠4-i)
0V
1V
Fourth Wire (4-i)
0V

Fig. 82

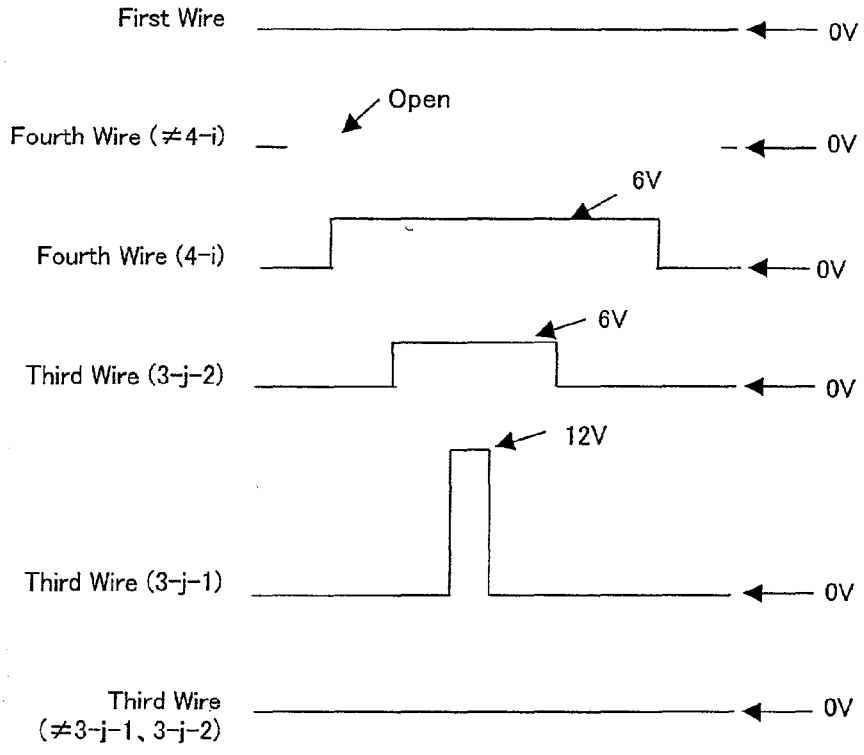

First Wire
0V
Open
Fourth Wire (≠4-i)
0V
6V
Fourth Wire (4-i)
0V
6V
Third Wire (3-j-2)
0V
12V
Third Wire (3-j-1)
0V
Third Wire
(≠3-j-1、3-j-2)
0V

Fig. 83

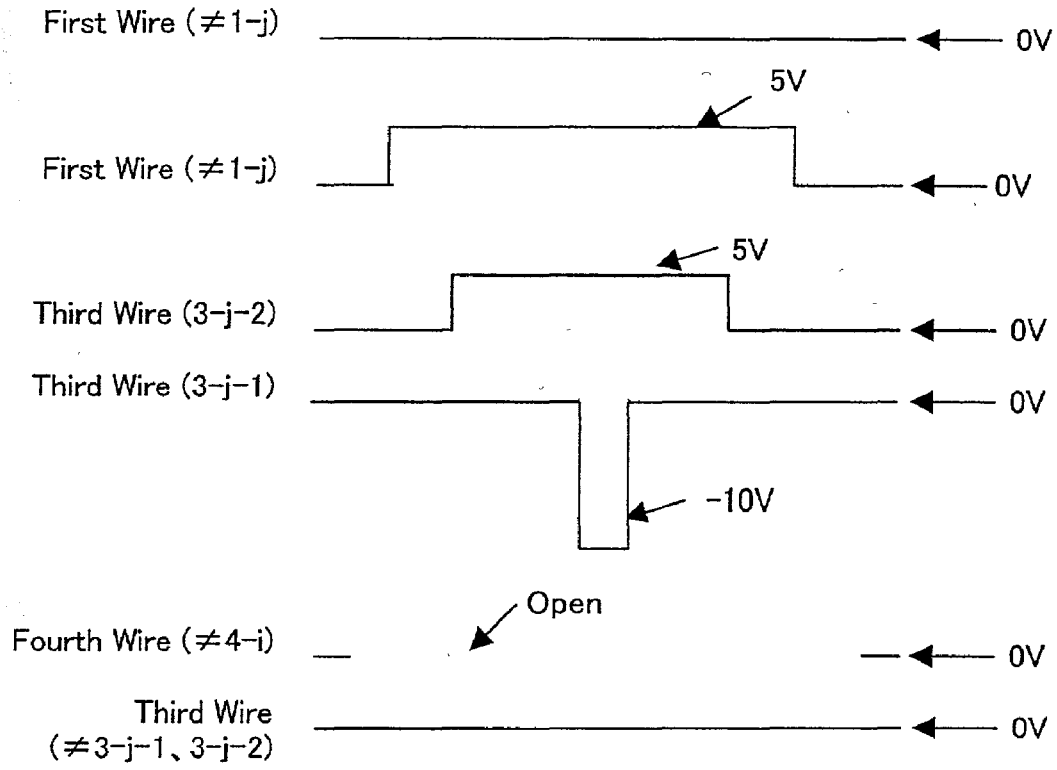

First Wire (≠1-j)
0V
5V
First Wire (≠1-j)
0V
5V
Third Wire (3-j-2)
0V
Third Wire (3-j-1)
0V
-10V
Open
Fourth Wire (≠4-i)
0V
Third Wire
(≠3-j-1、3-j-2)
0V

Fig. 84

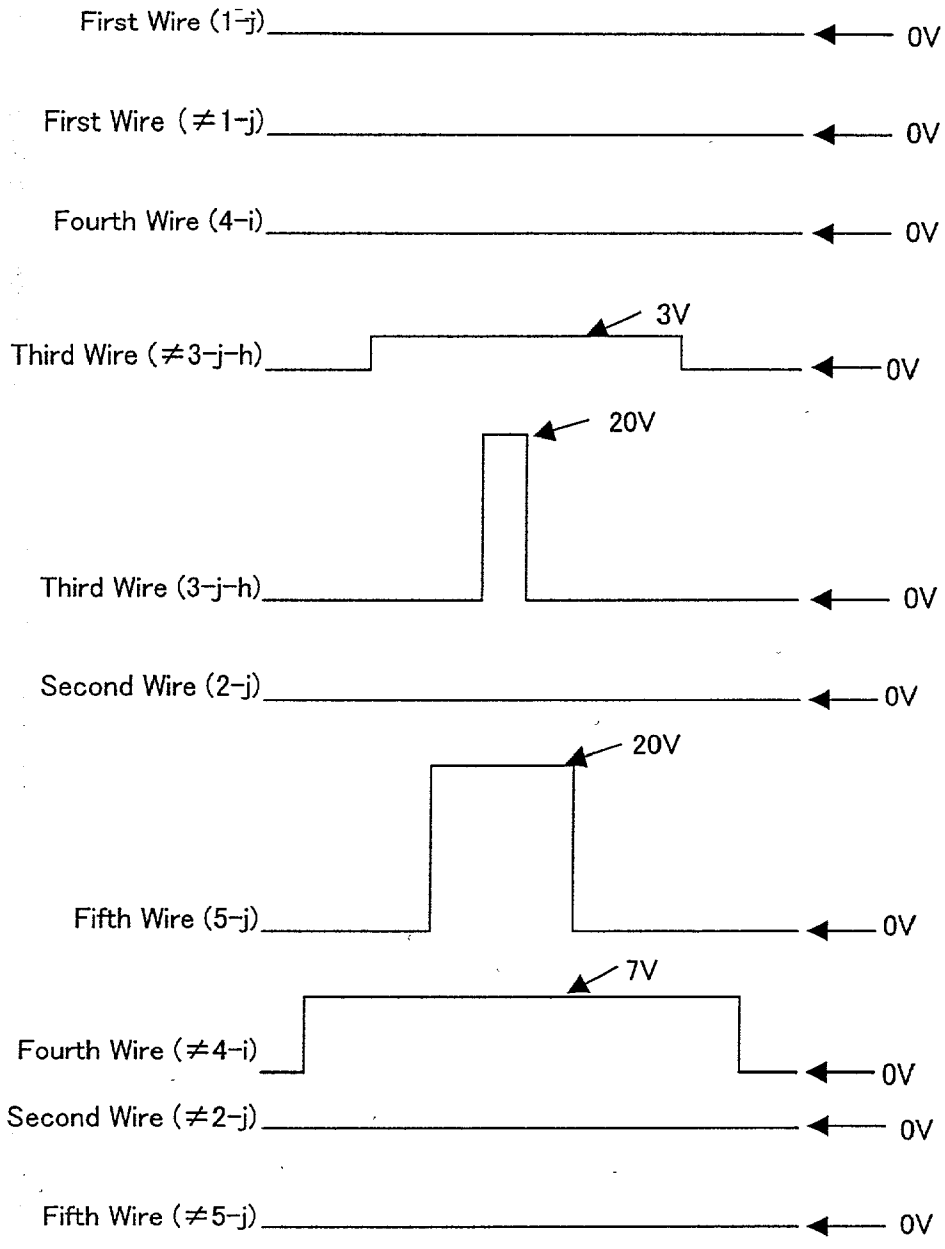

First Wire (1-j)
0V
First Wire (≠1-j)
0V
Fourth Wire (4-i)
0V
3V
Third Wire (≠3-j-h)
0V
20V
Third Wire (3-j-h)
0V
Second Wire (2-j)
0V
20V
Fifth Wire (5-j)
0V
7V
Fourth Wire (≠4-i)
0V
Second Wire (≠2-j)
0V
Fifth Wire (≠5-j)
0V

Fig. 85

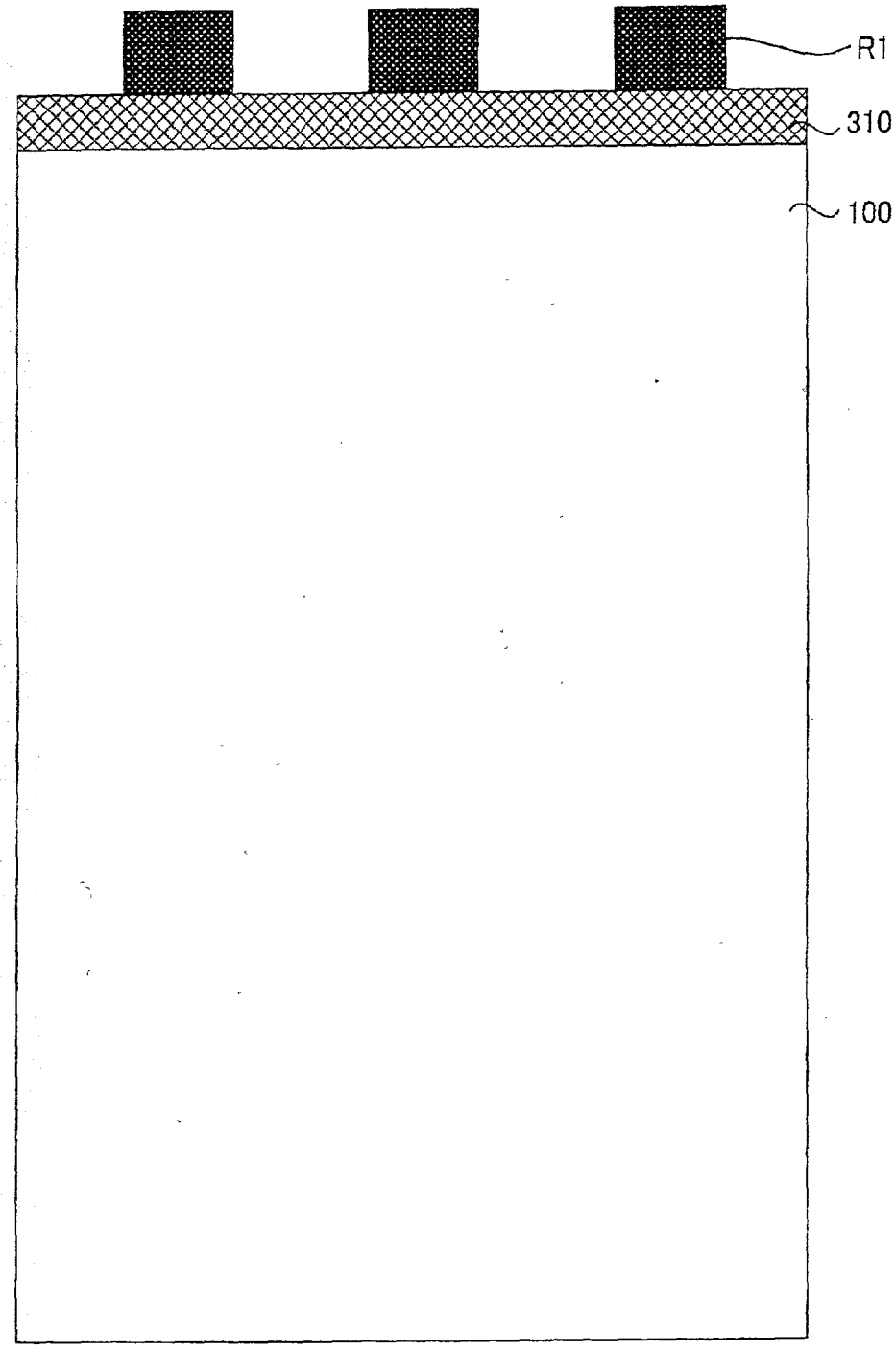


Fig. 86

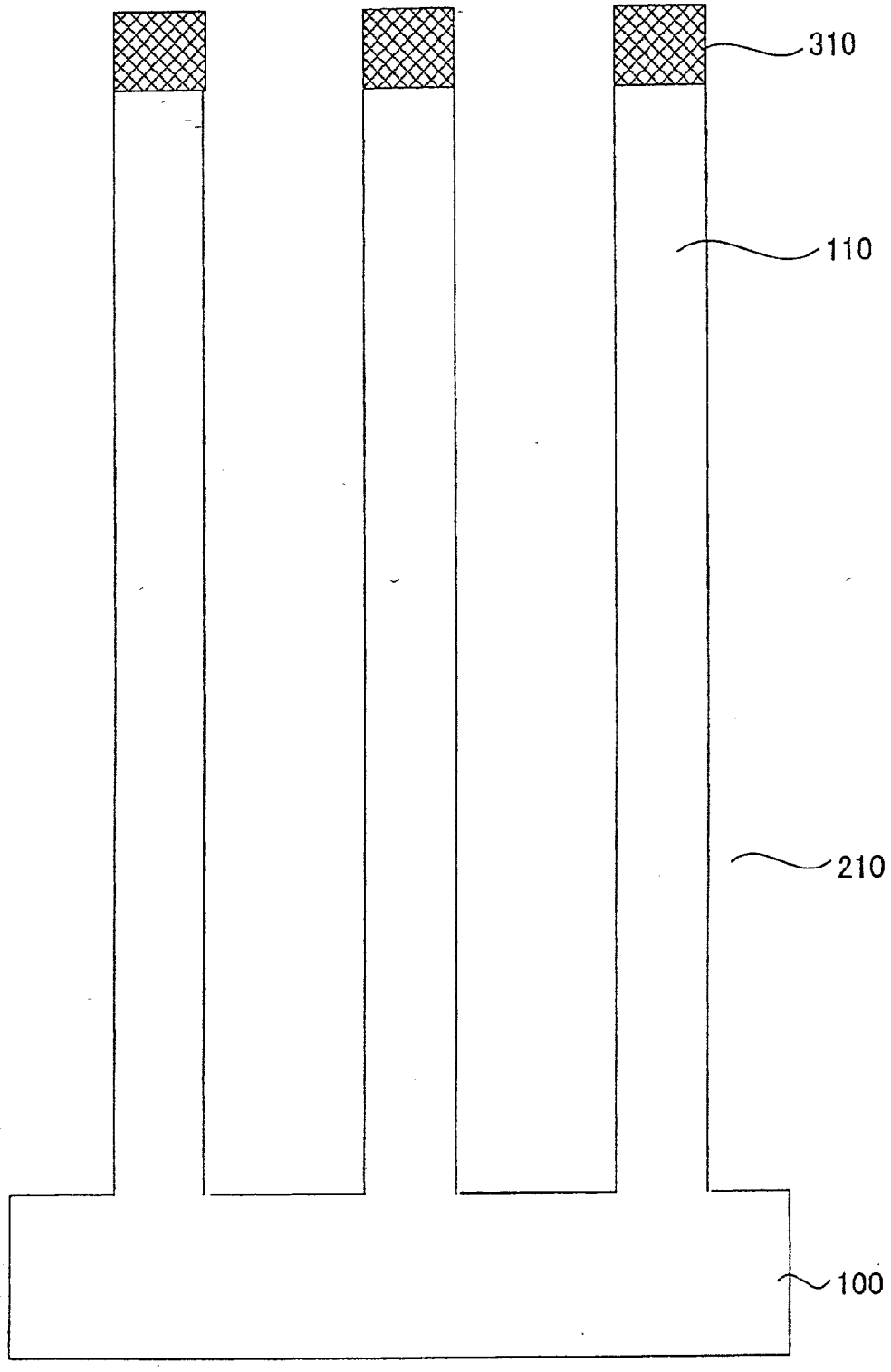


Fig. 87

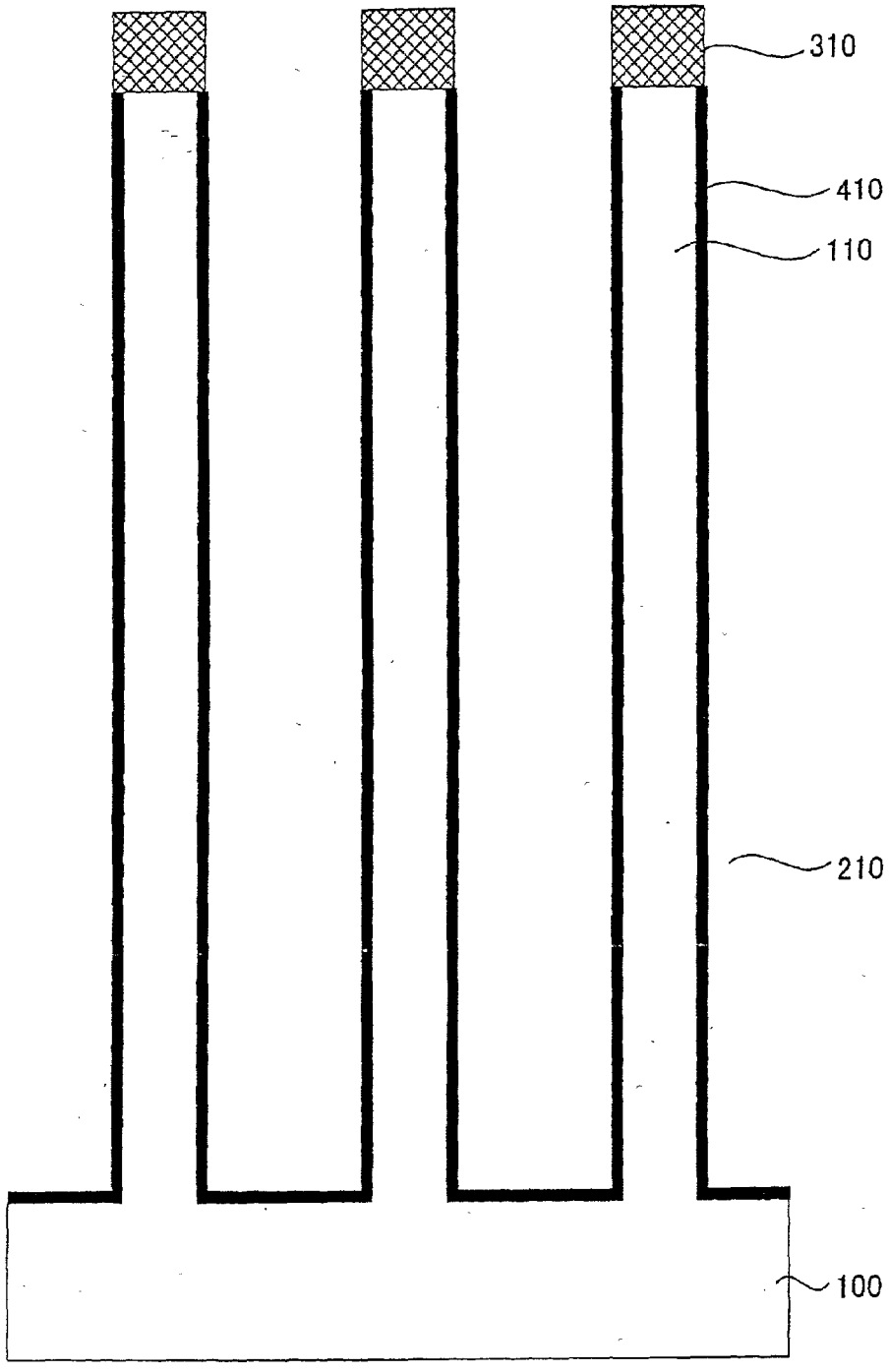


Fig. 88

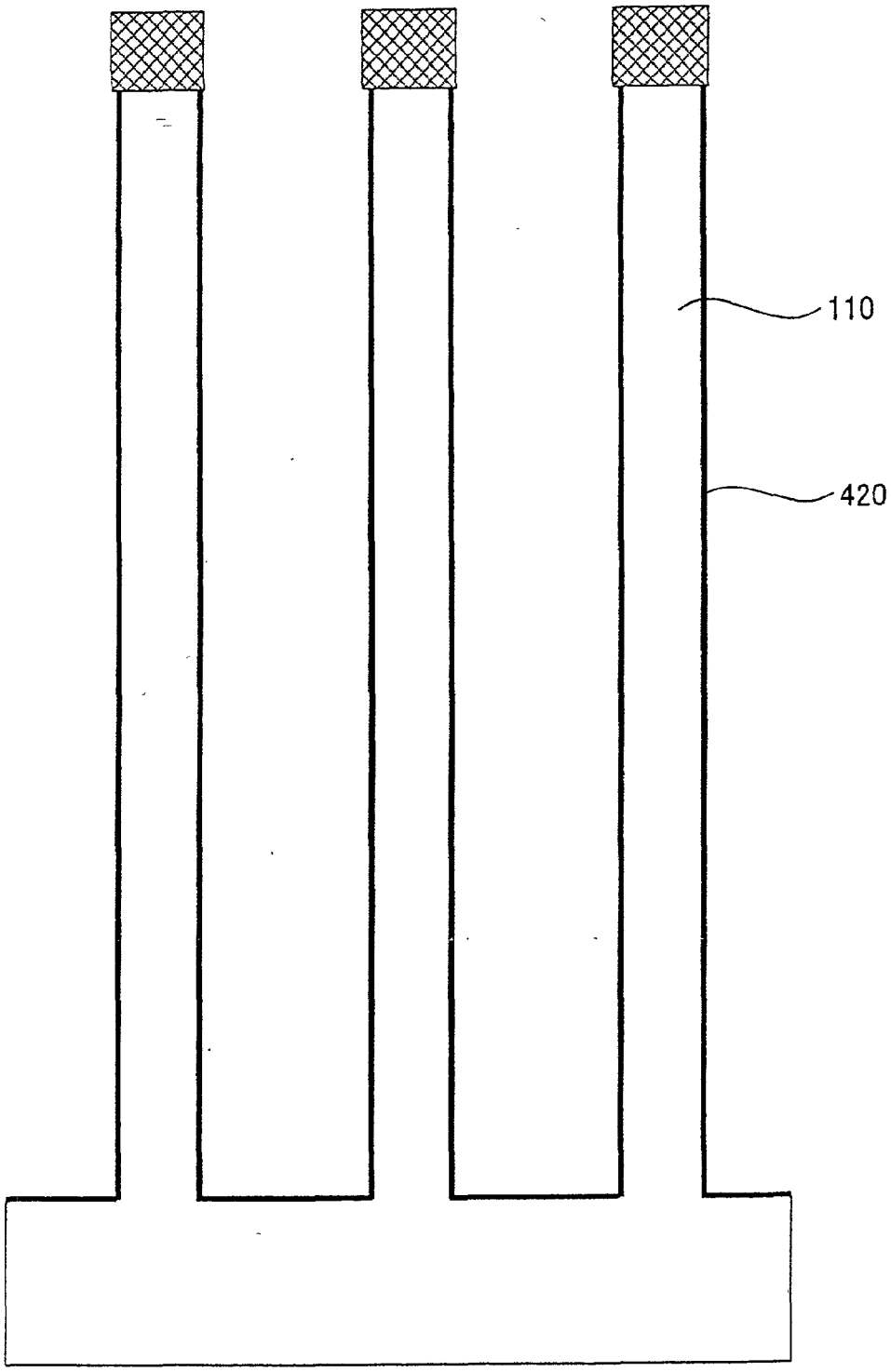


Fig. 89

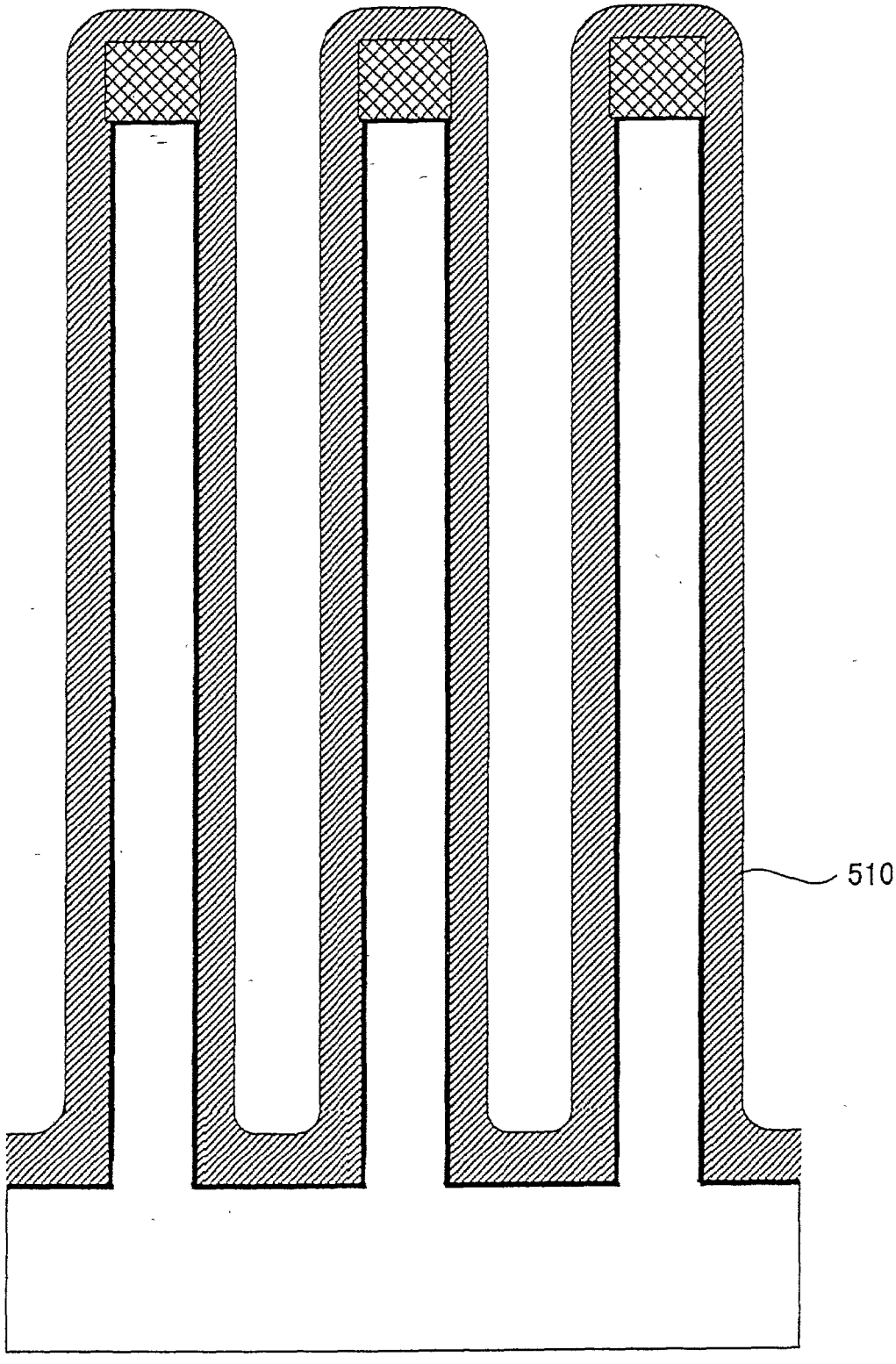


Fig. 90

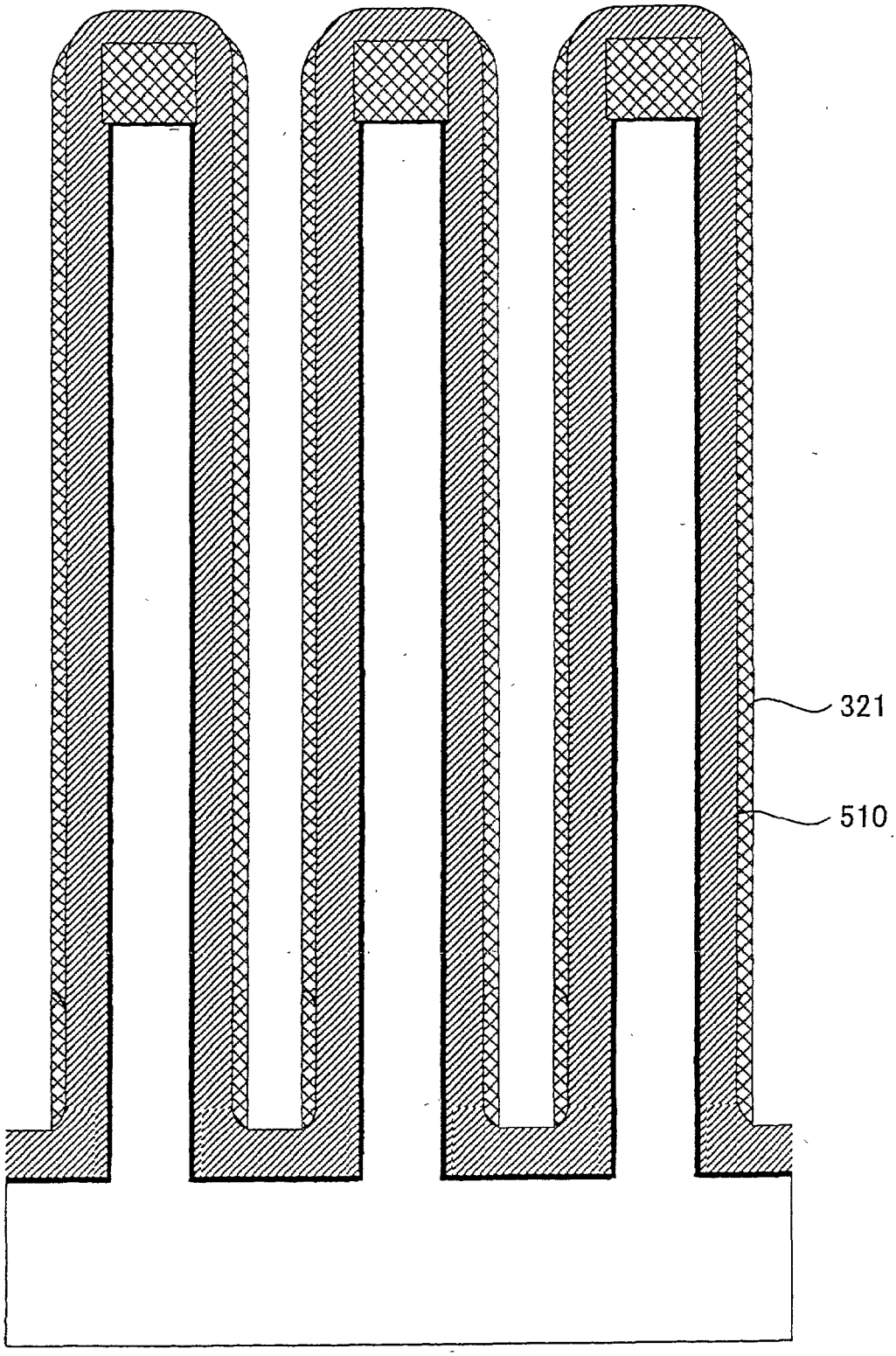


Fig. 91

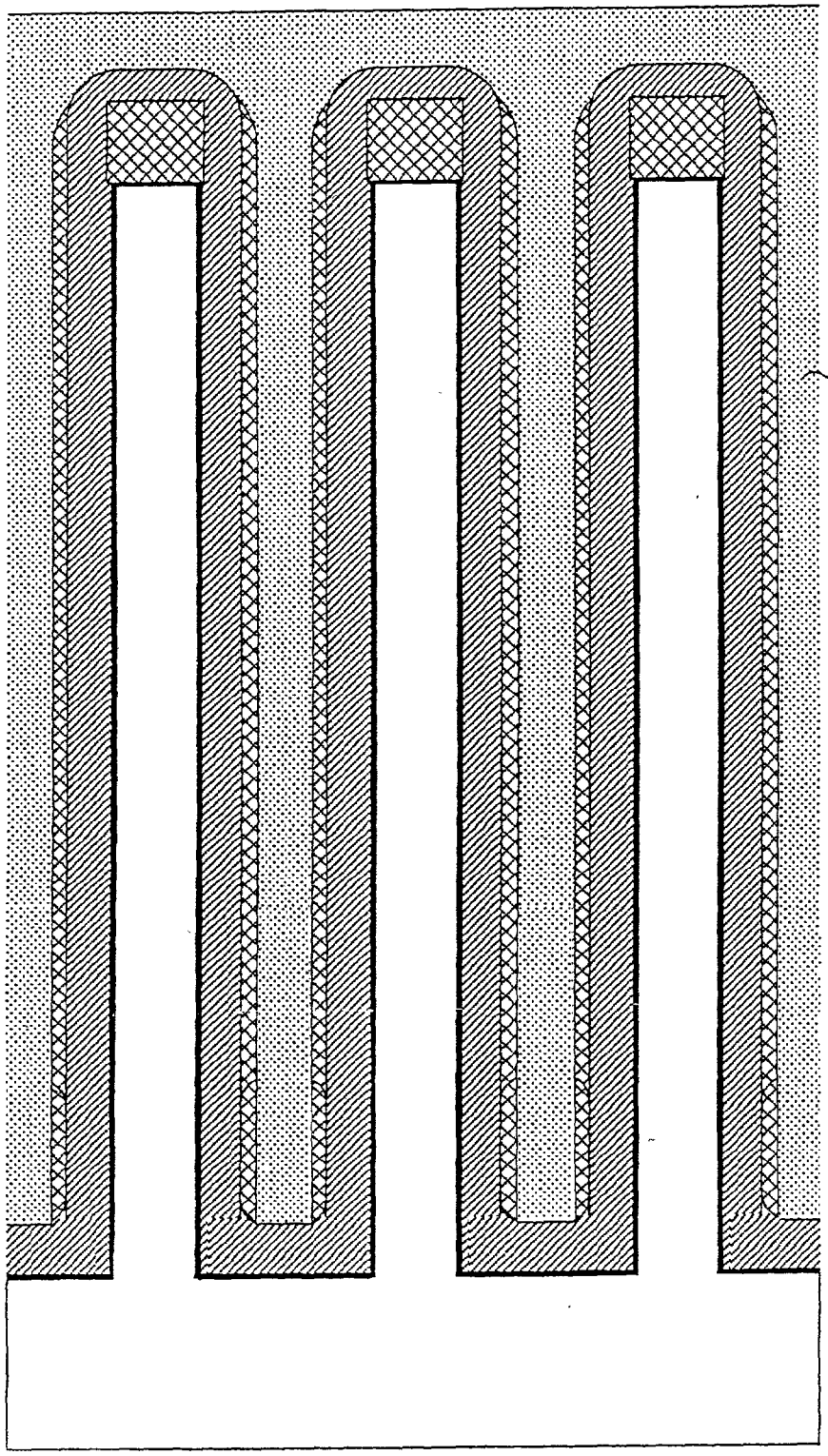


Fig. 92

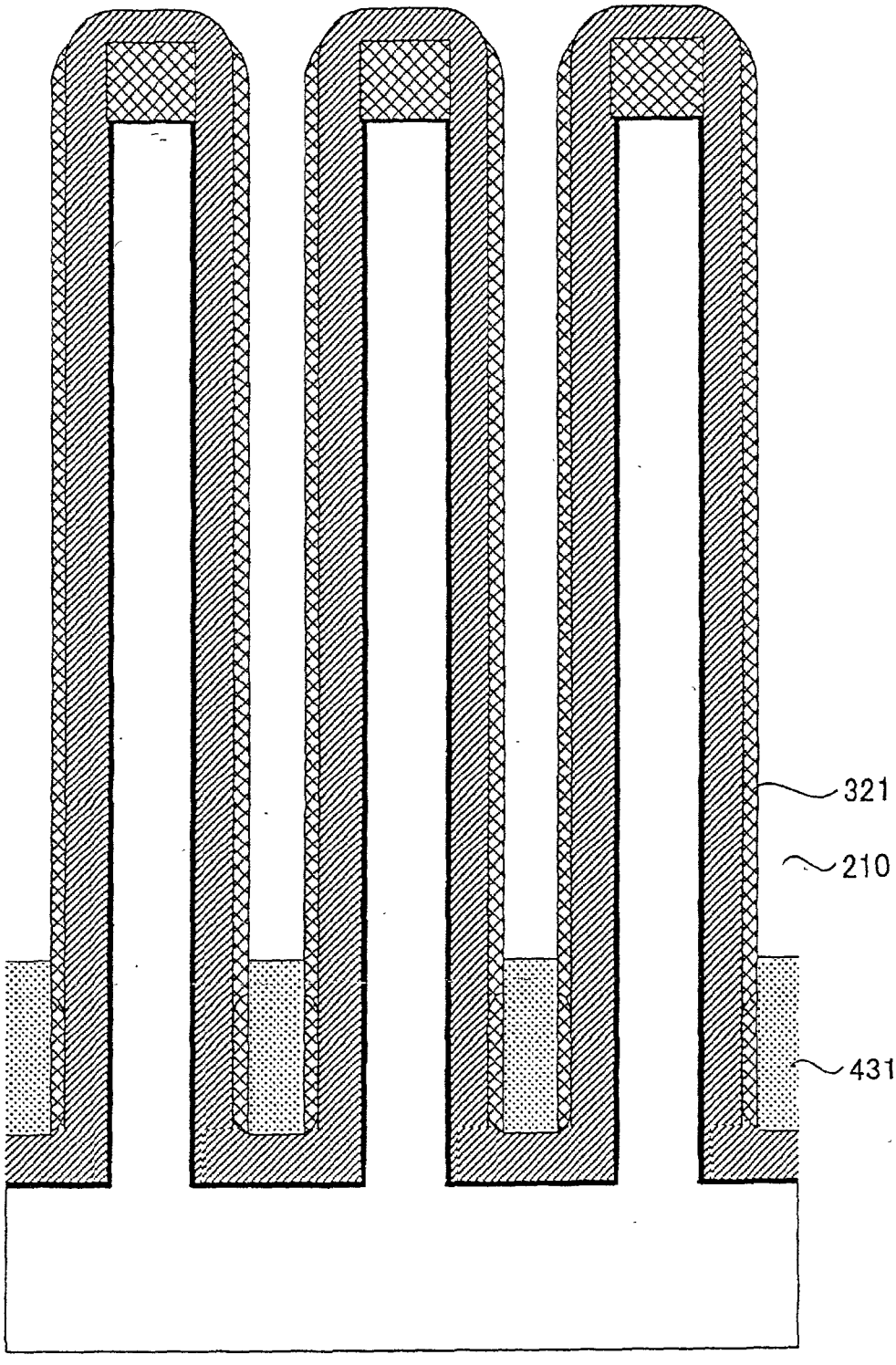


Fig. 93

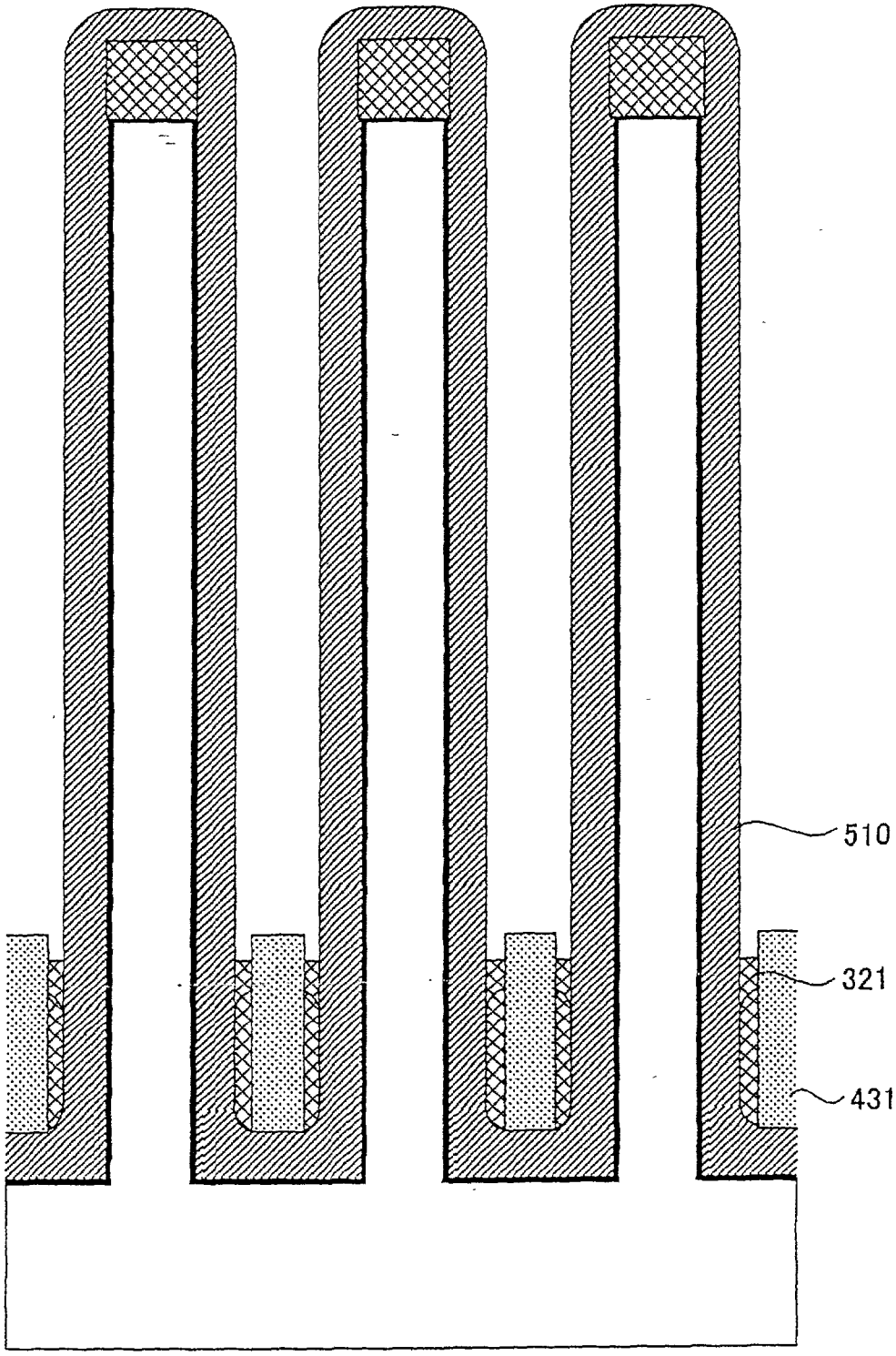
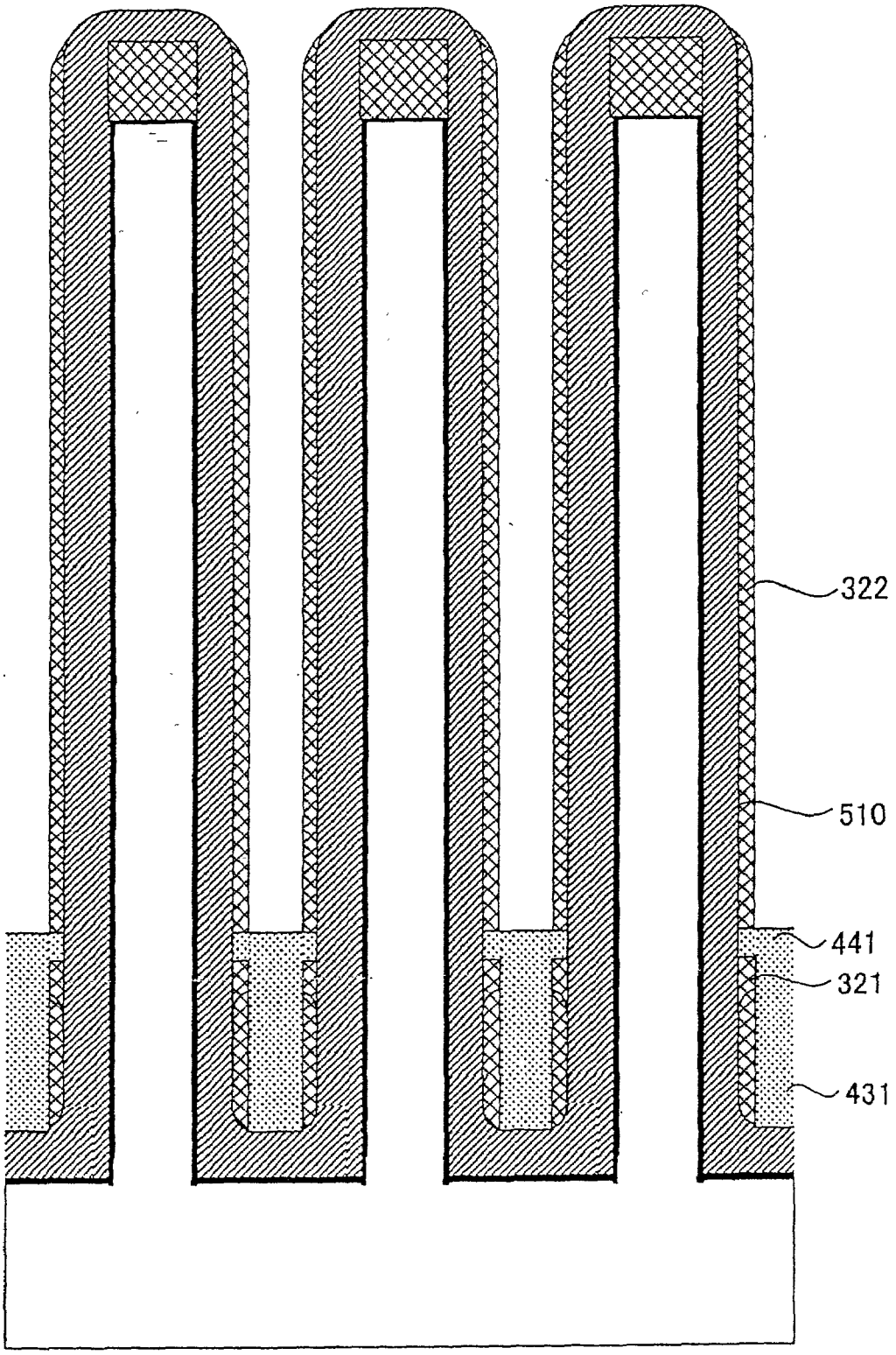


Fig. 94



Petitioner Micron Ex-1006, 0090

Fig. 95

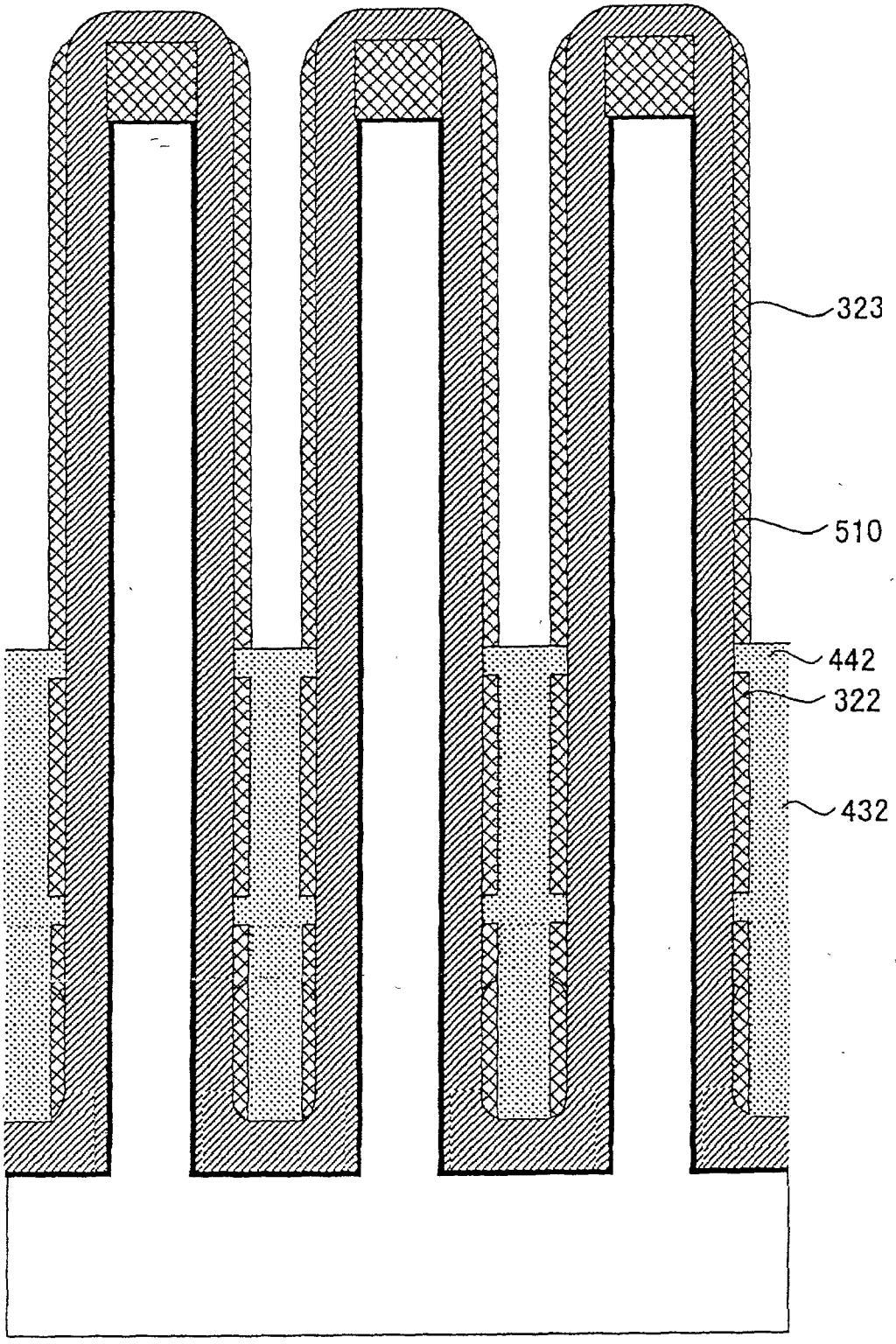


Fig. 96

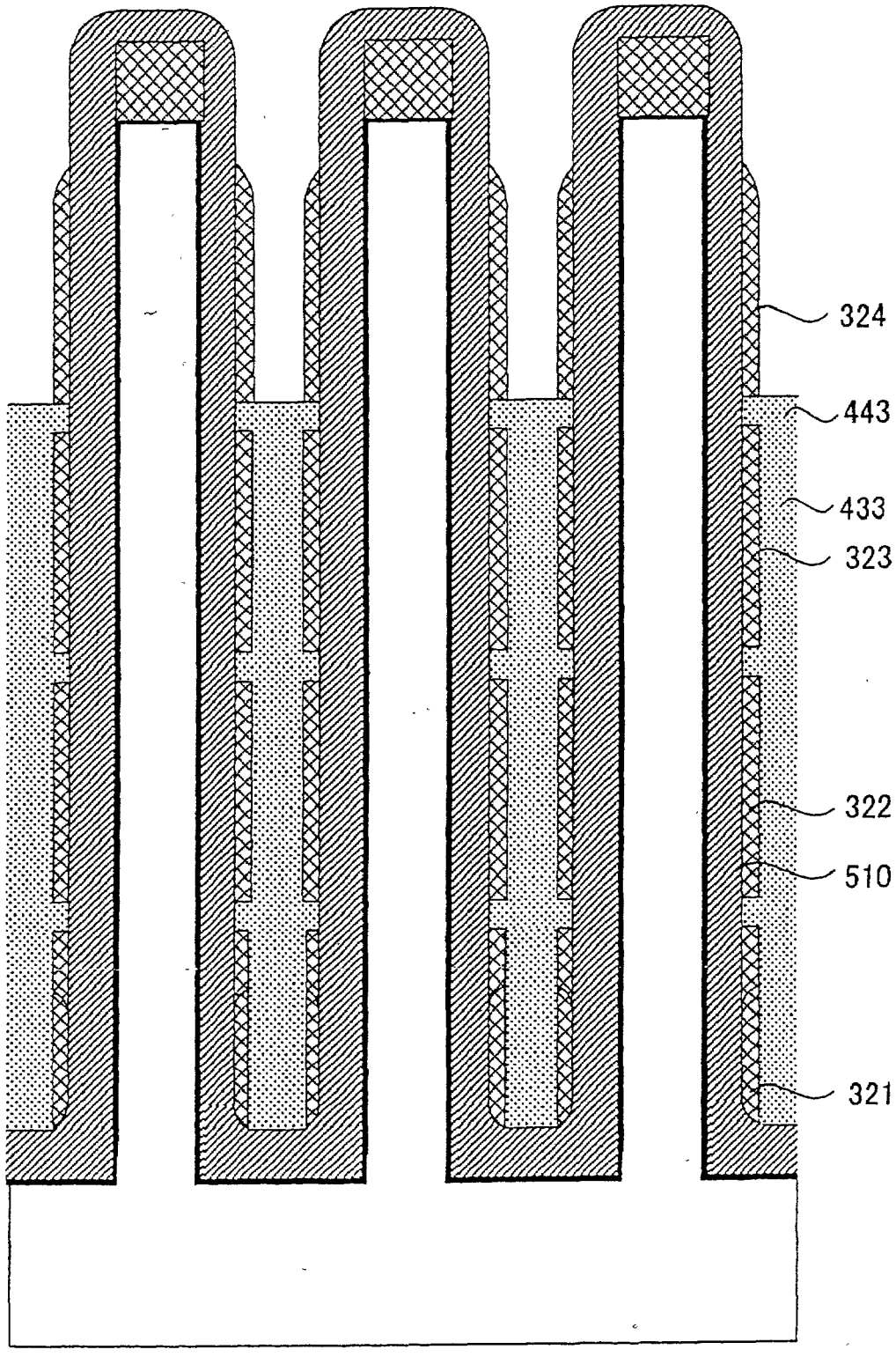


Fig. 97

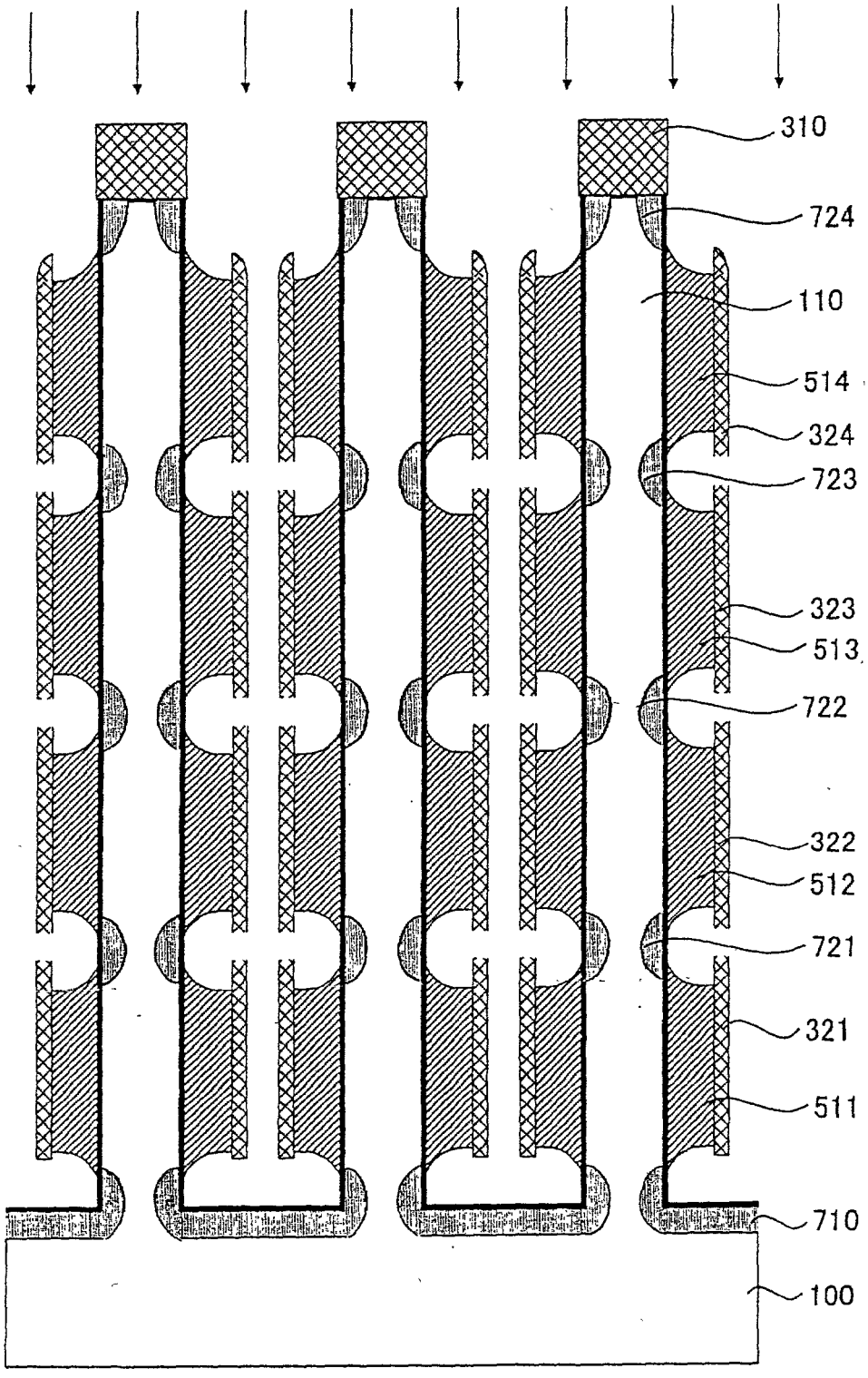


Fig. 98

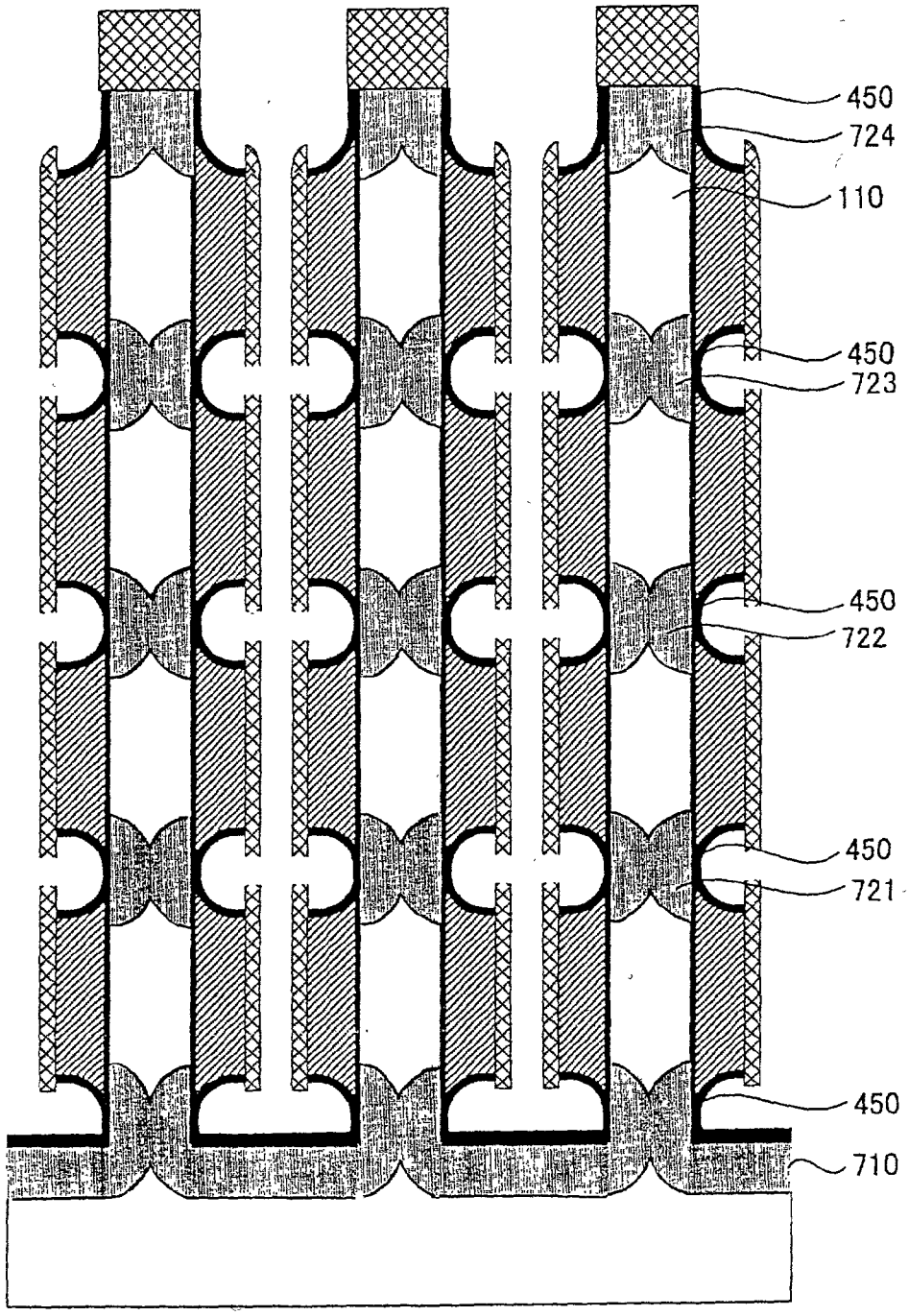


Fig. 99

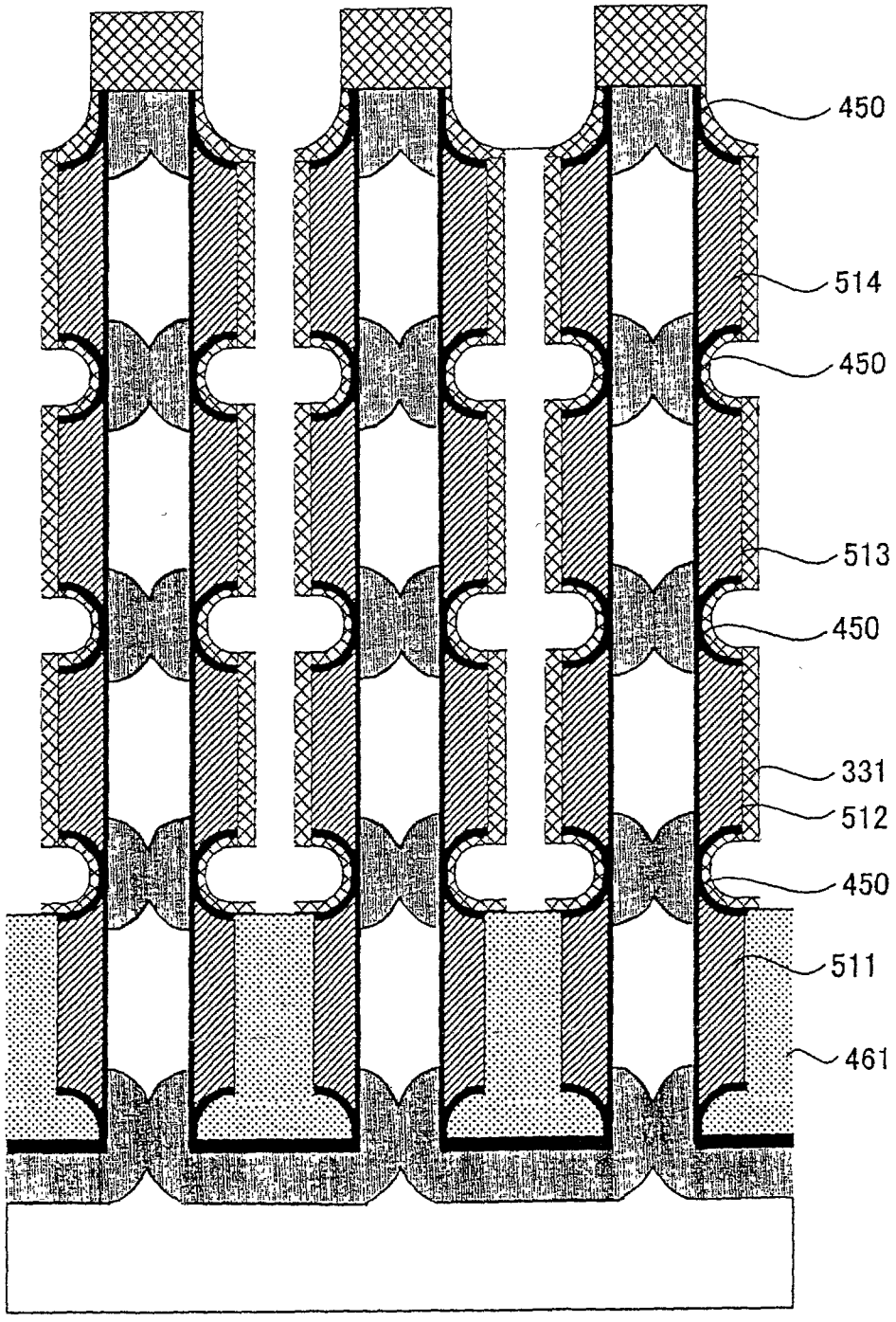


Fig. 100

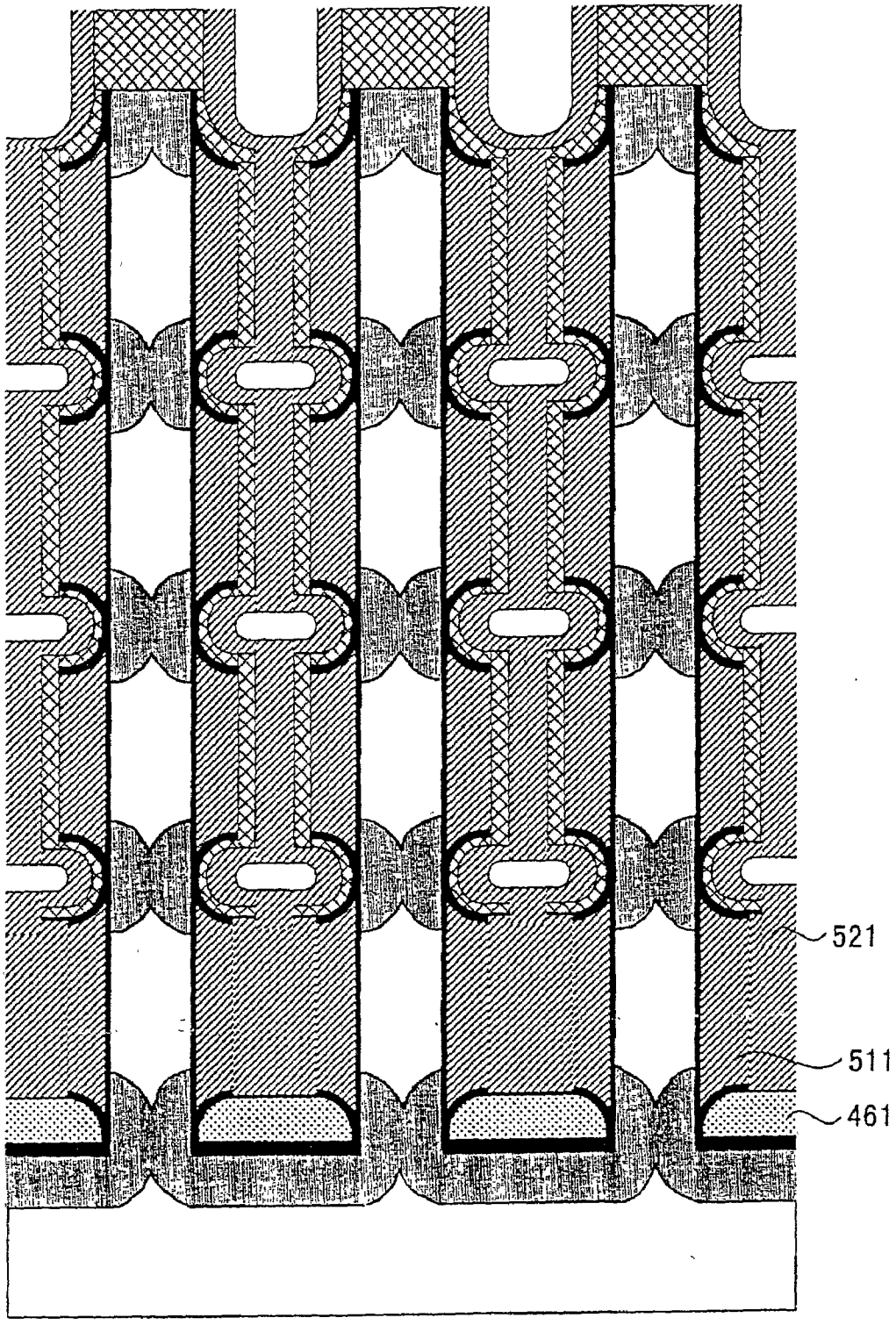


Fig. 101

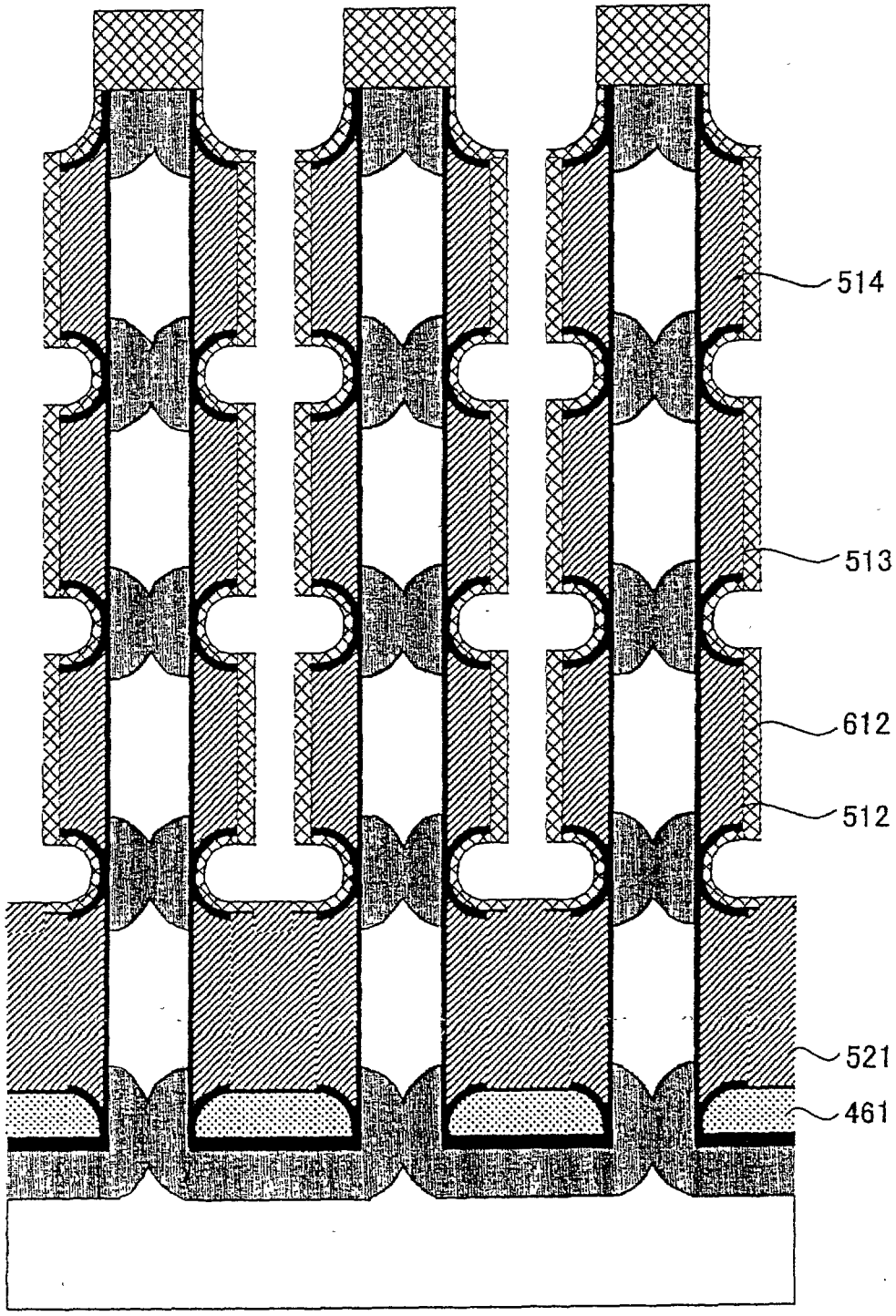


Fig. 102

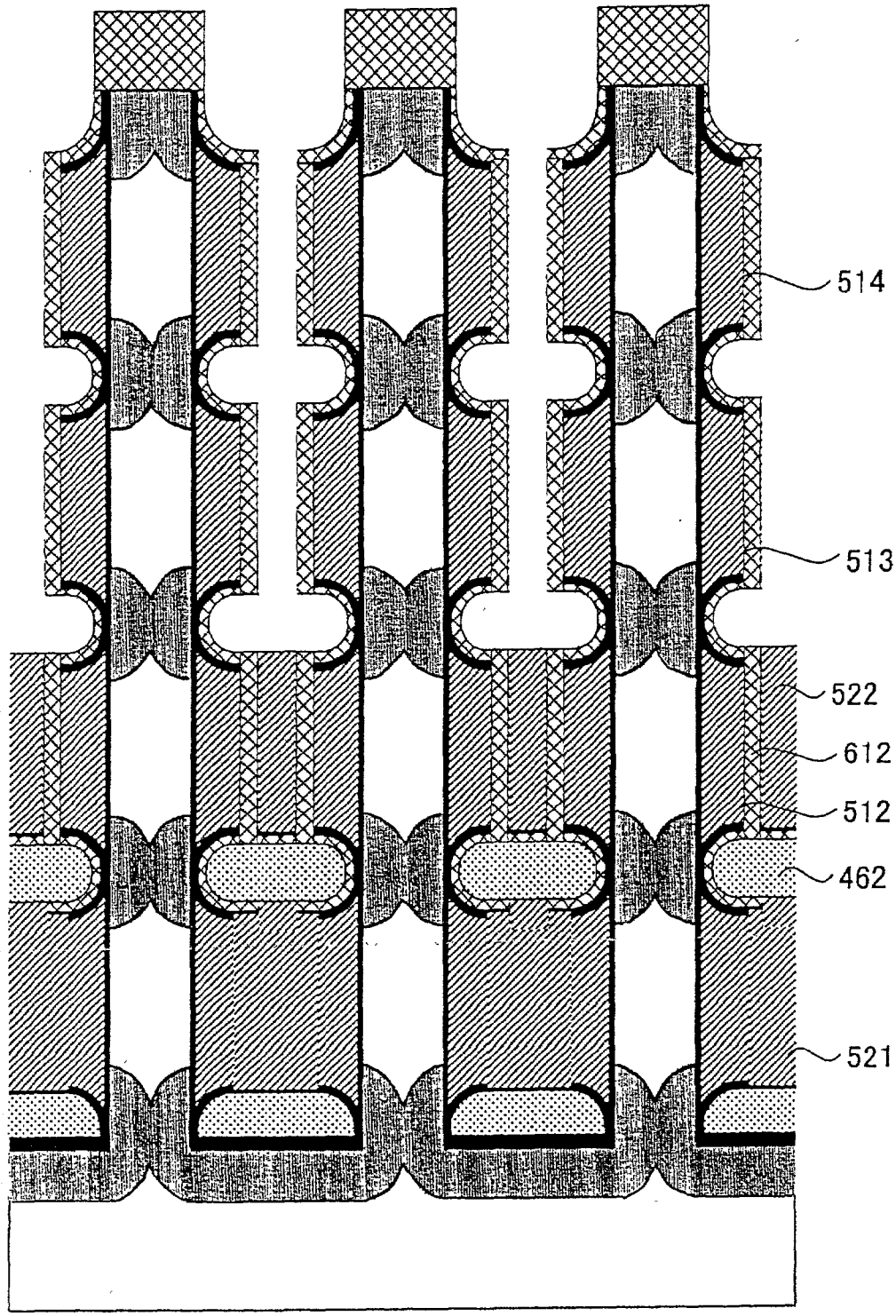


Fig. 103

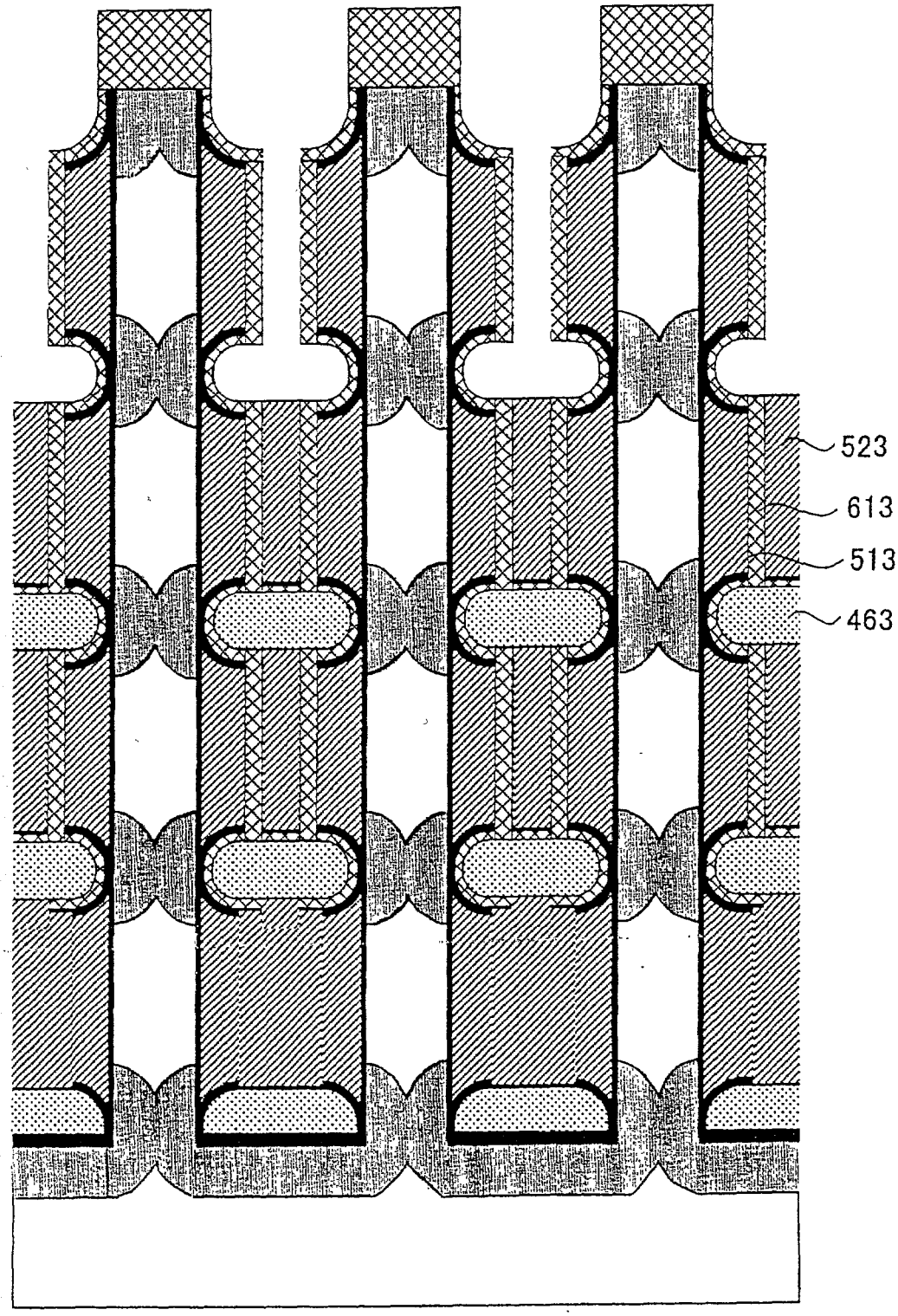


Fig. 104

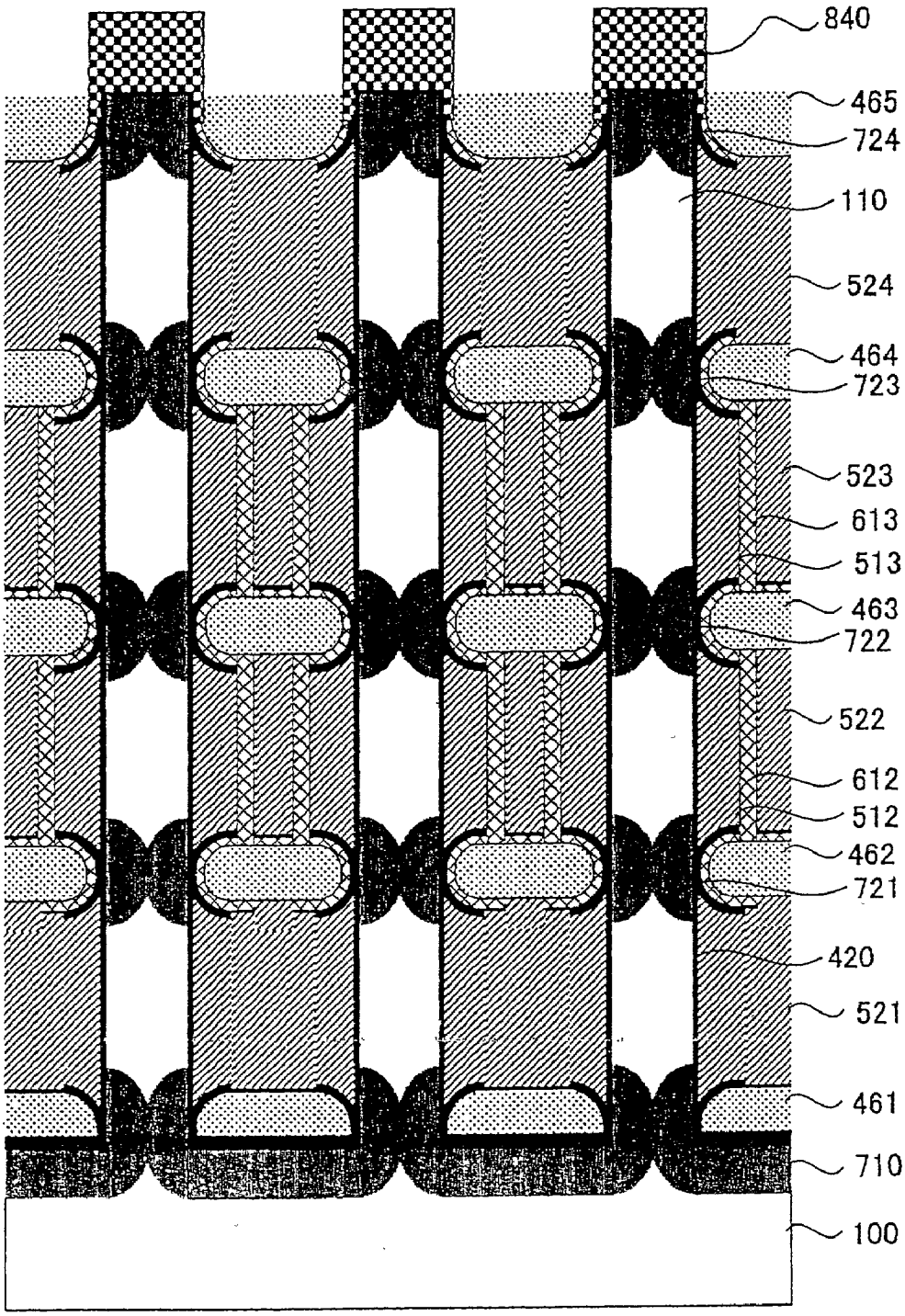

840
465
724
110
524
464
723
523
613
513
463
722
522
612
512
462
721
420
521
461
710
100

Fig. 105

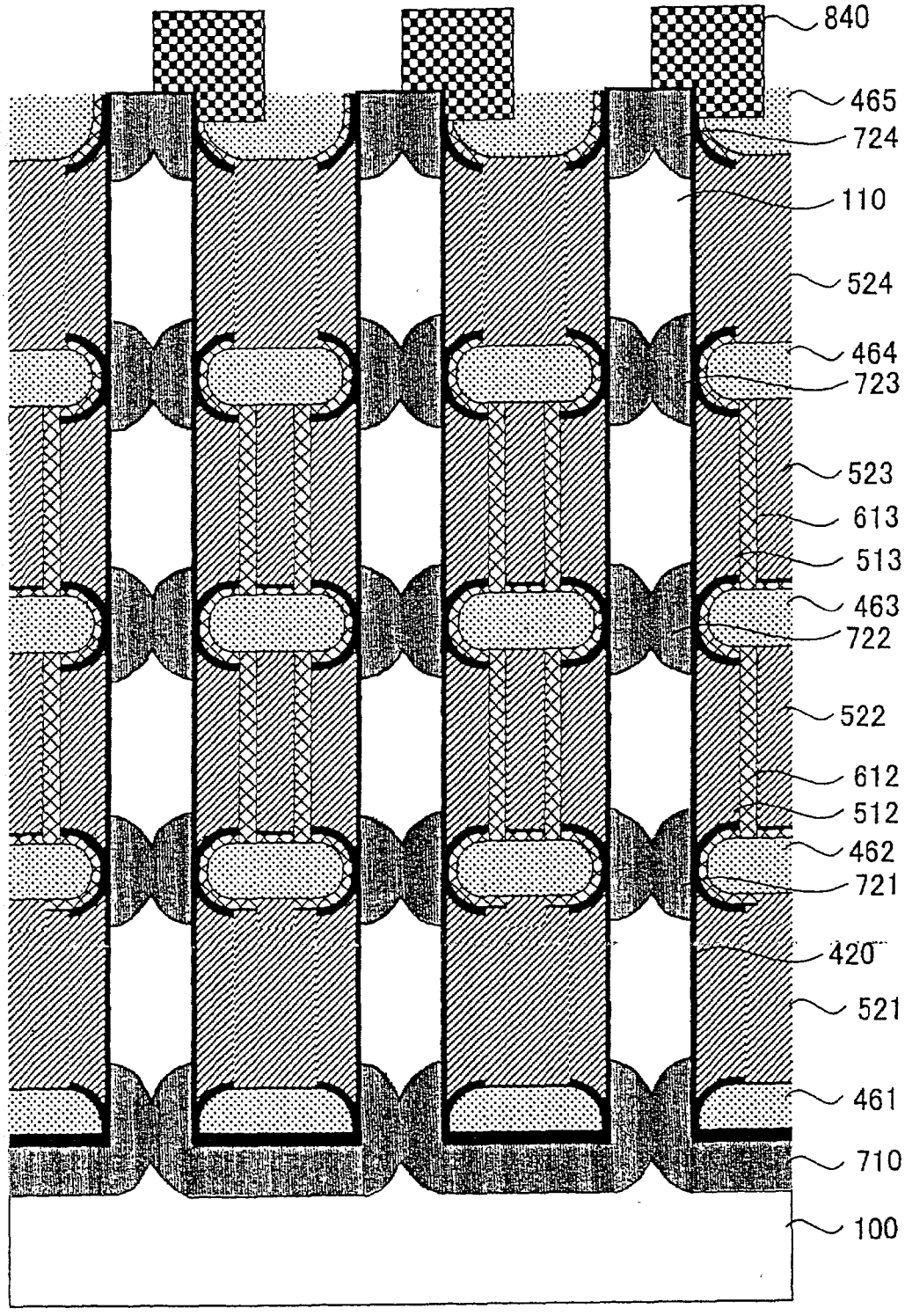

840
465
724
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722
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420
521
461
710
100

Fig. 106

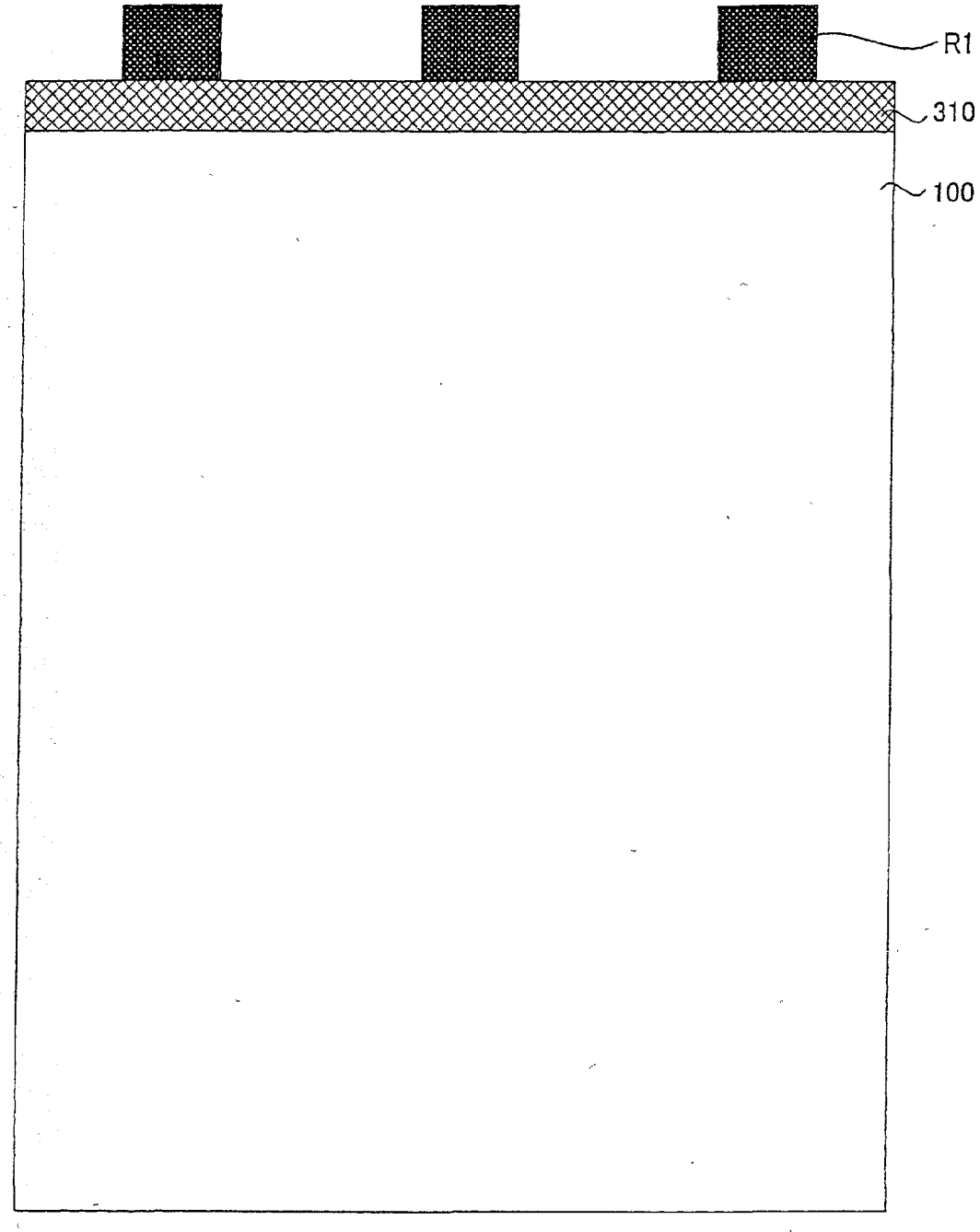


Fig. 107

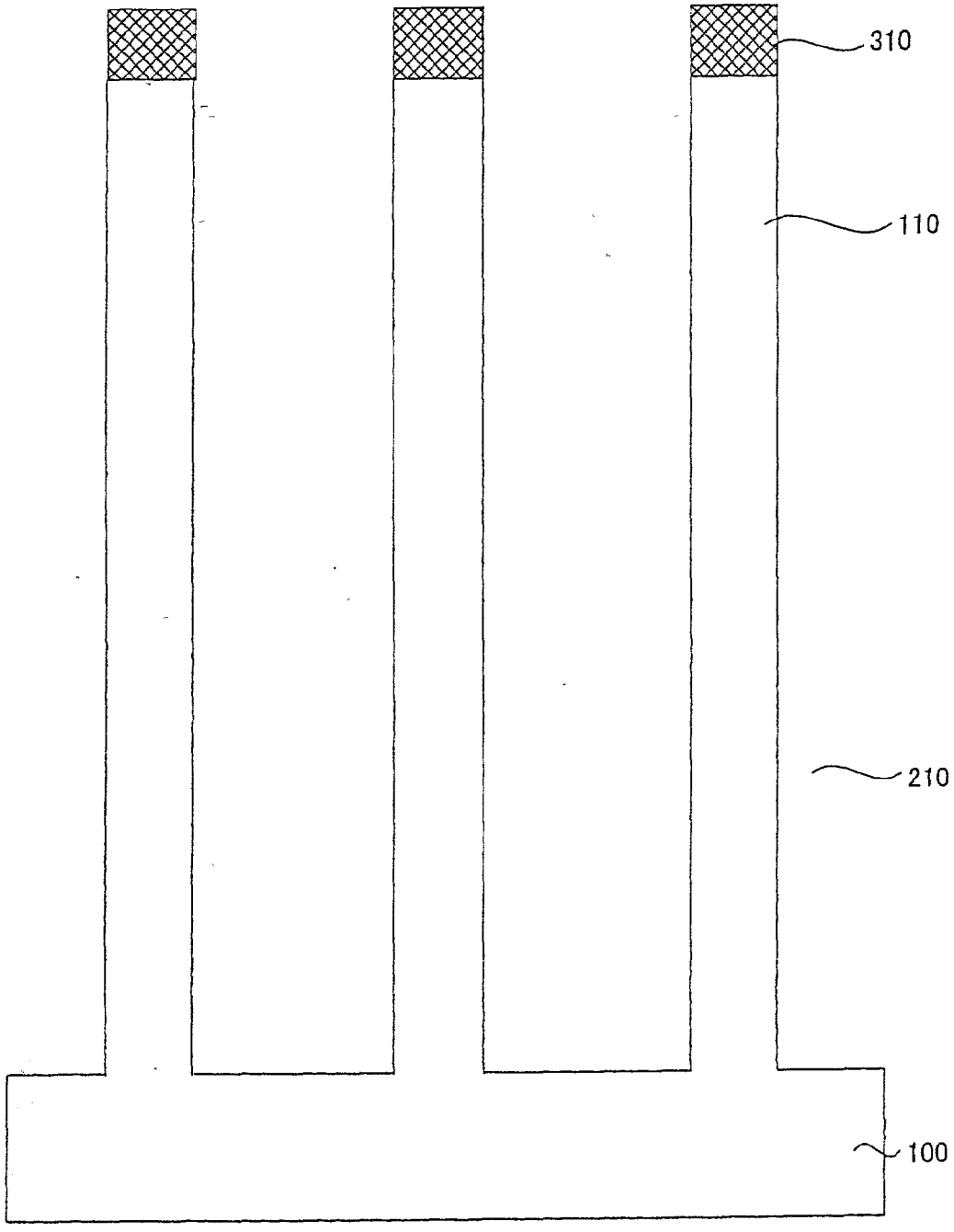


Fig. 108

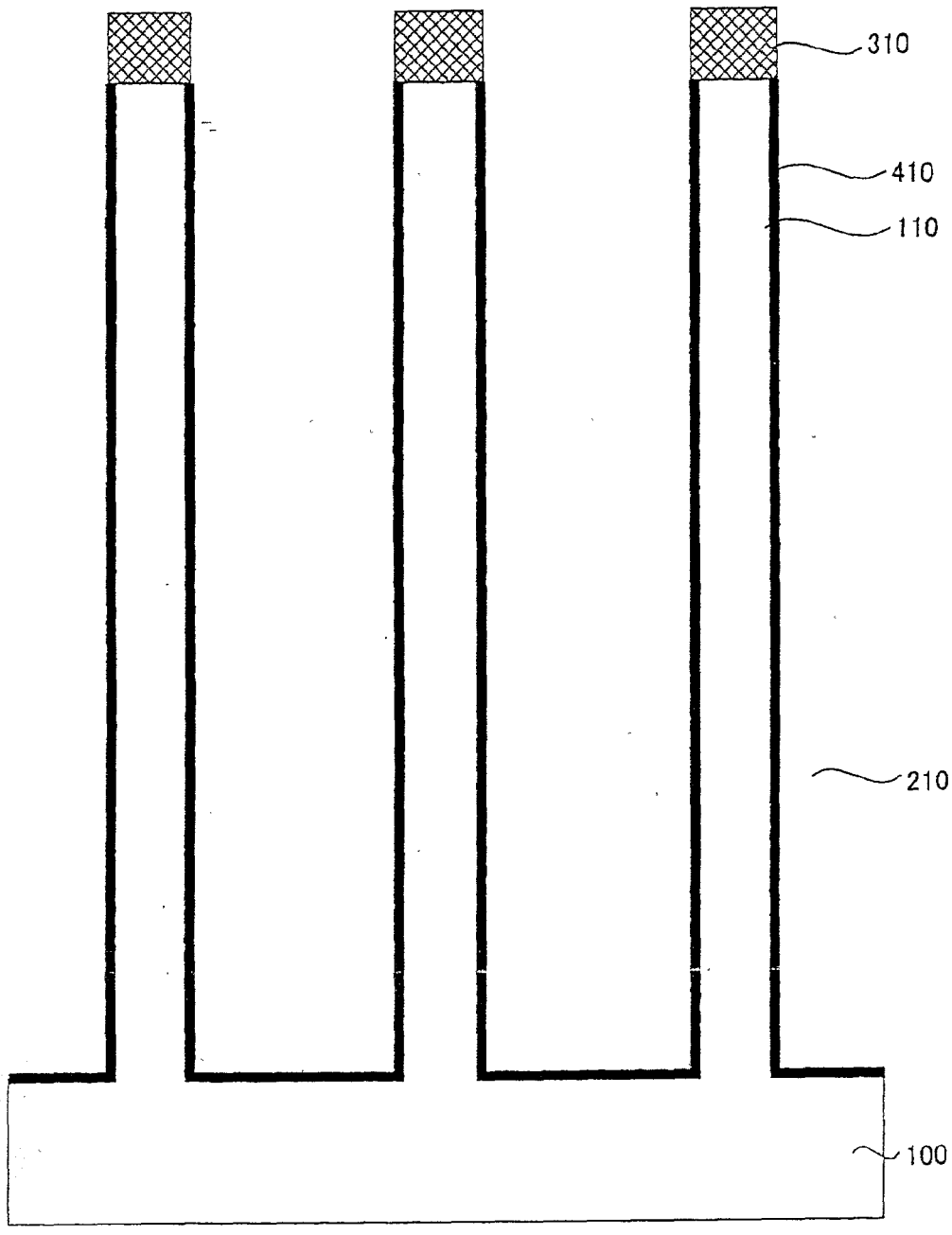


Fig. 109

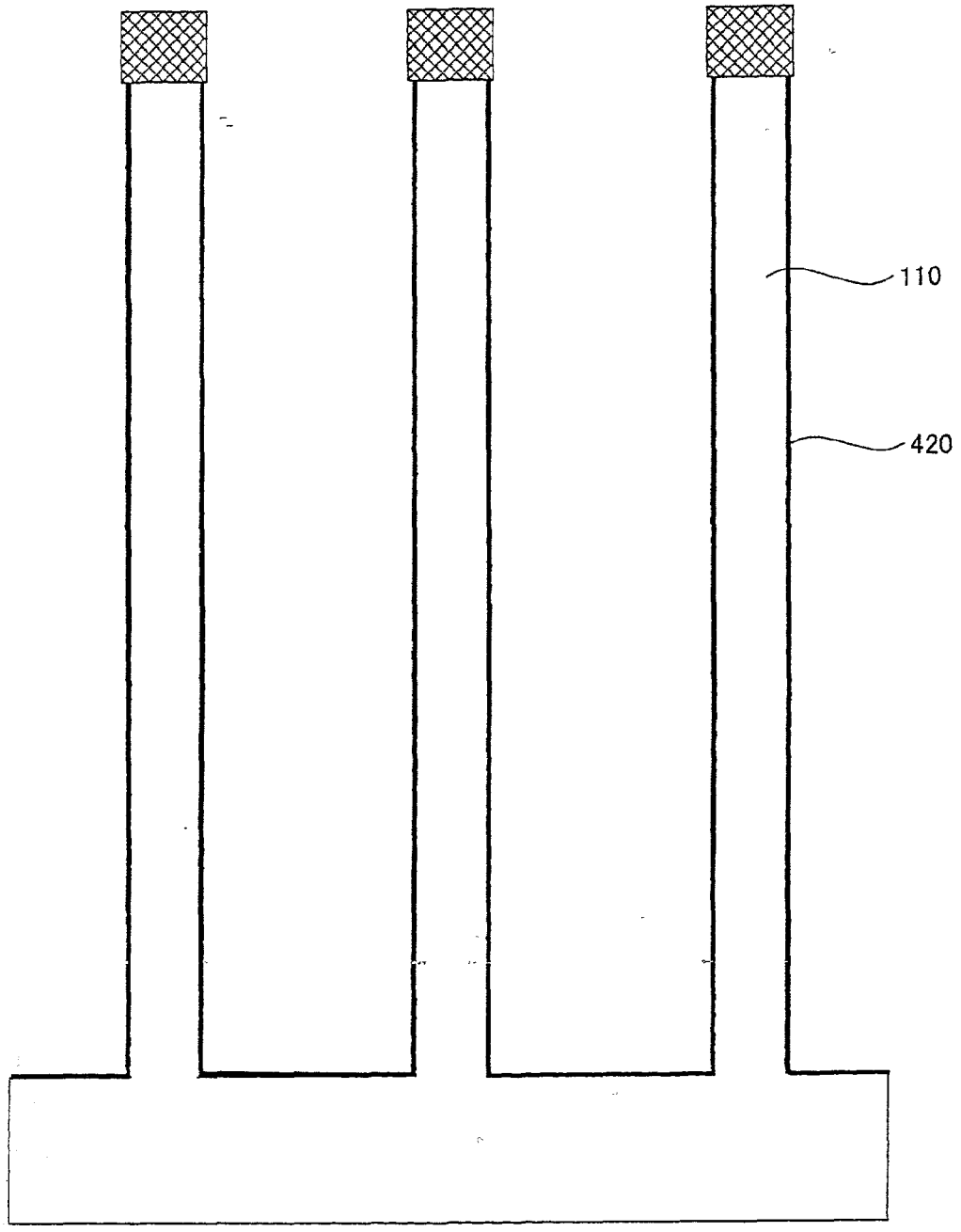


Fig. 110

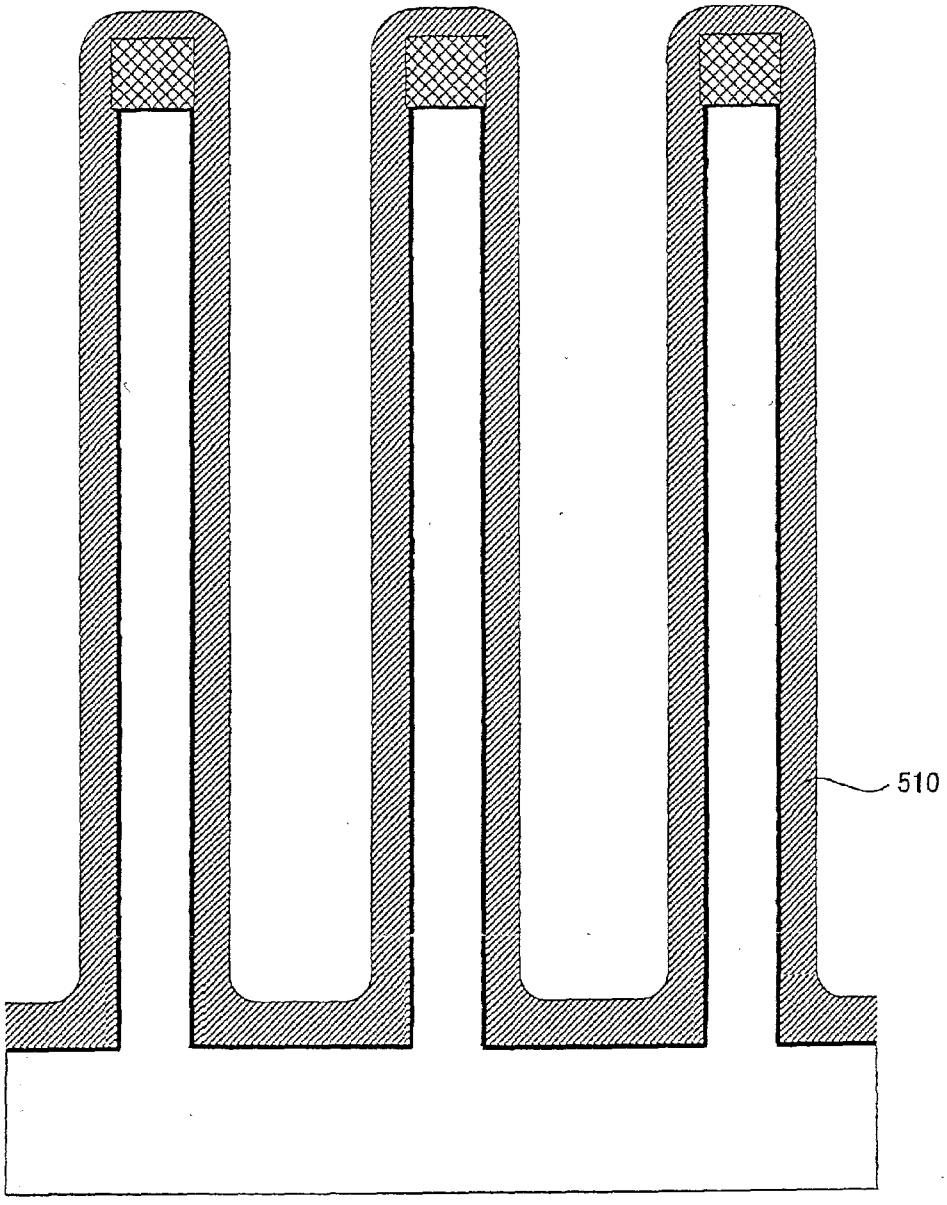


Fig. 111

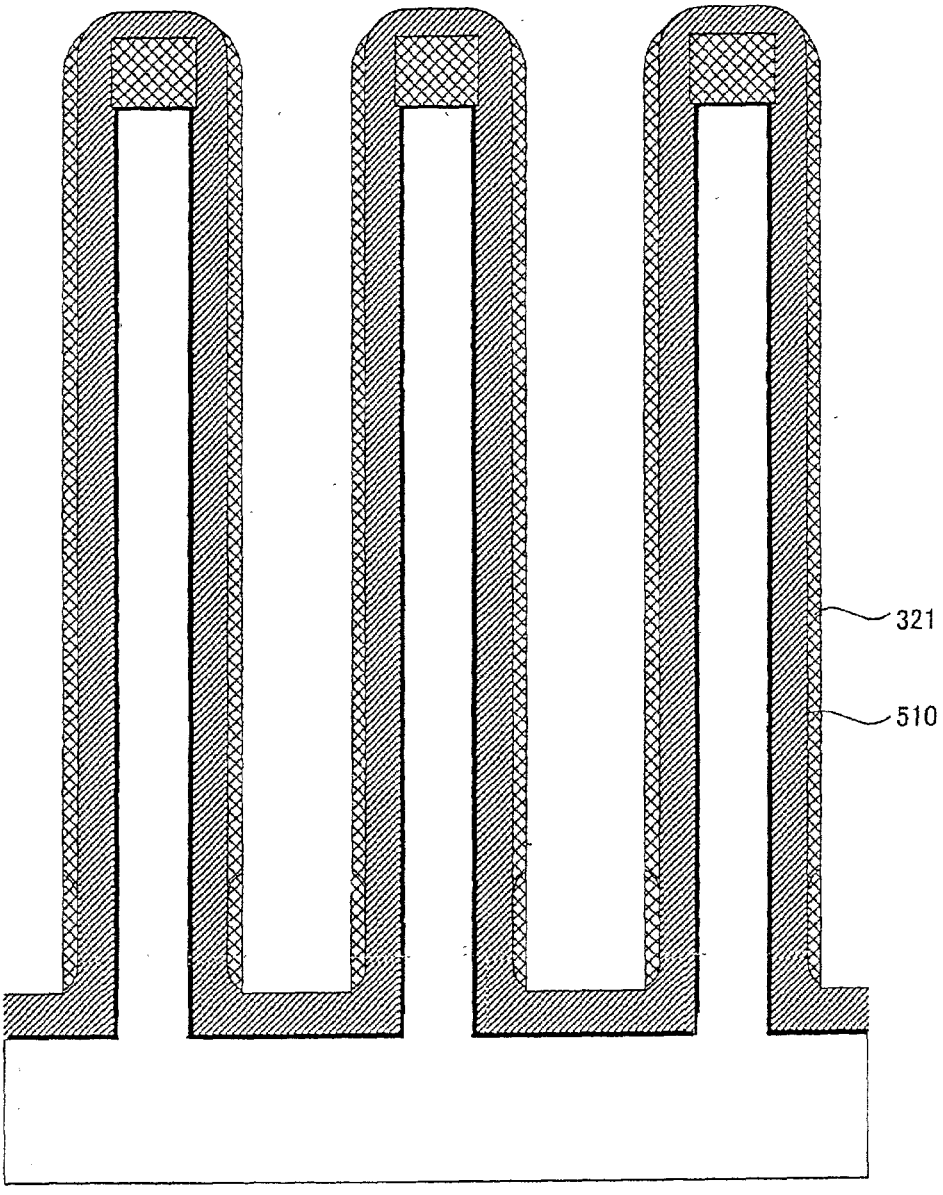


Fig. 112

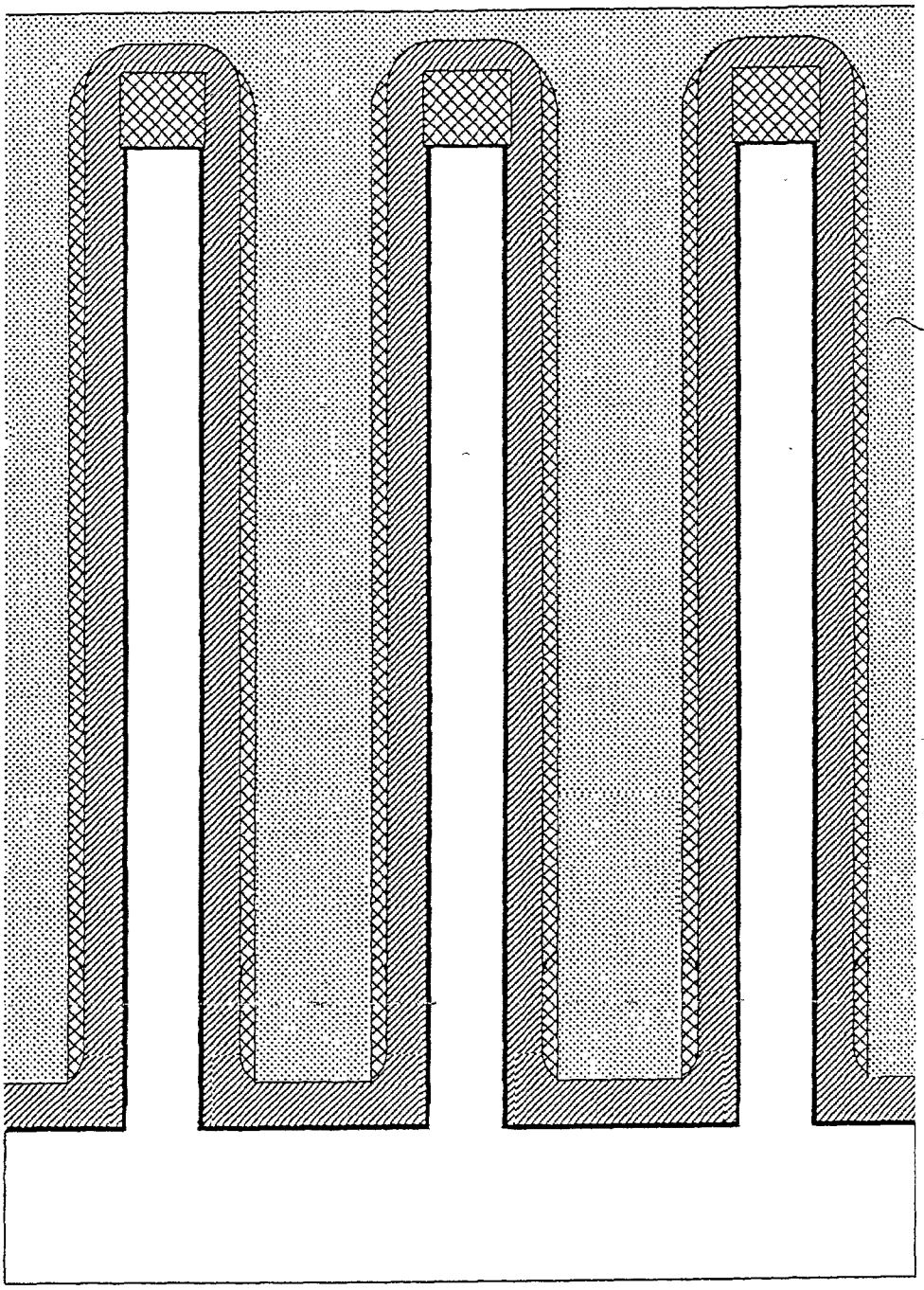


Fig. 113

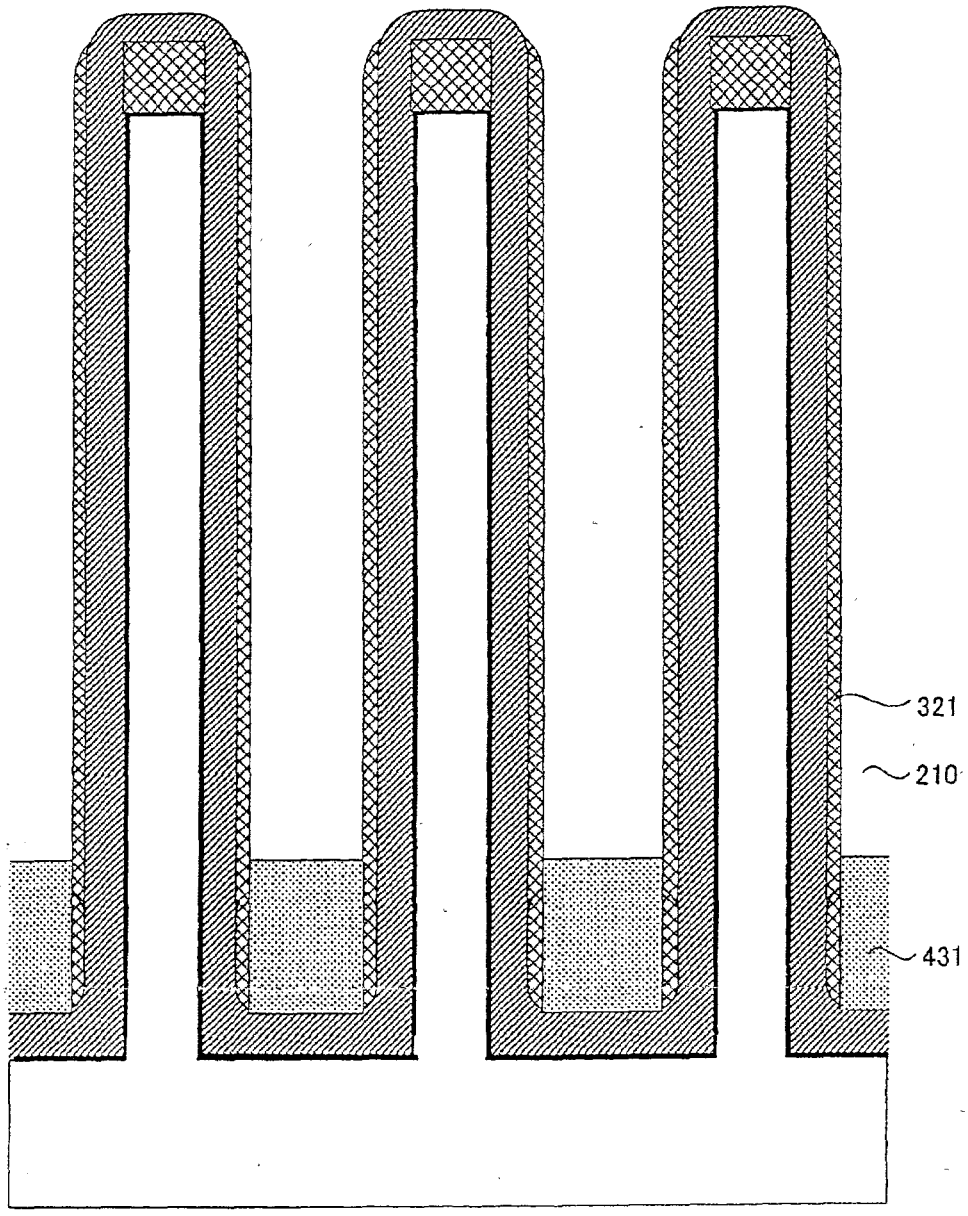


Fig. 114

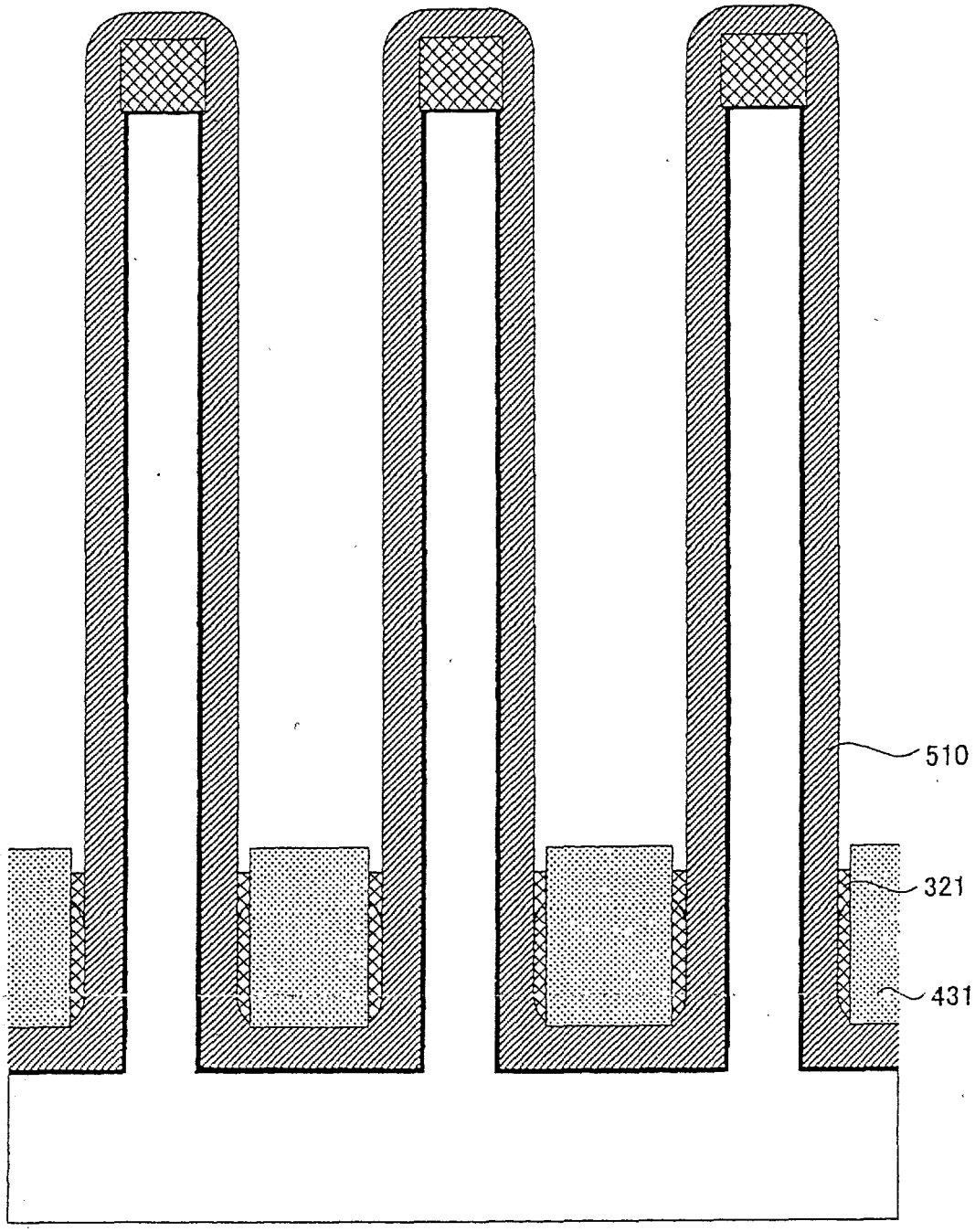


Fig. 115

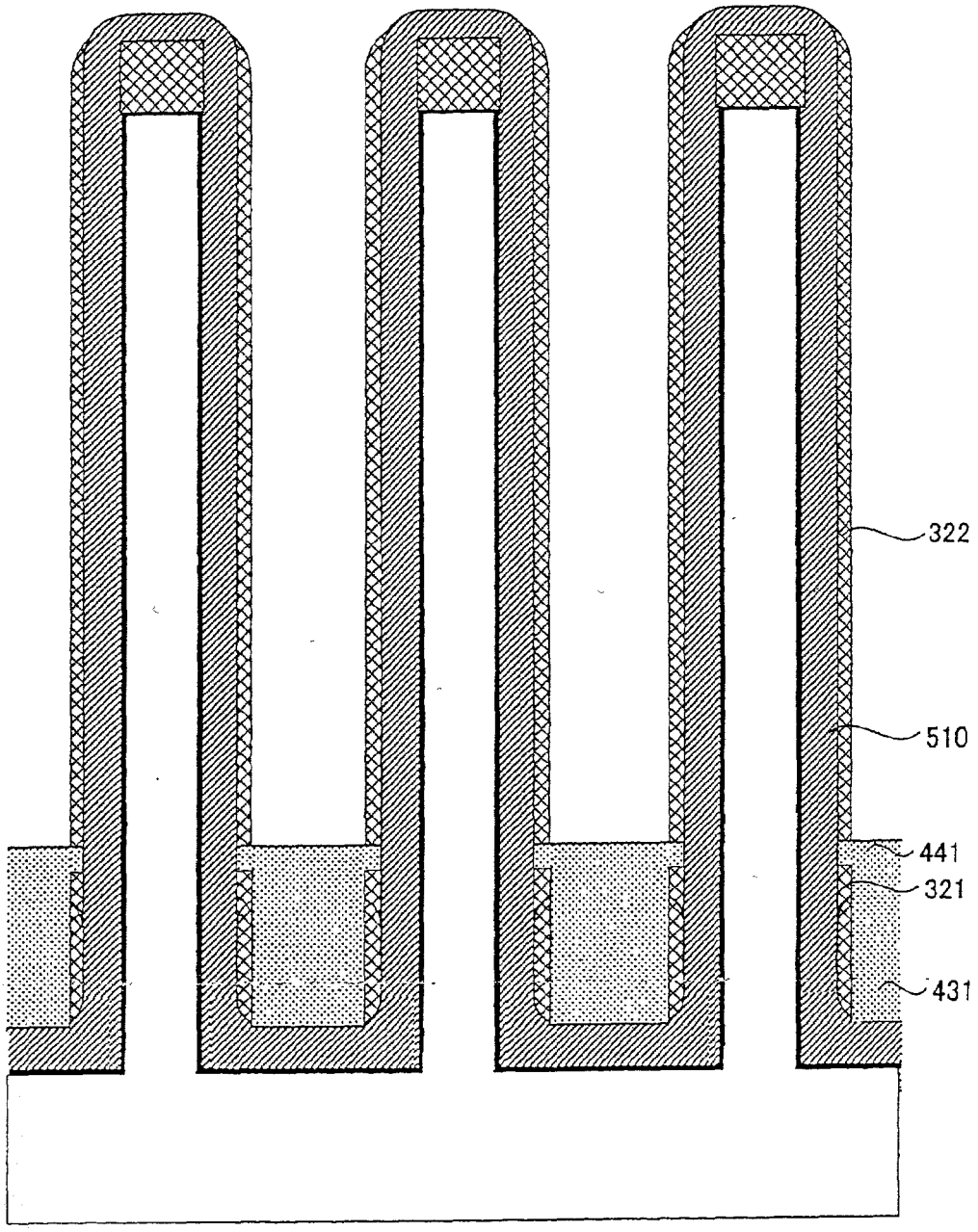


Fig. 116

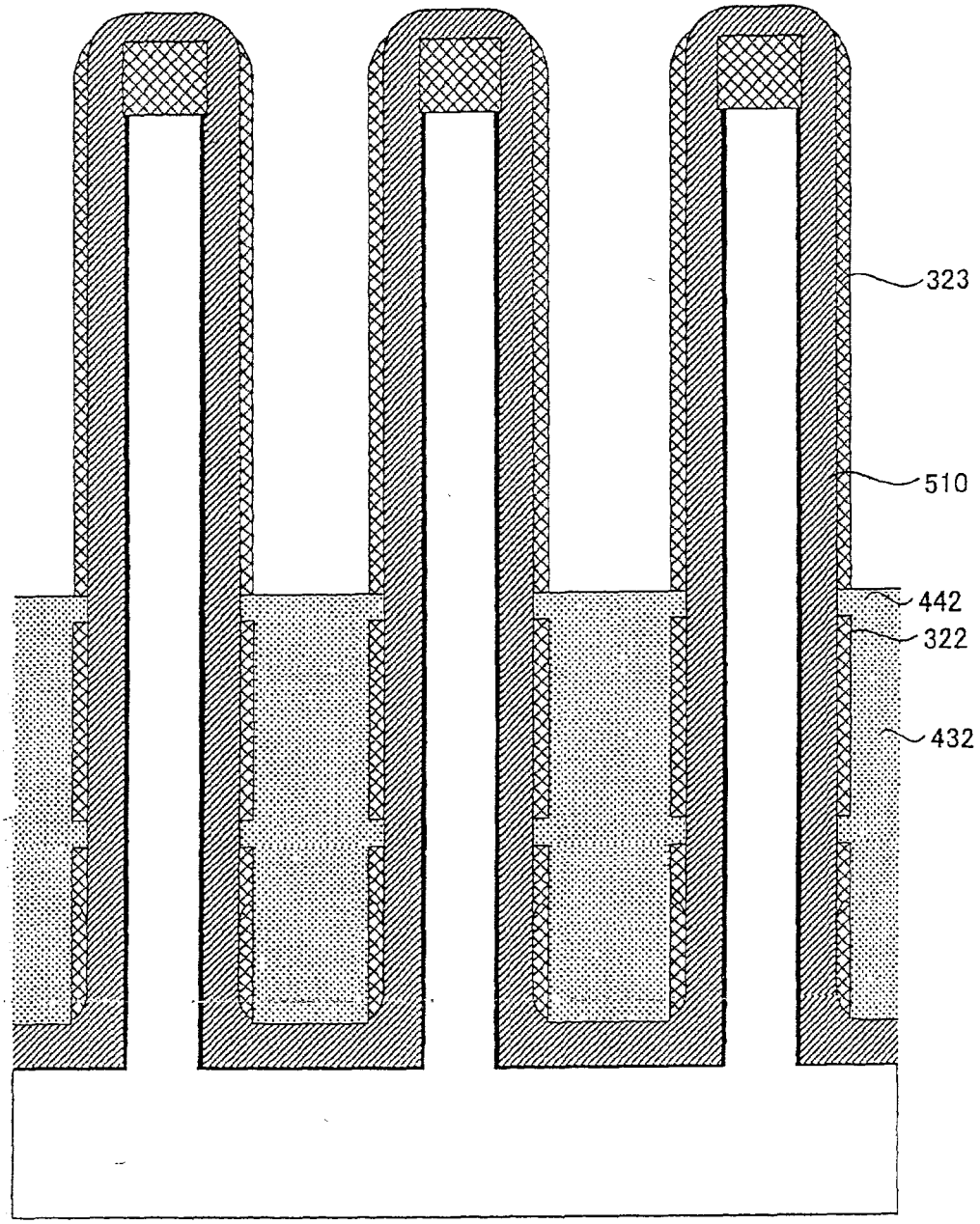


Fig. 117

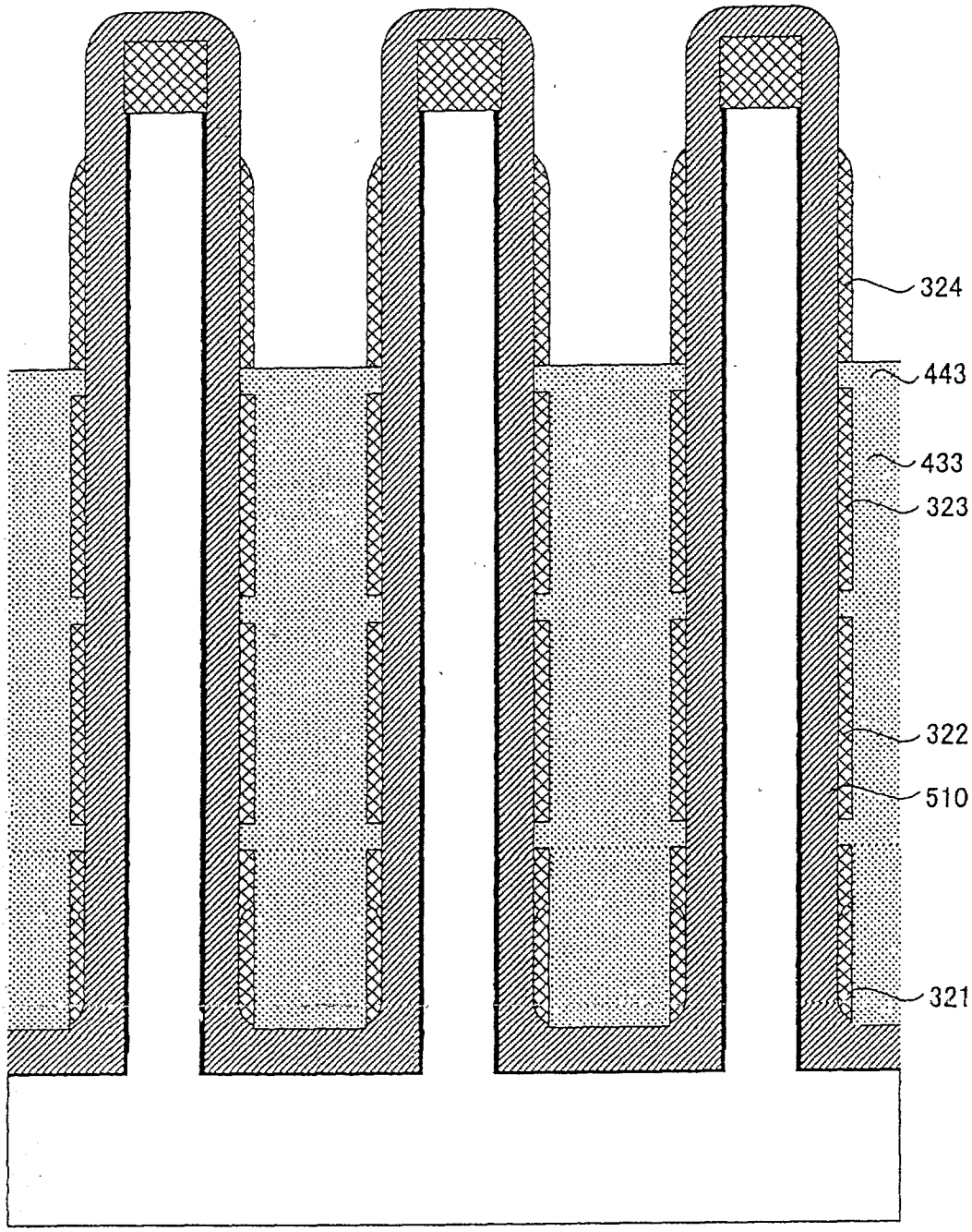


Fig. 118

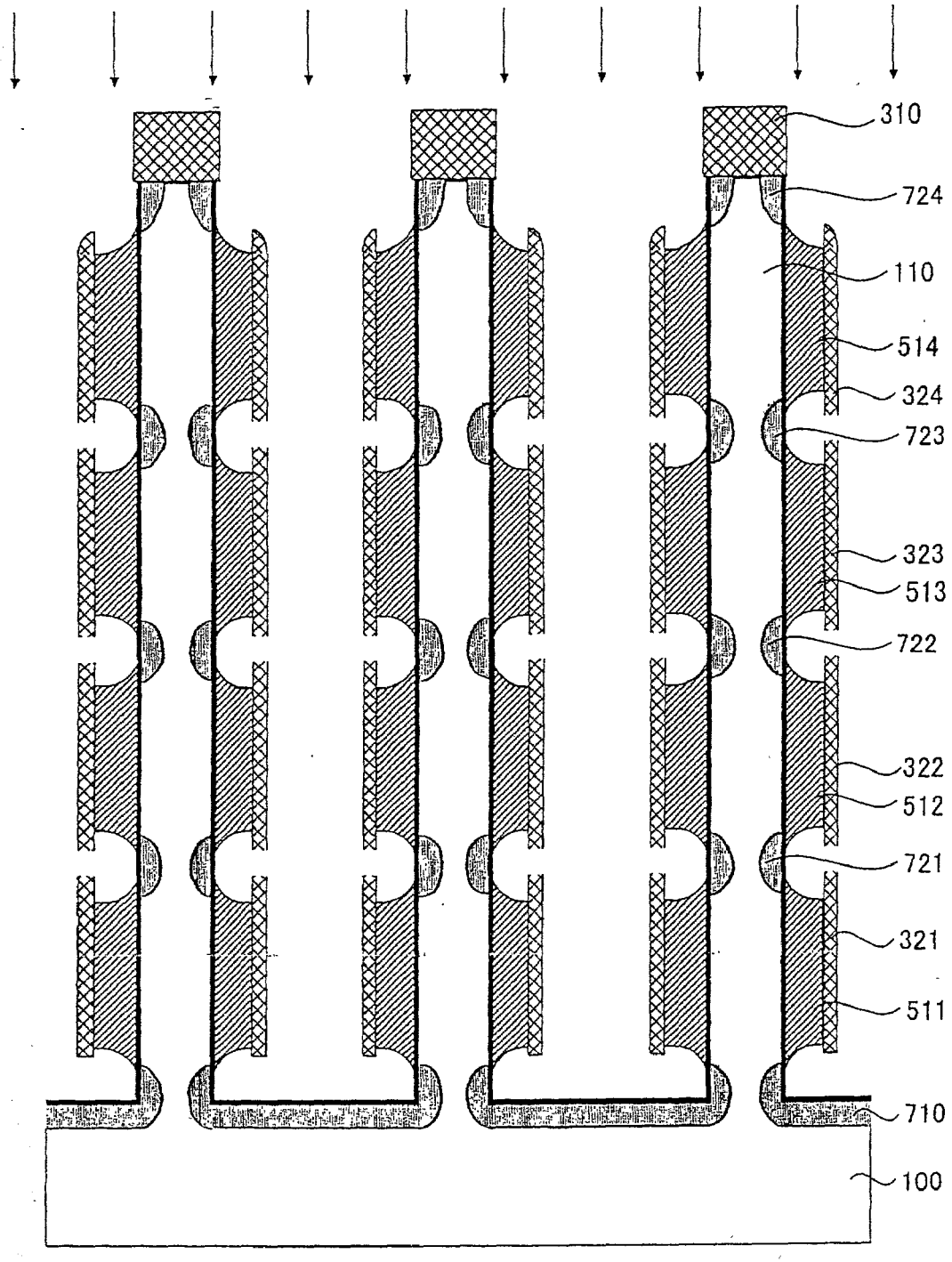


Fig. 119

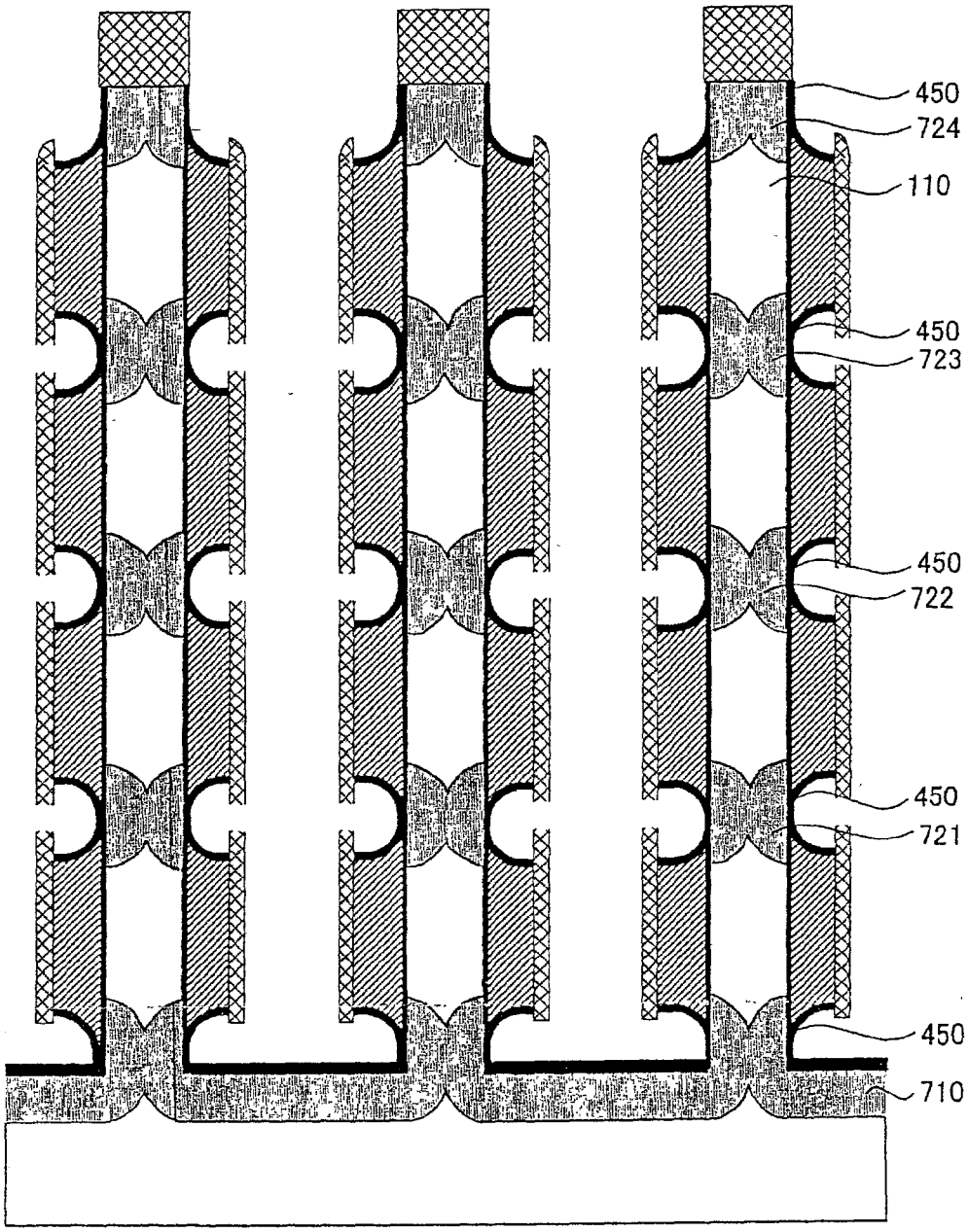


Fig. 120

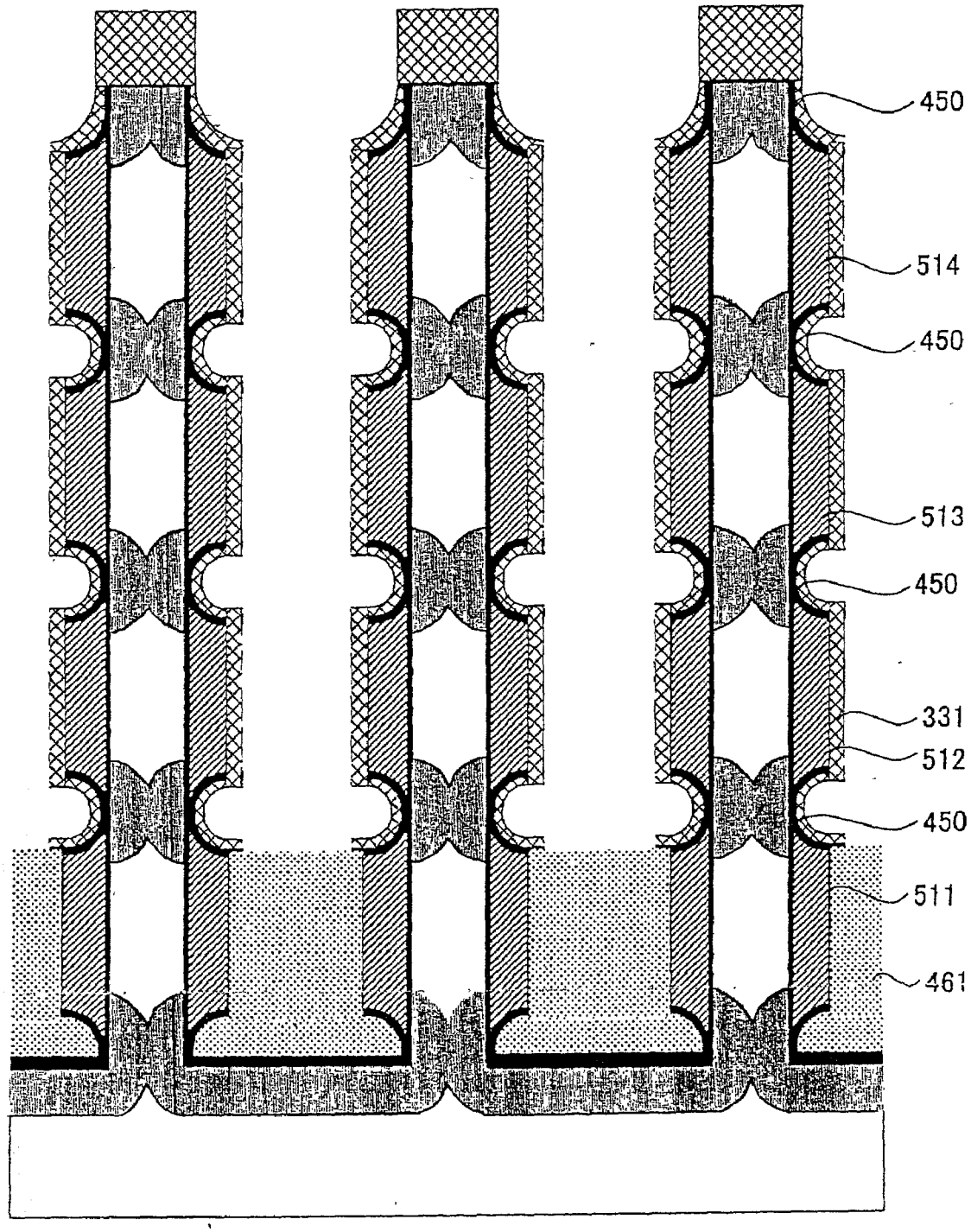


Fig. 121

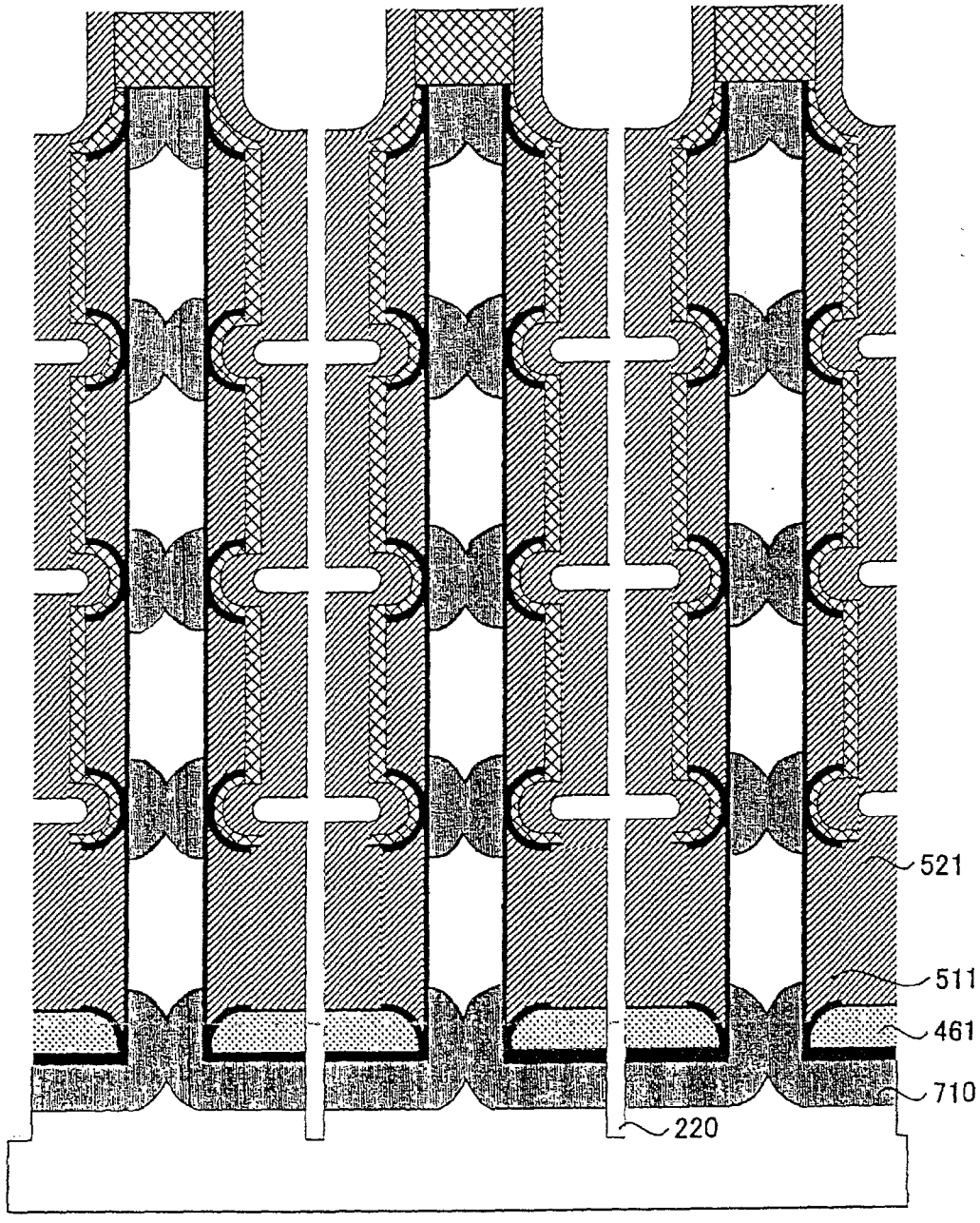


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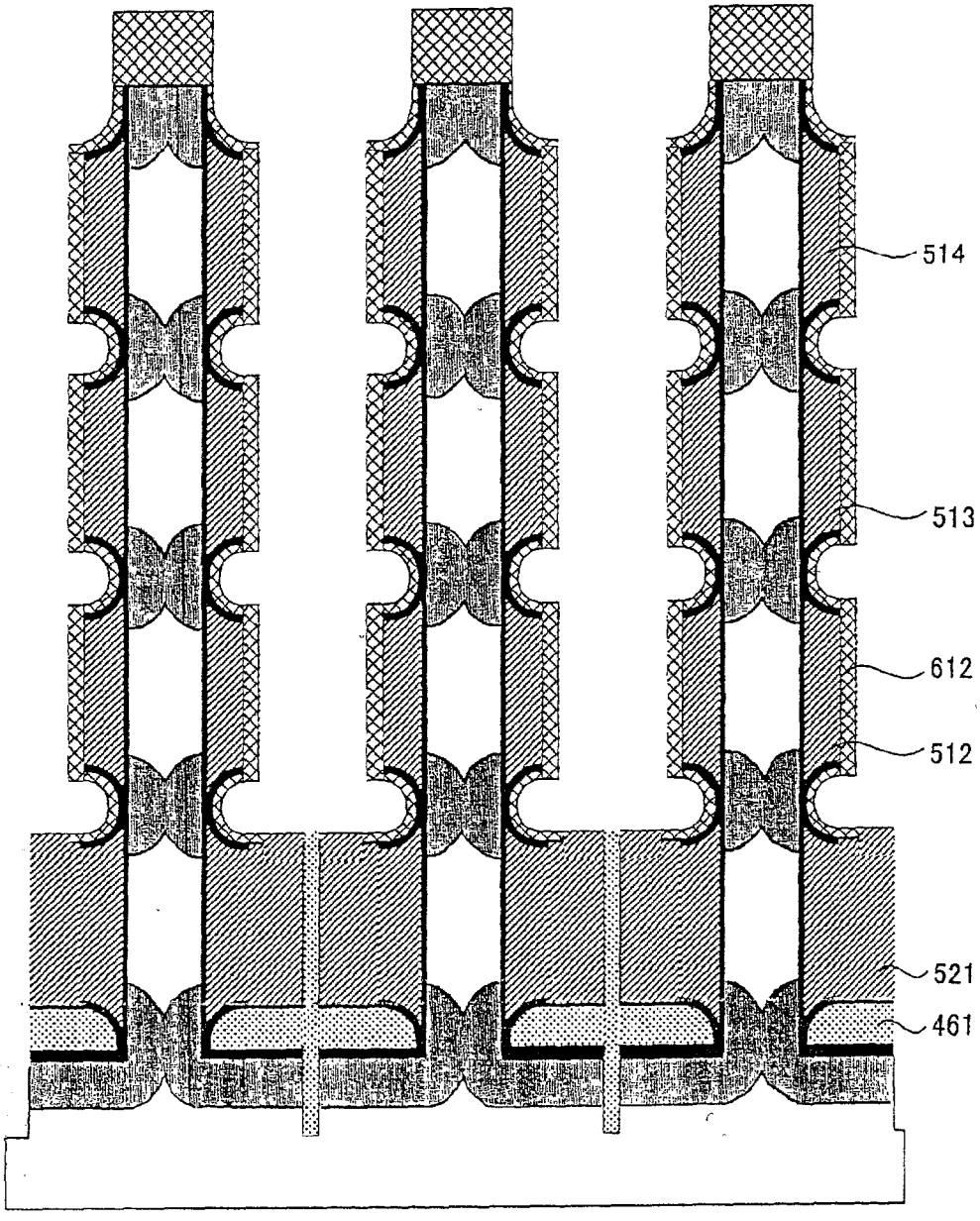


Fig. 123

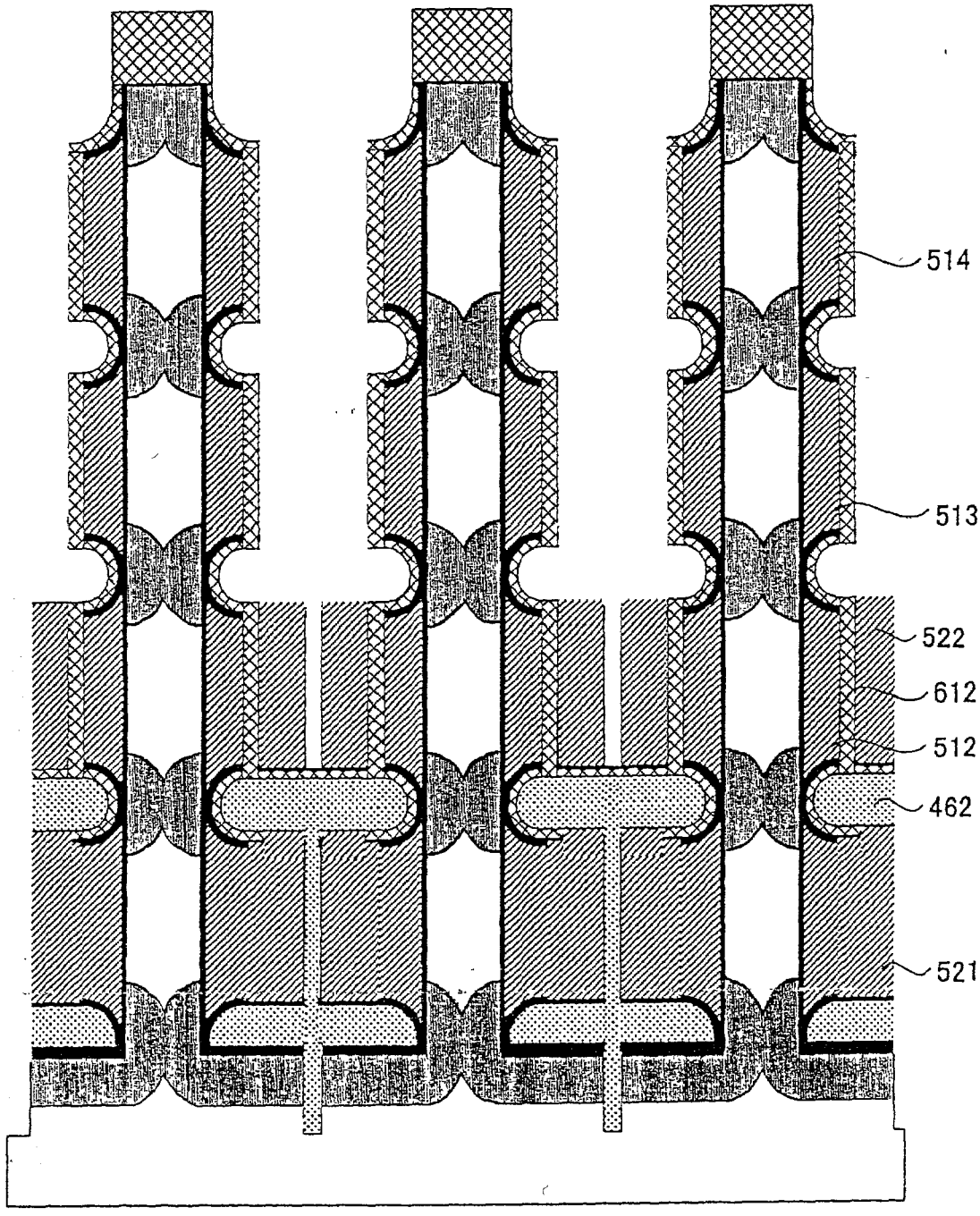


Fig. 124

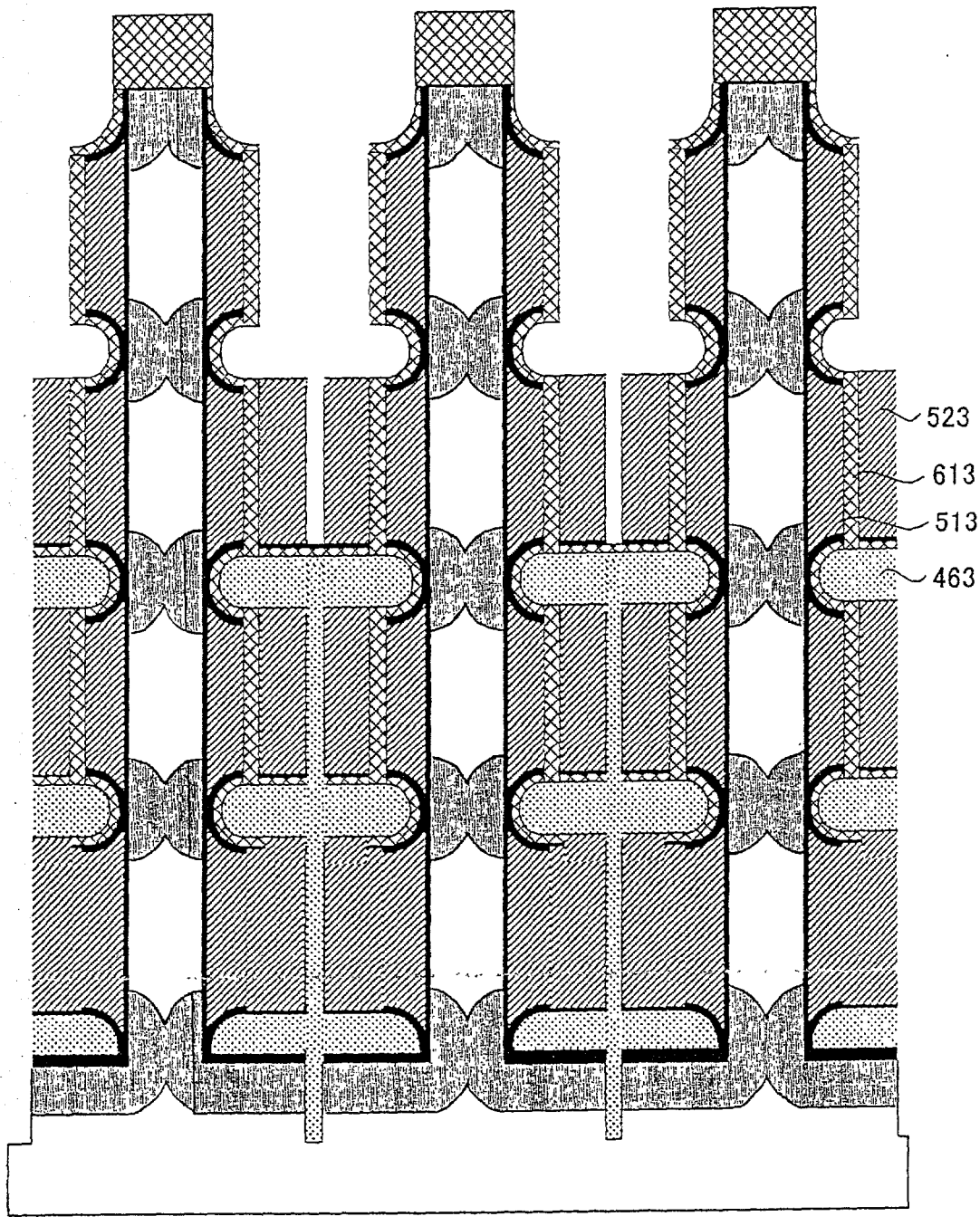


Fig. 125

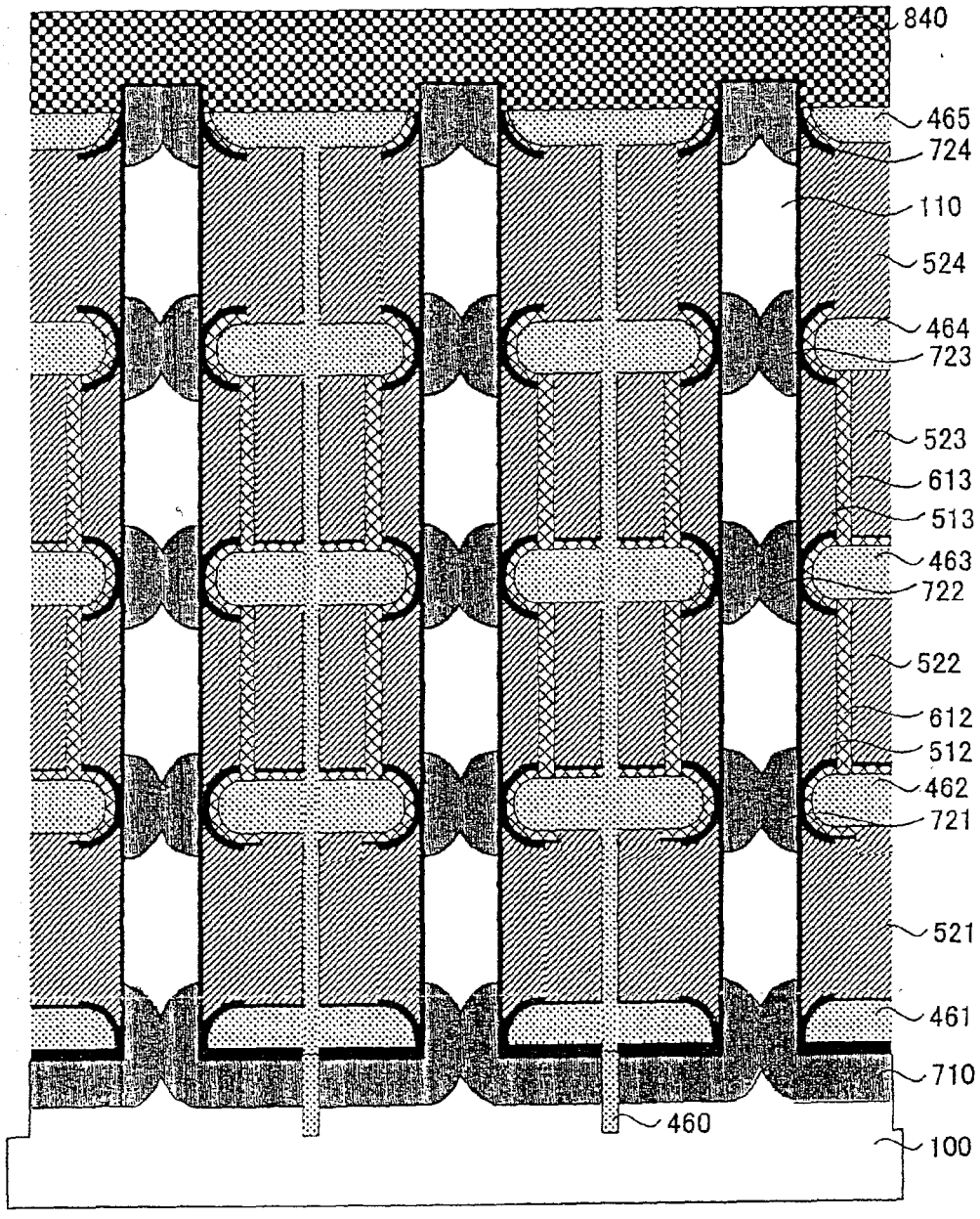

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Fig. 126 (a)

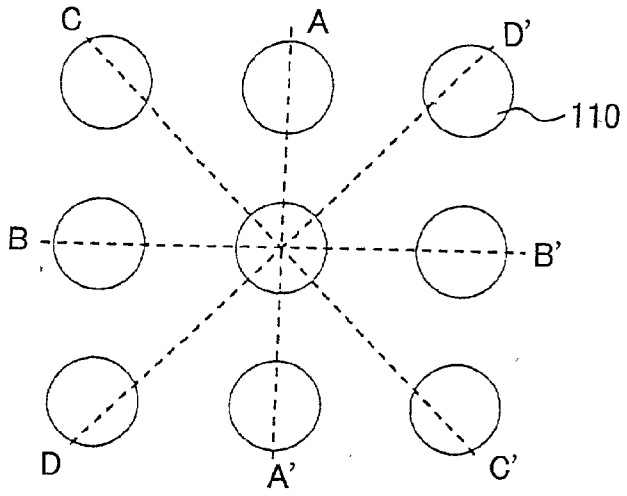


Fig. 126 (b)



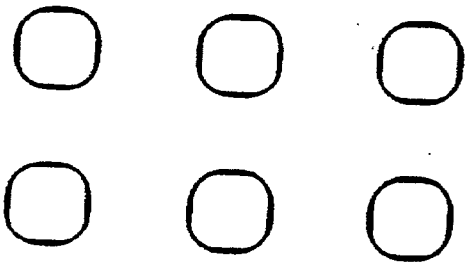


Fig. 126 (c)



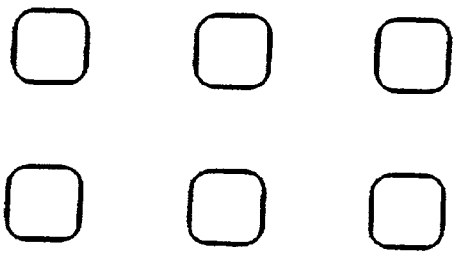


Fig. 127

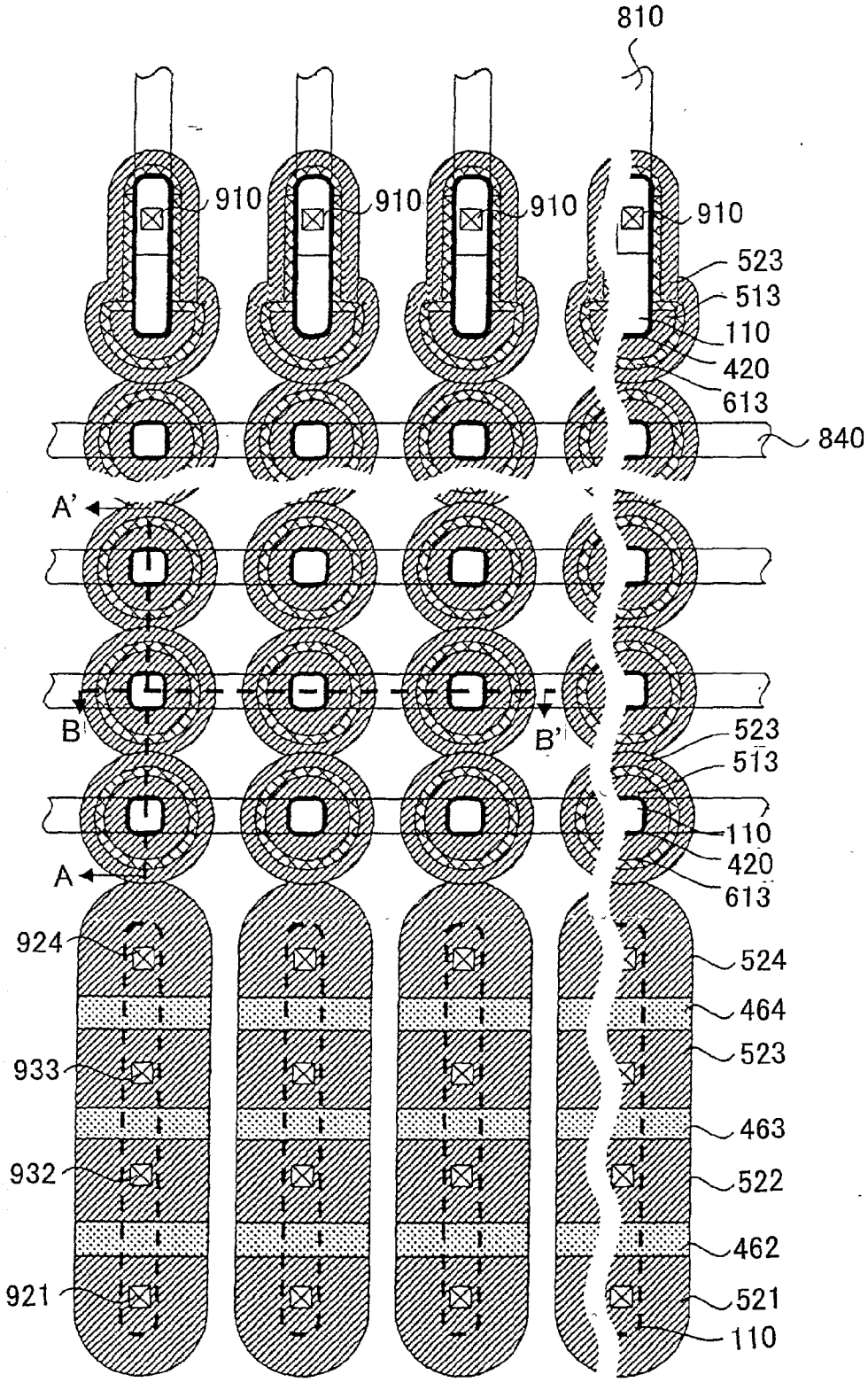
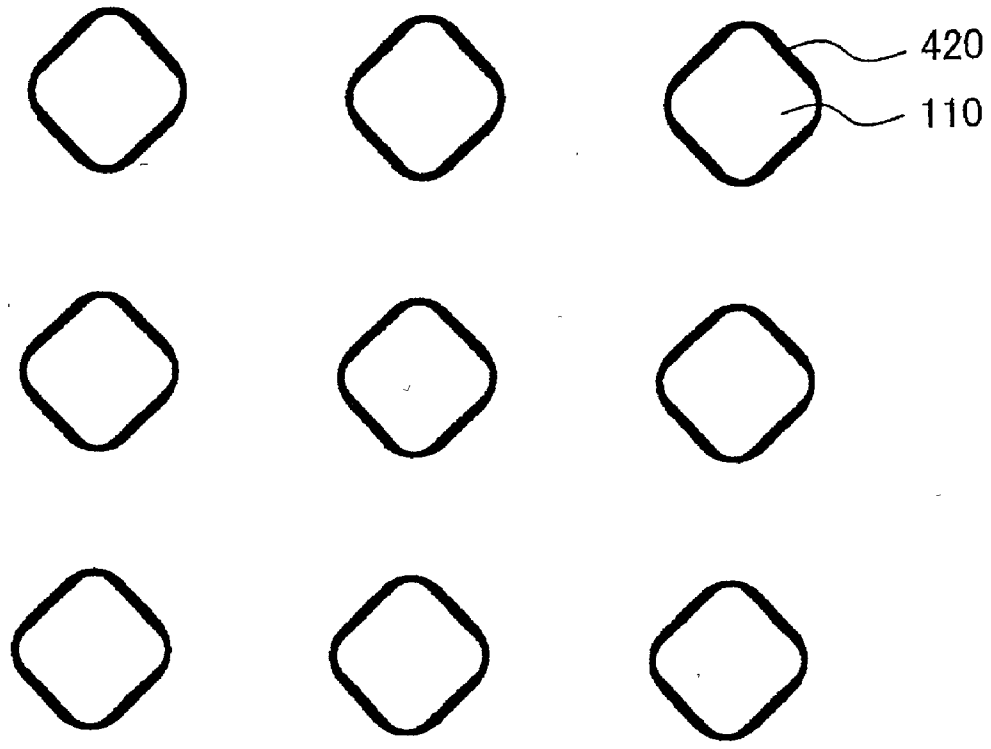

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Fig. 128



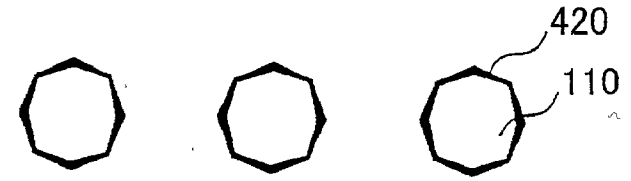


Fig. 129 (a)

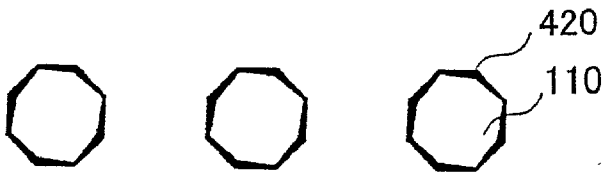


Fig. 129 (b)

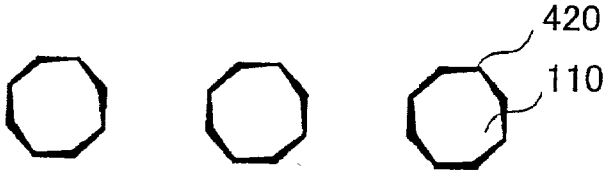


Fig. 129 (c)

Fig. 130 (a)

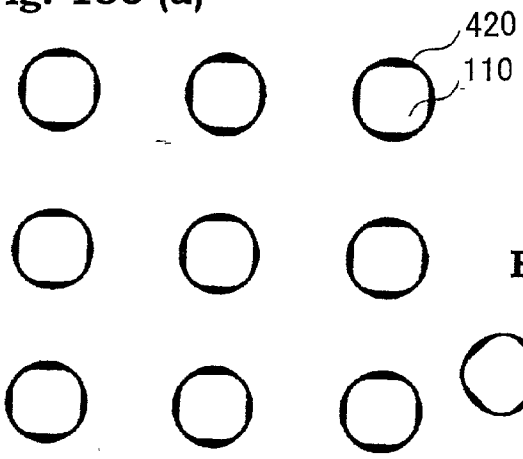


Fig. 130 (b)

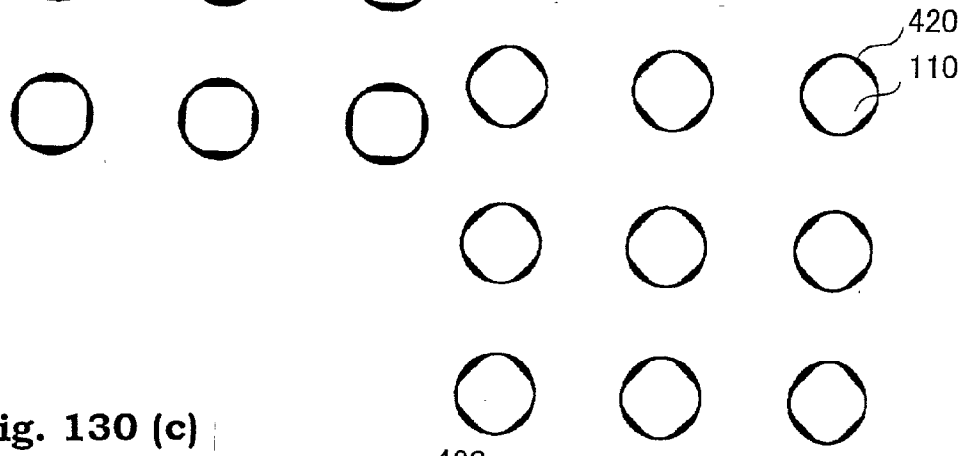


Fig. 130 (c)

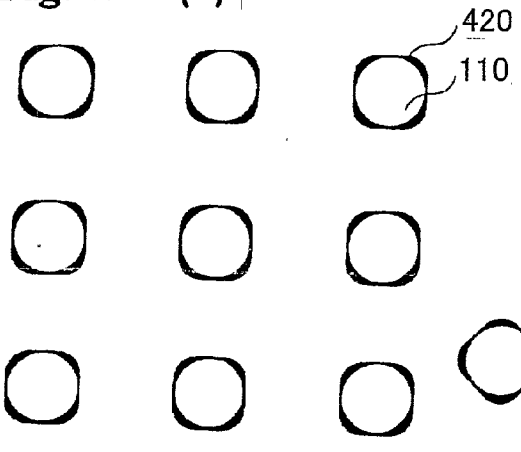


Fig. 130 (d)

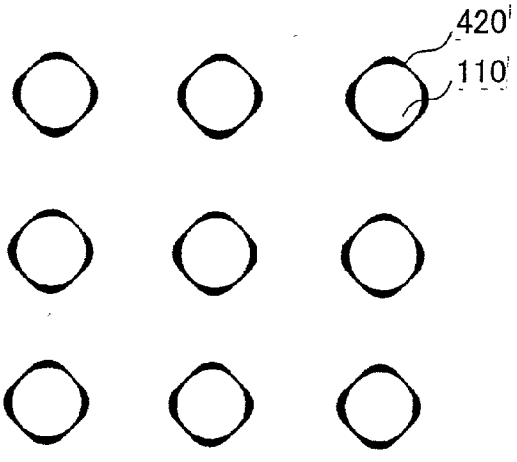


Fig. 131

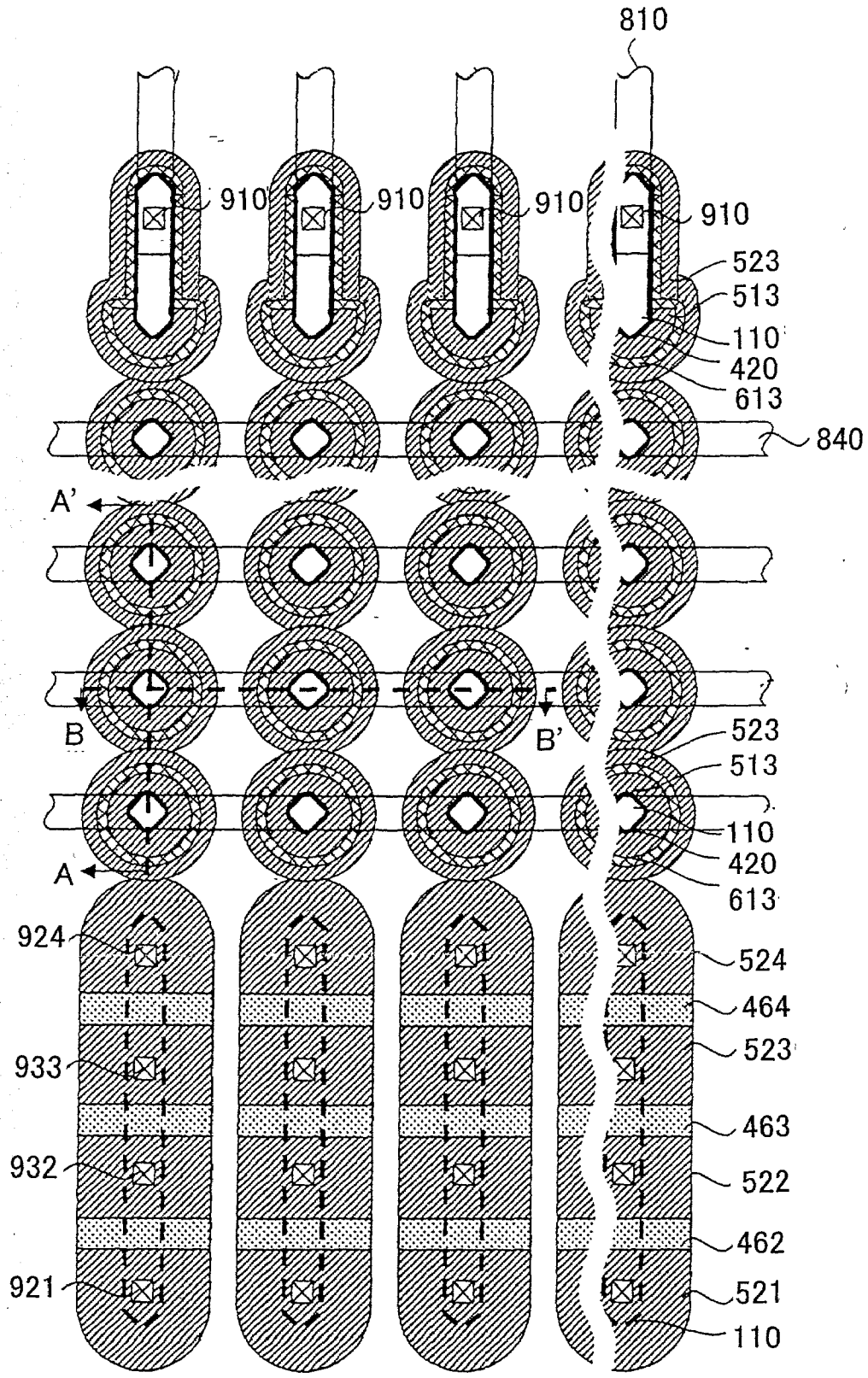

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Fig. 132

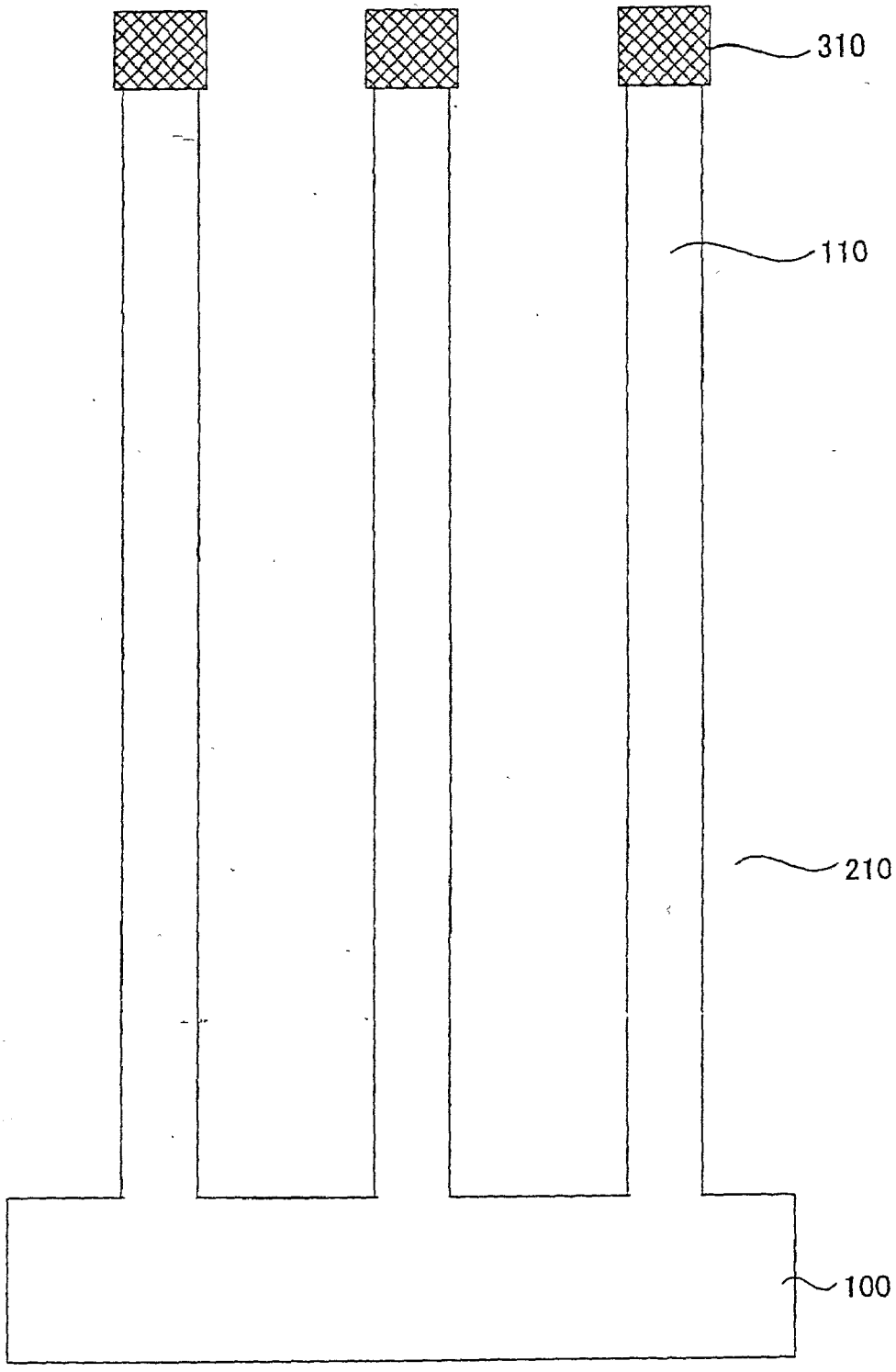


Fig. 133

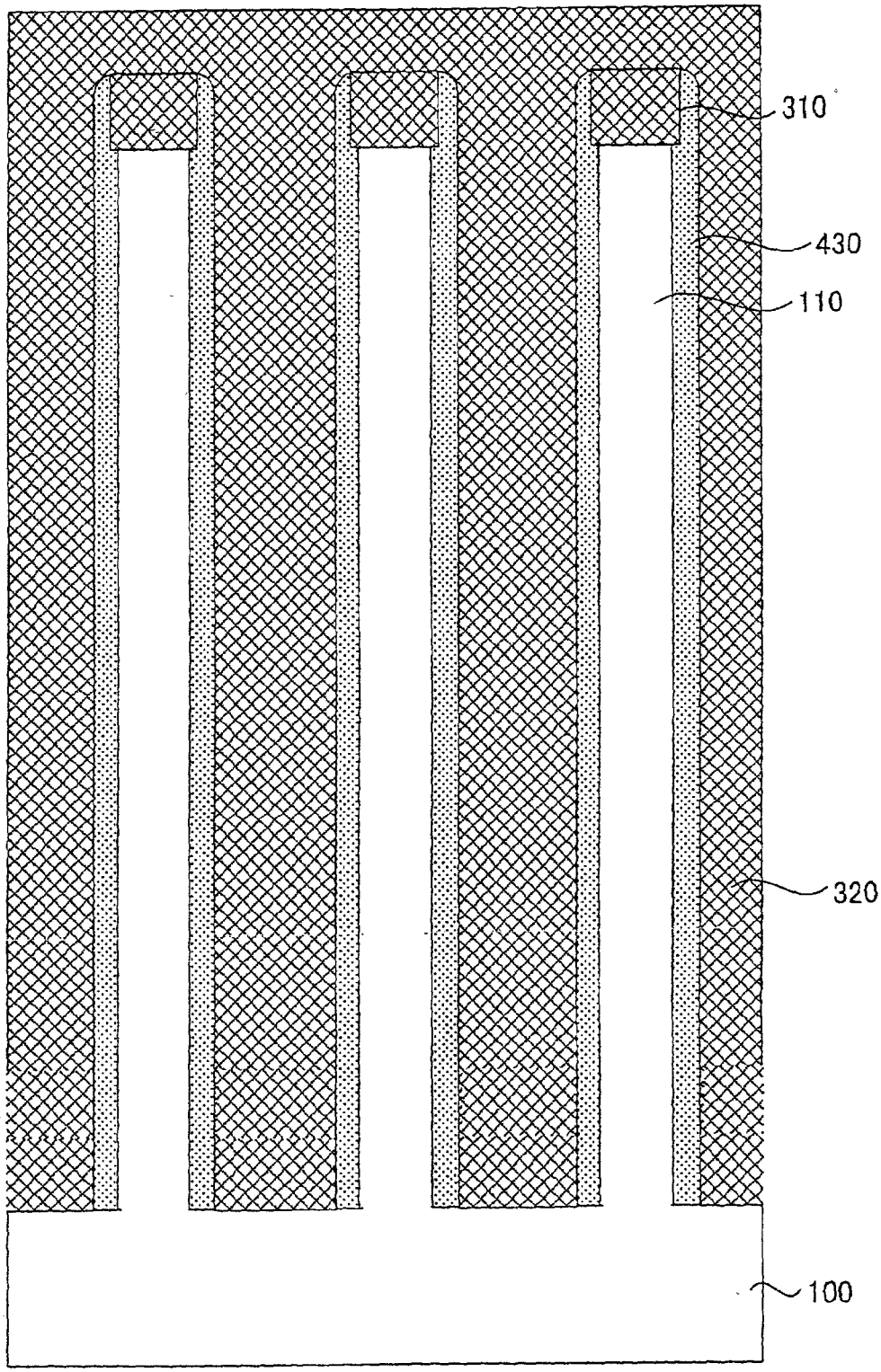


Fig. 134

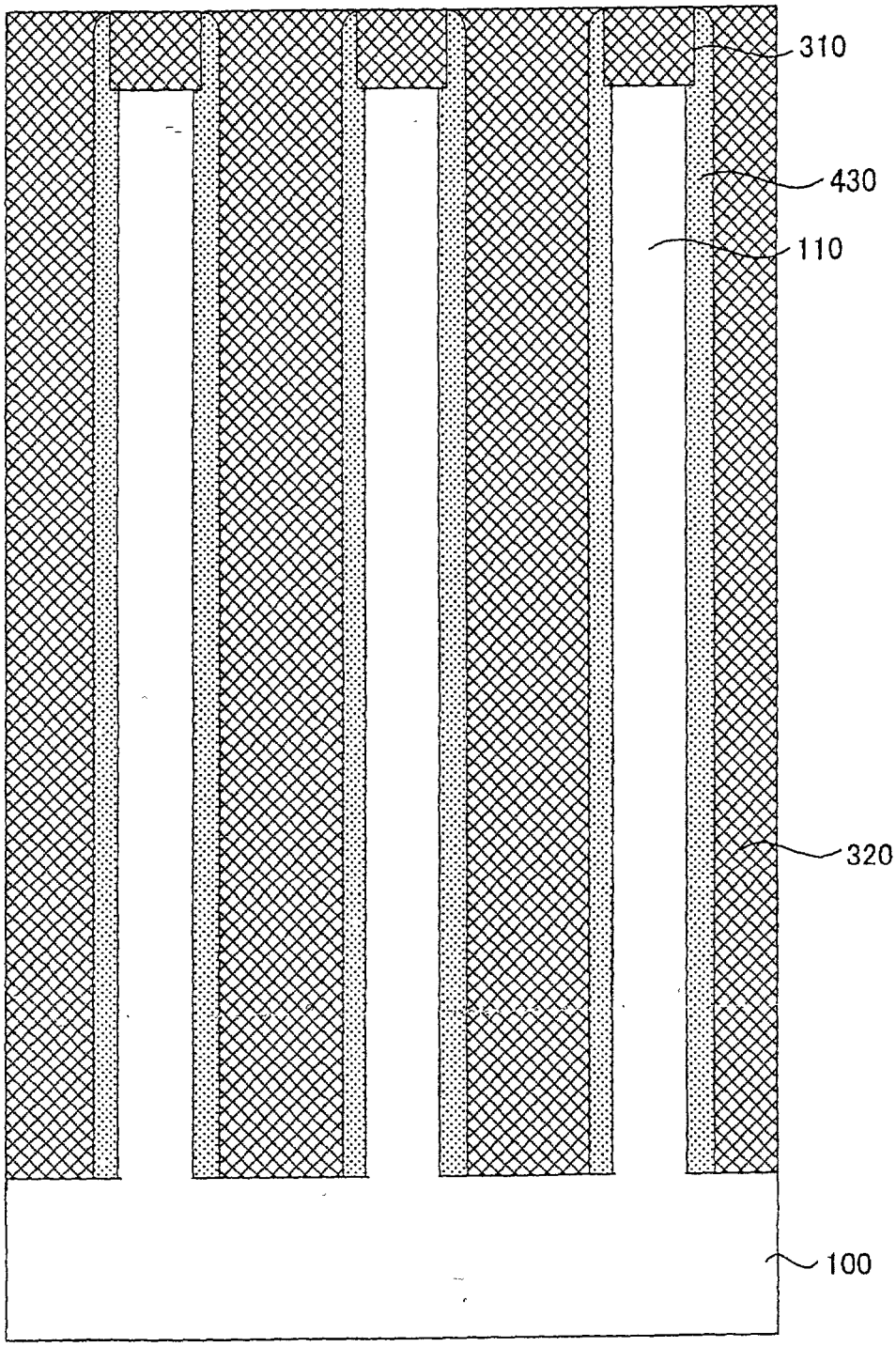


Fig. 135

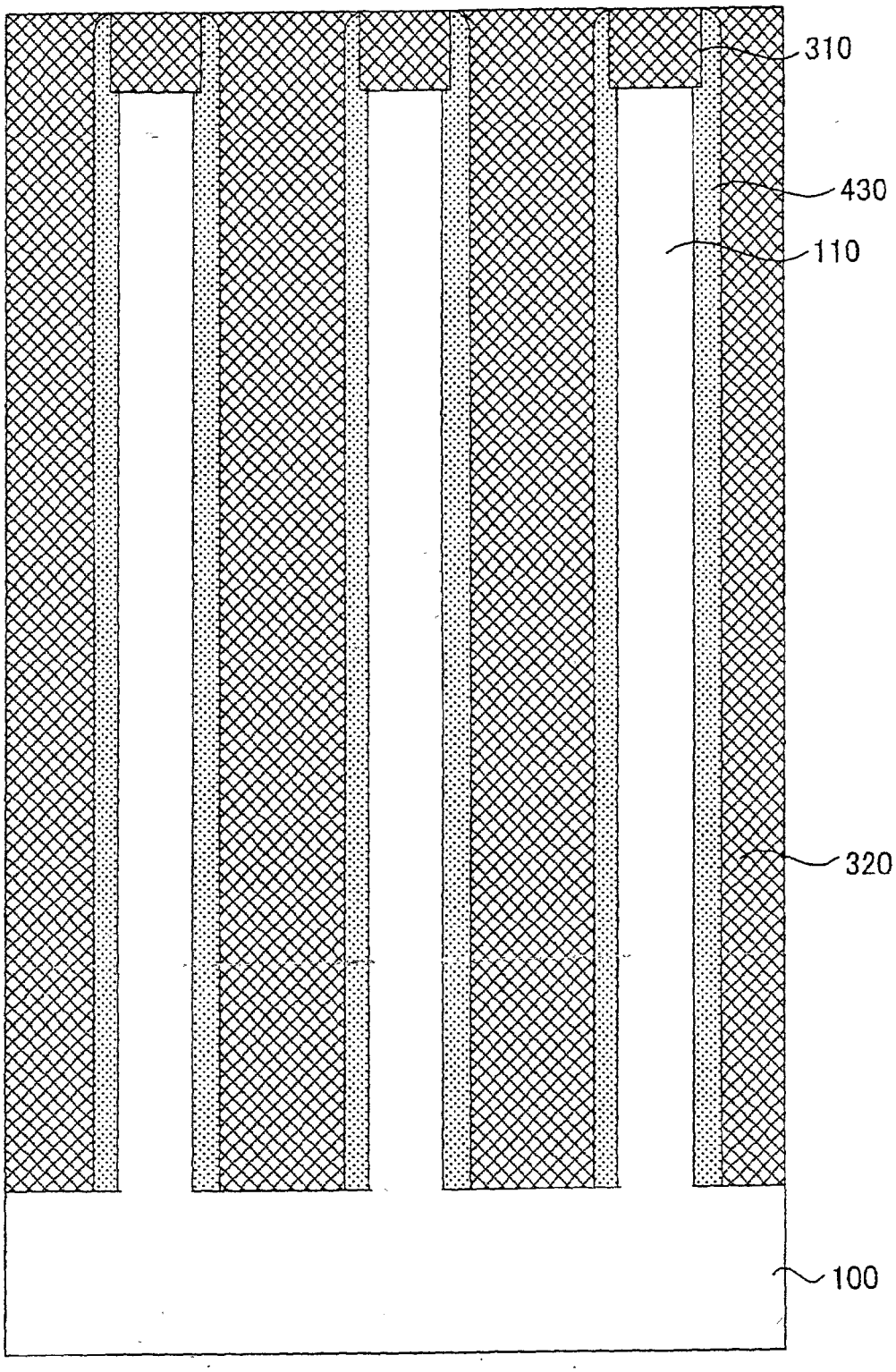


Fig. 136

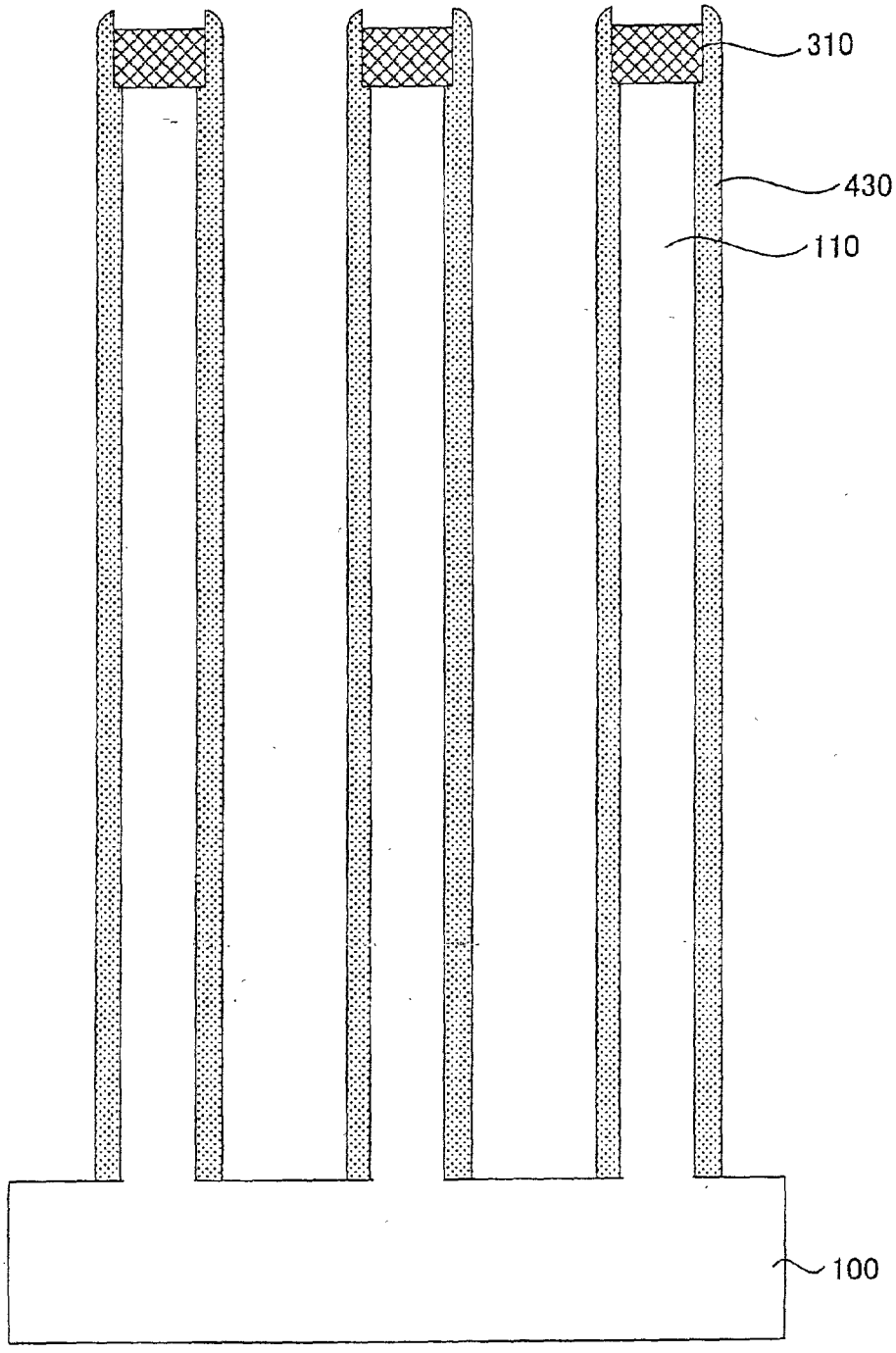


Fig. 137

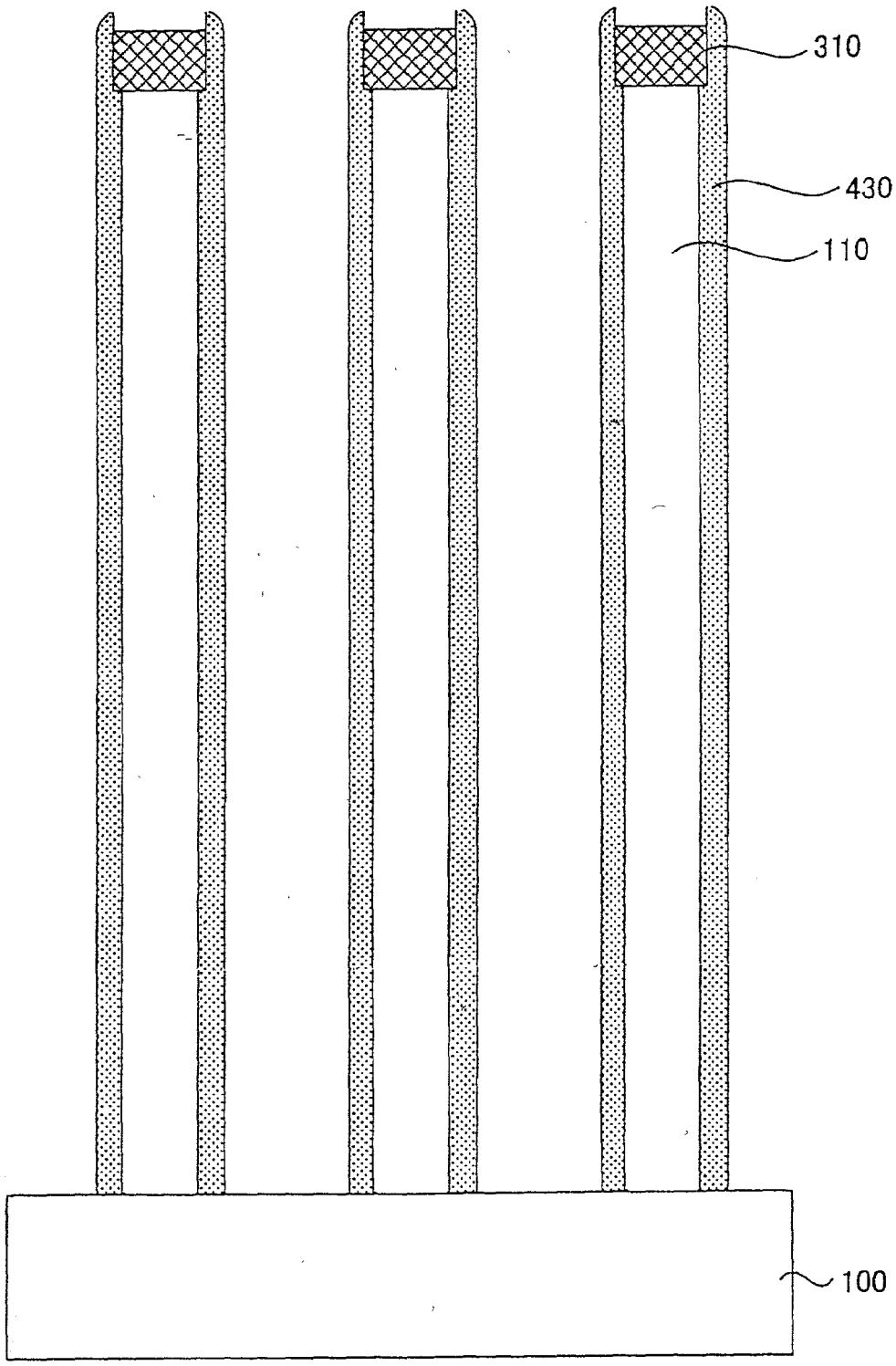


Fig. 138

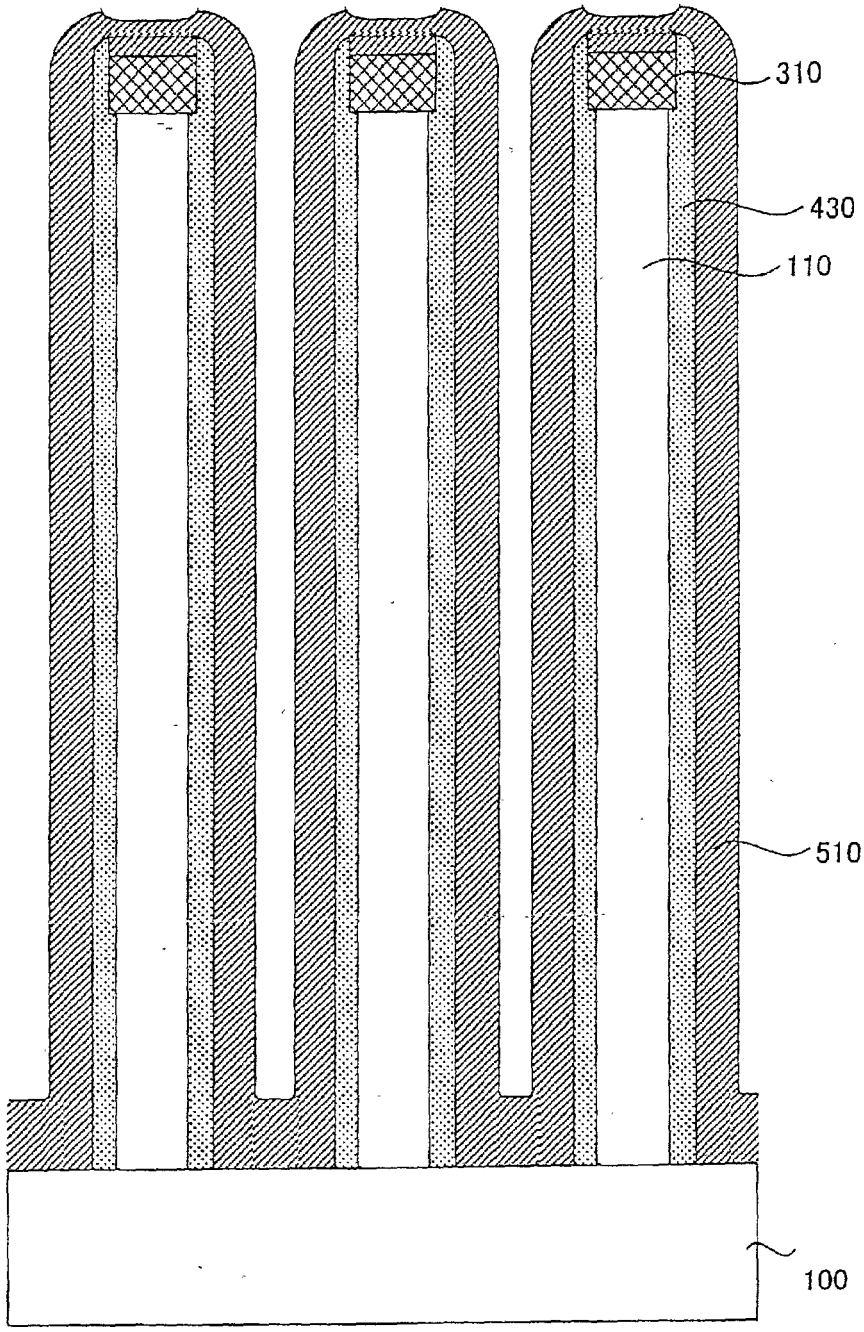


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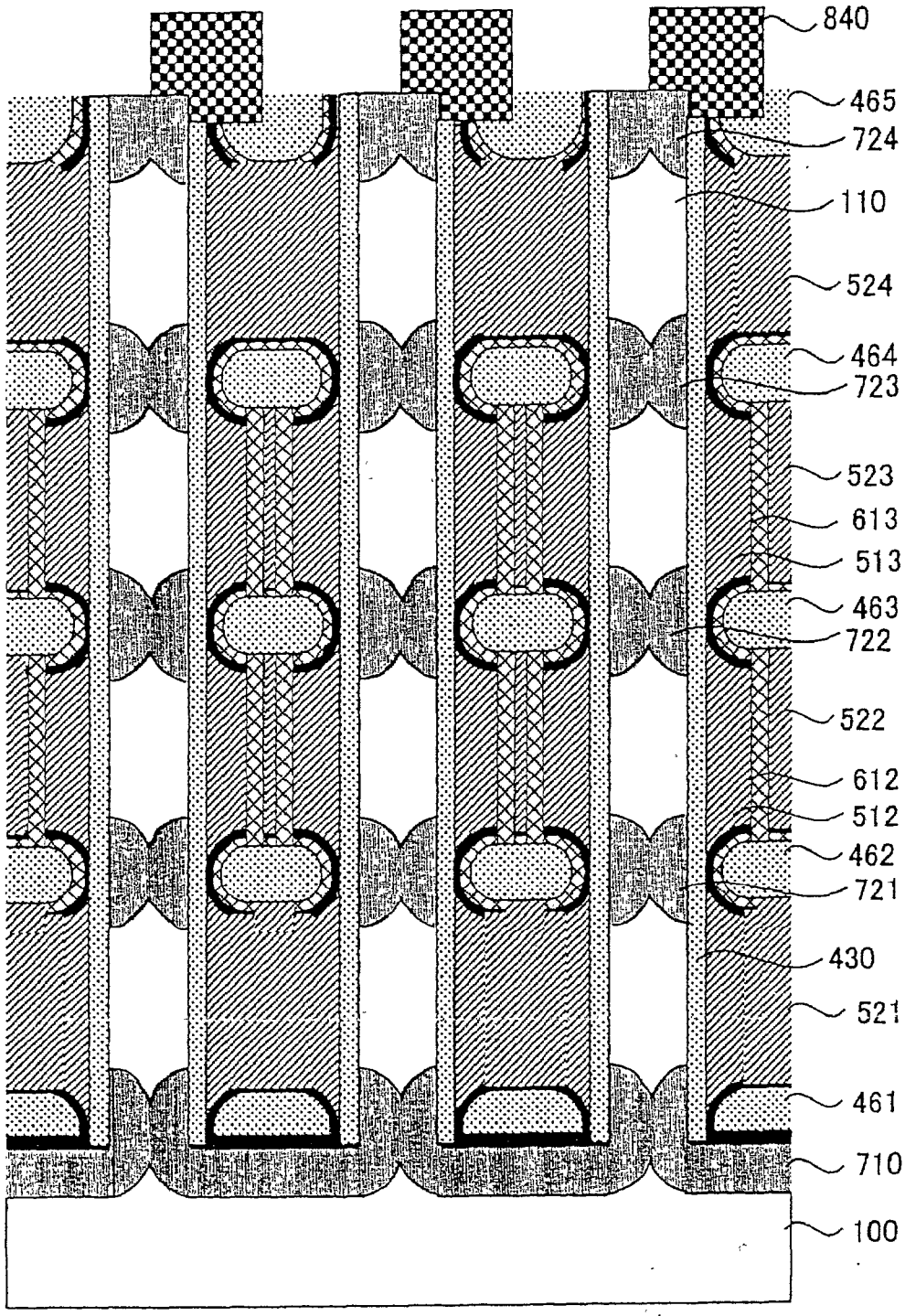

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Fig. 140

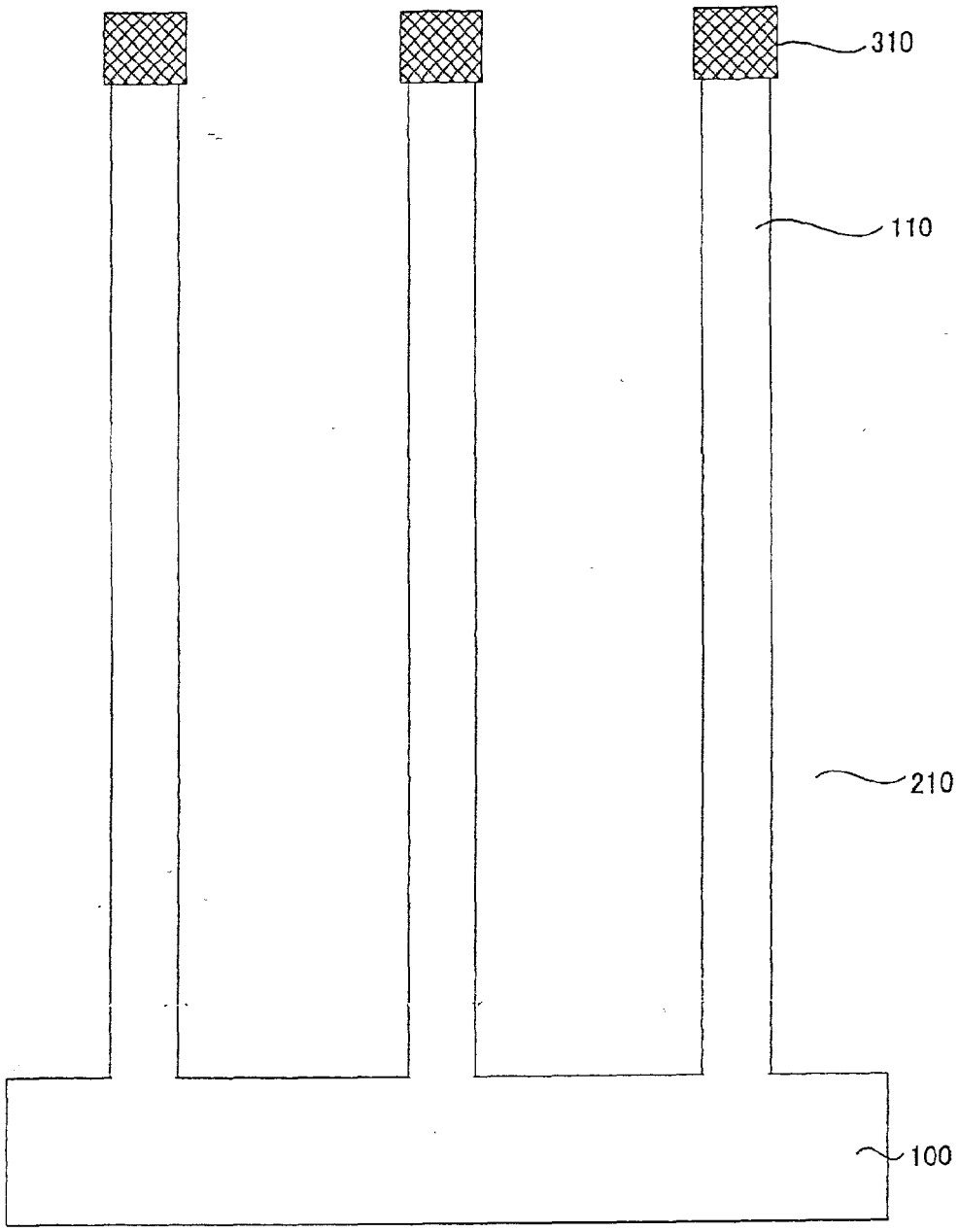


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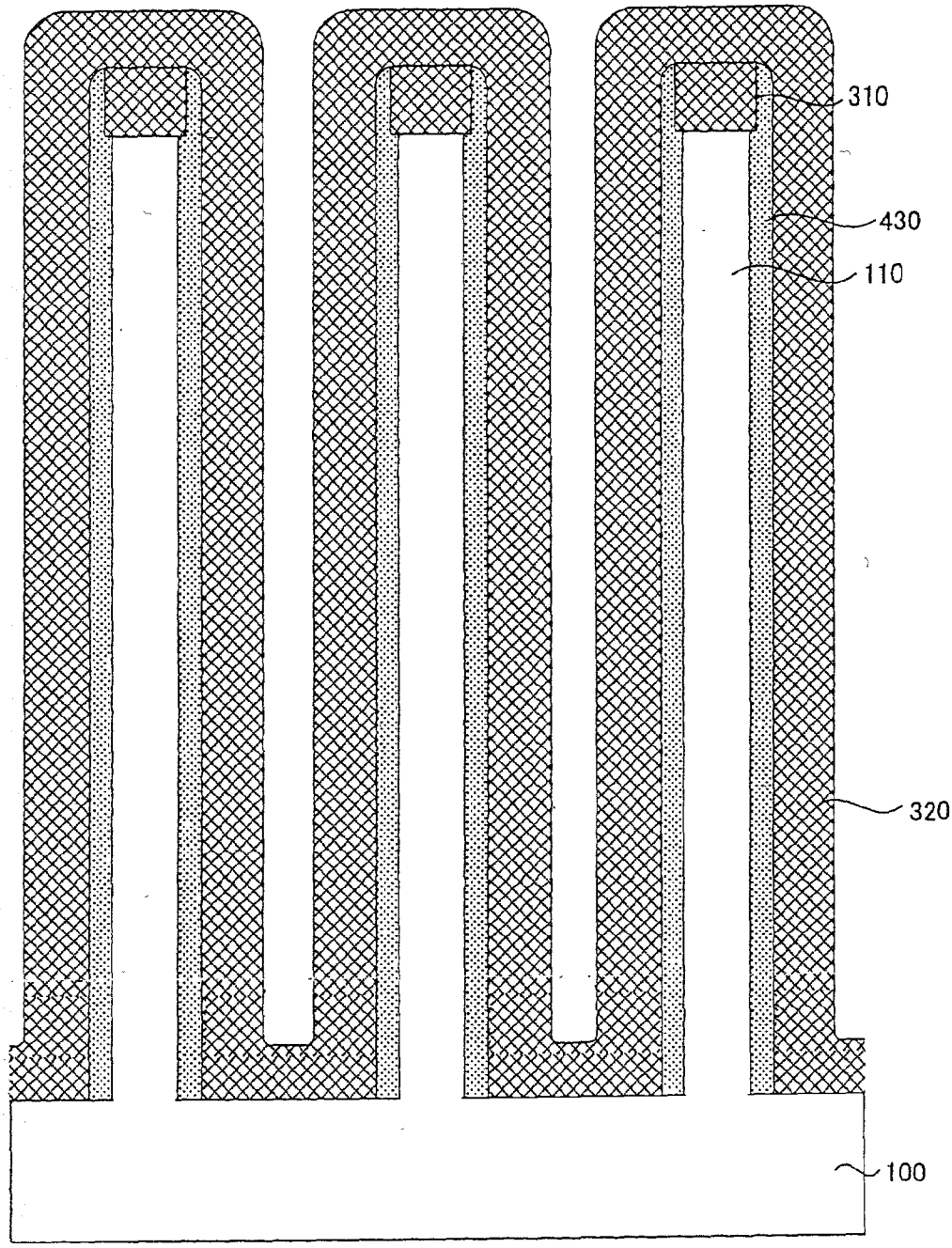


Fig. 142

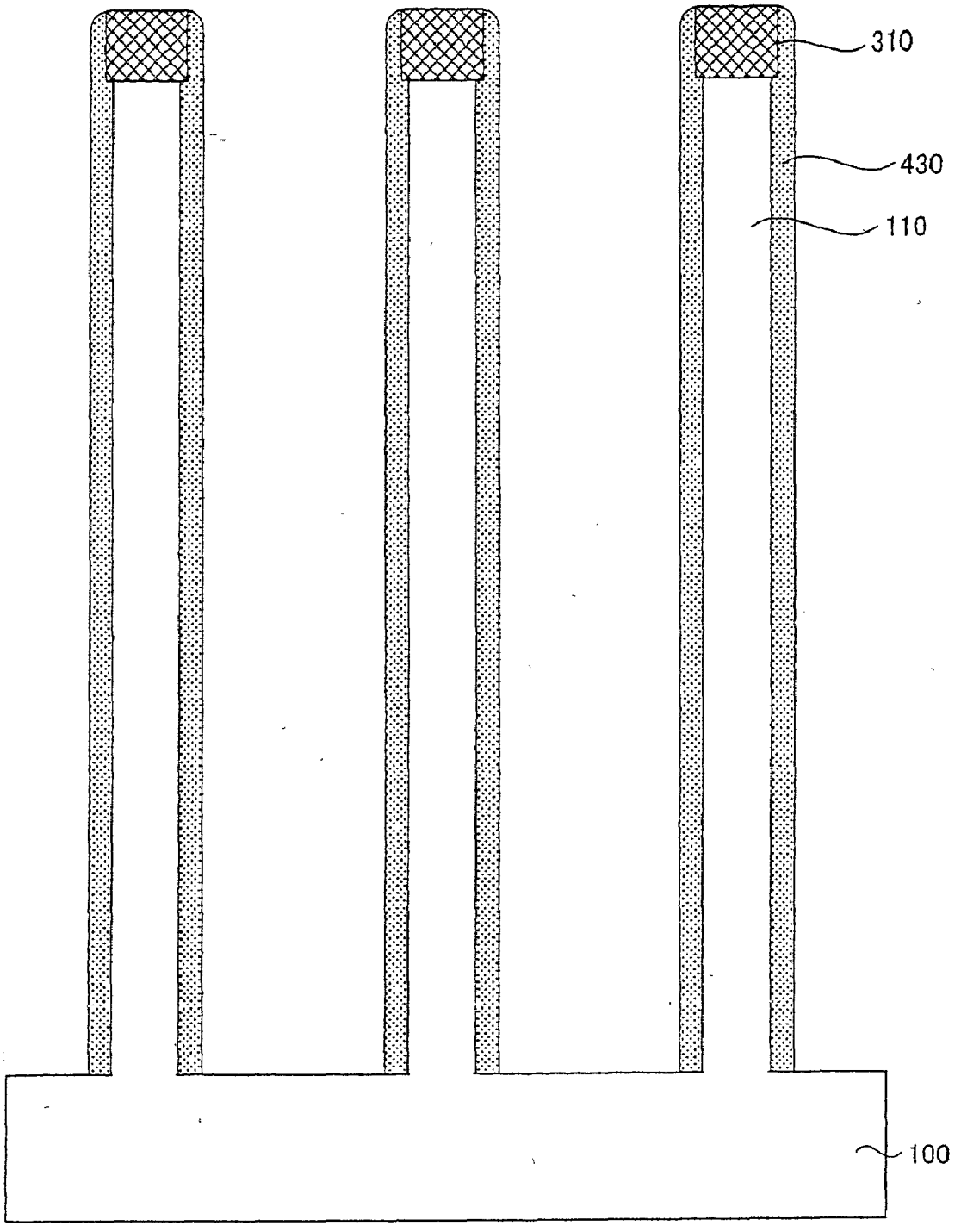


Fig. 143

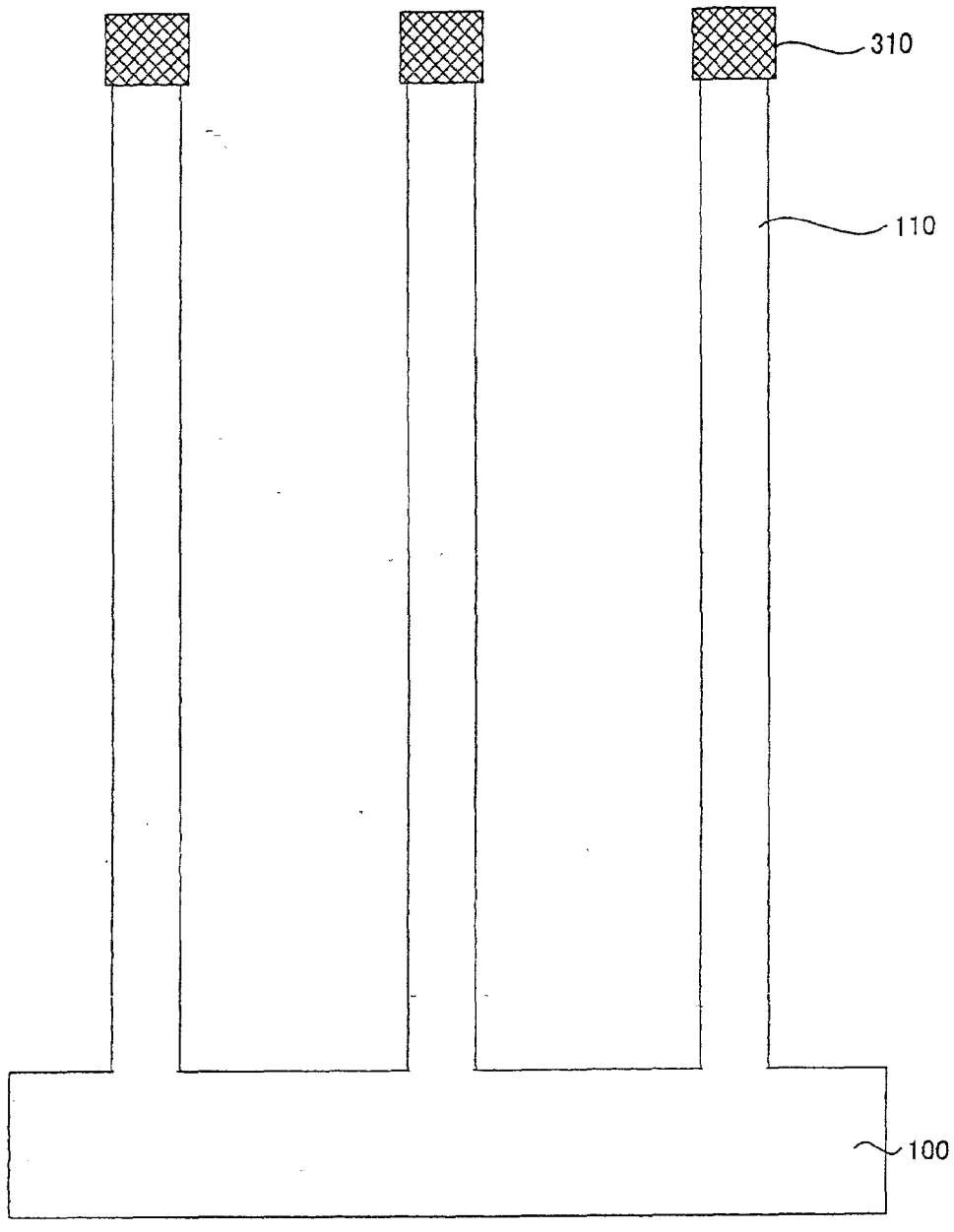


Fig. 144

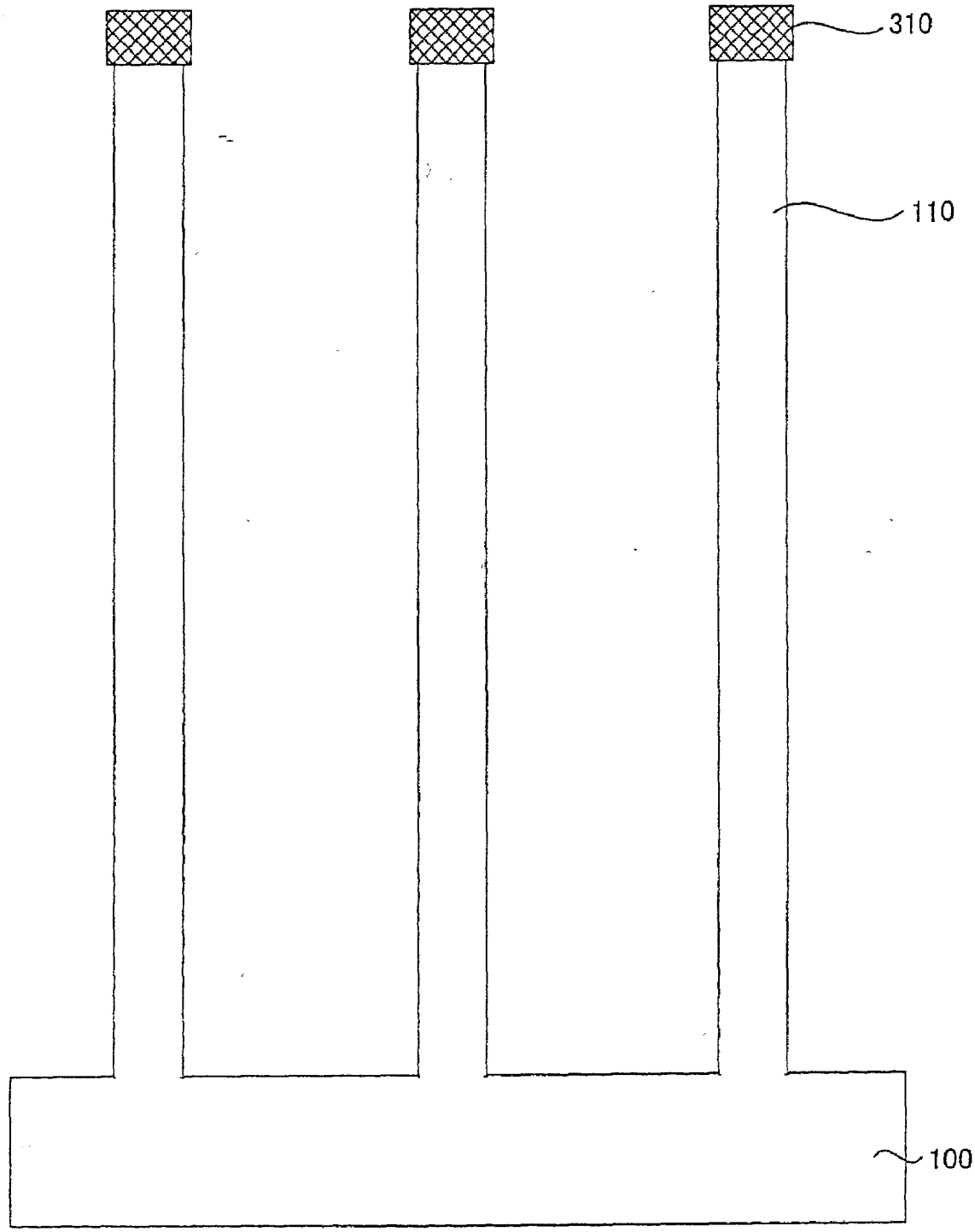


Fig. 145

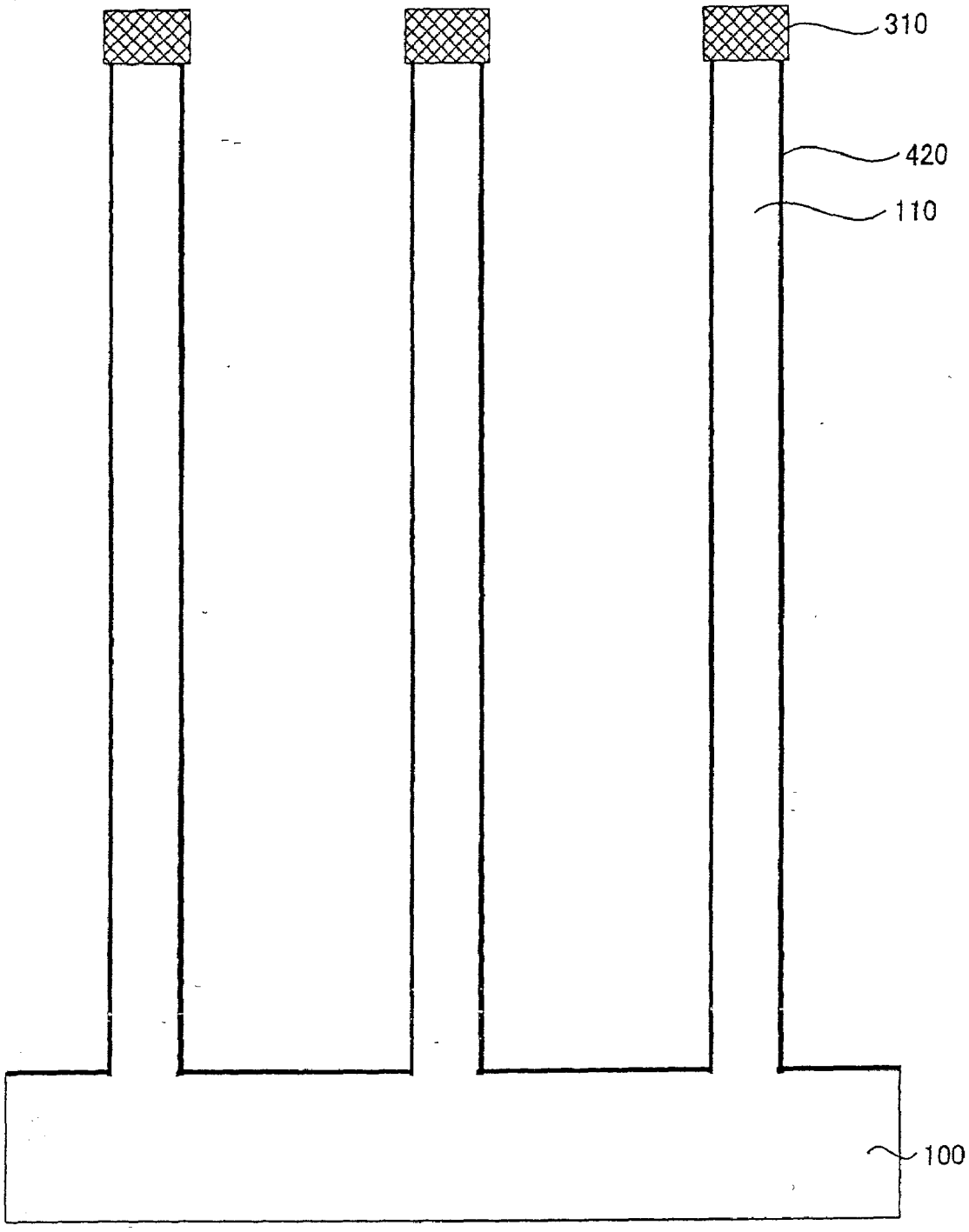


Fig. 146

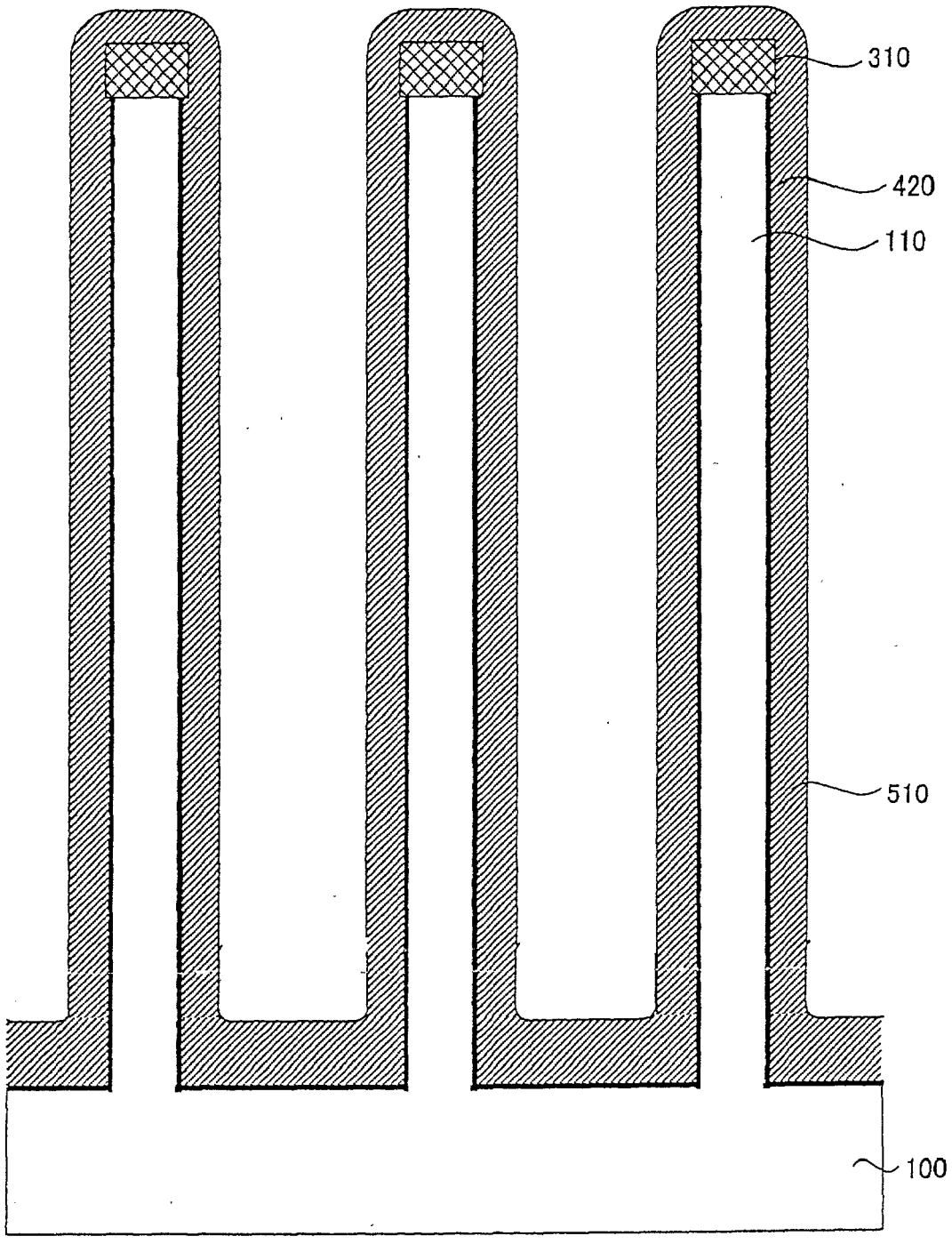


Fig. 147

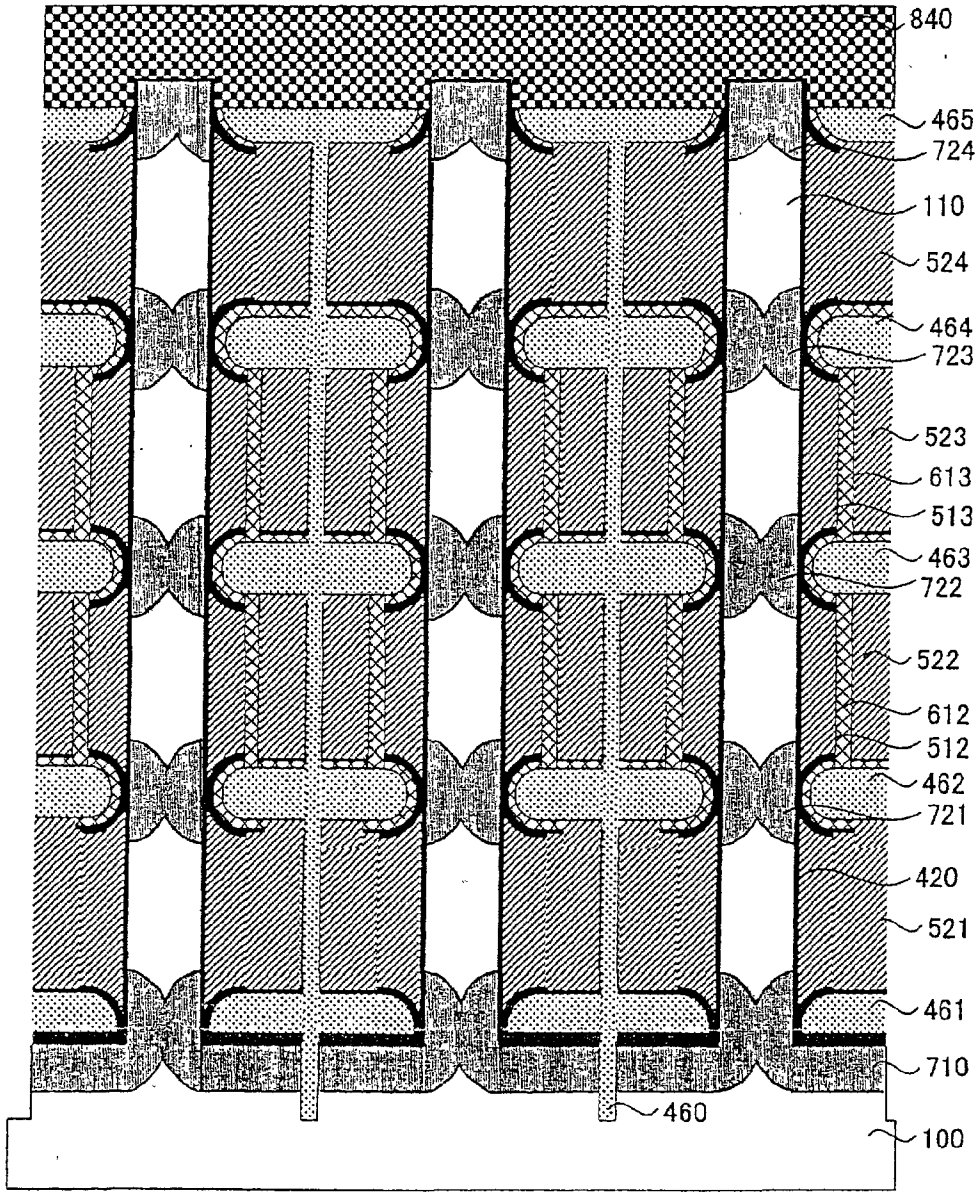

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Fig. 148

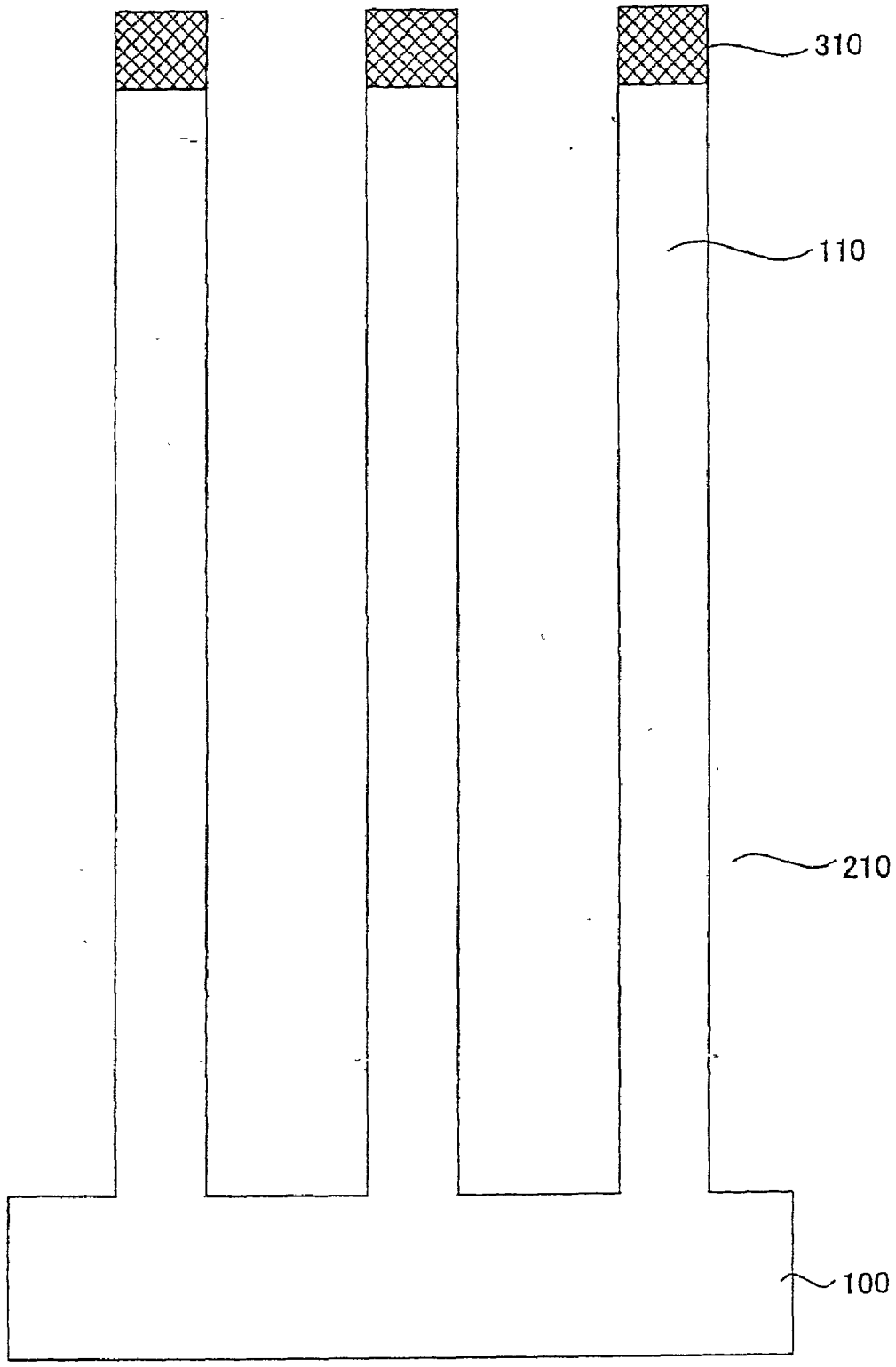


Fig. 149

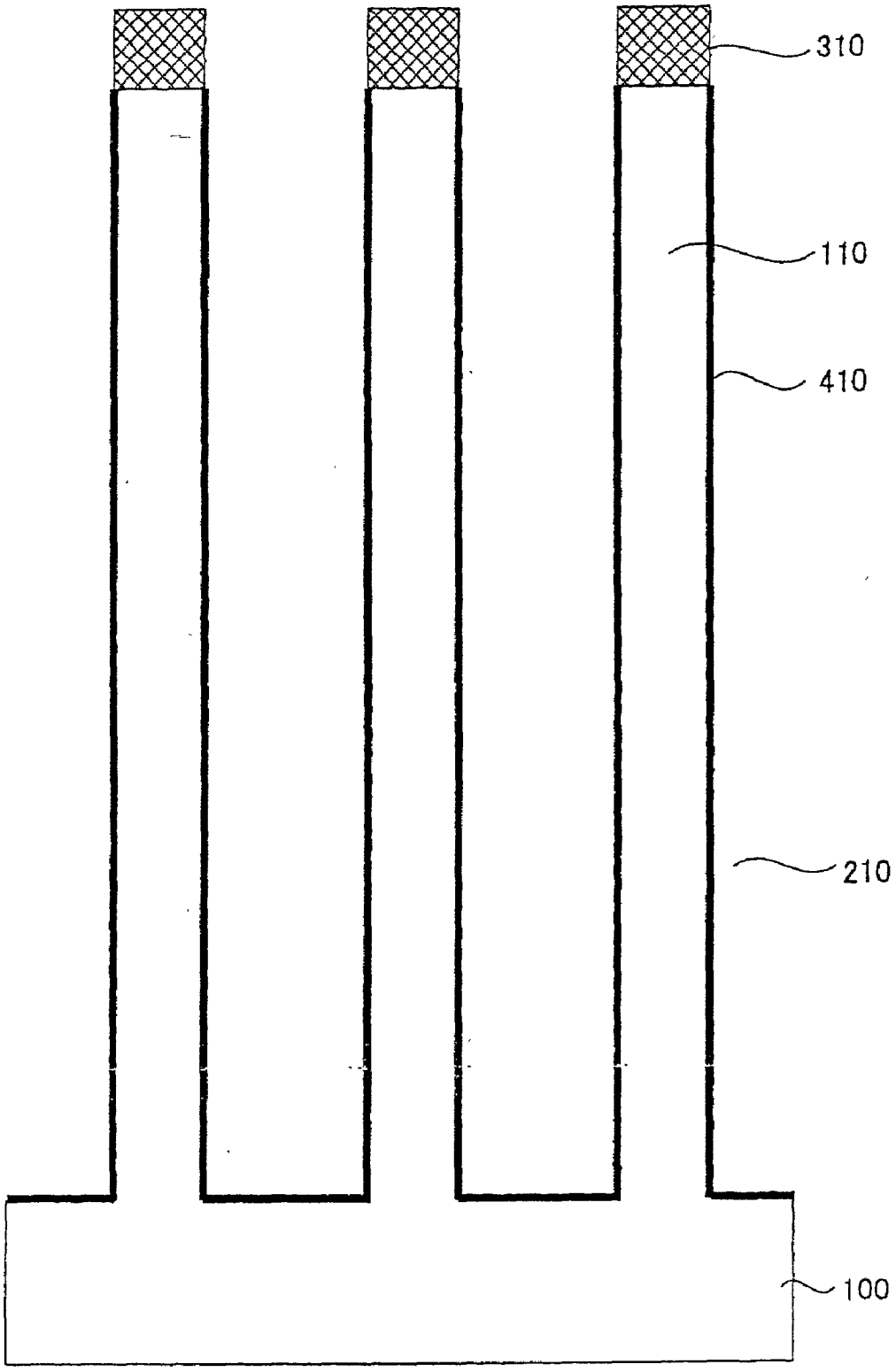


Fig. 150

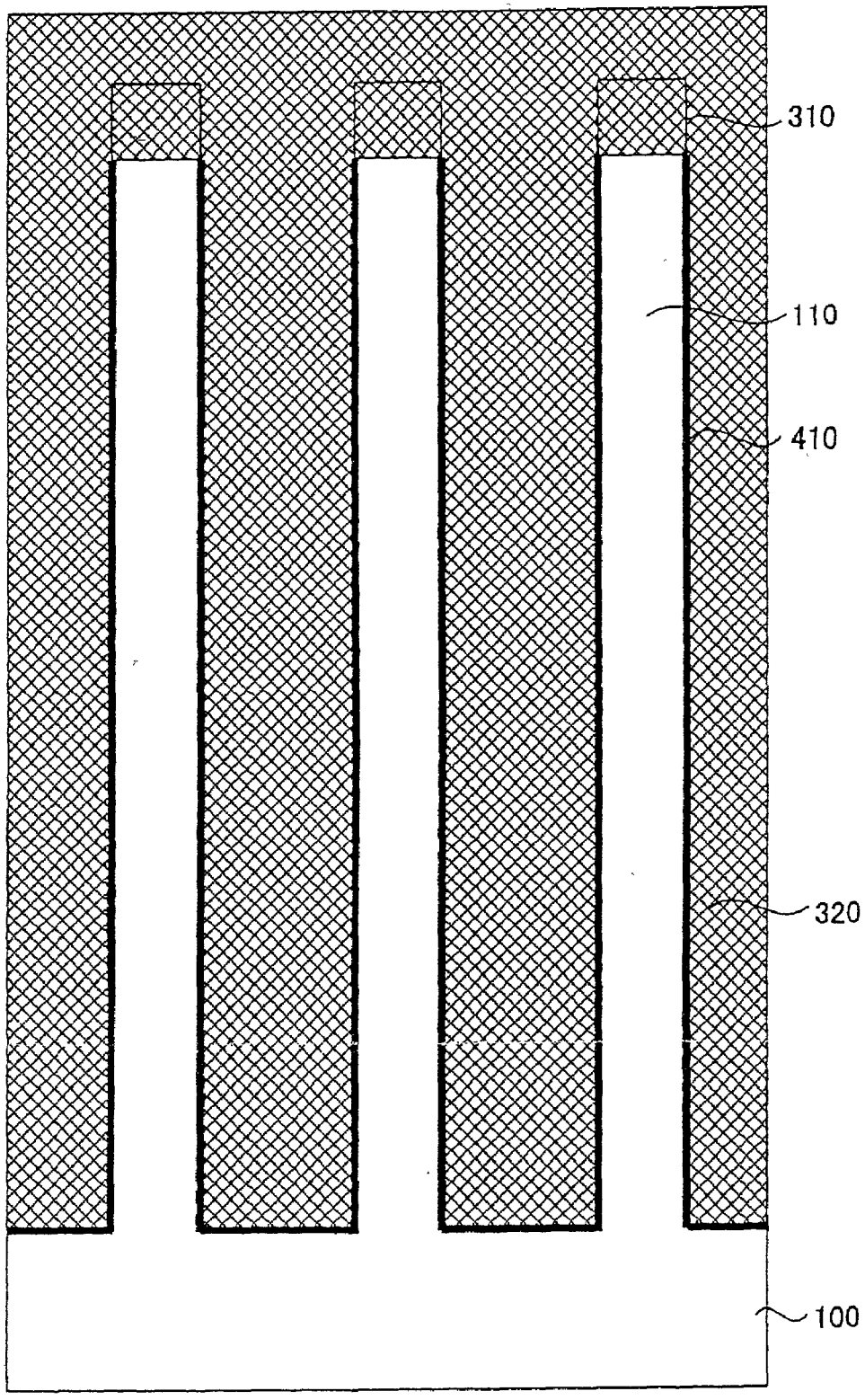


Fig. 151

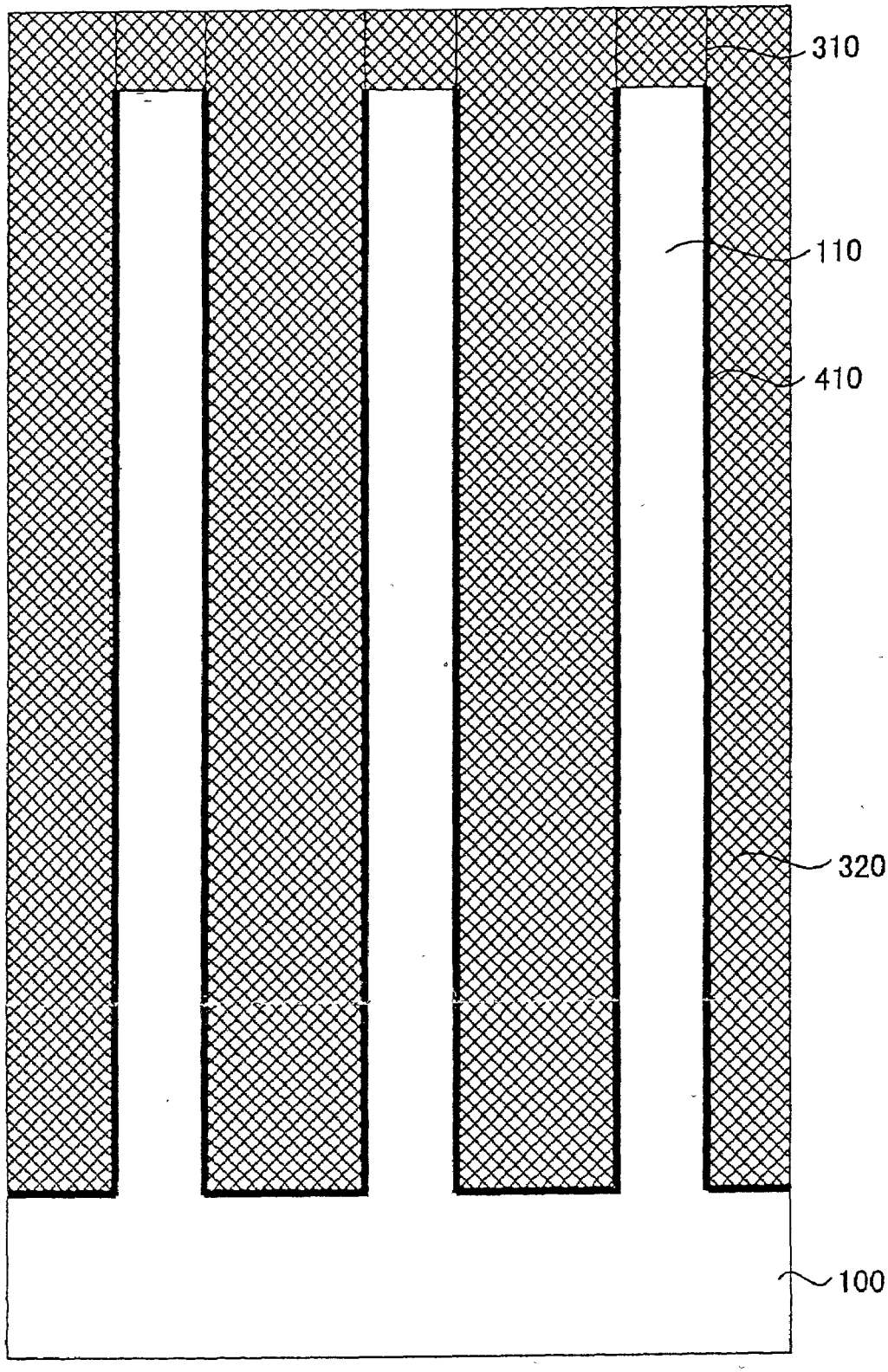


Fig. 152

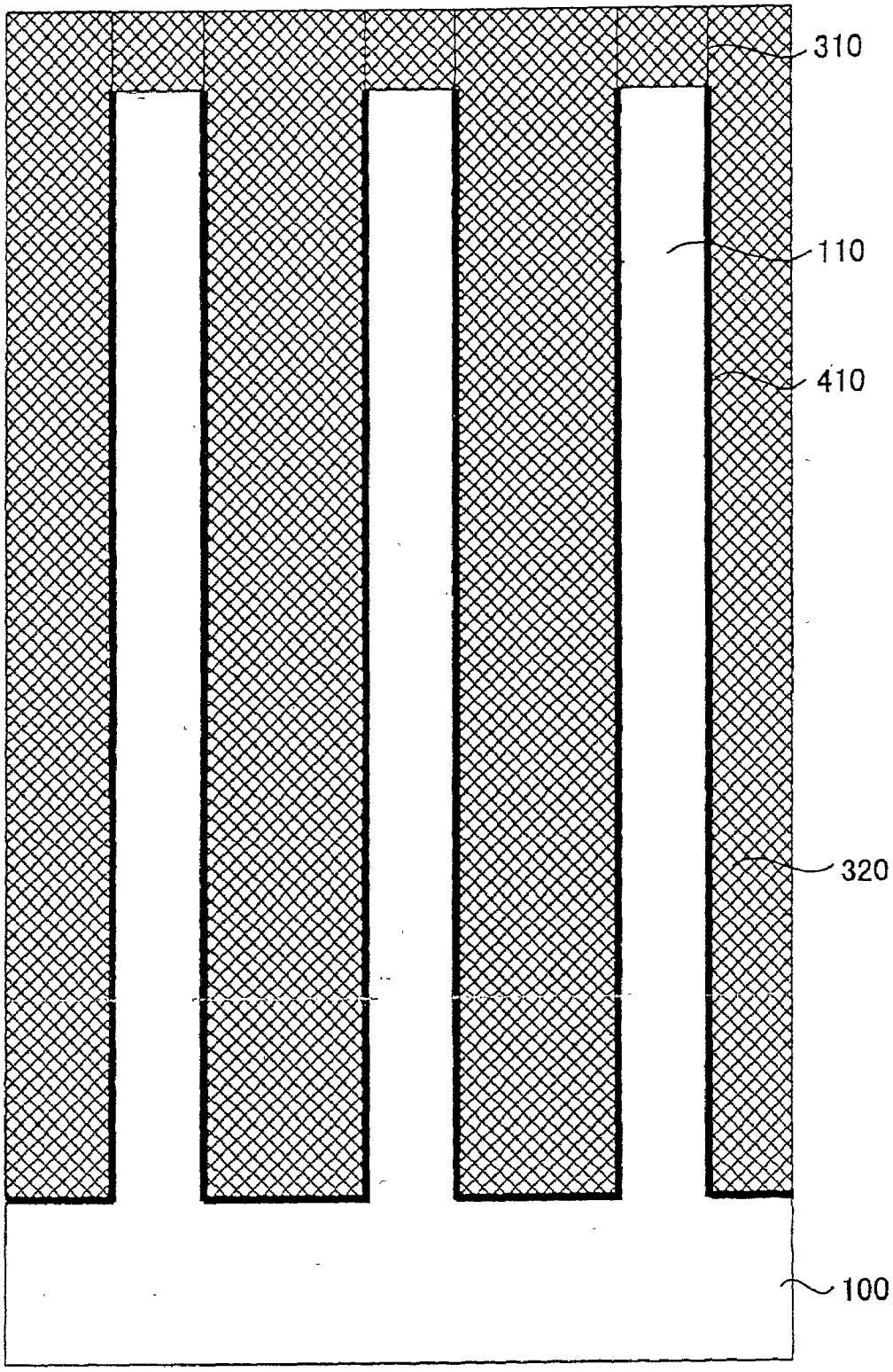


Fig. 153

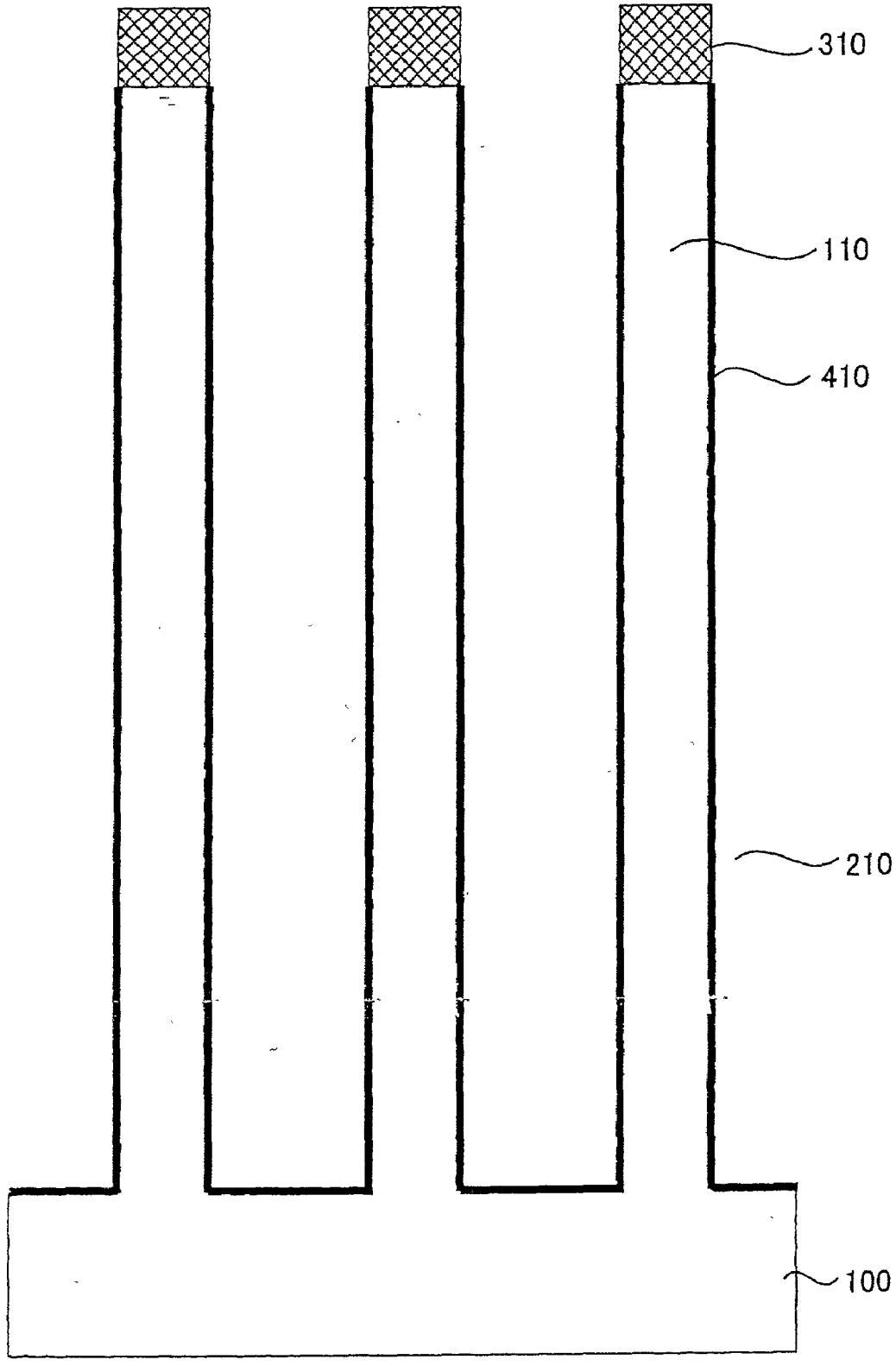


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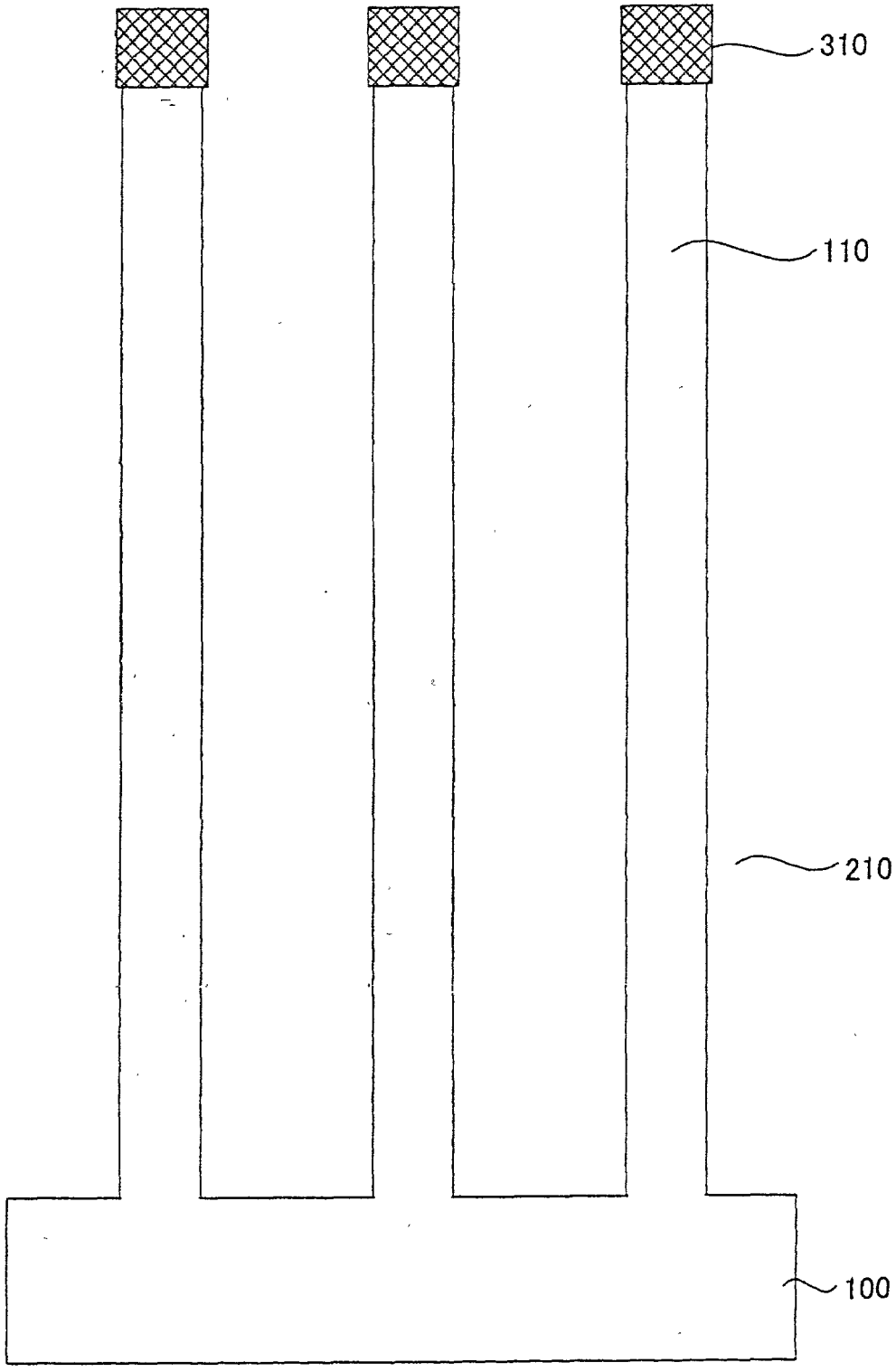


Fig. 155

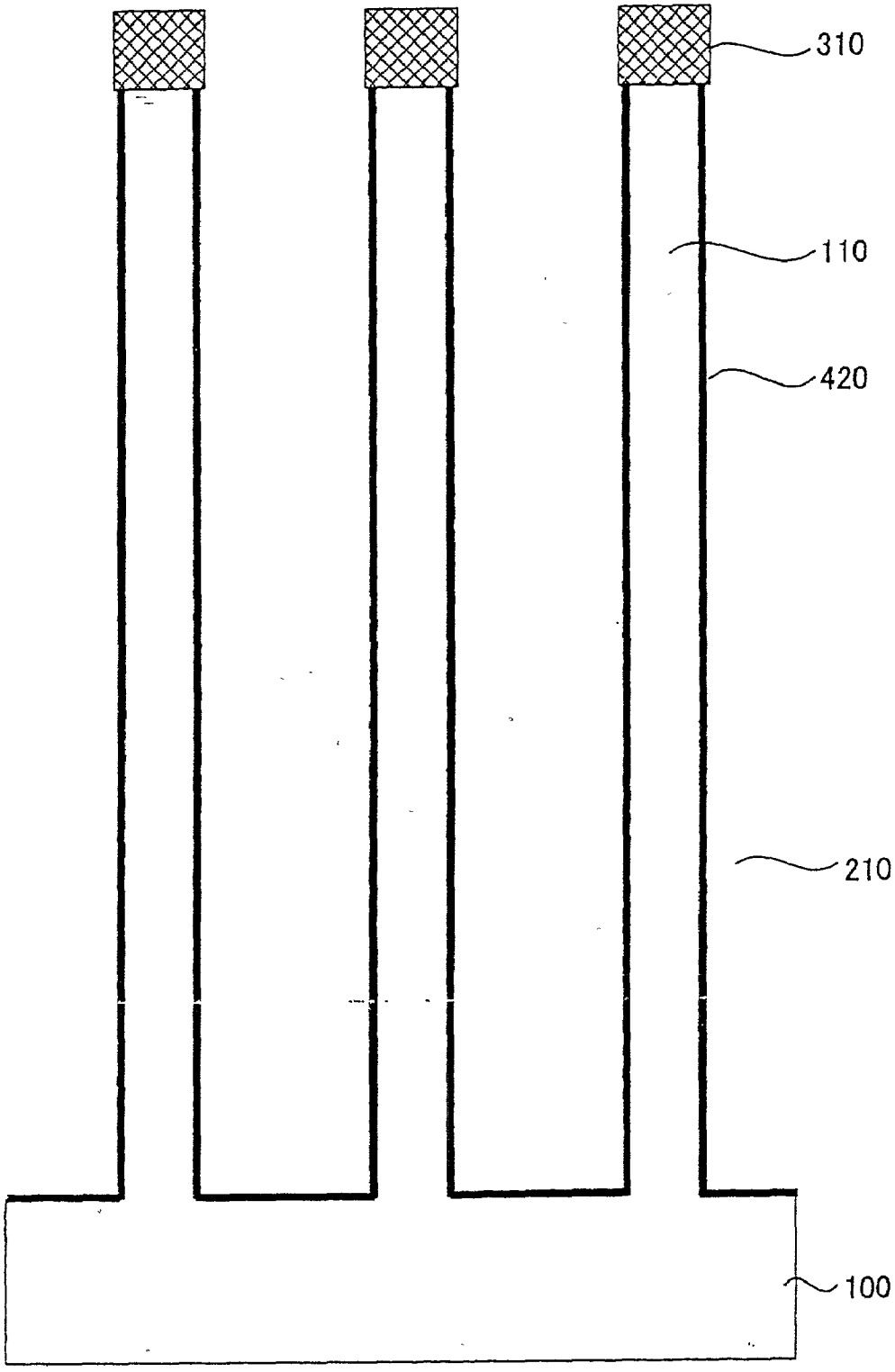


Fig. 156

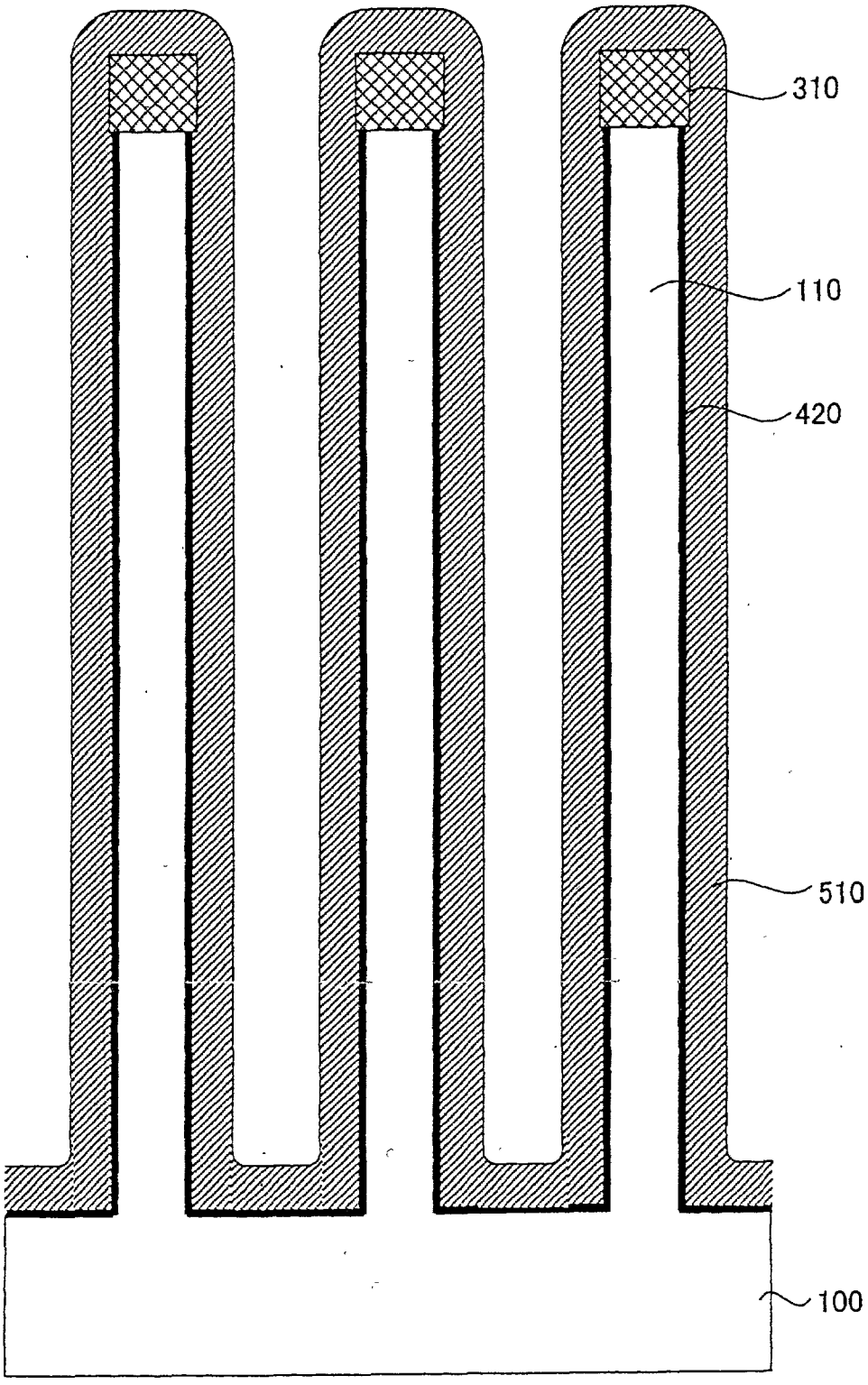


Fig. 157

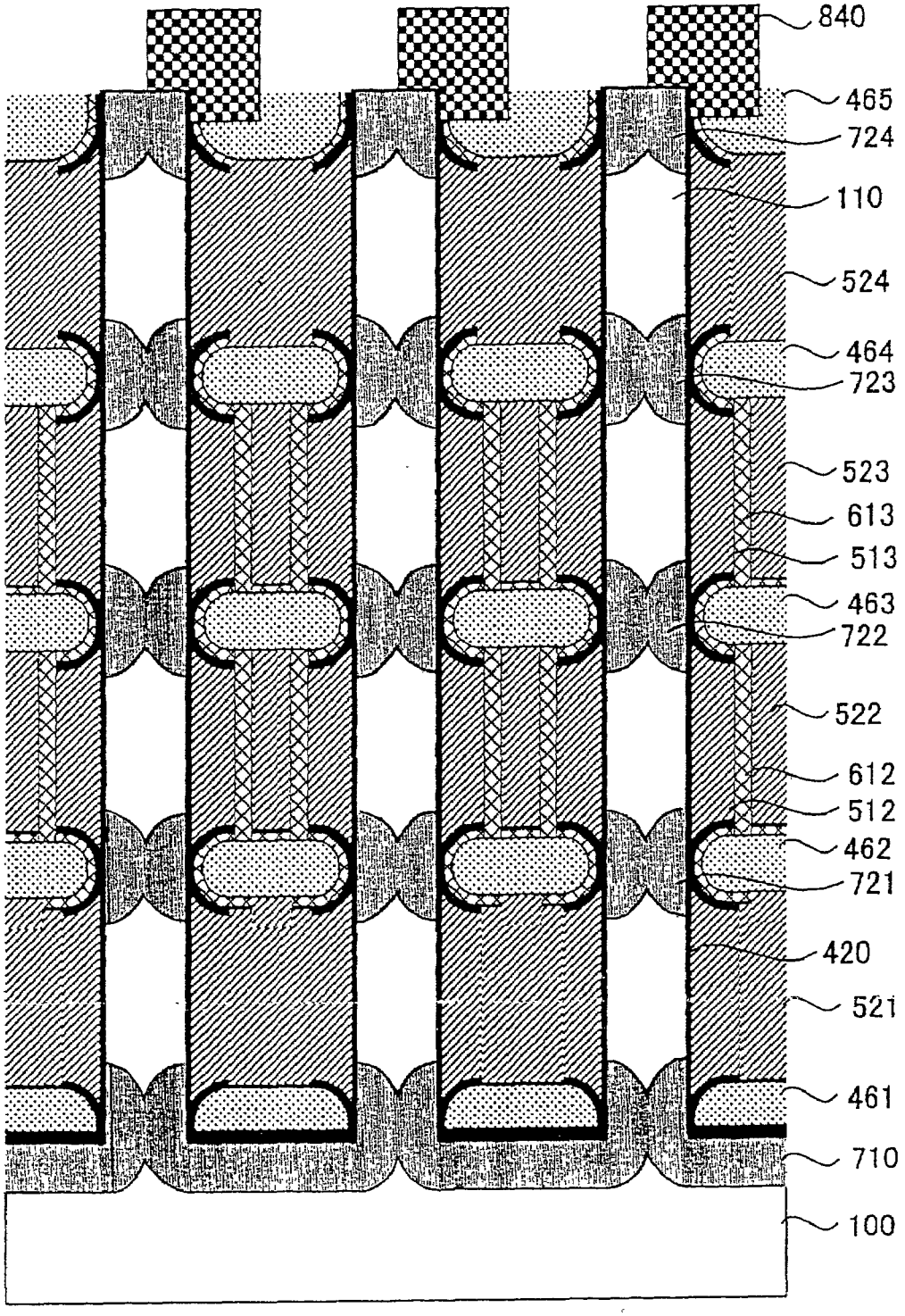

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Fig. 158

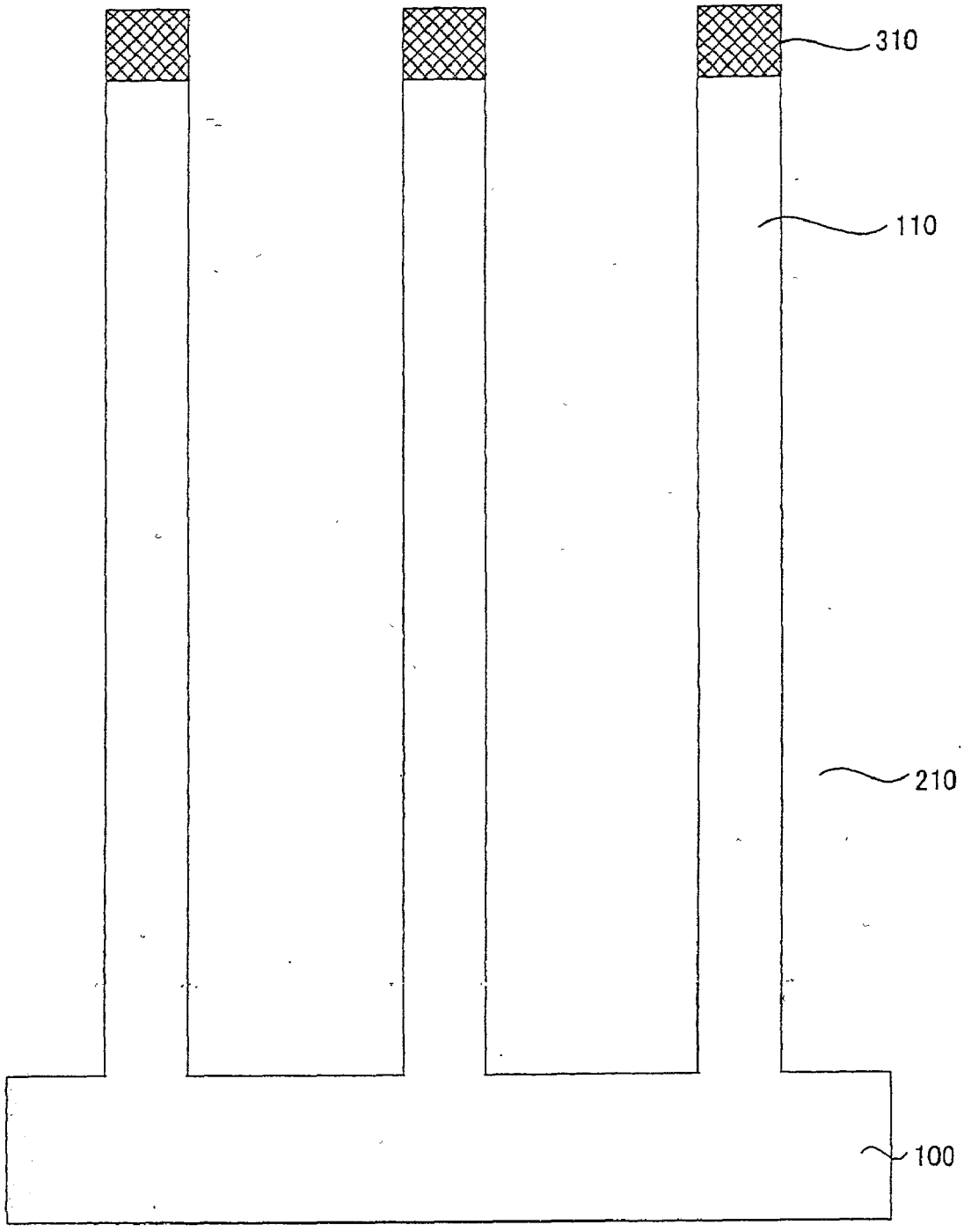


Fig. 159

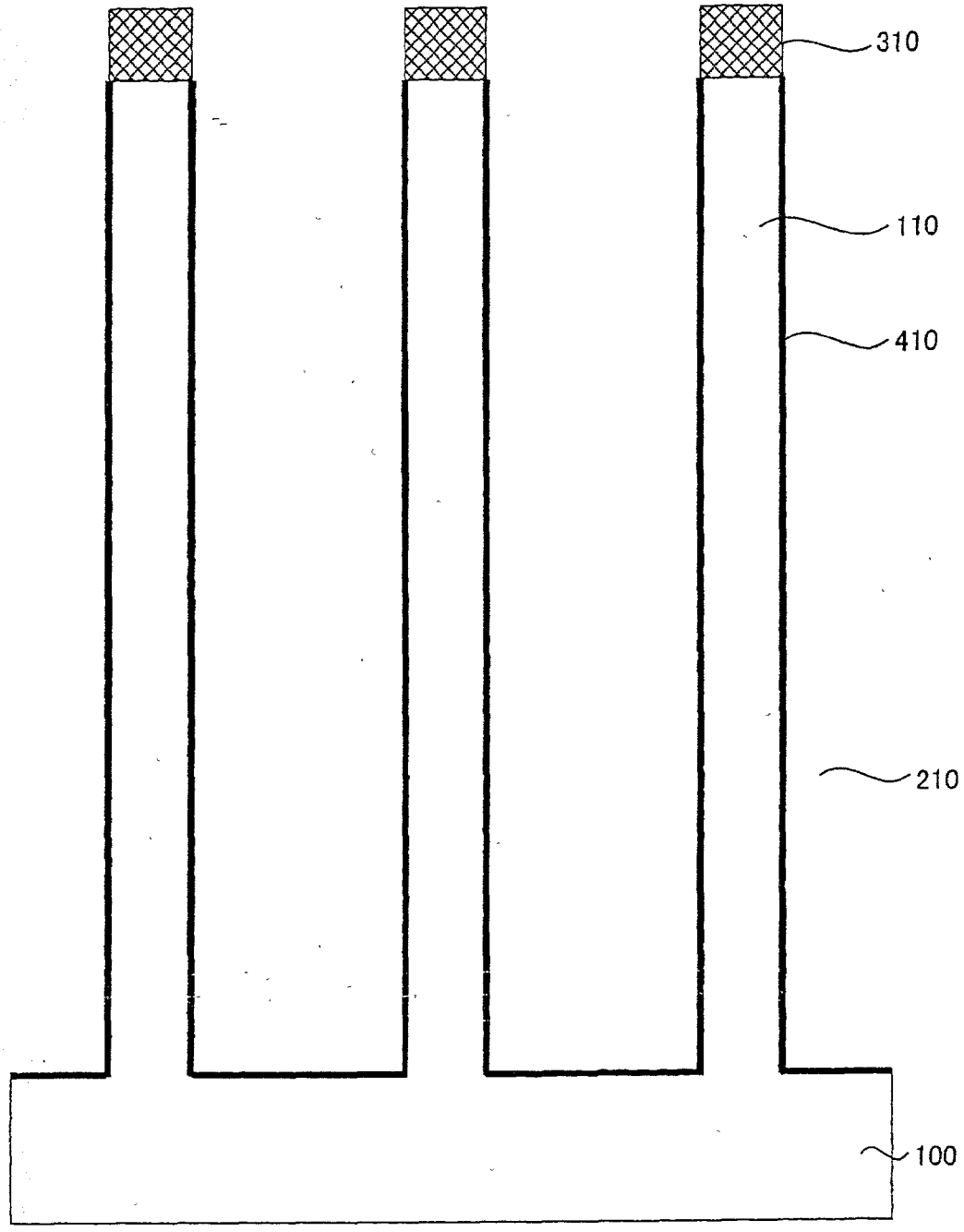


Fig. 160

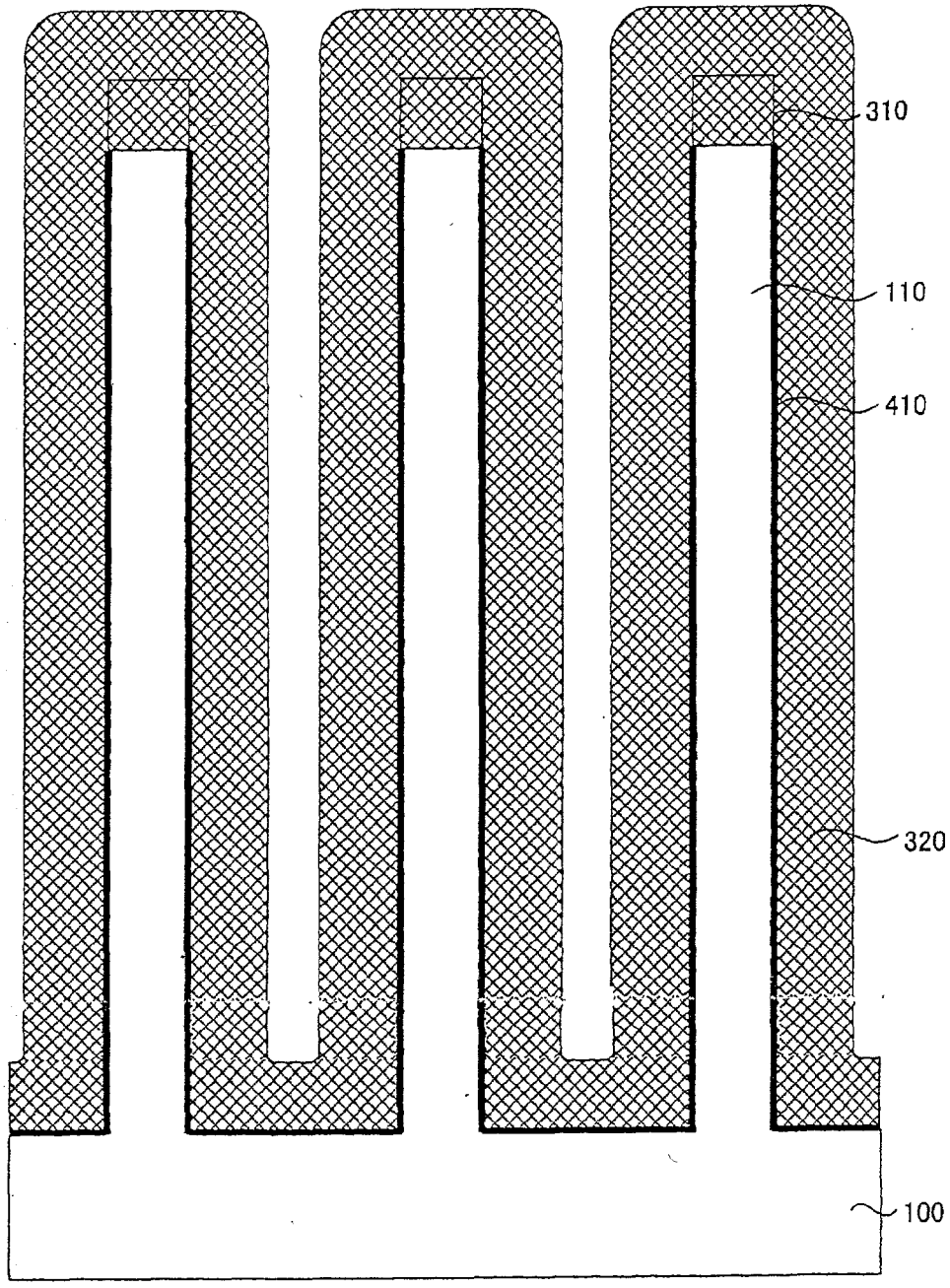


Fig. 161

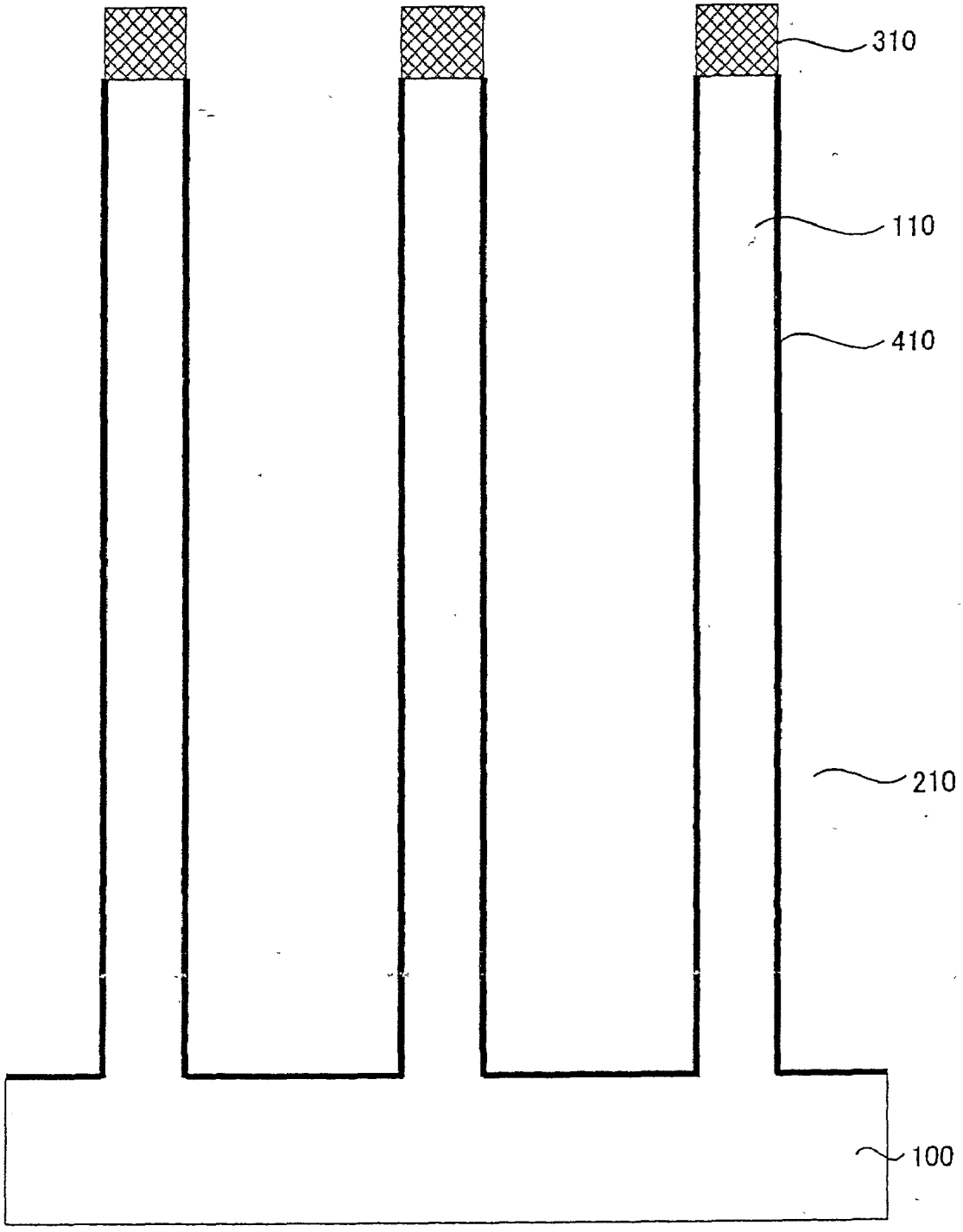


Fig. 162

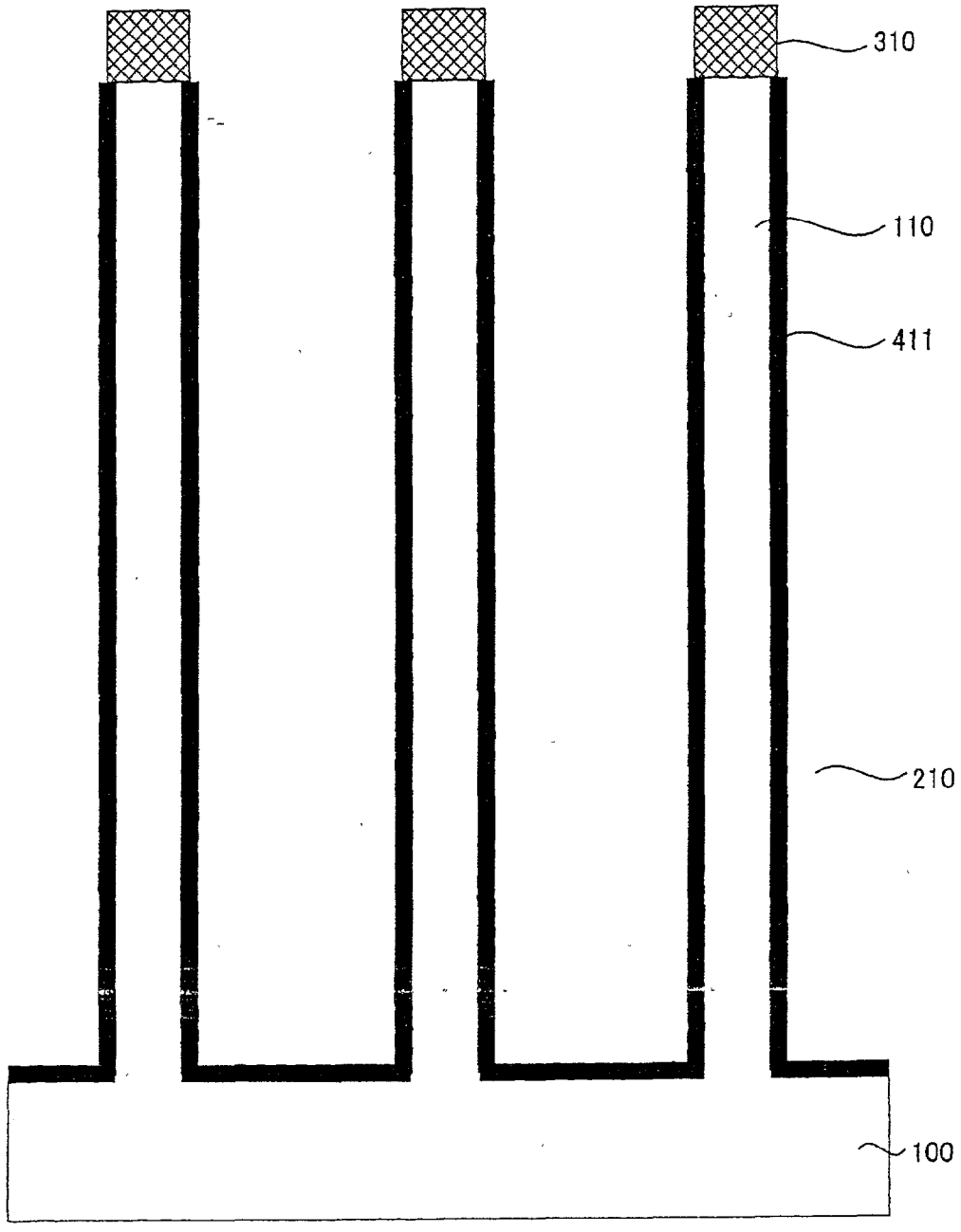


Fig. 163

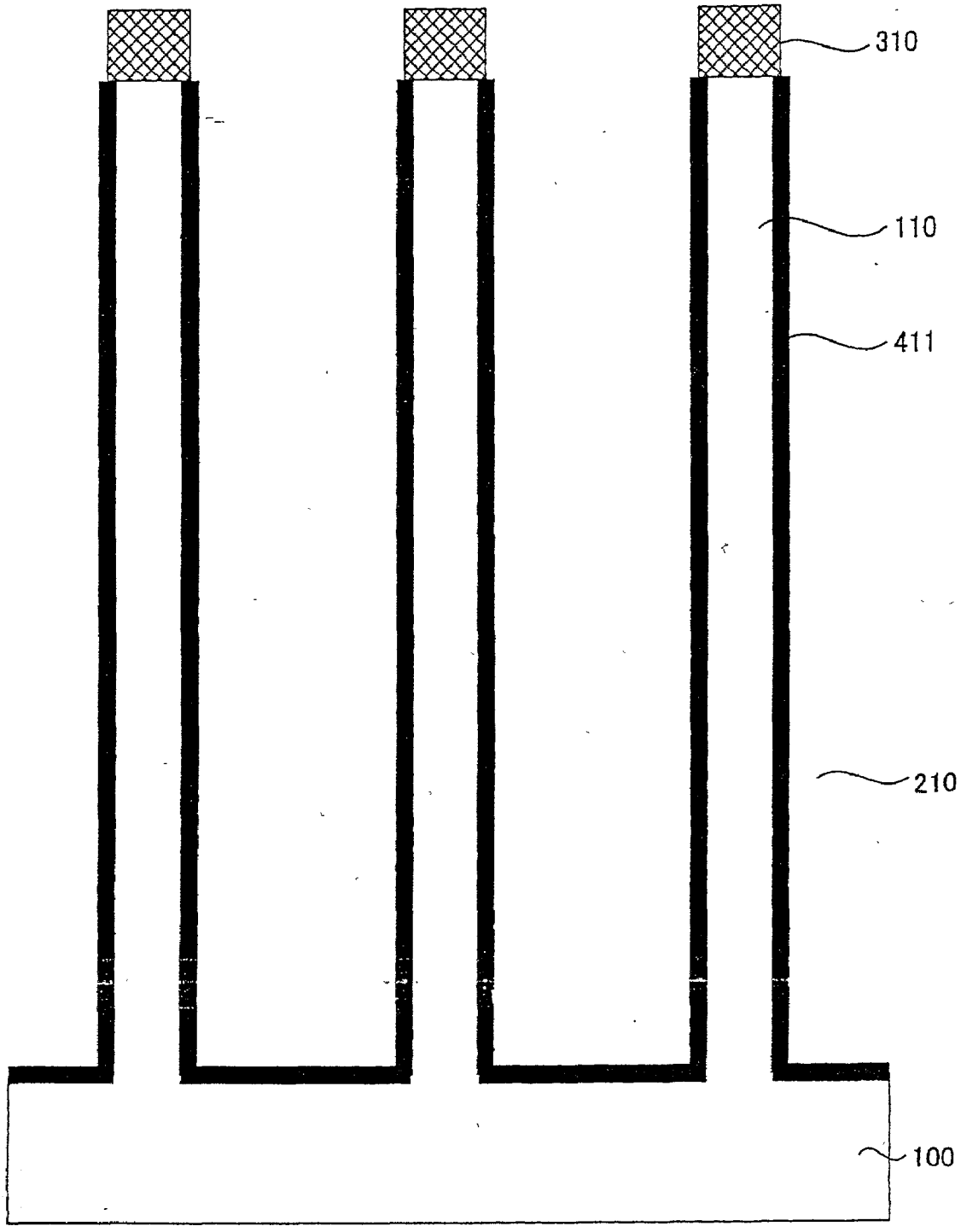


Fig. 164

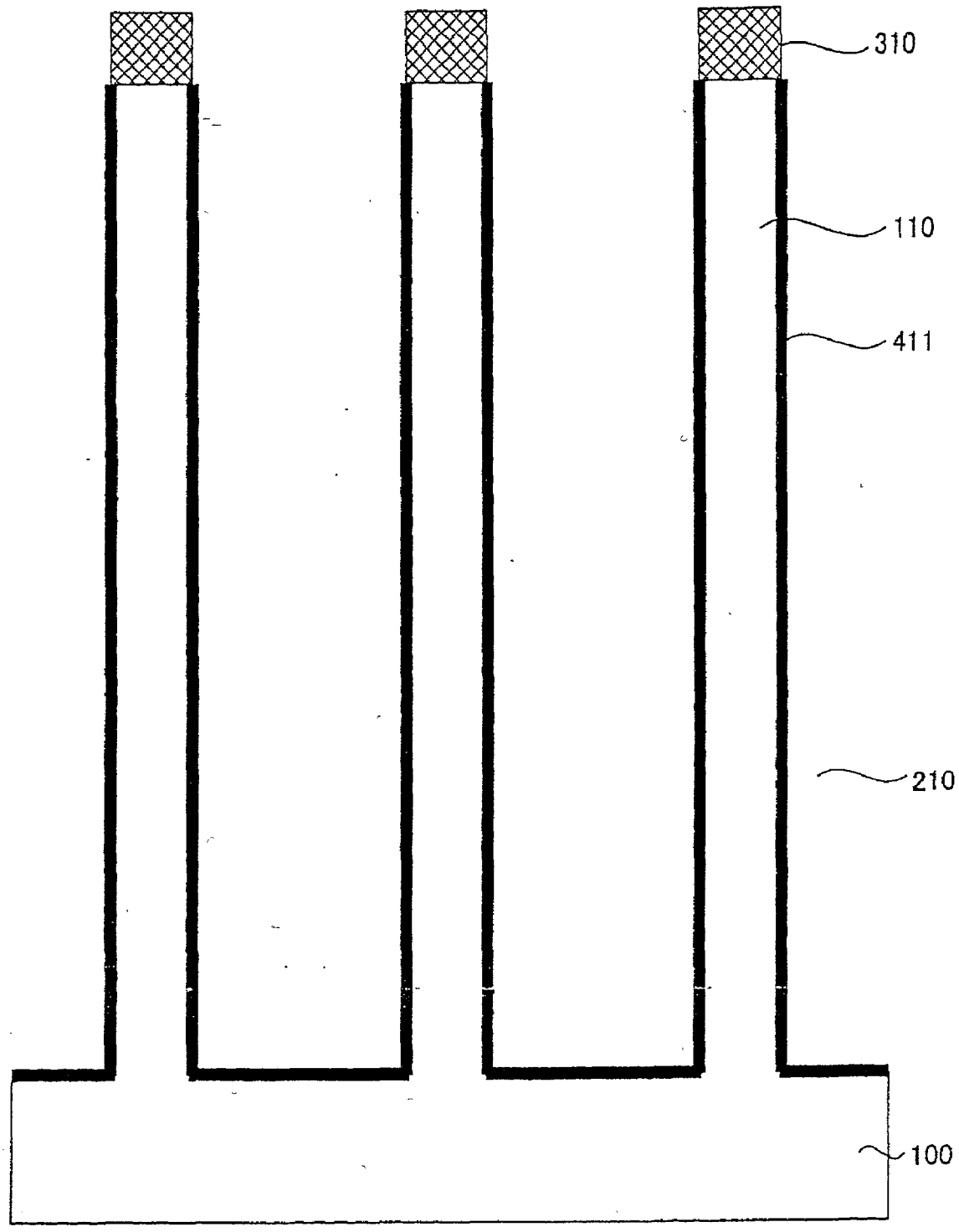


Fig. 165

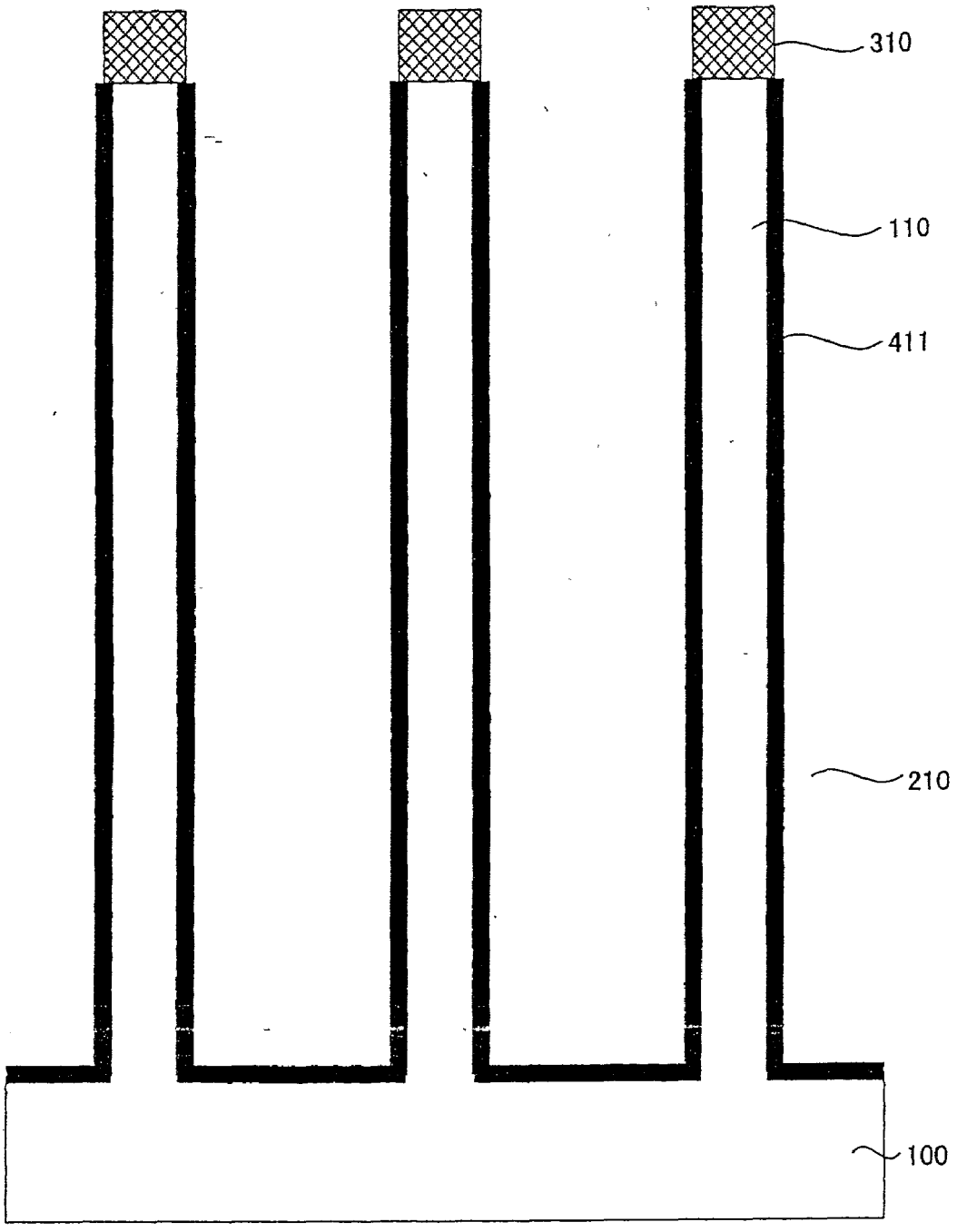


Fig. 166

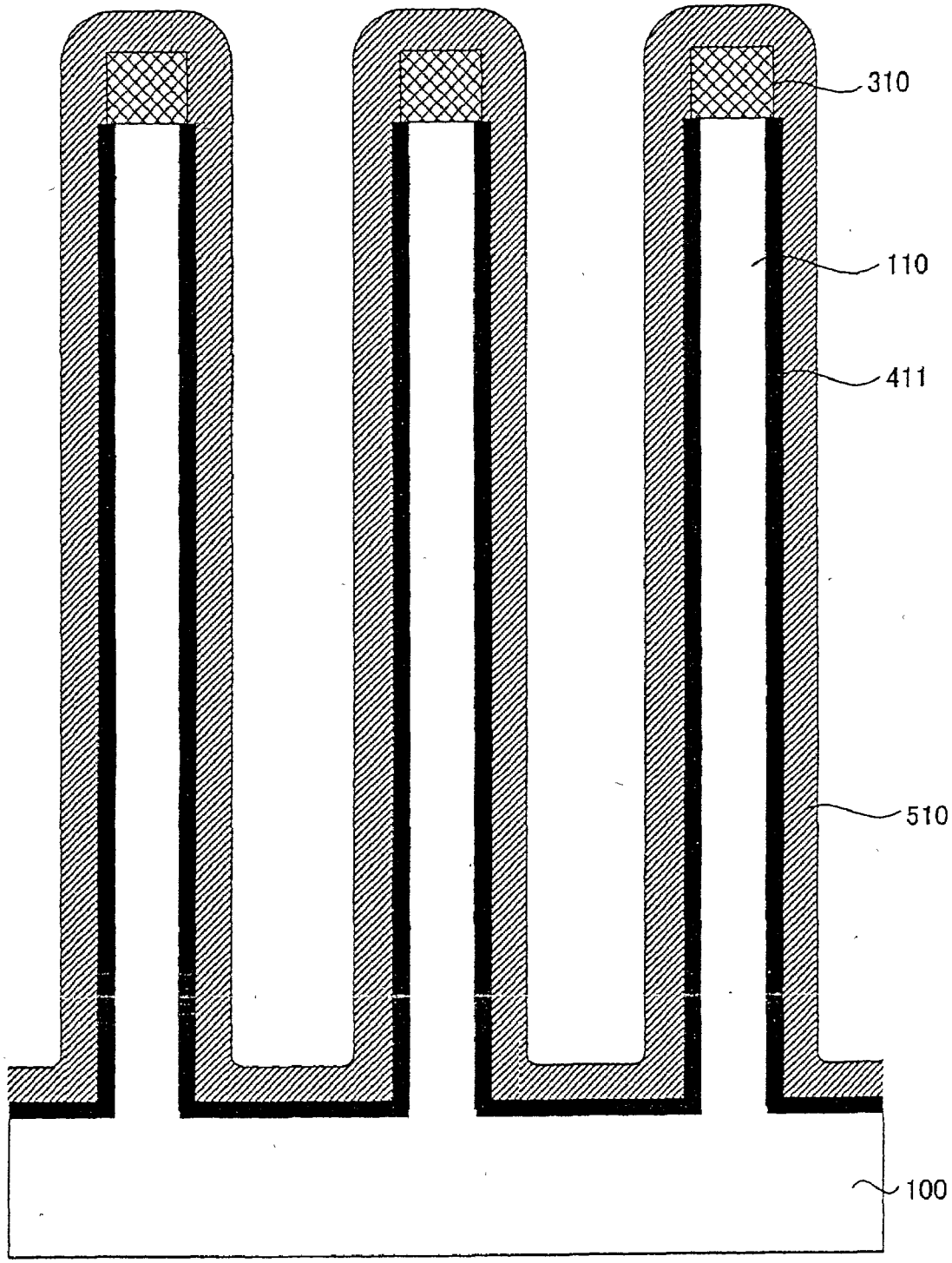


Fig. 167

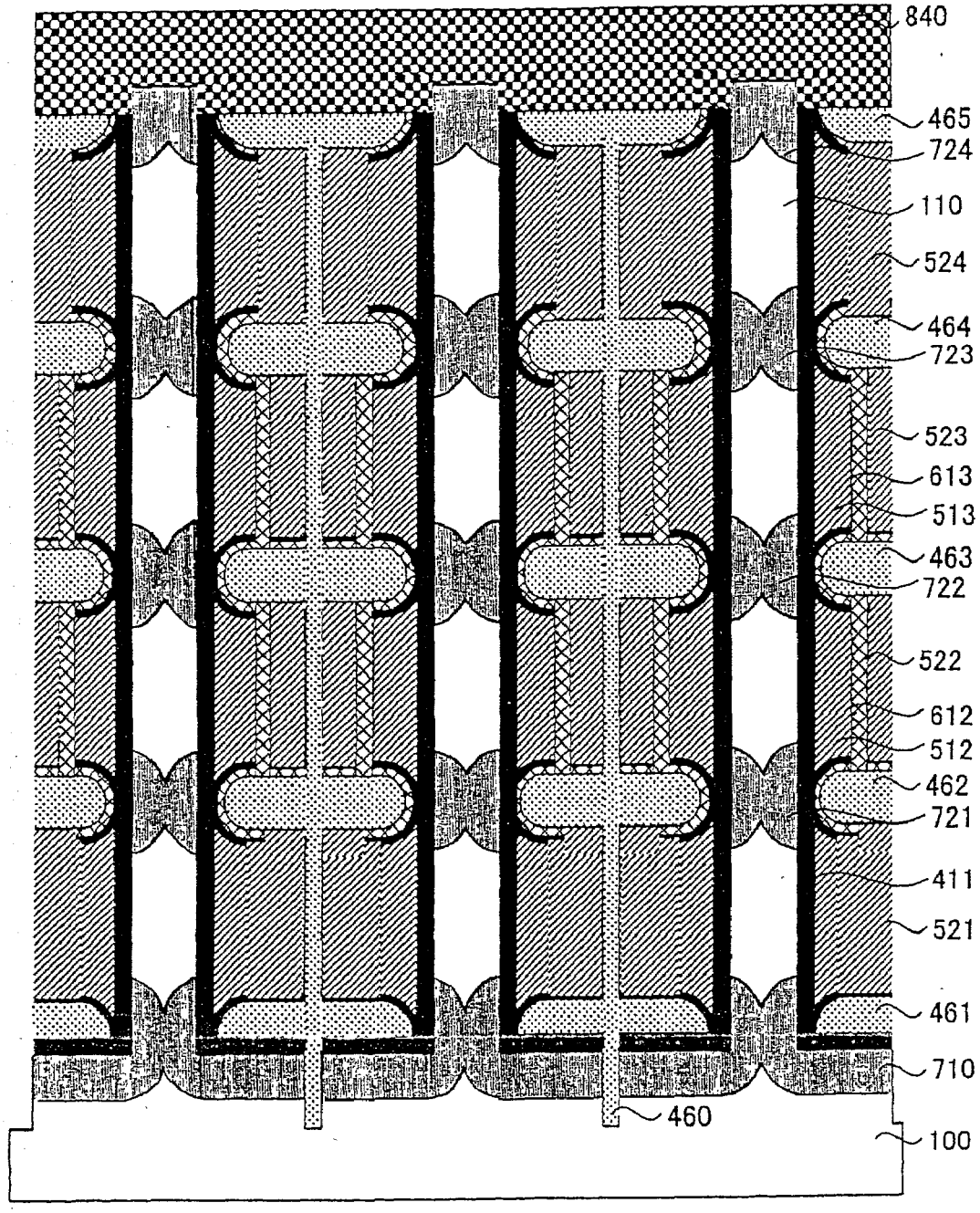

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Fig. 168

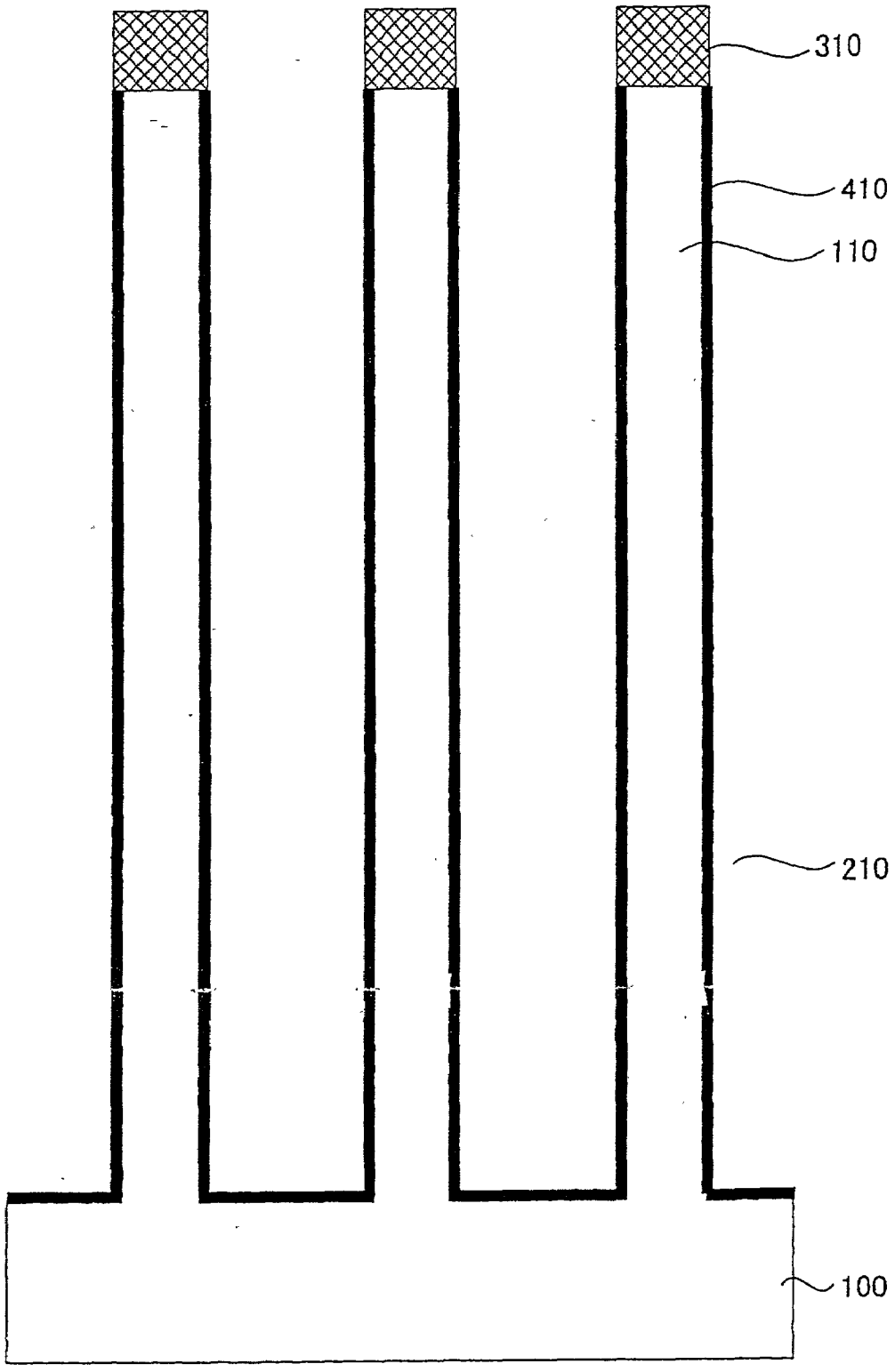


Fig. 169

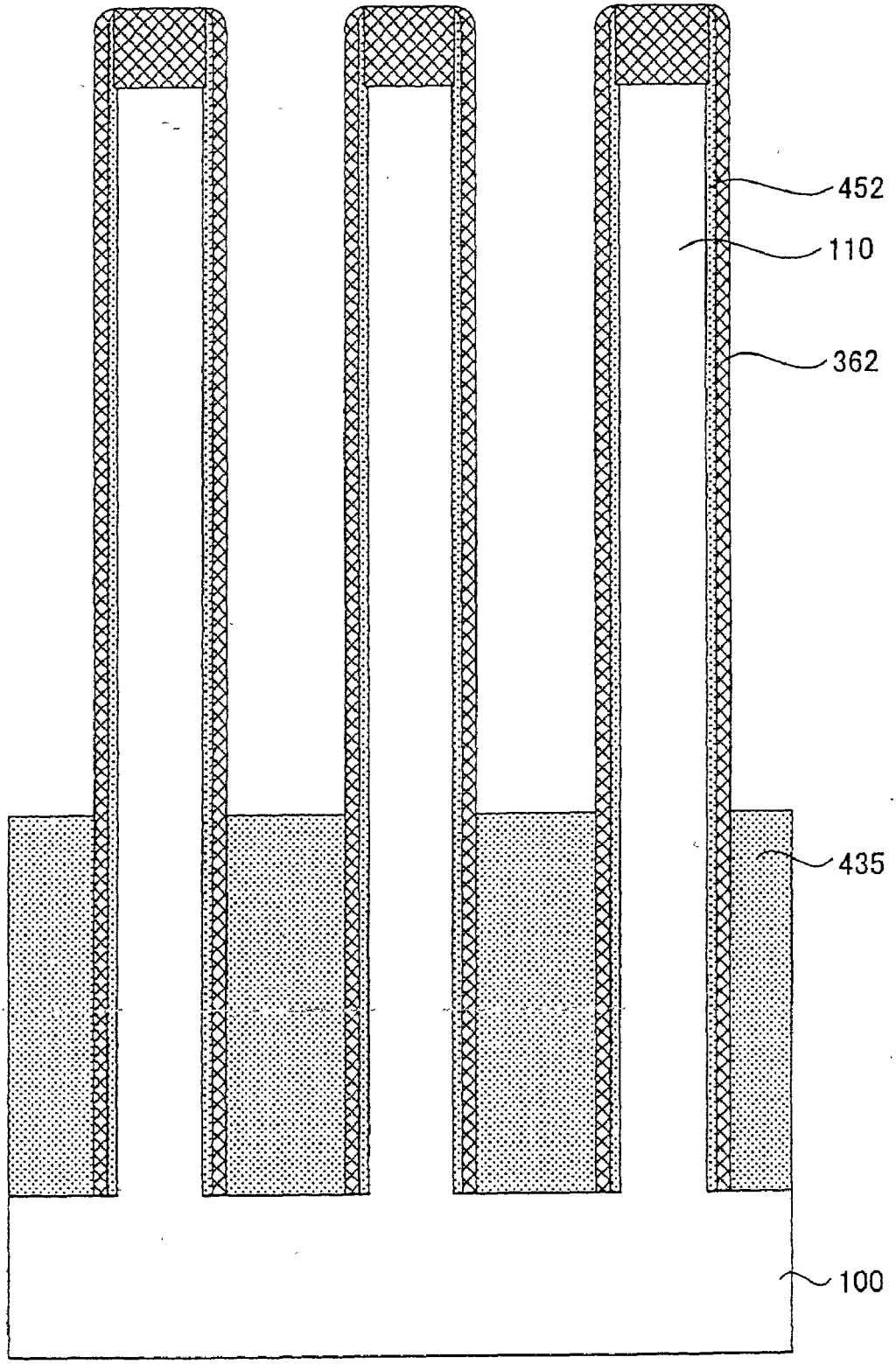


Fig. 170

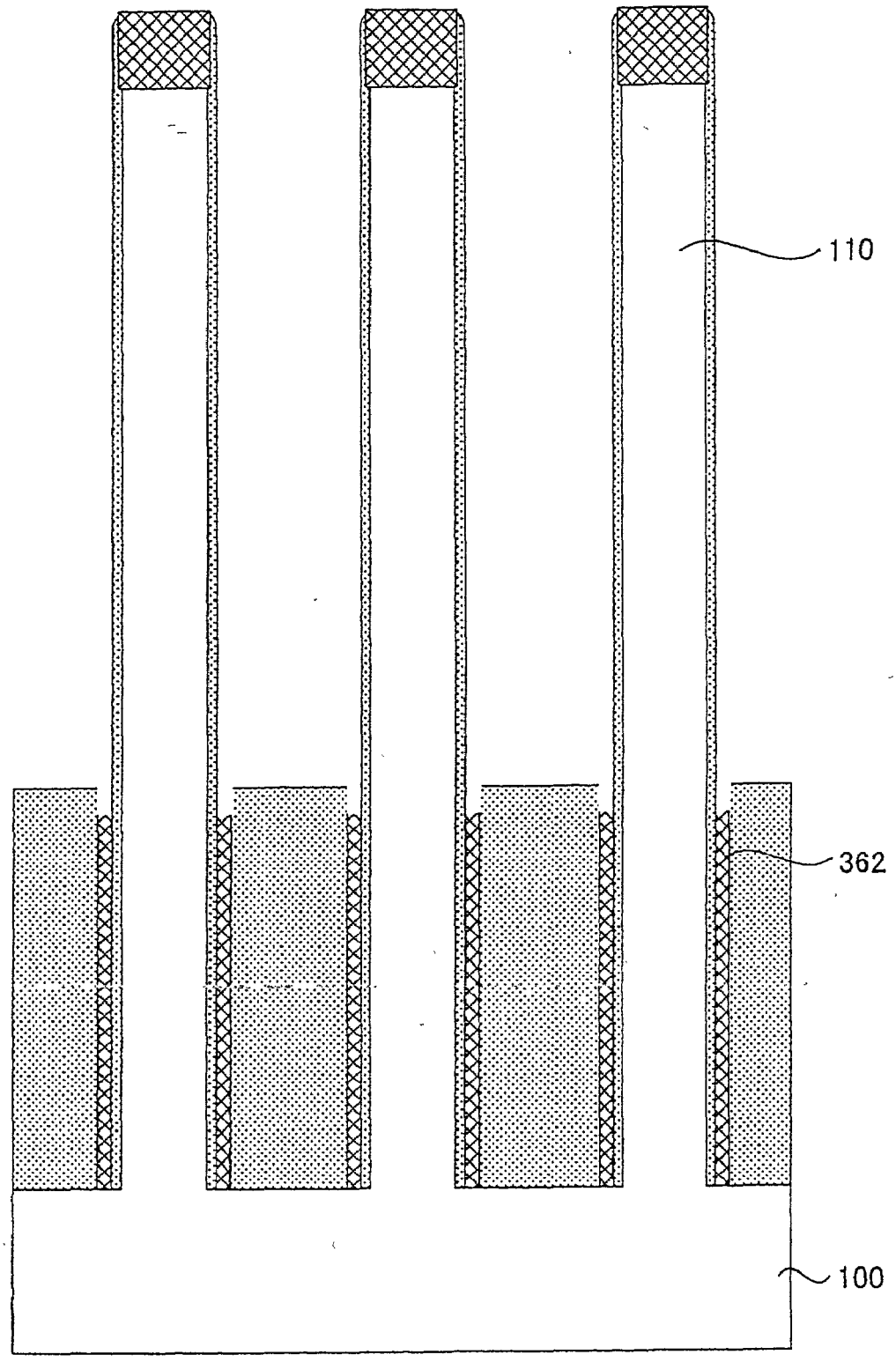


Fig. 171

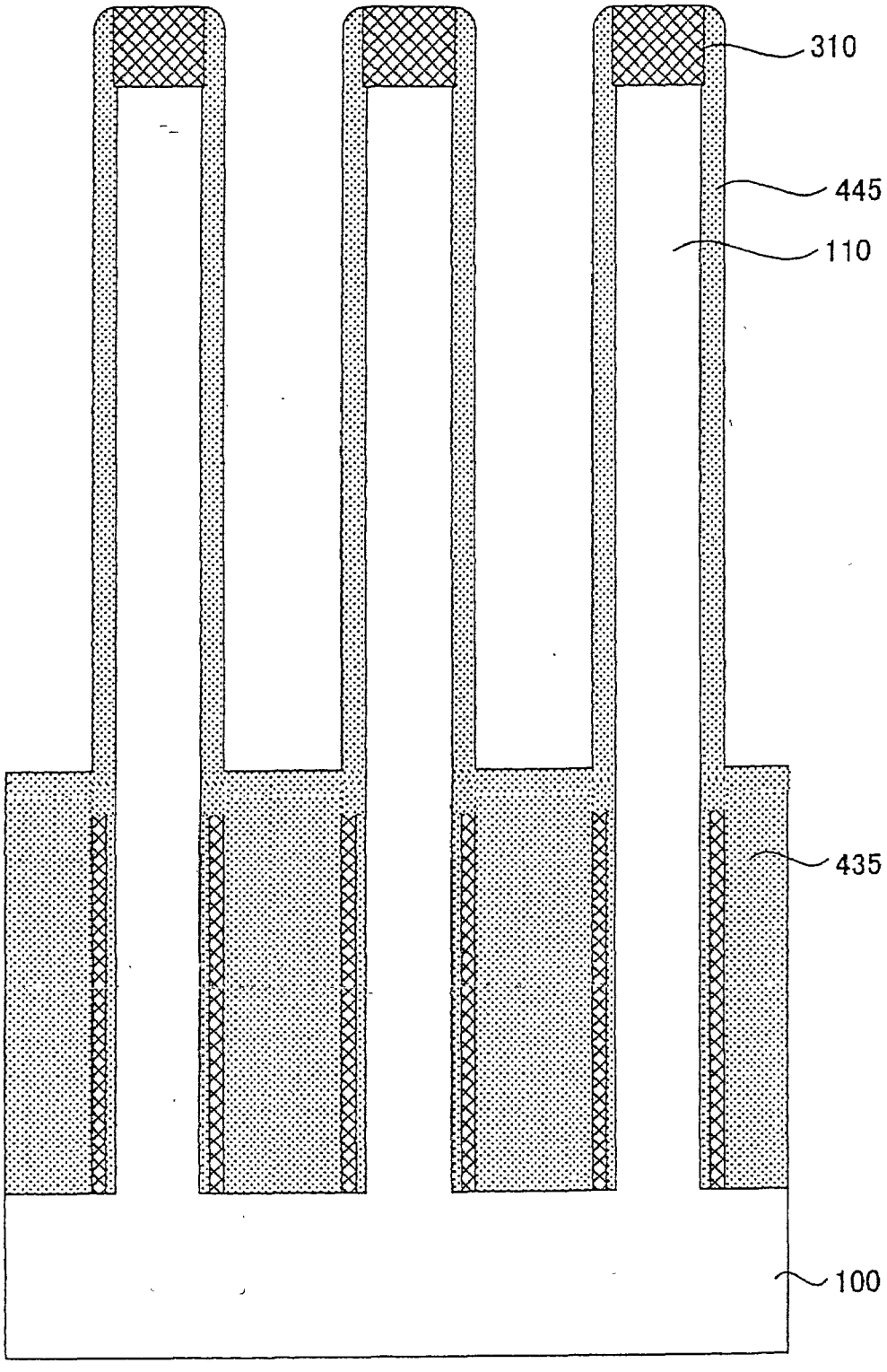


Fig. 172

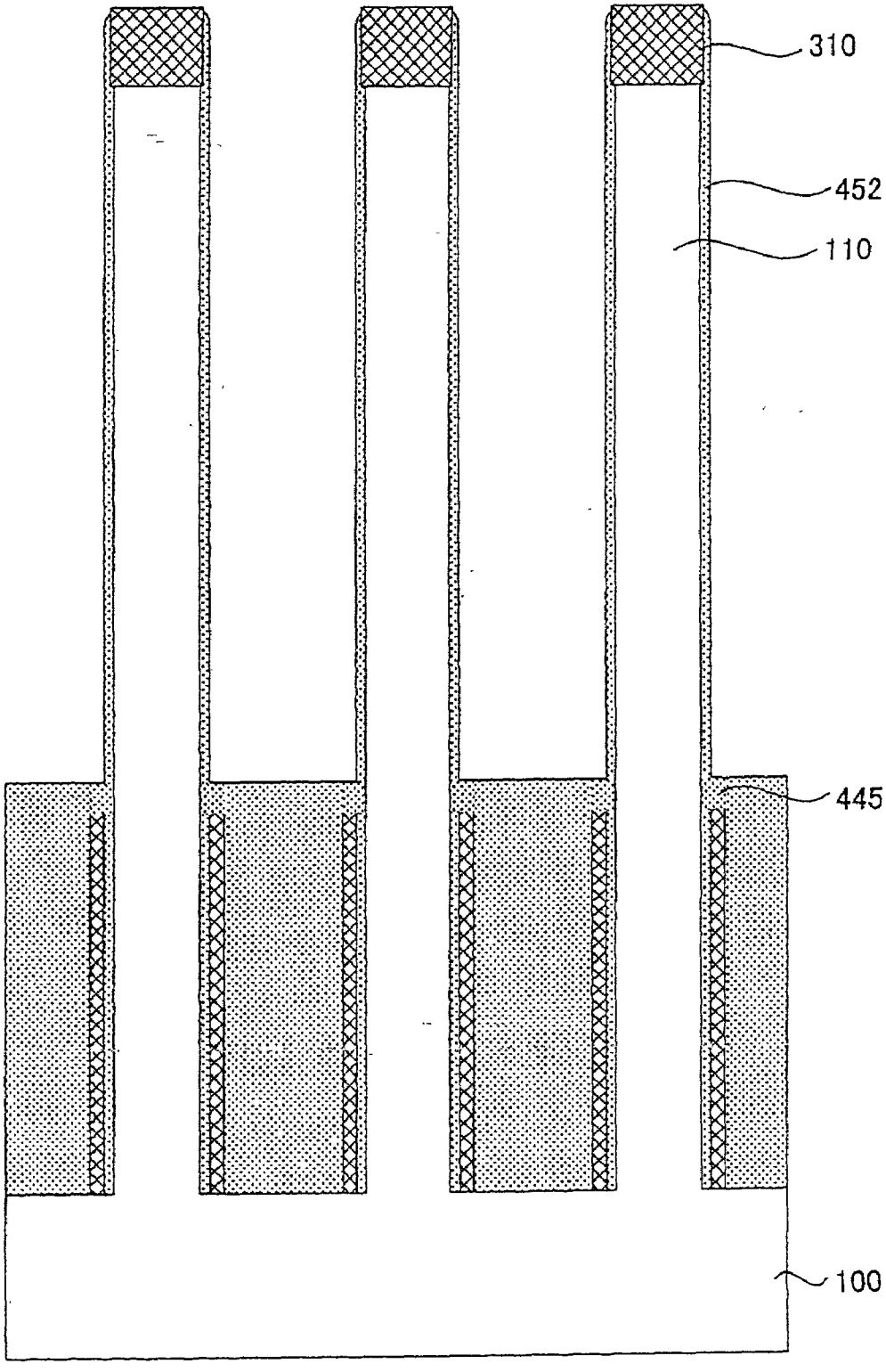


Fig. 173

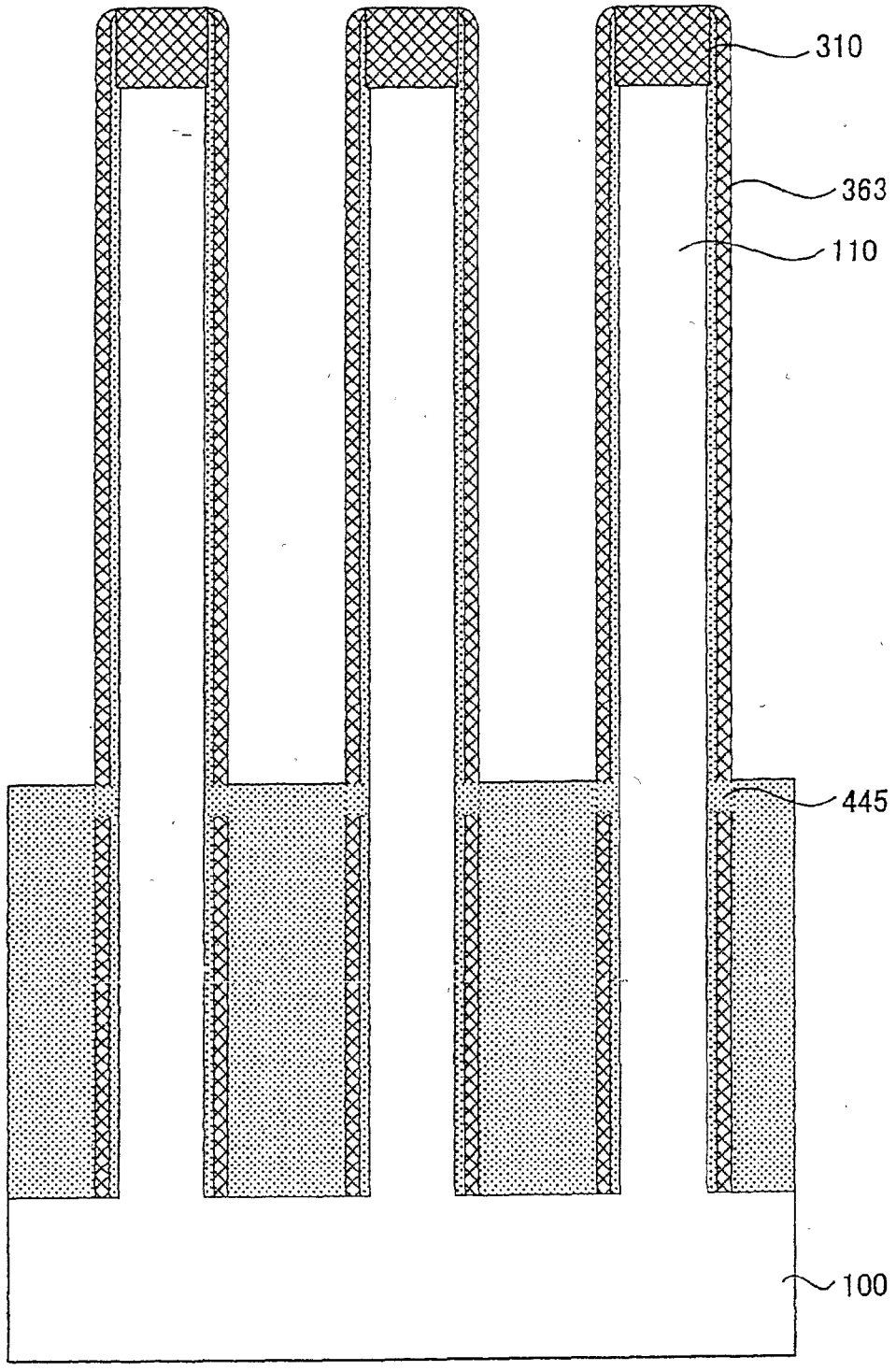


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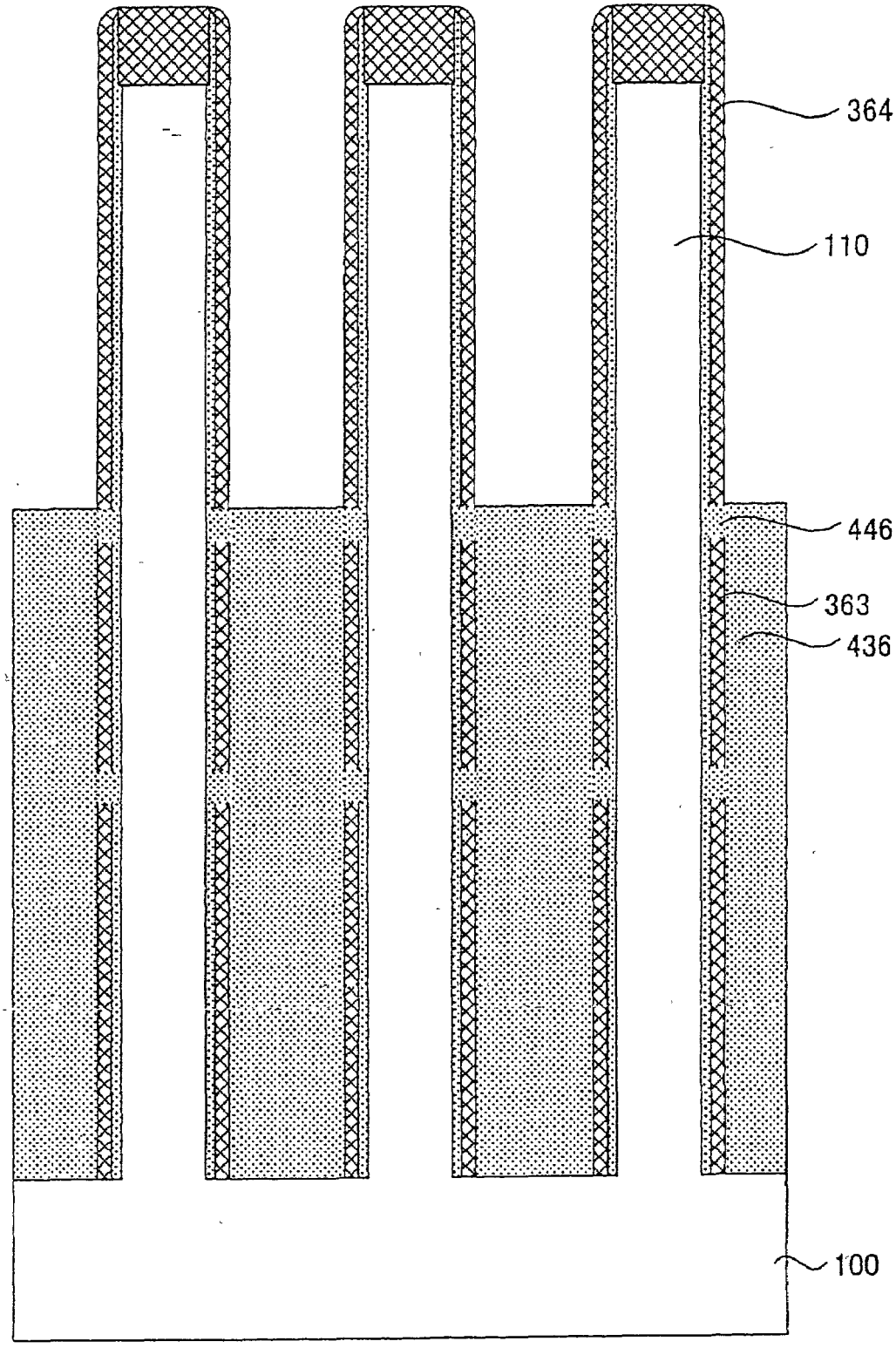


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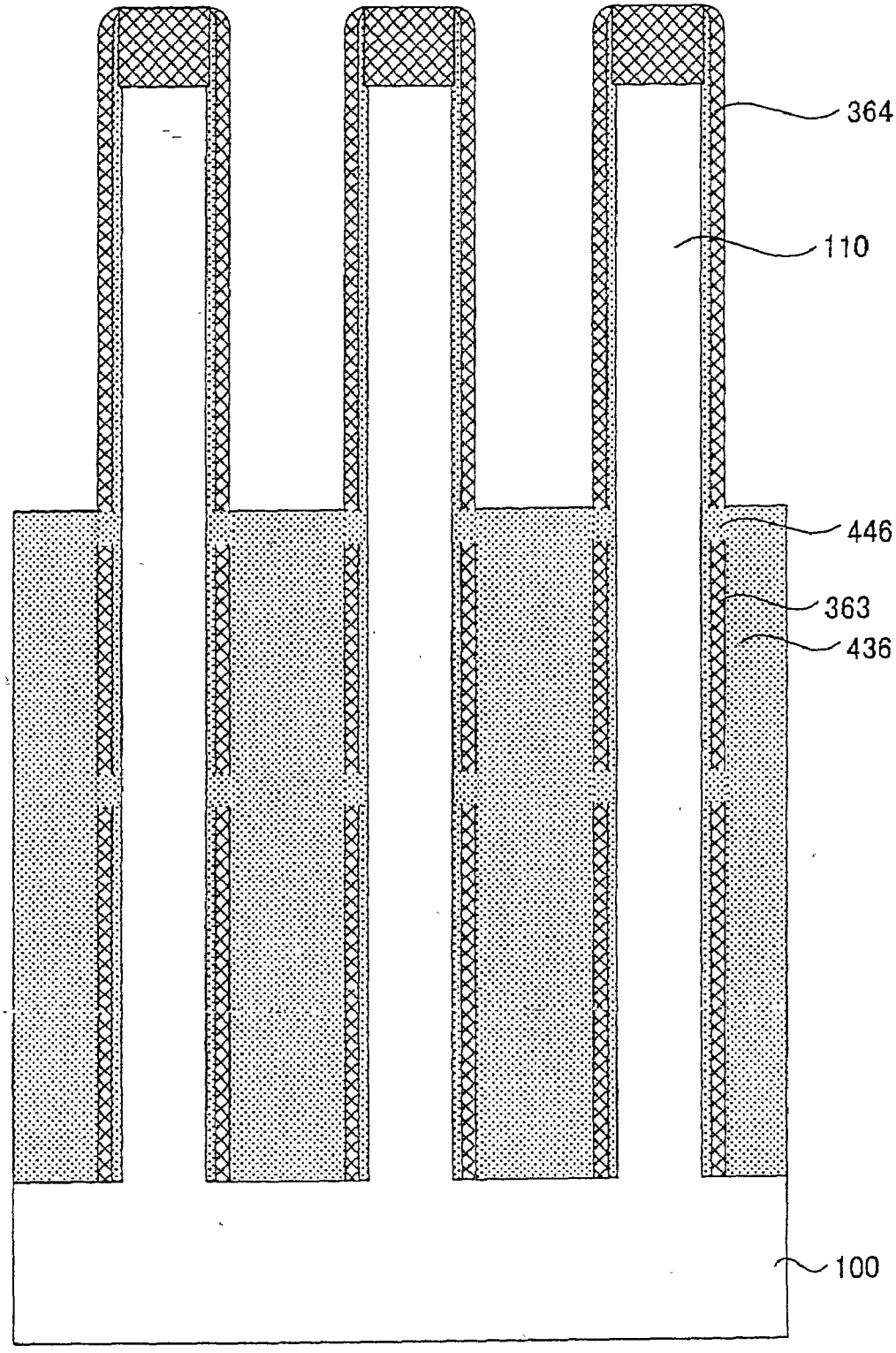


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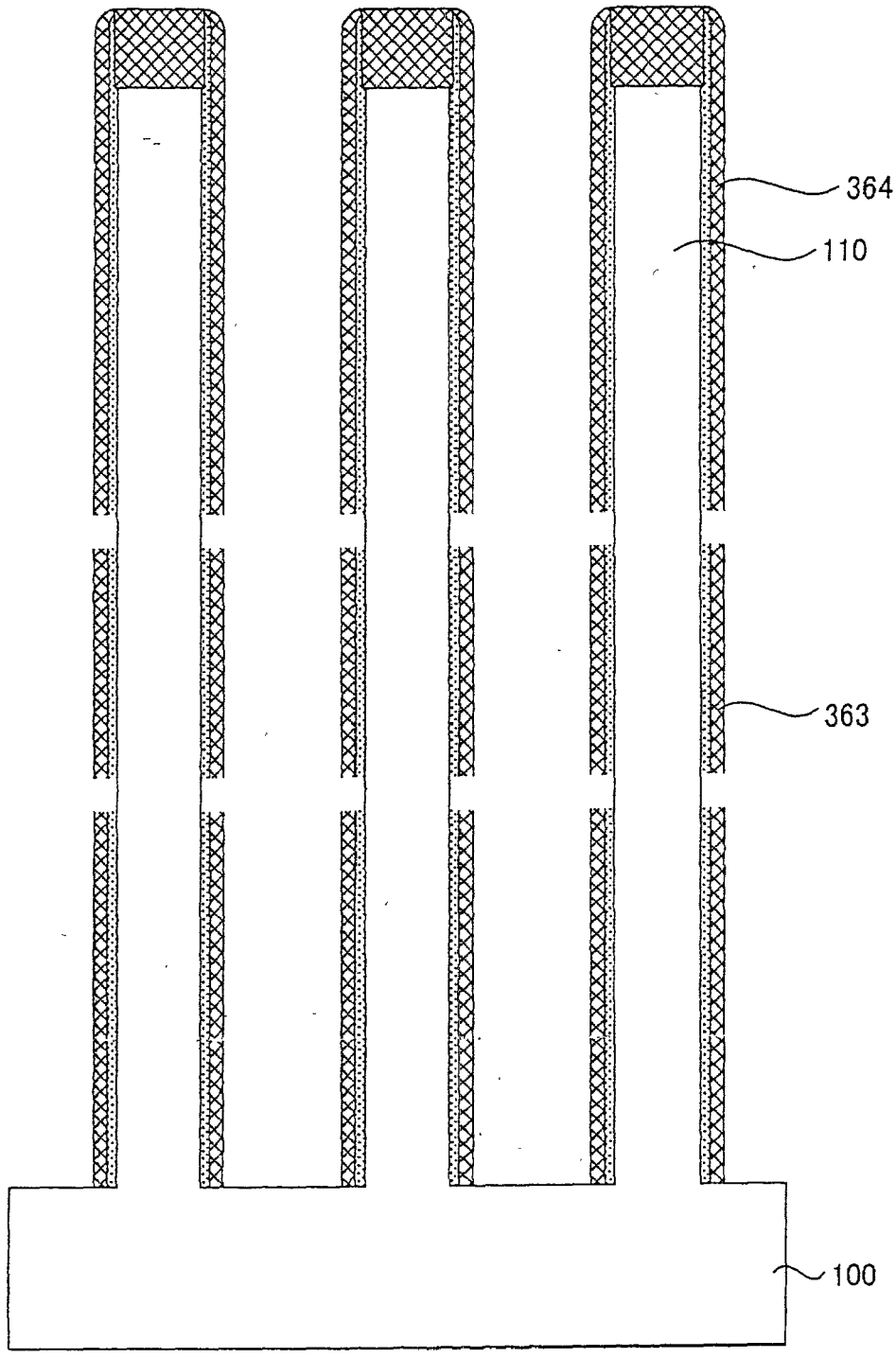


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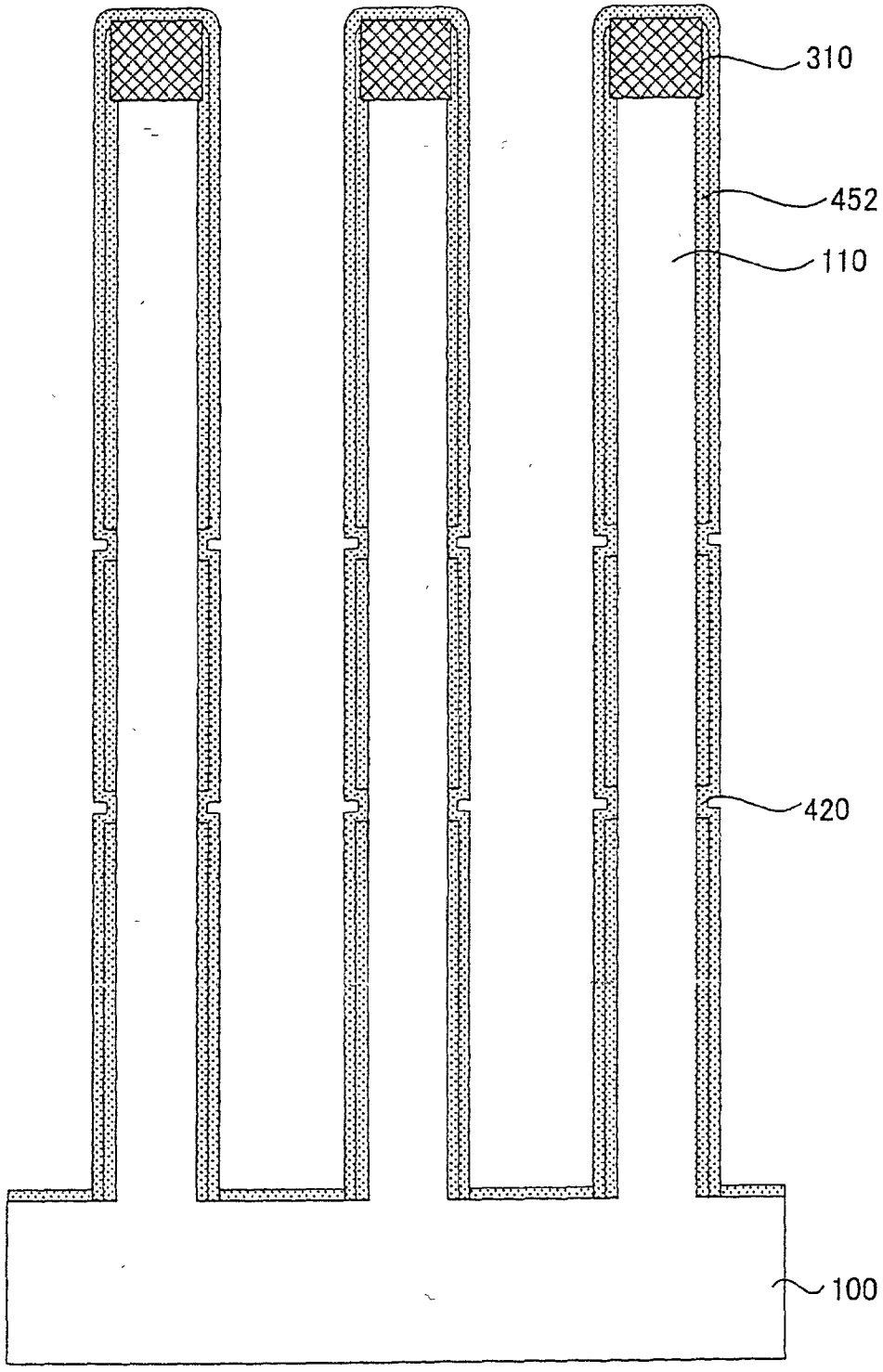


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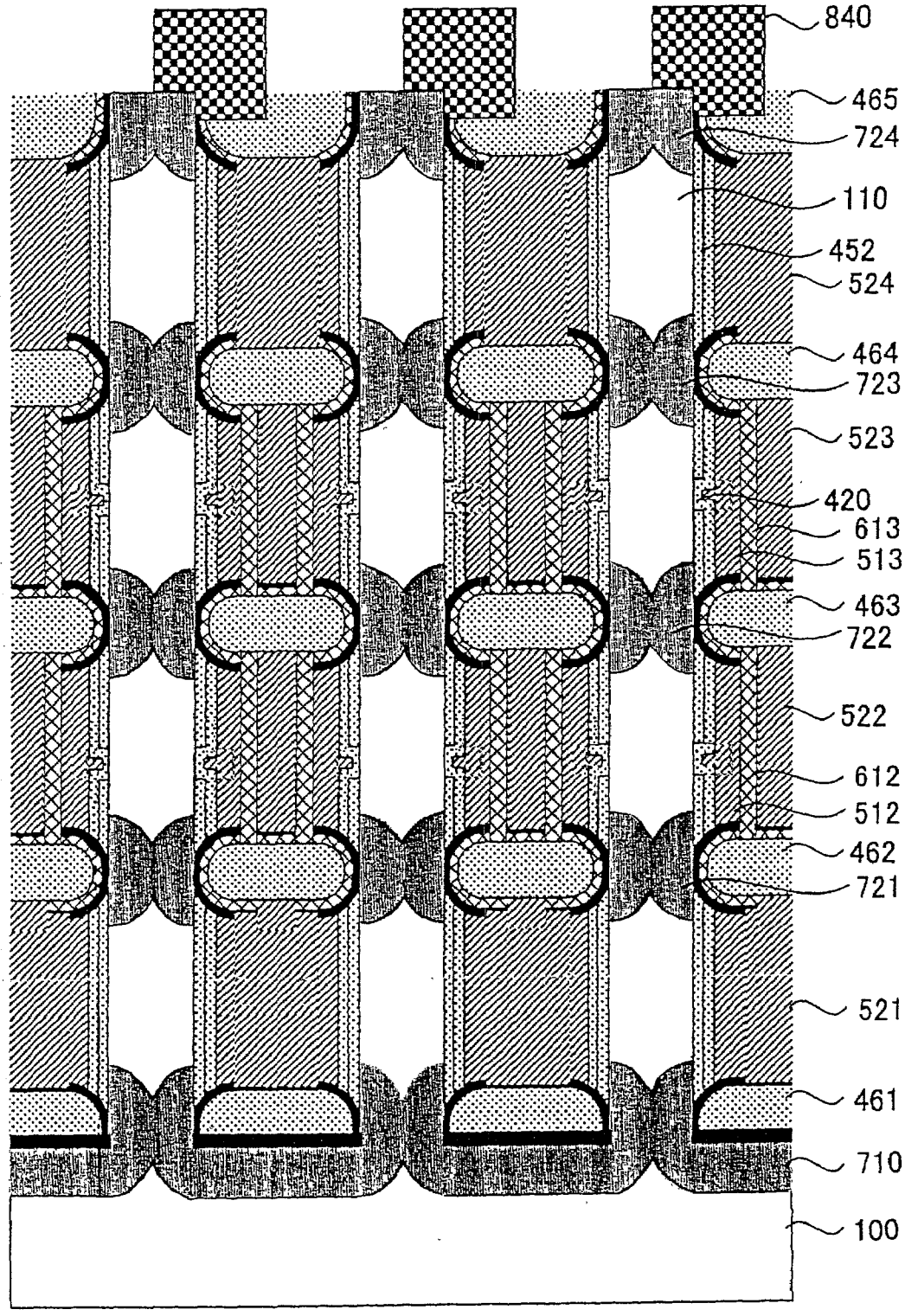

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Fig. 178

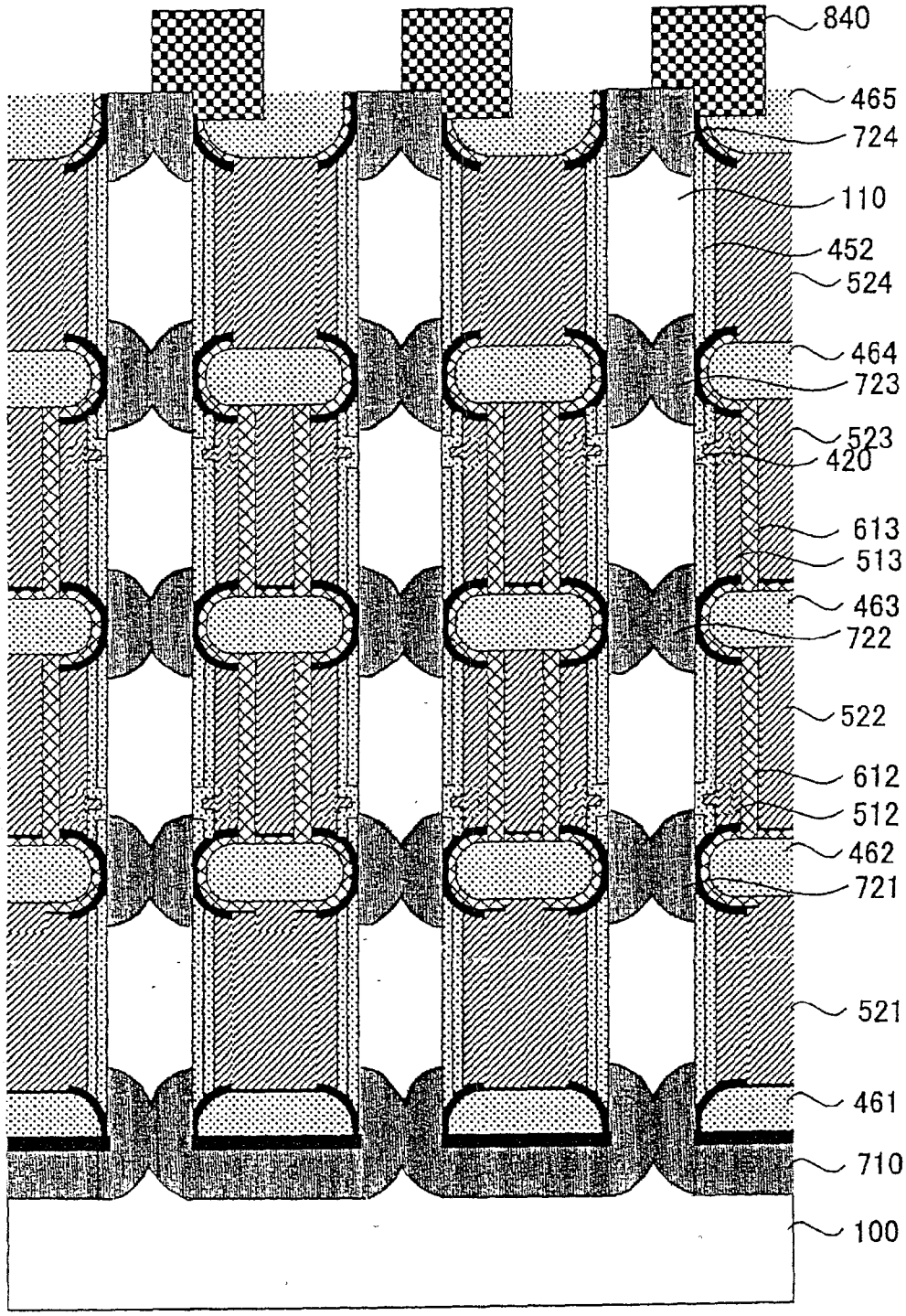

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Fig. 179

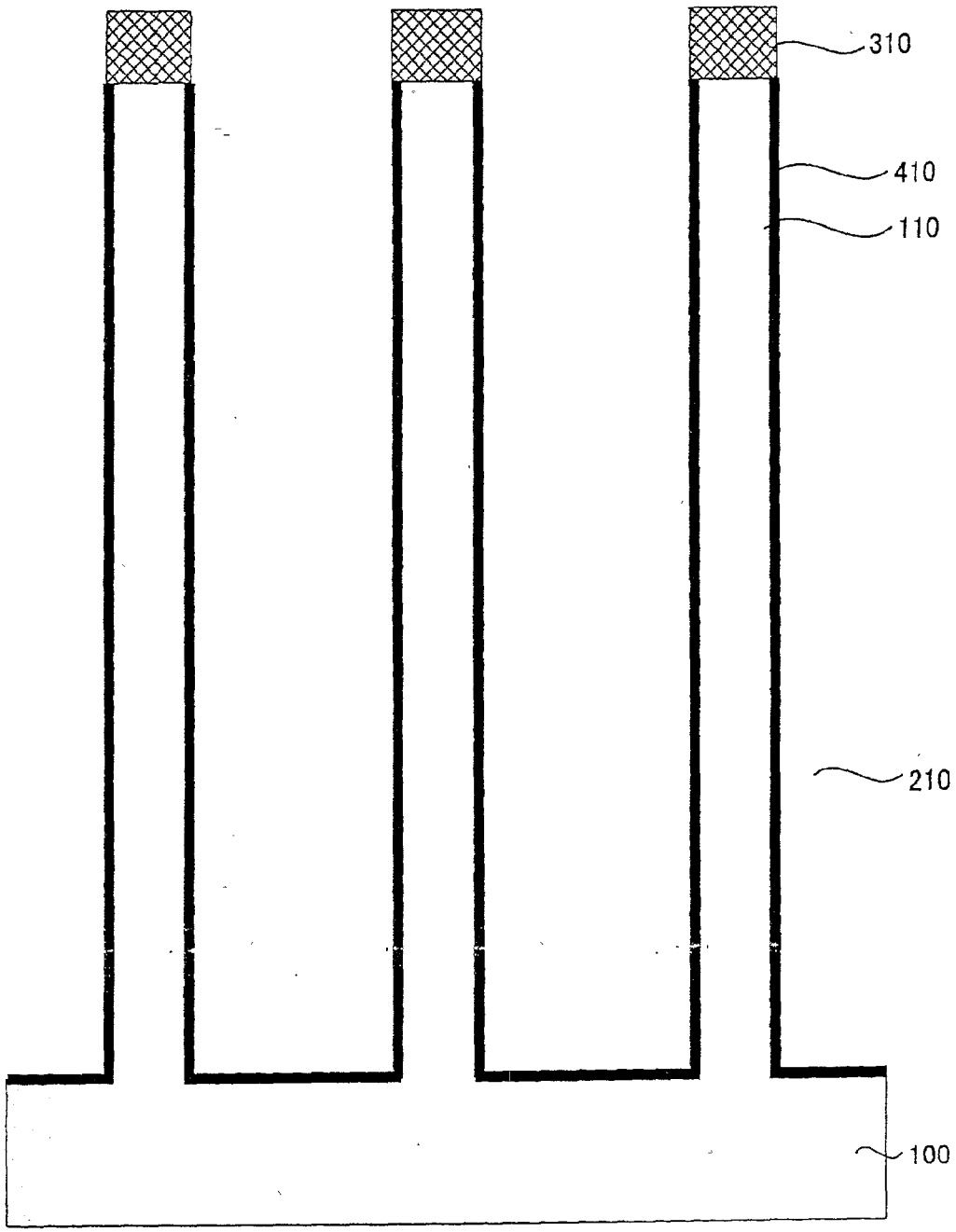


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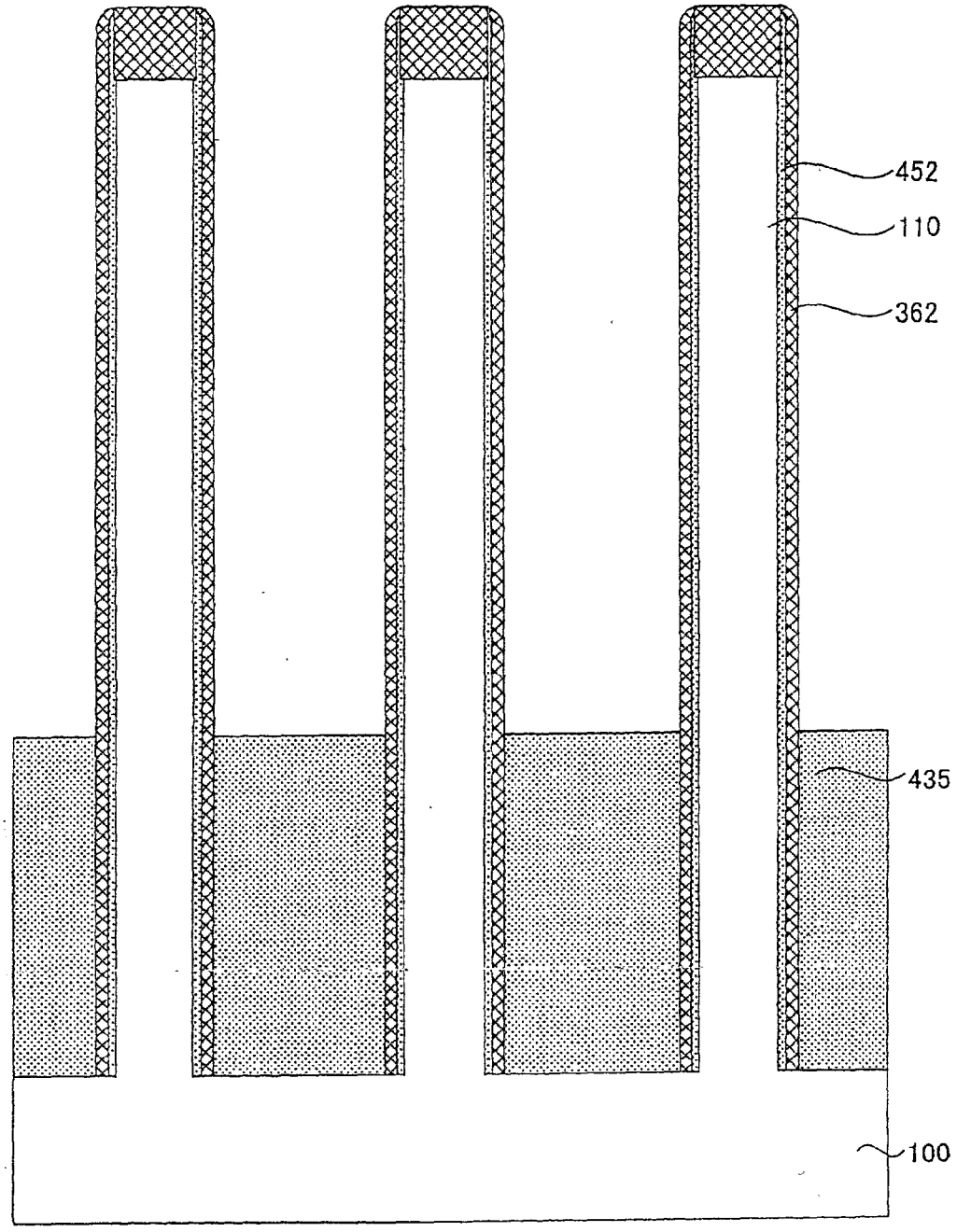


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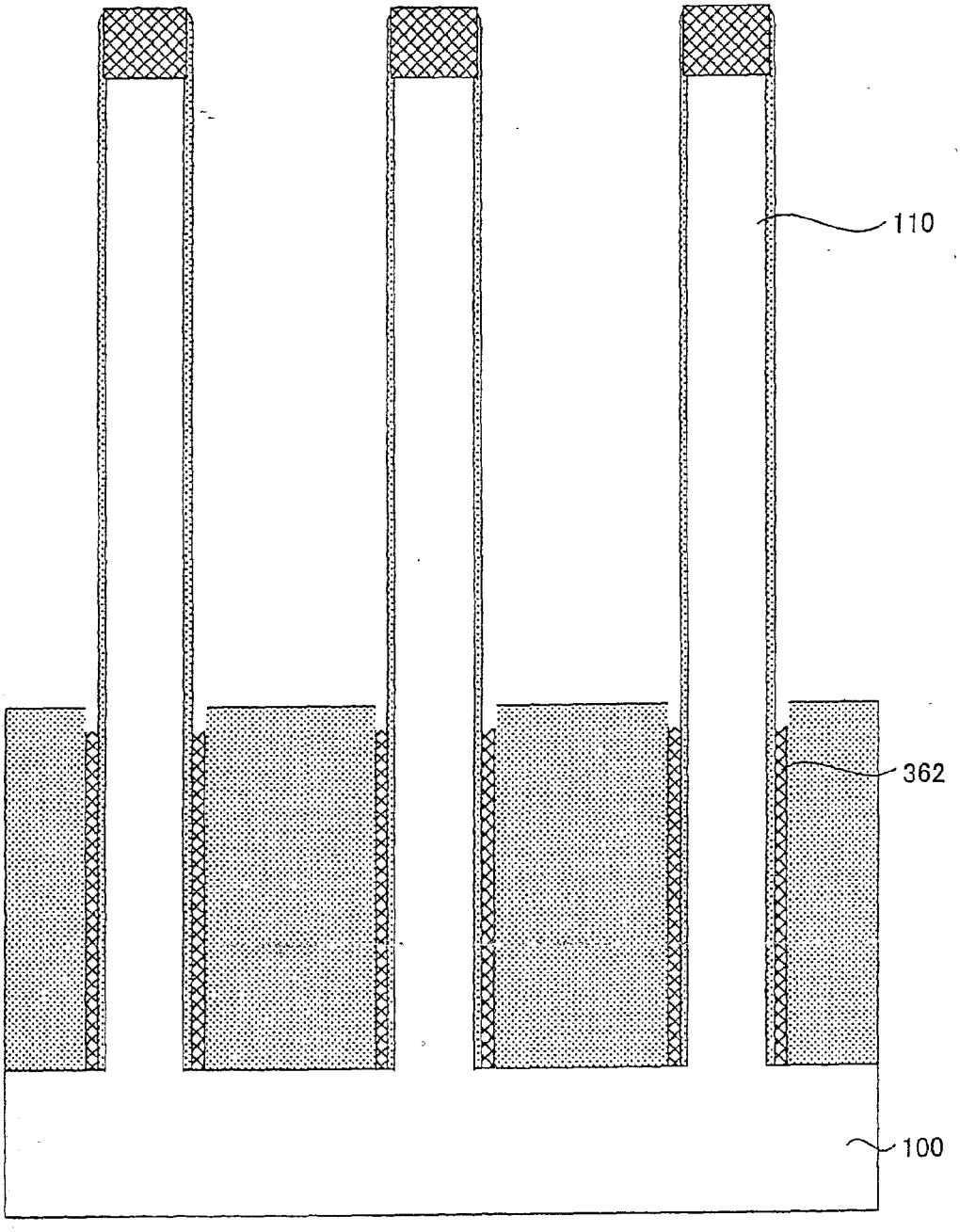


Fig. 182

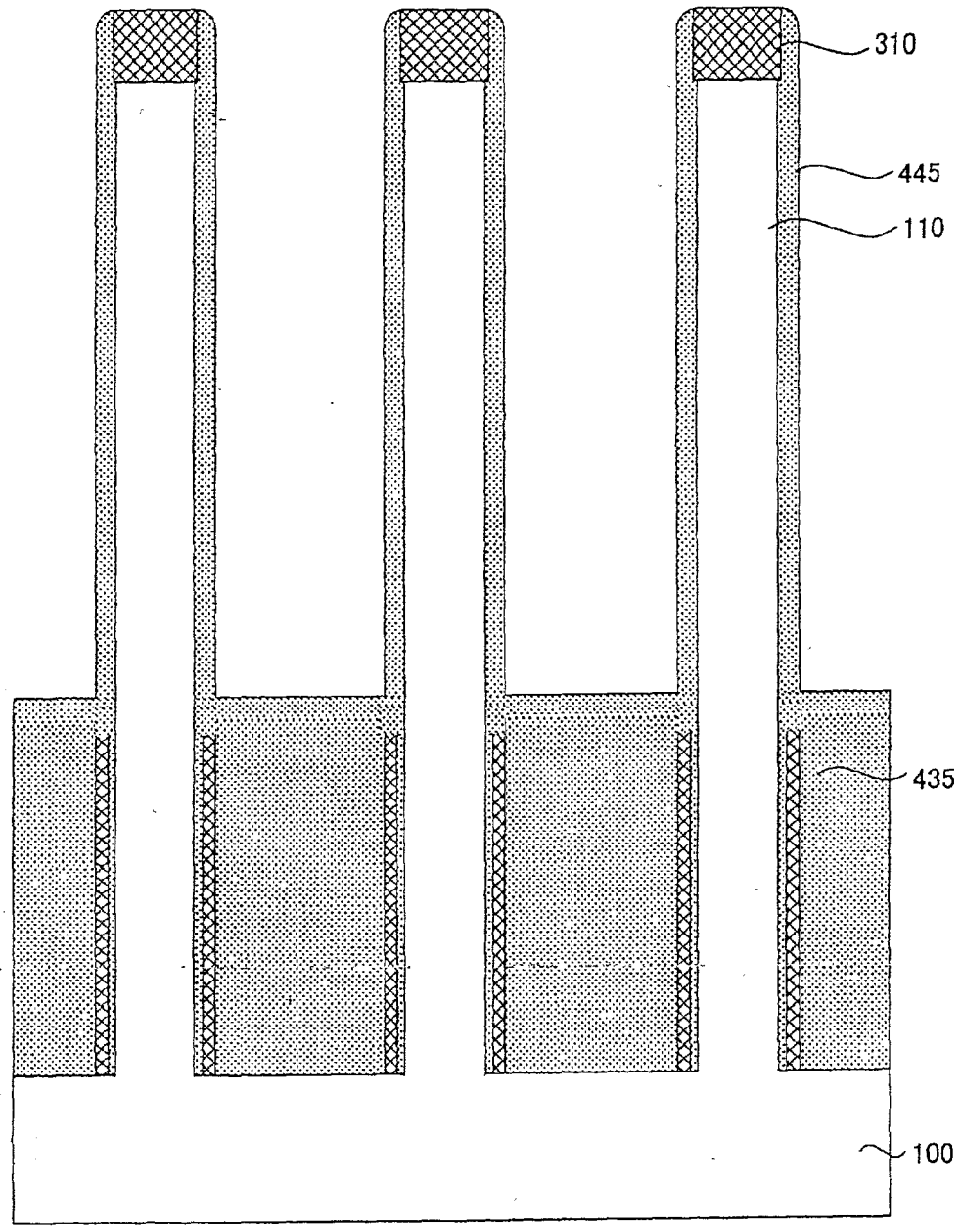


Fig. 183

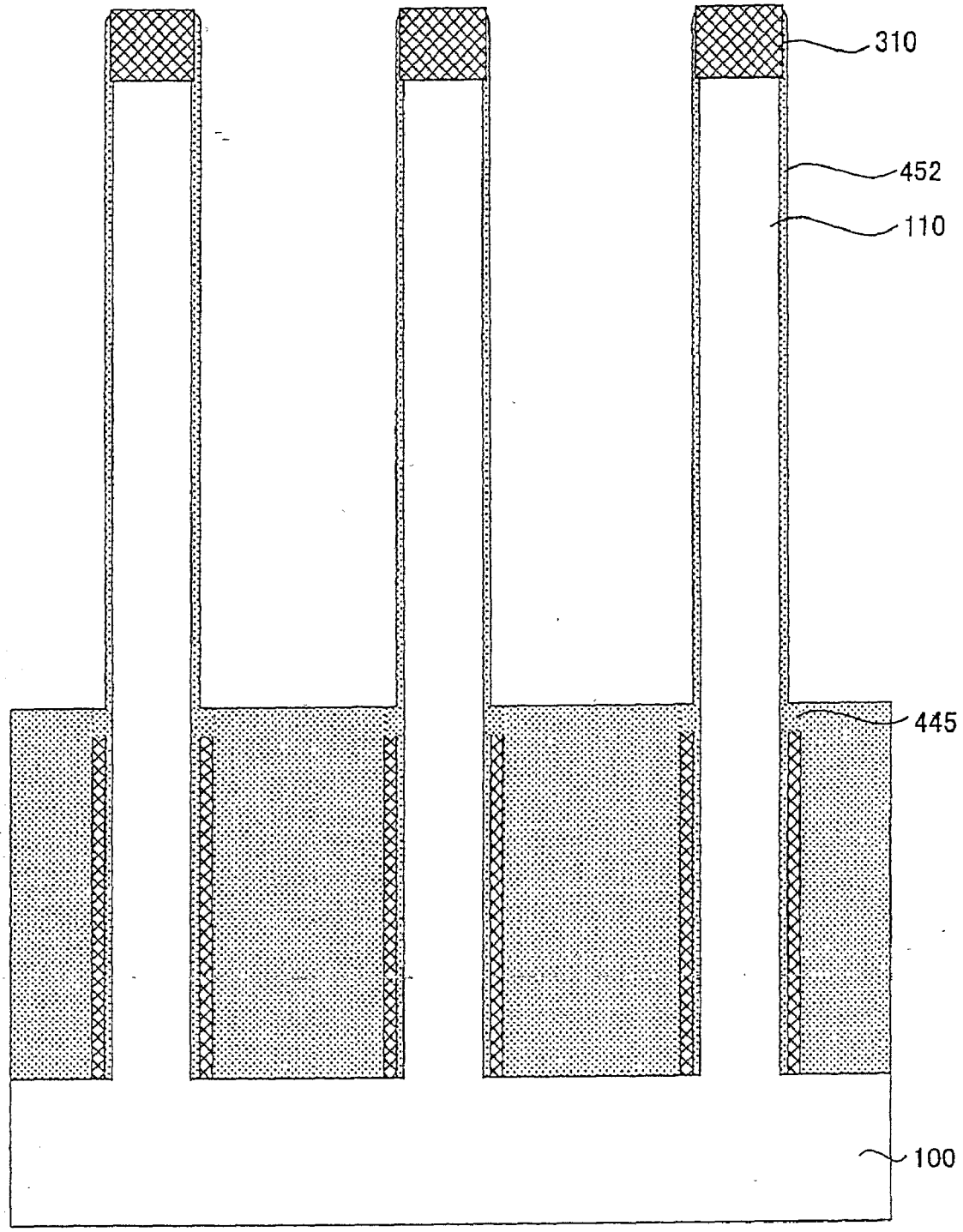


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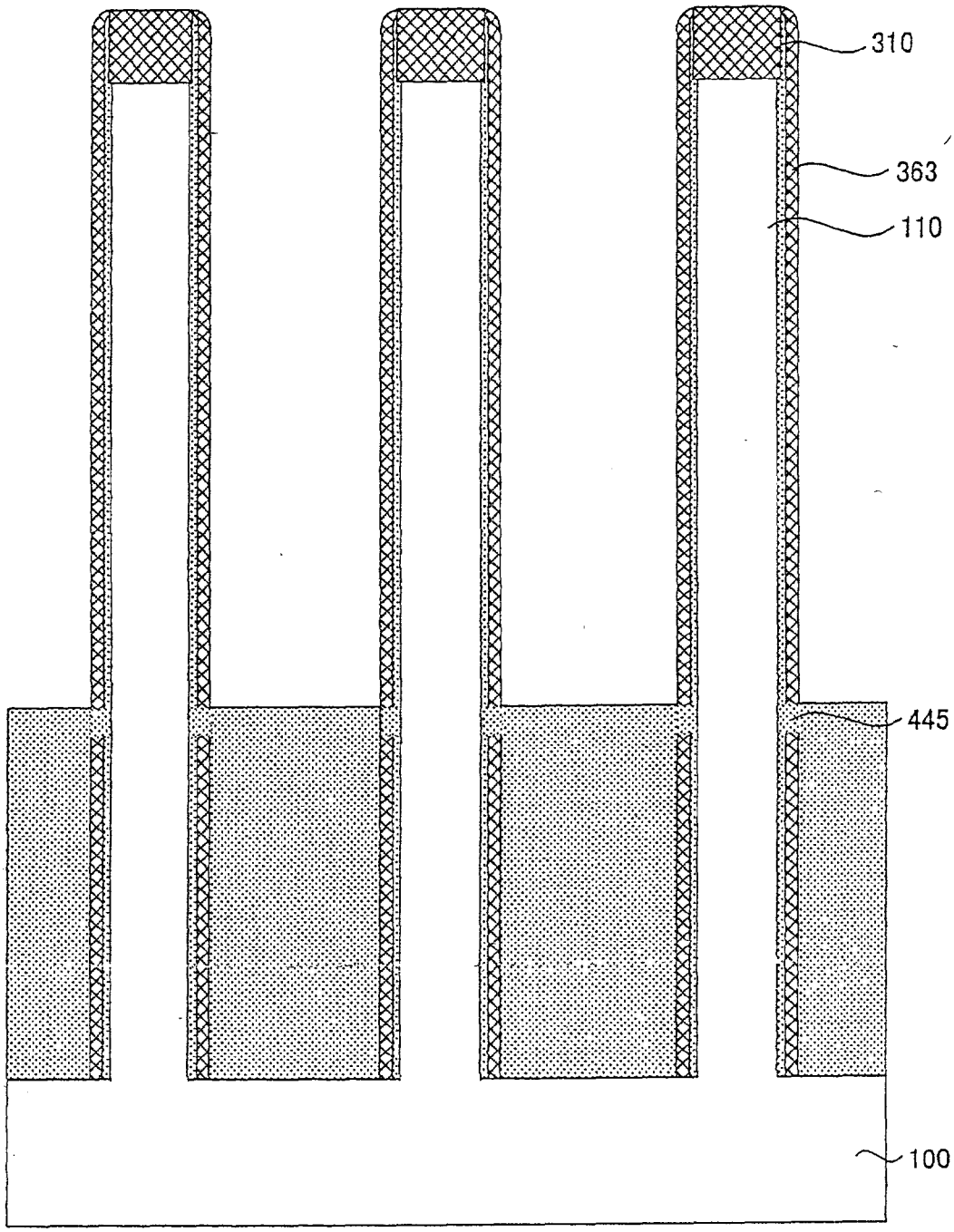


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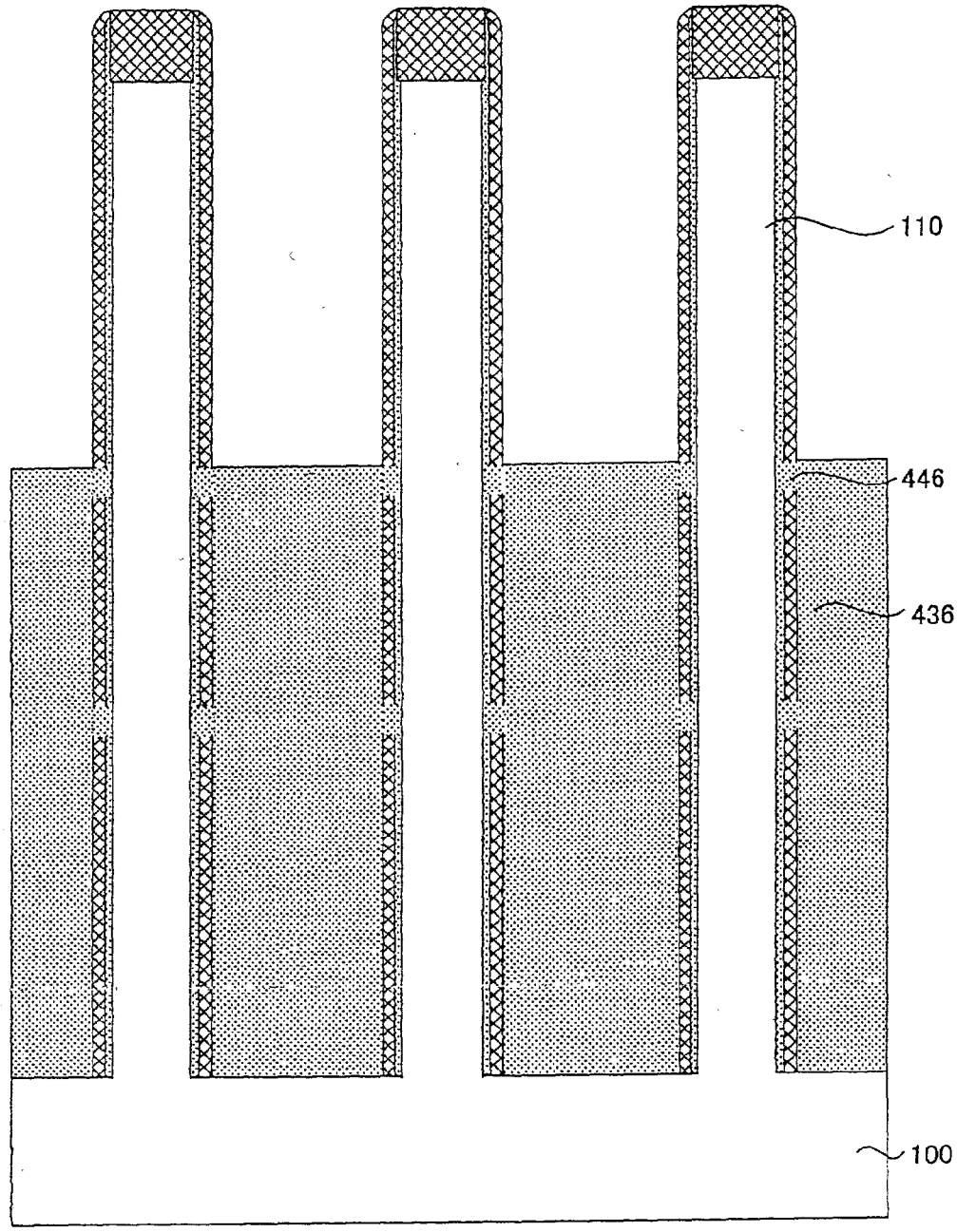


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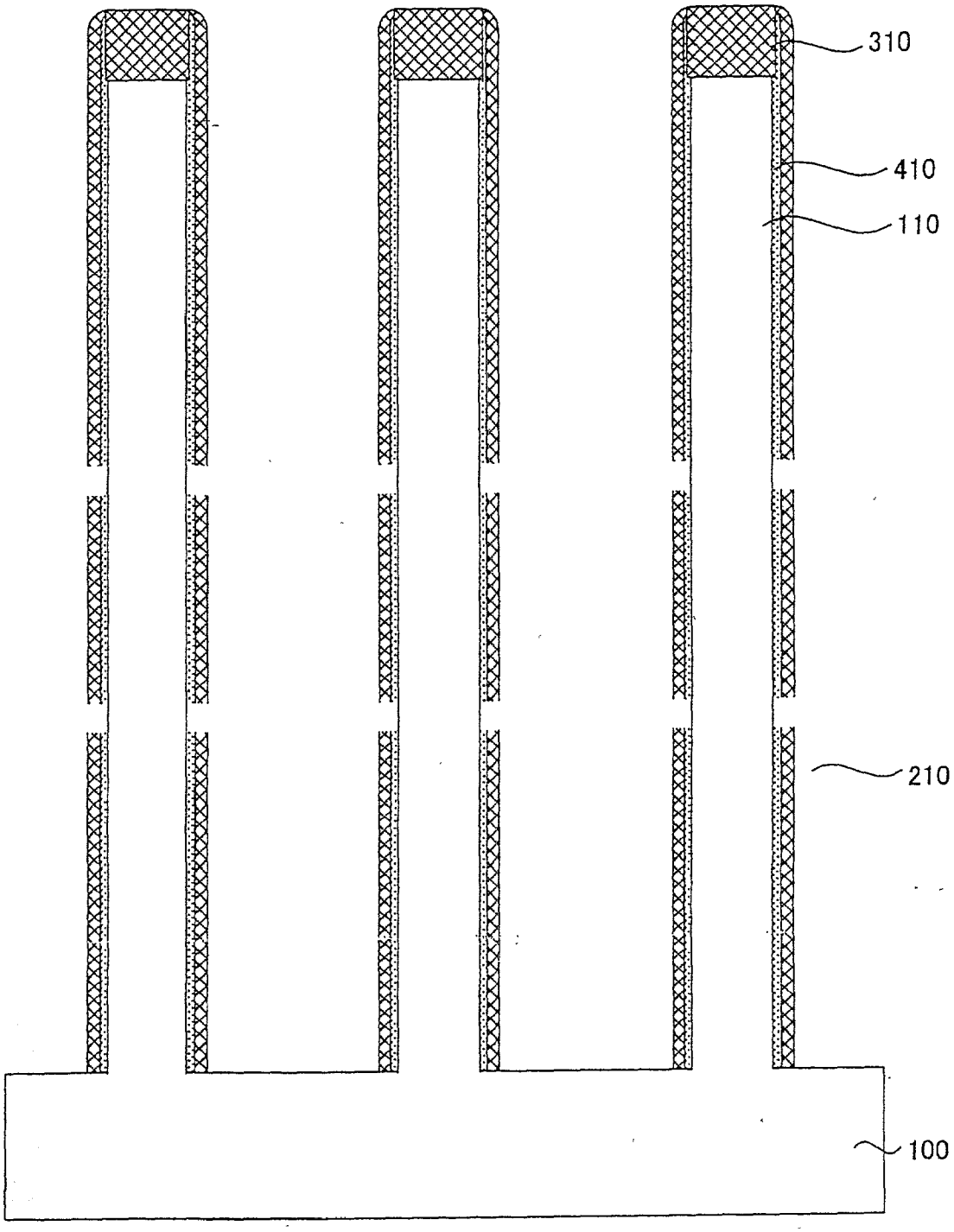


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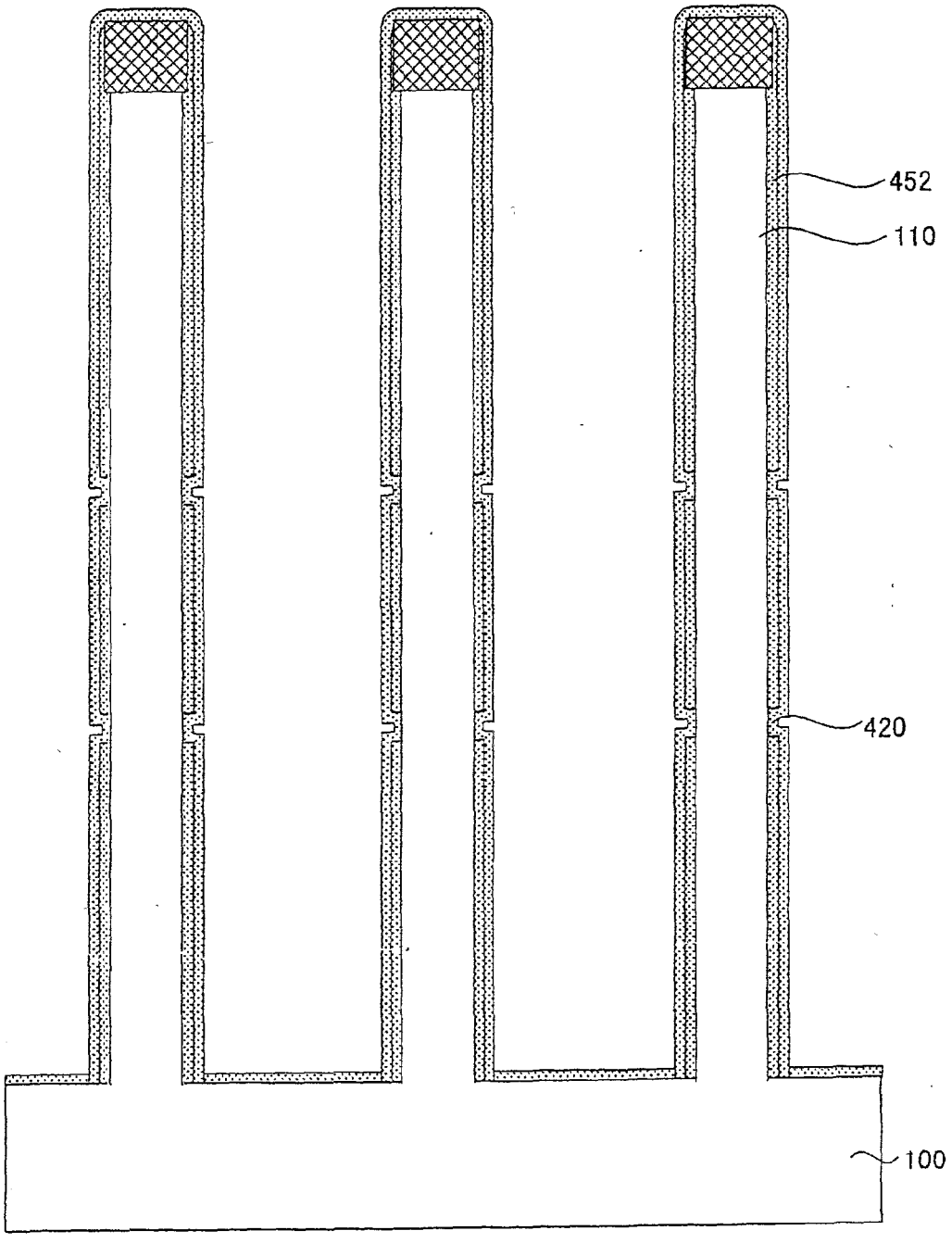


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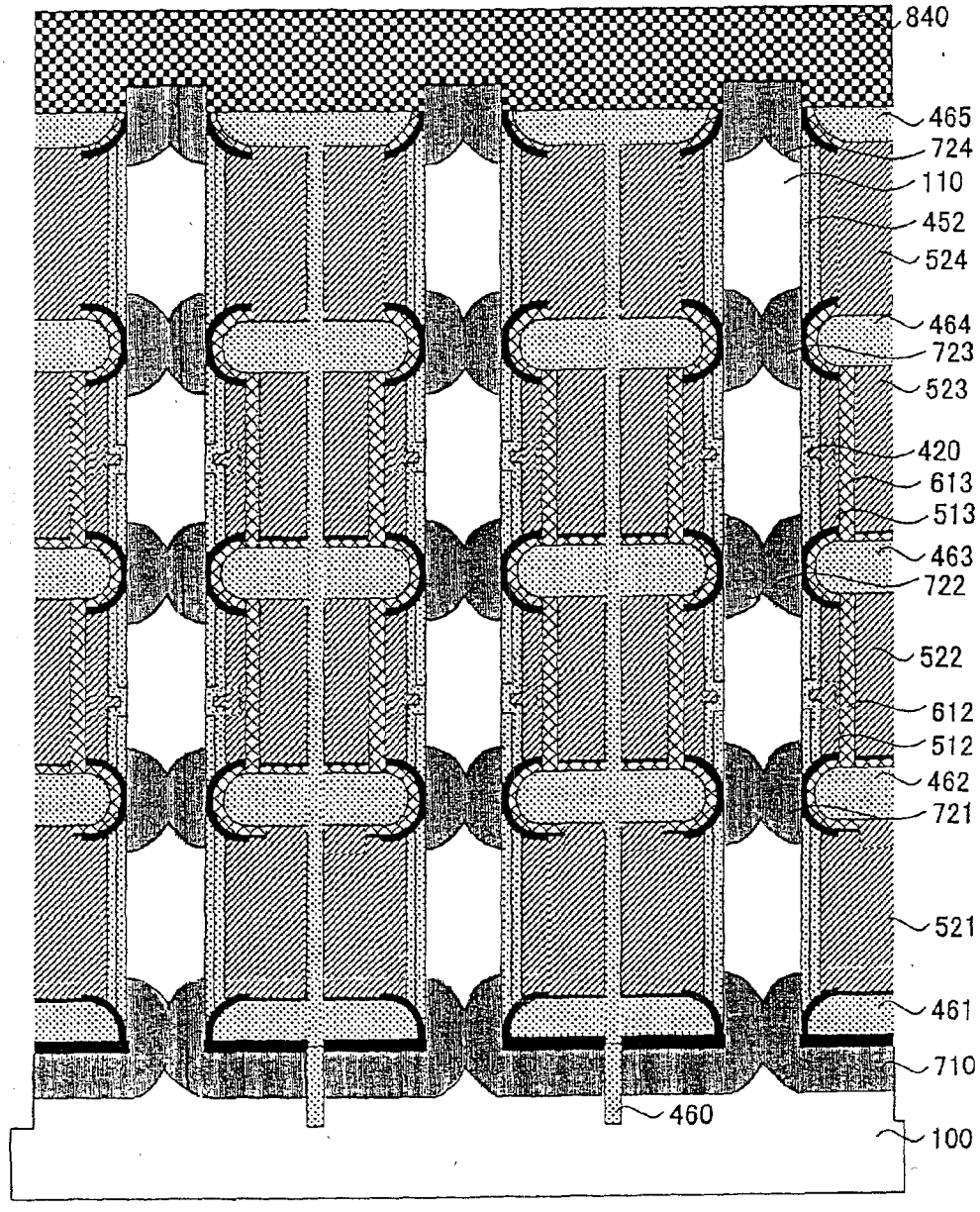

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Fig. 189

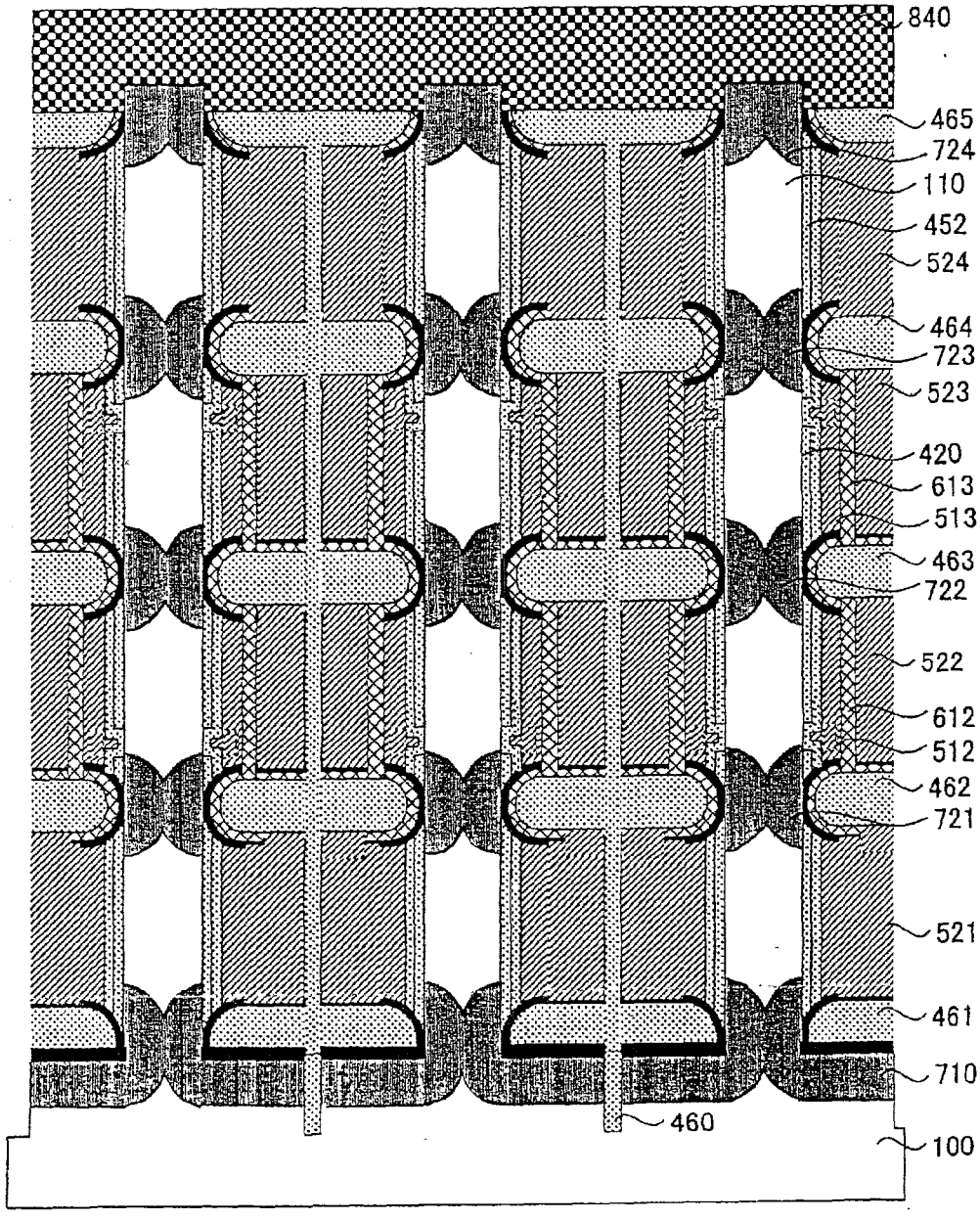

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Fig. 190

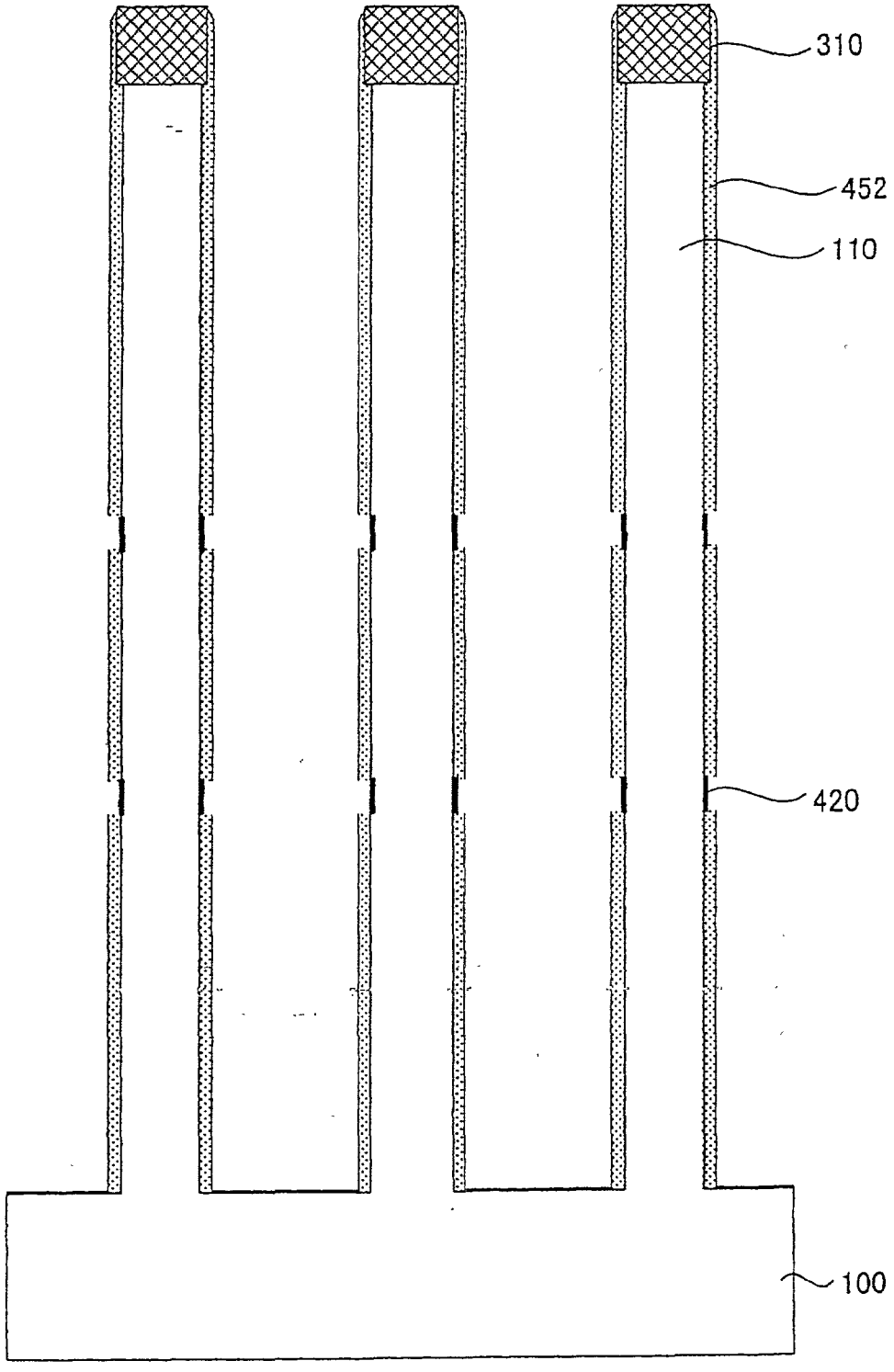


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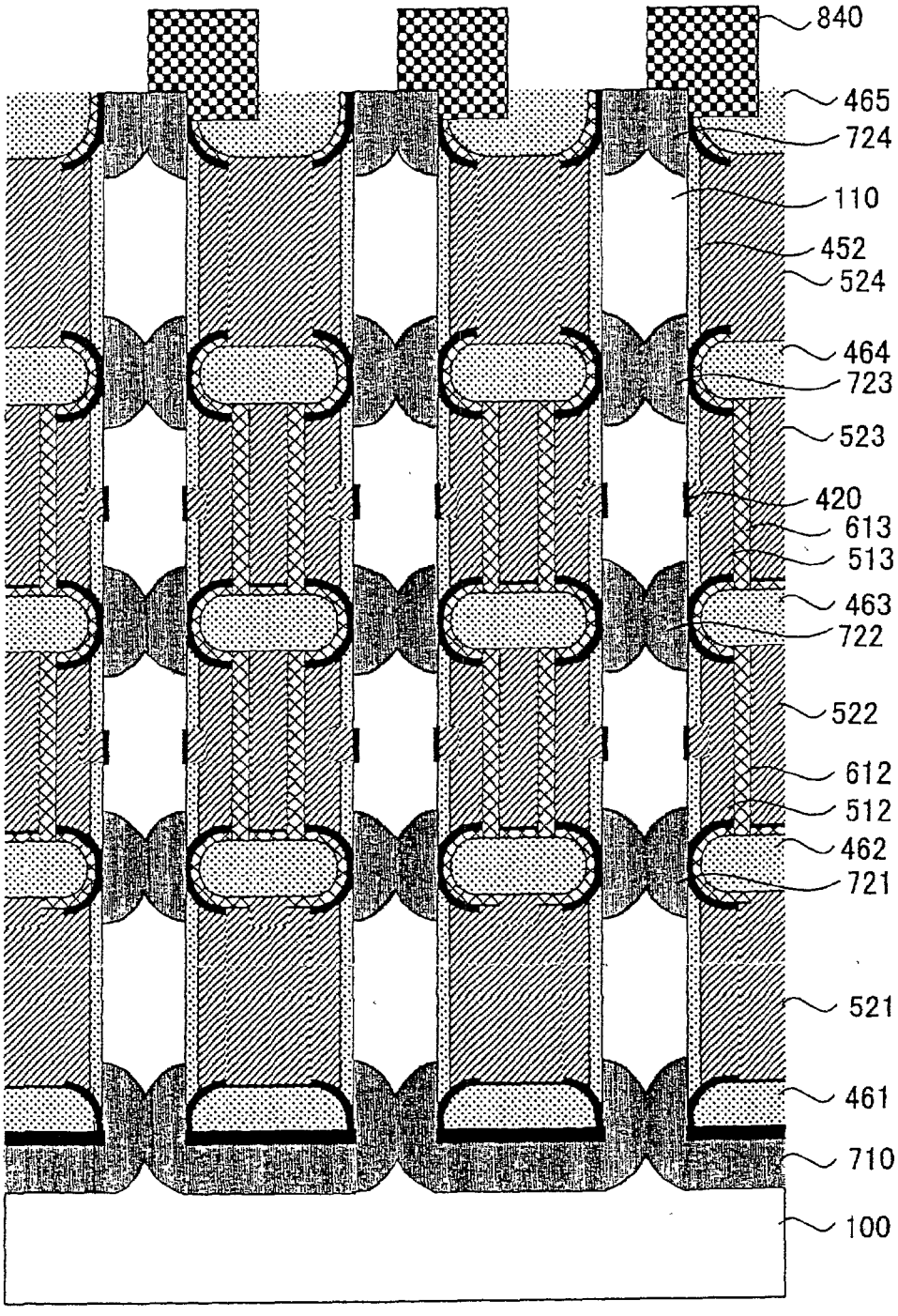

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Fig. 192

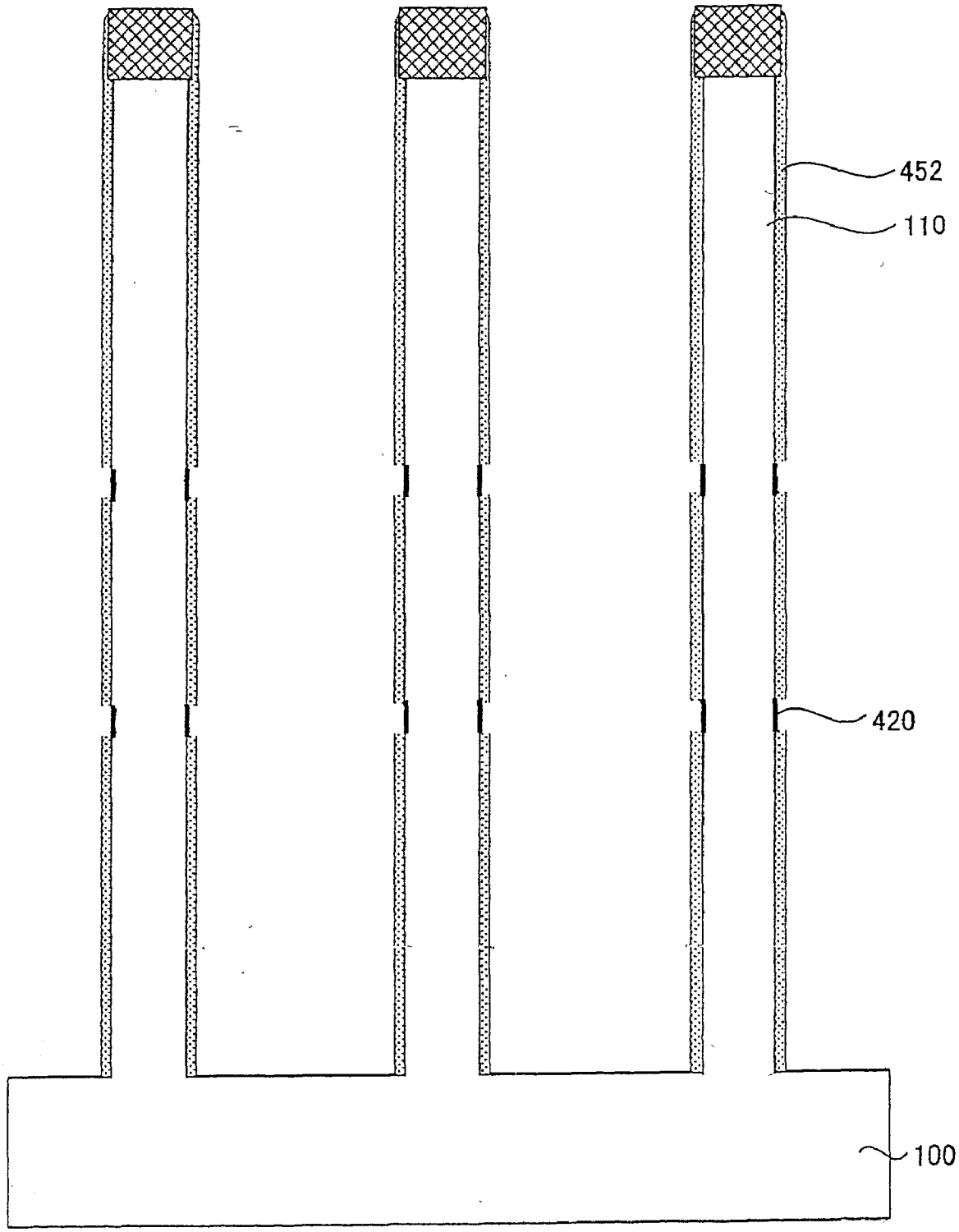


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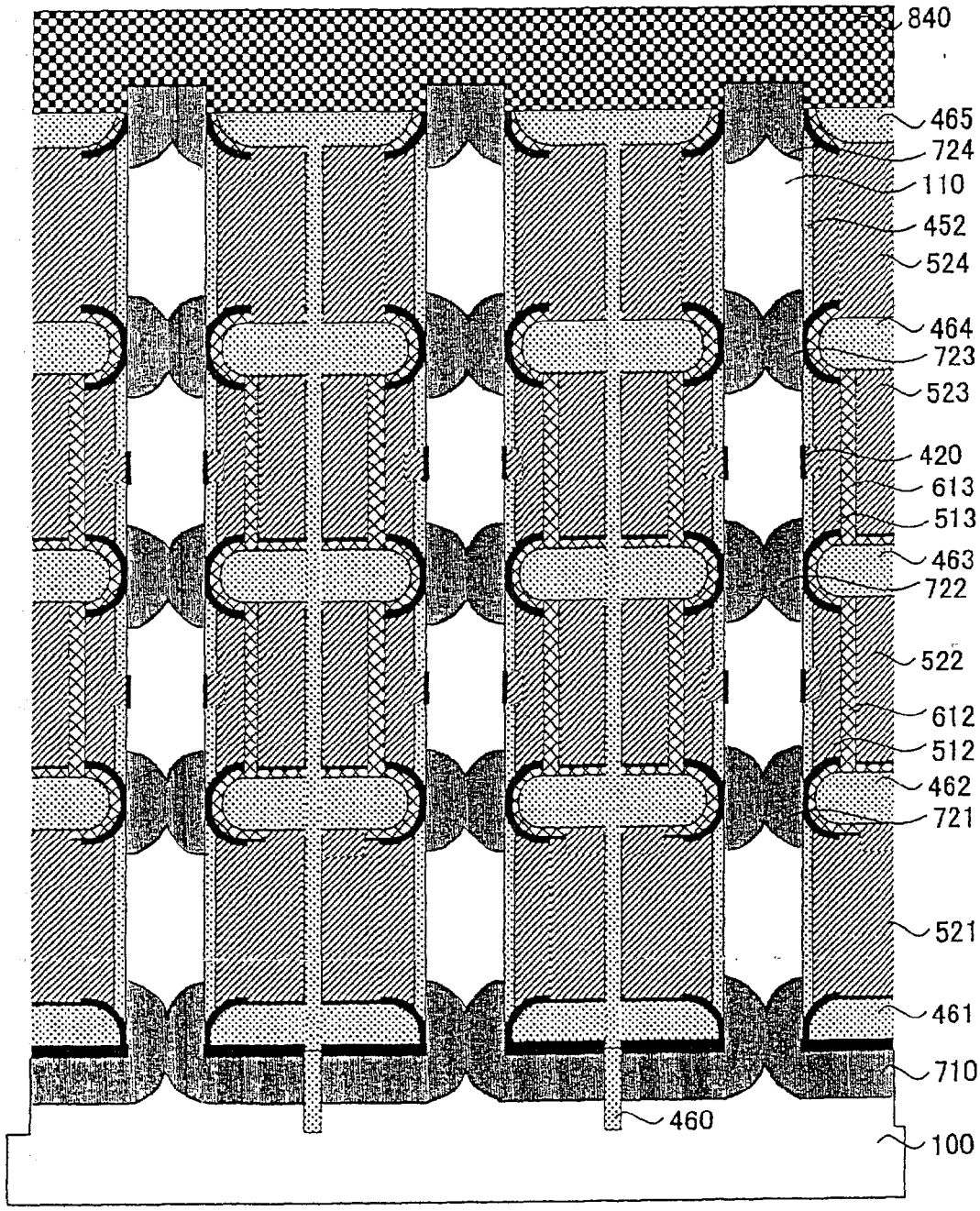

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Fig. 194

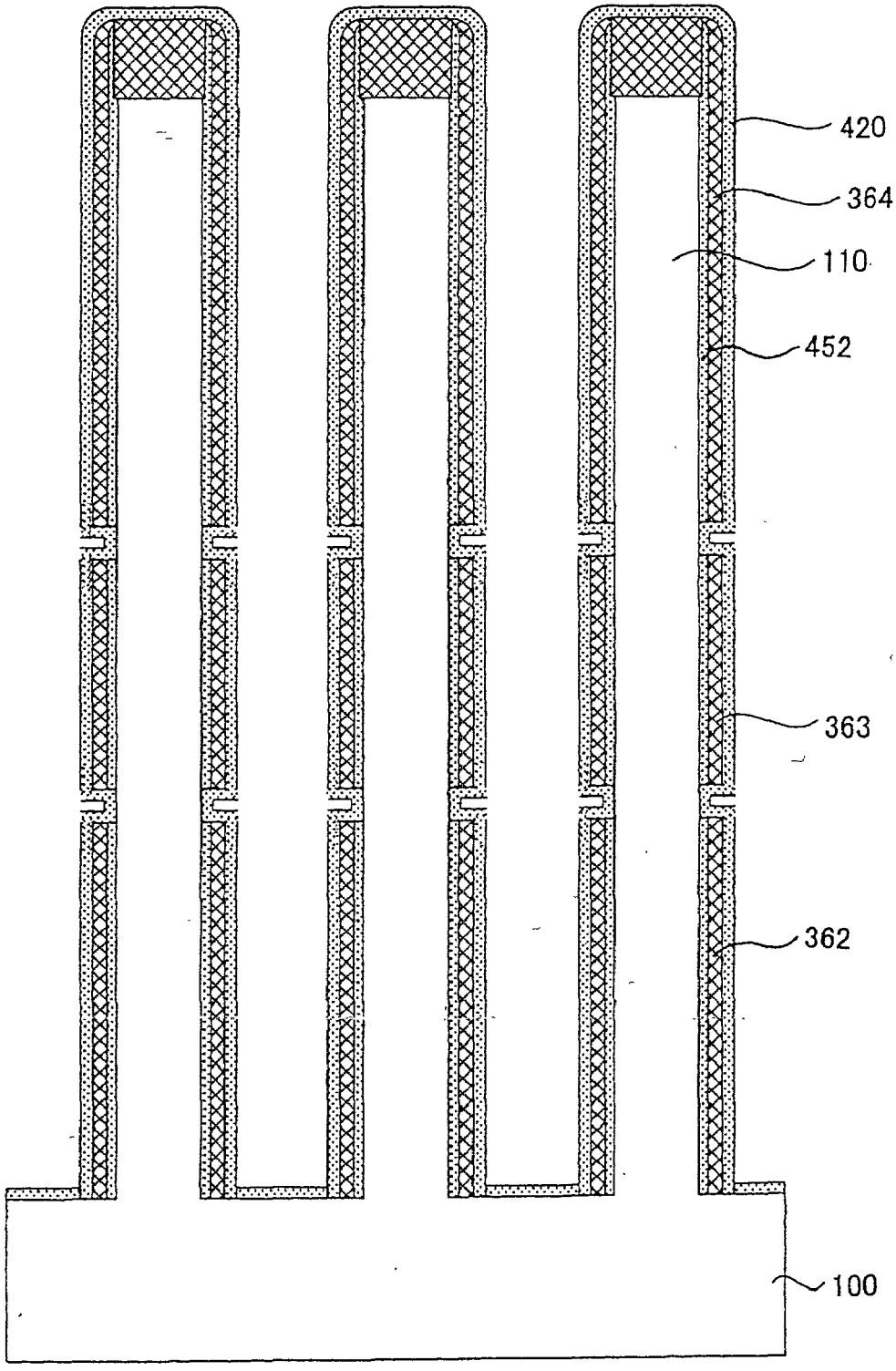


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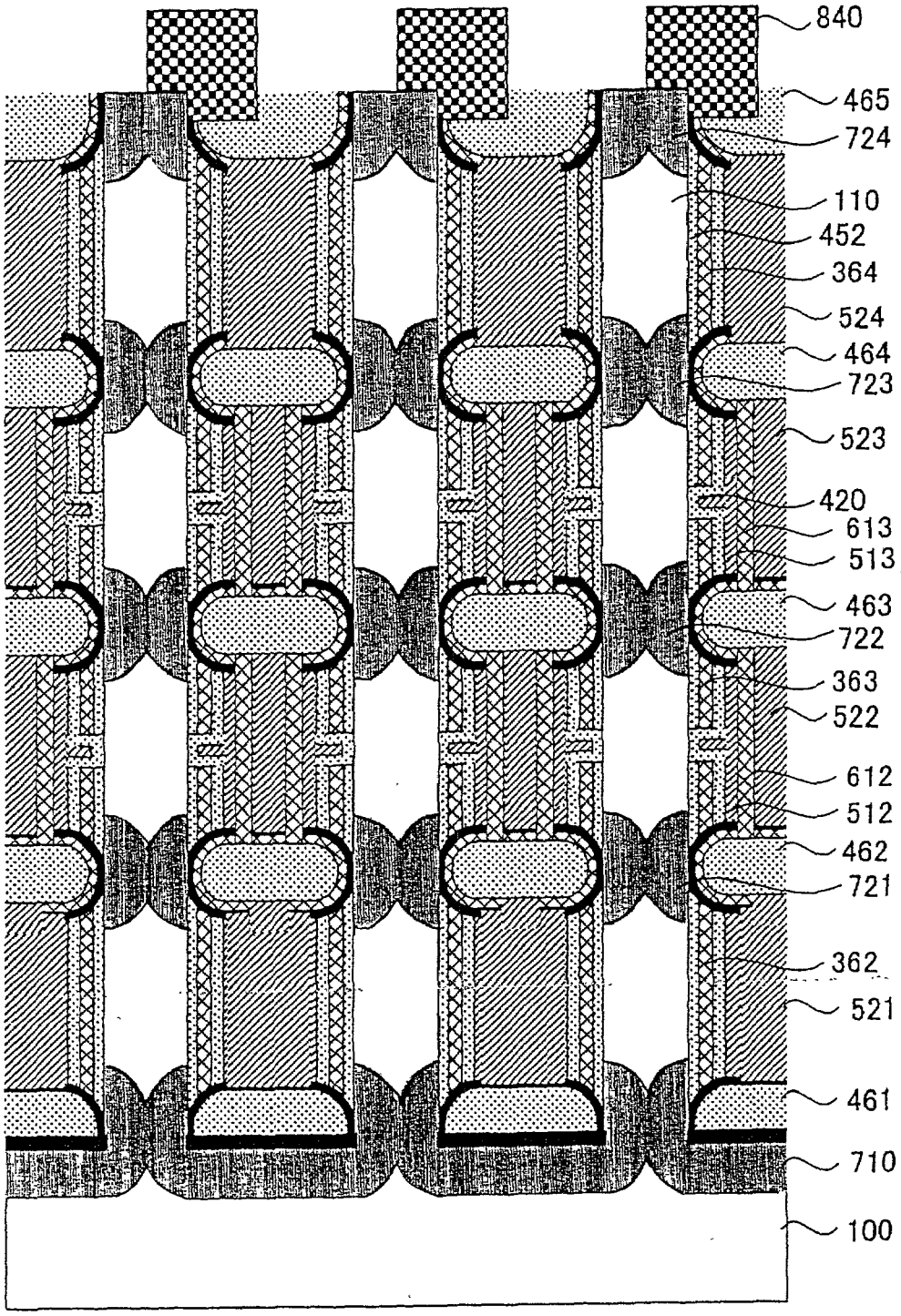

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Fig. 196

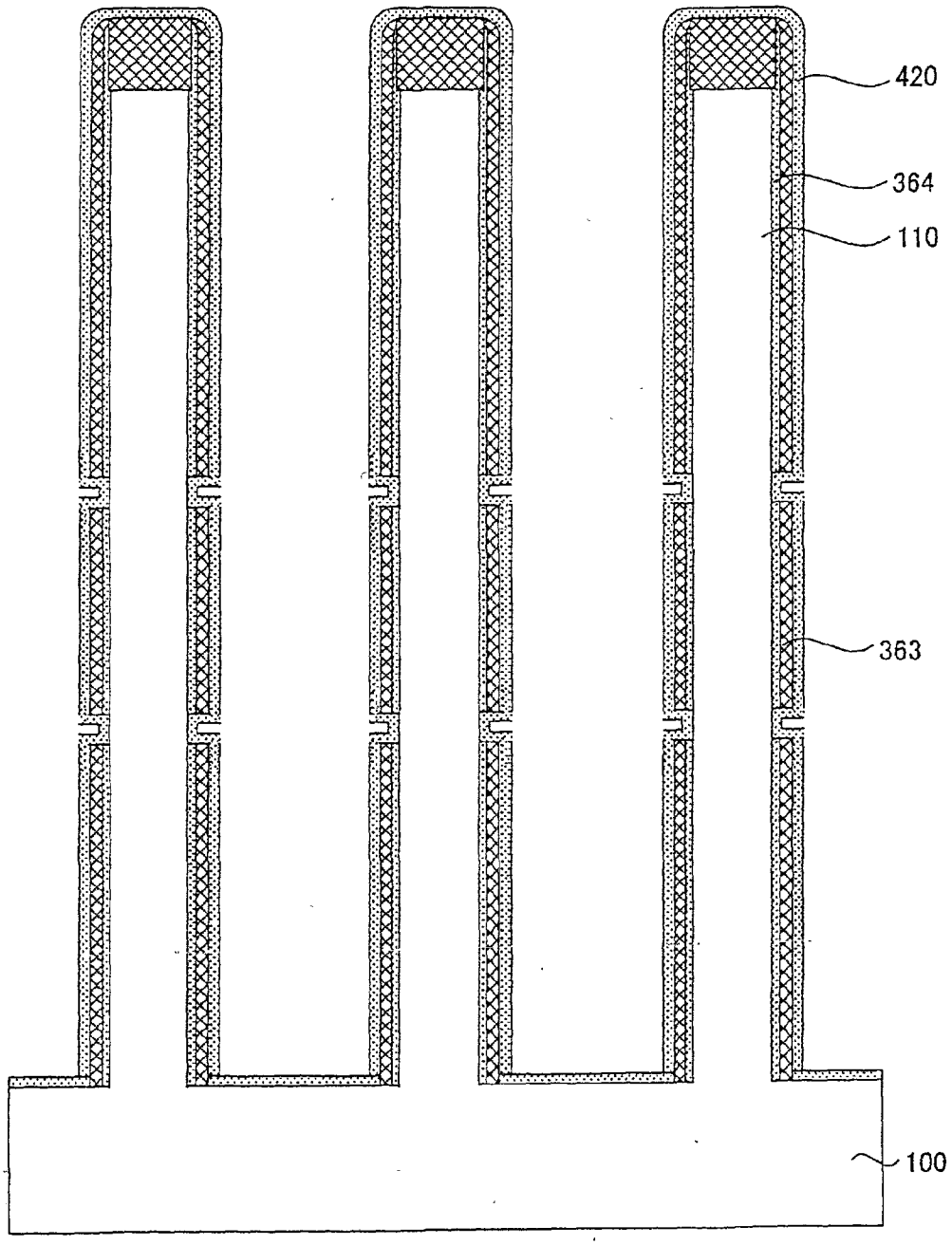


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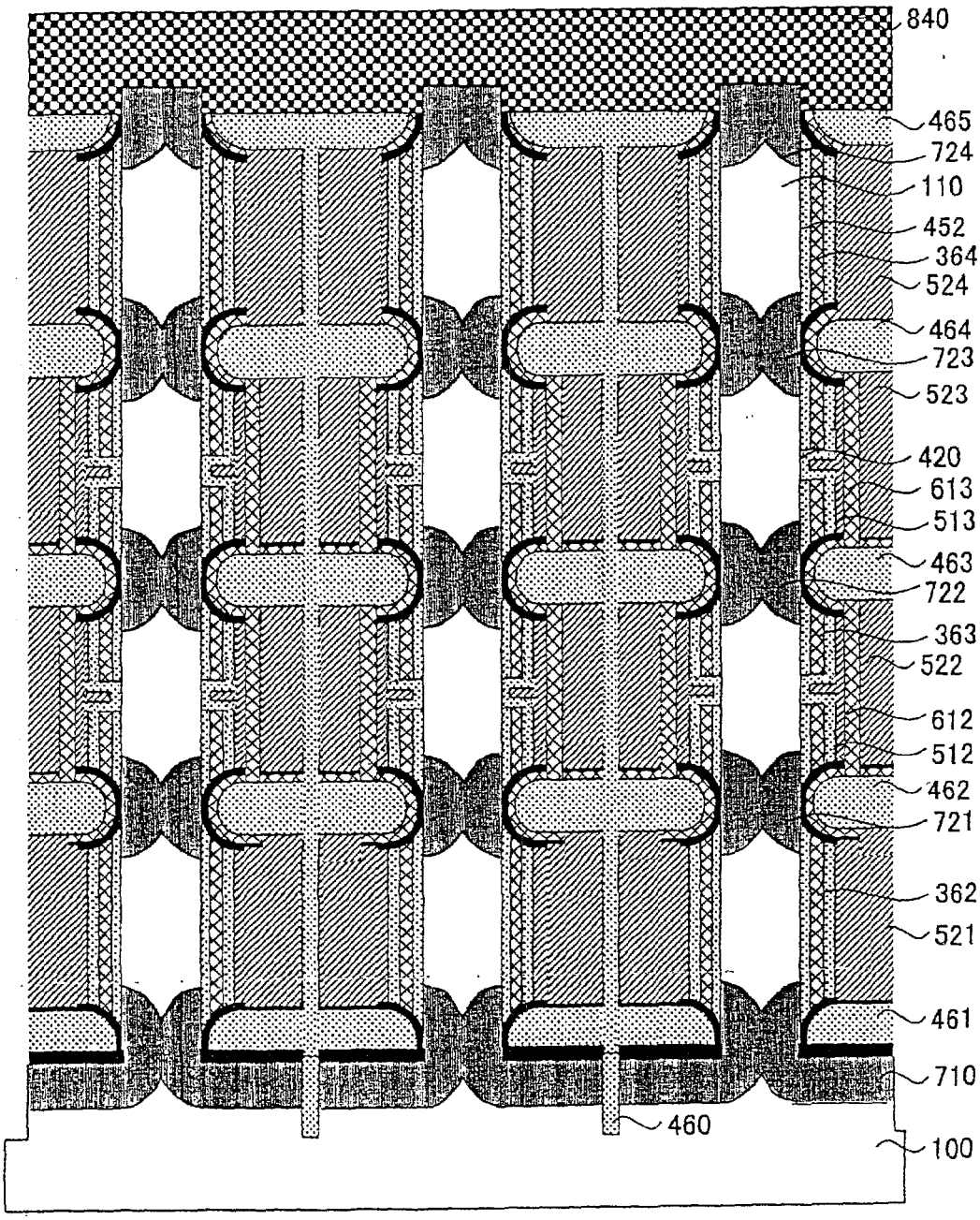

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Fig. 198

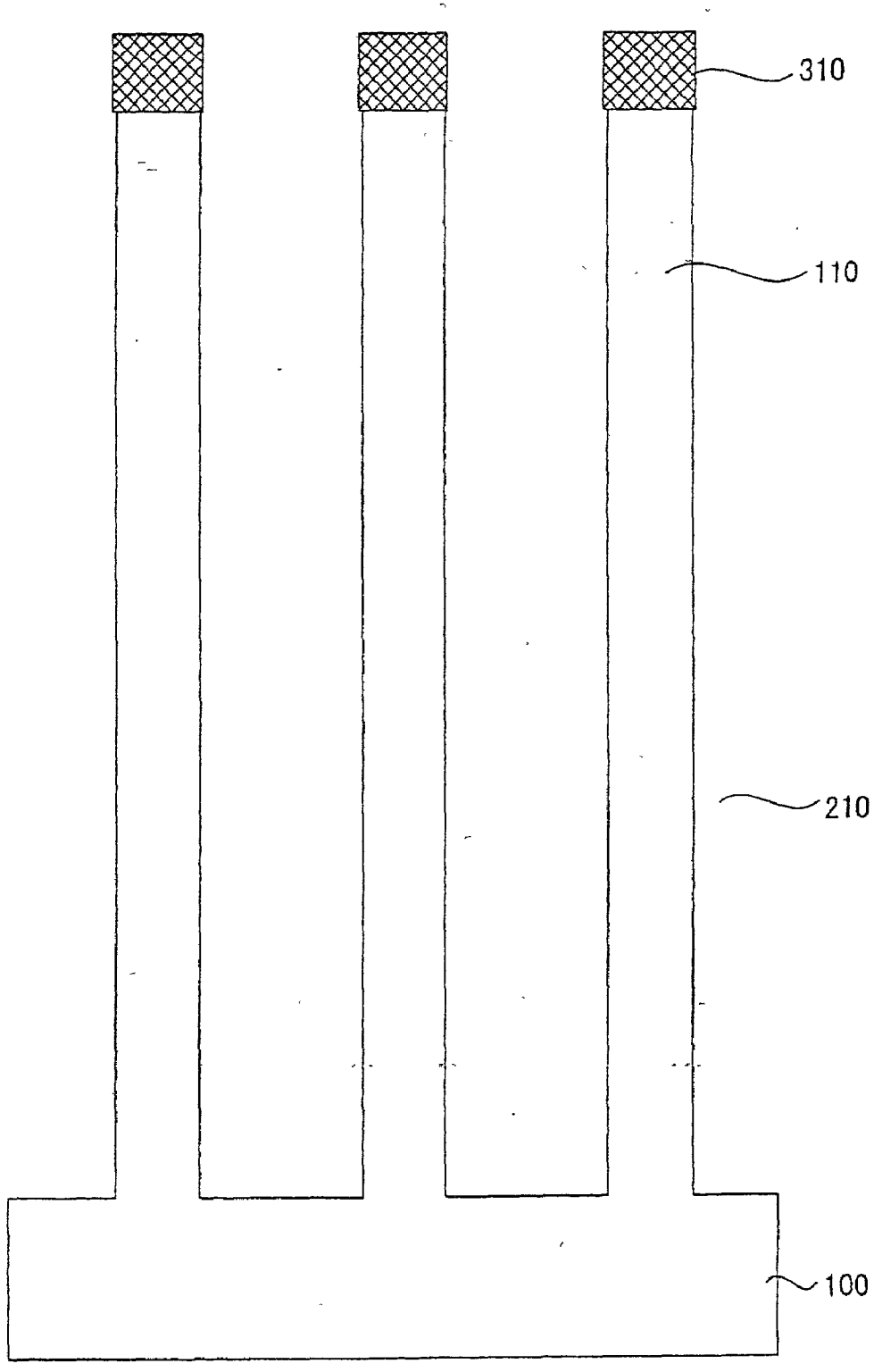


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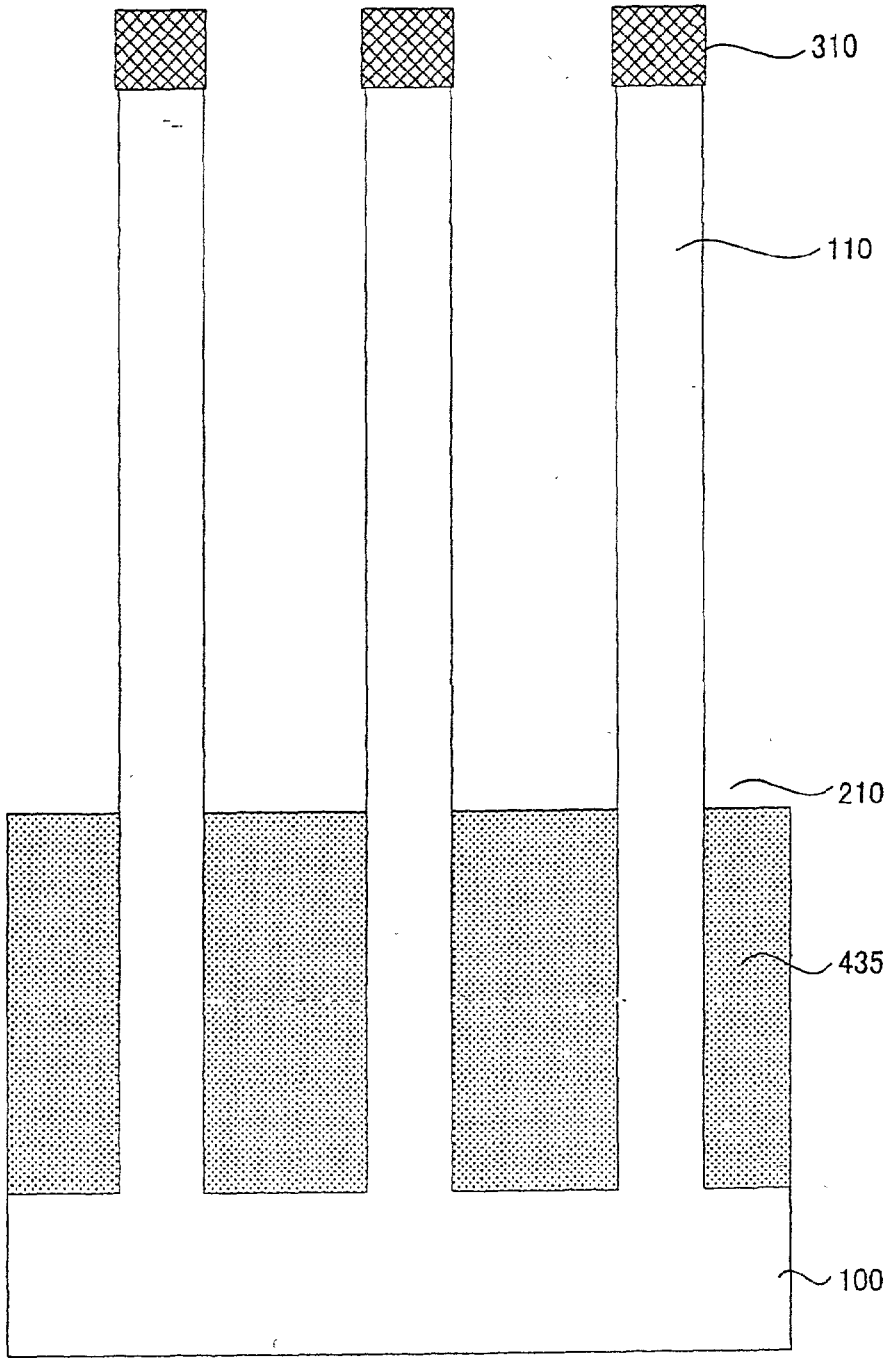


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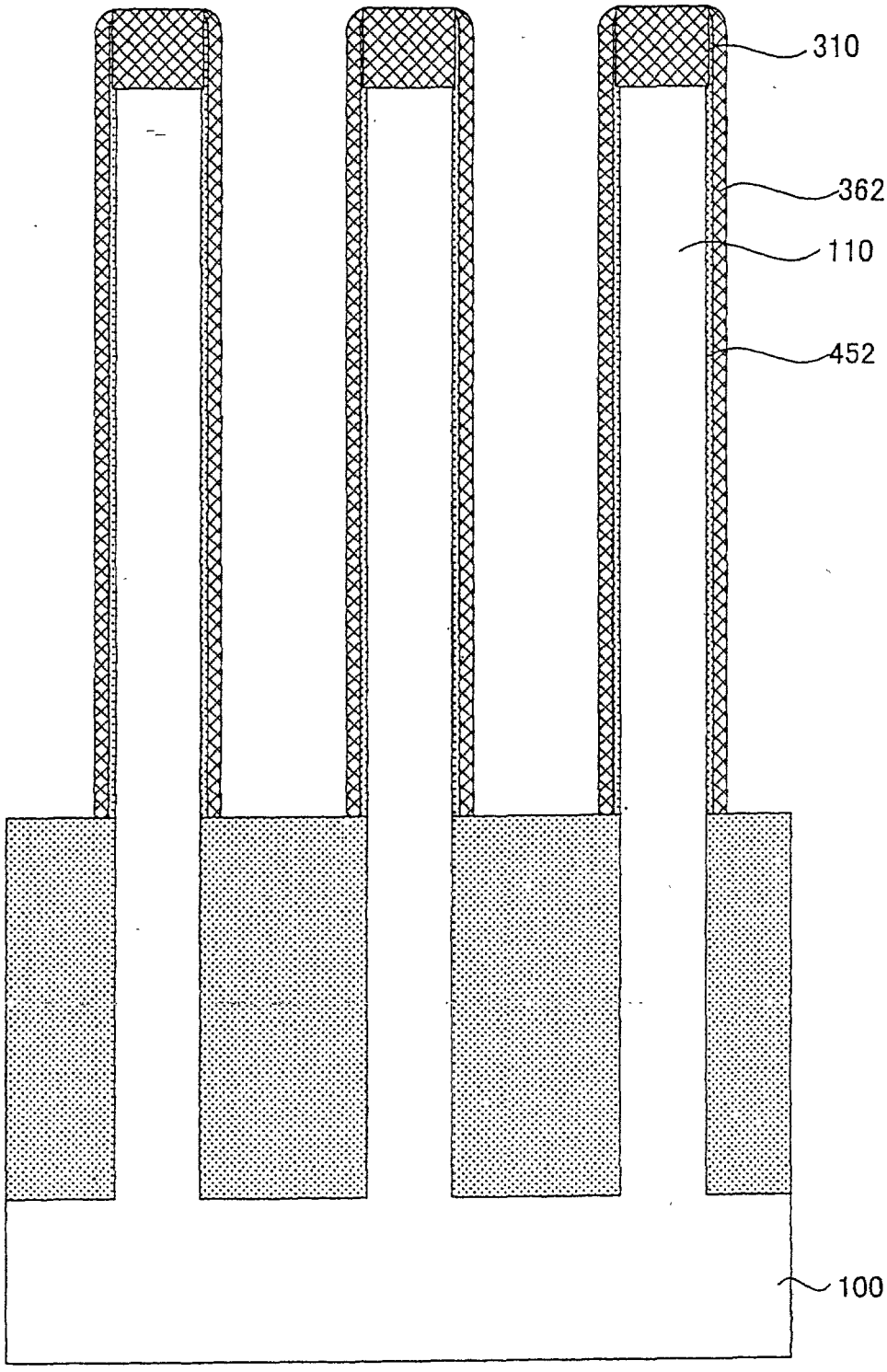


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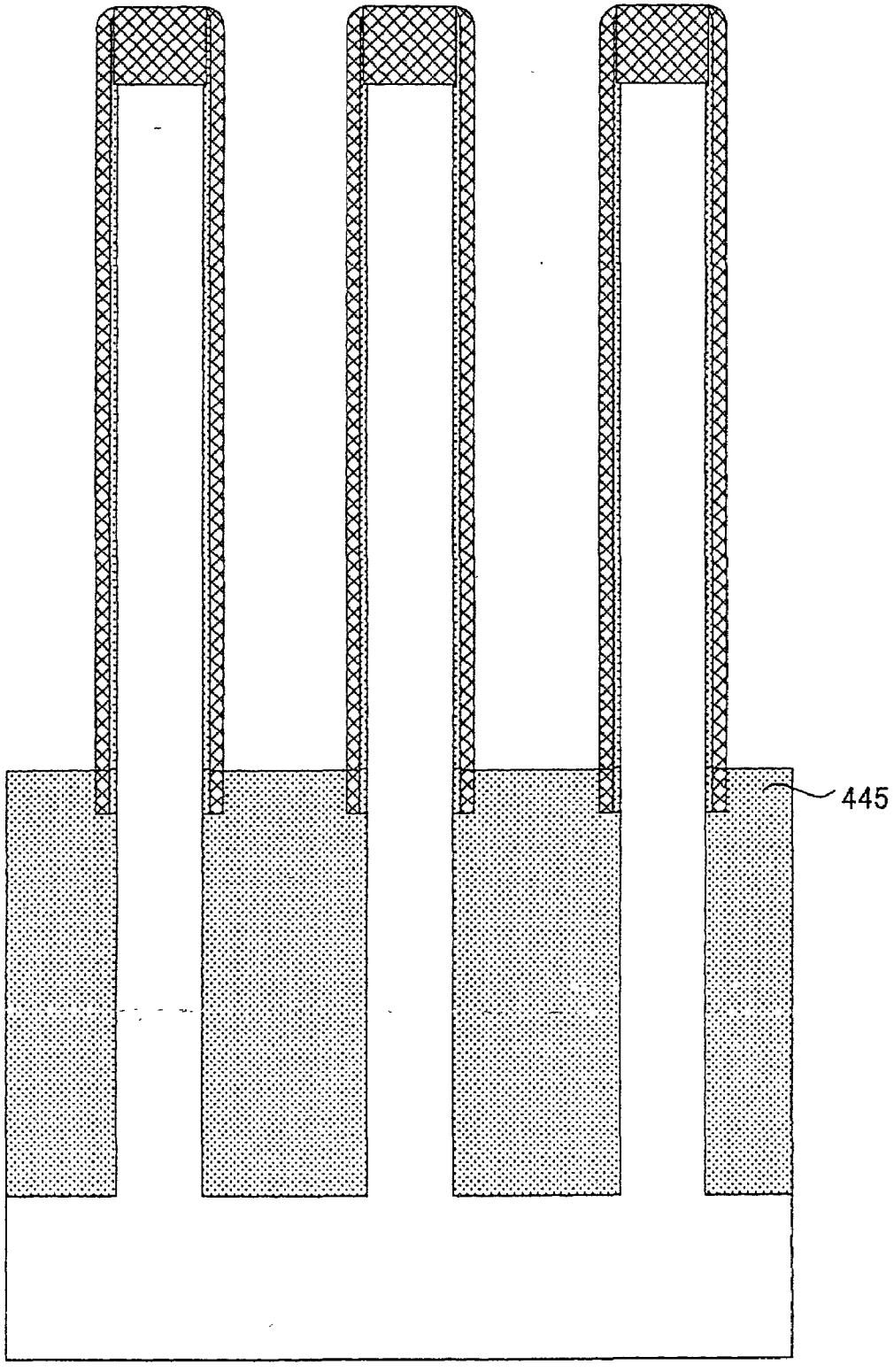


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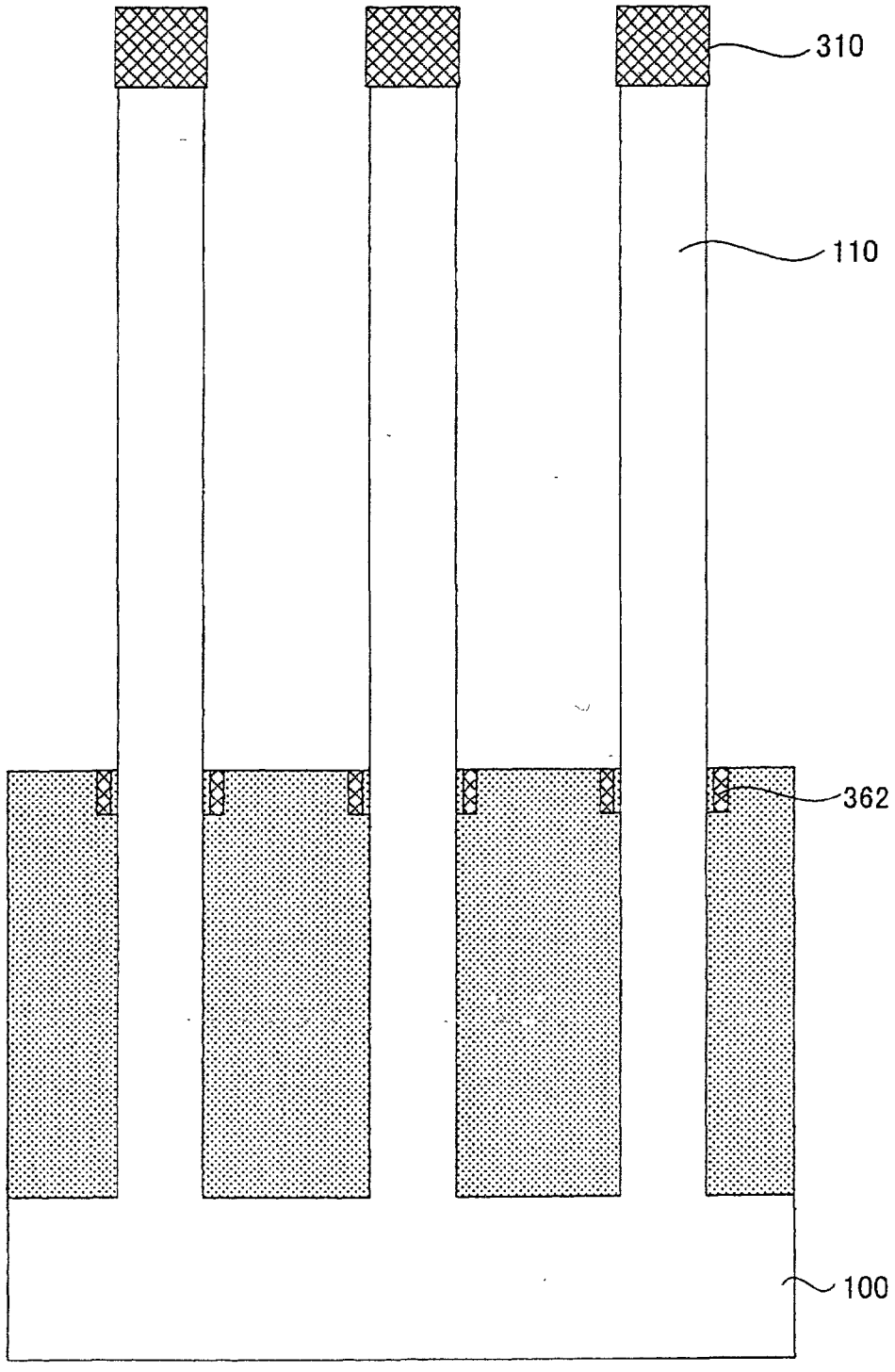


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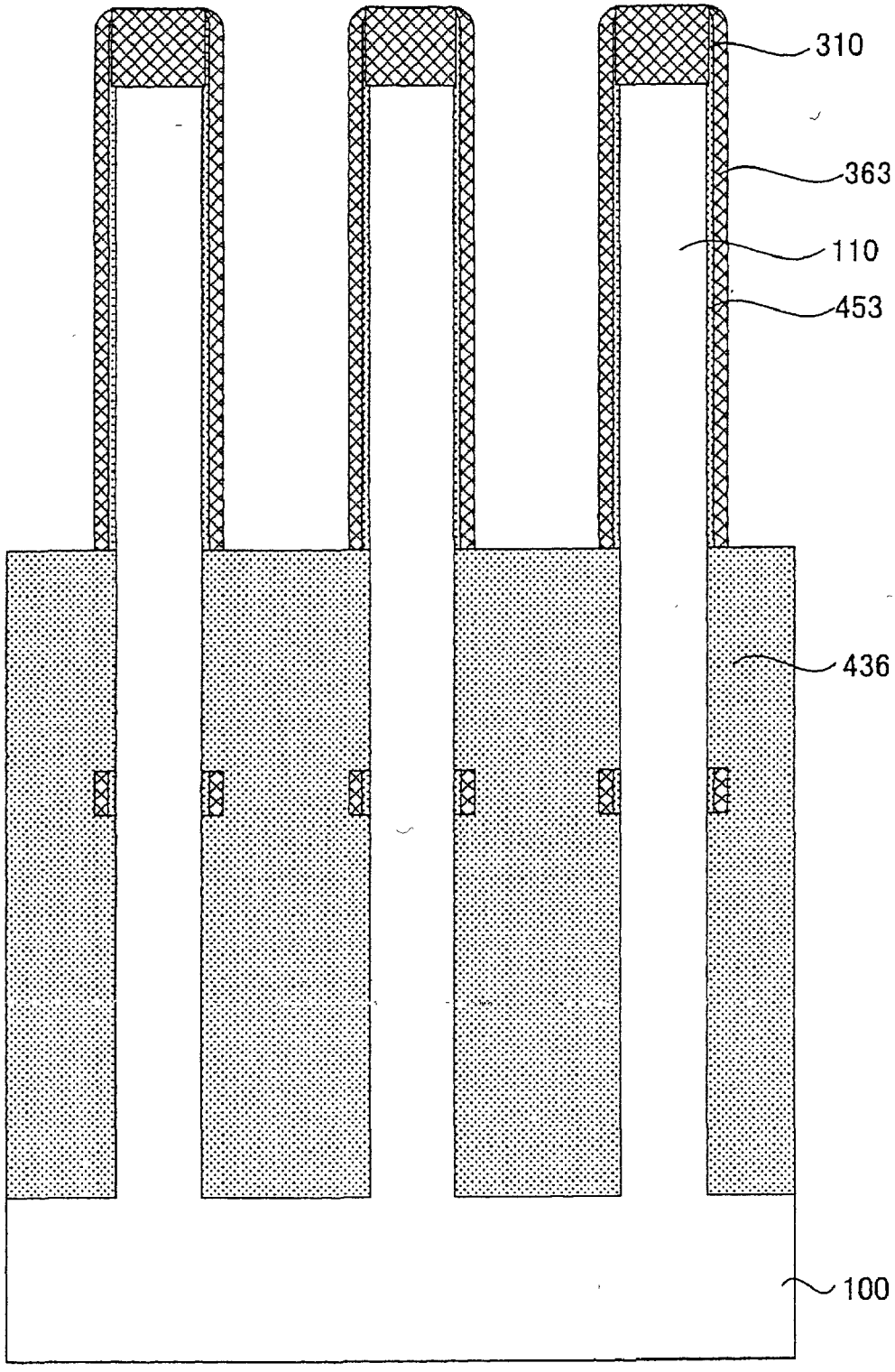


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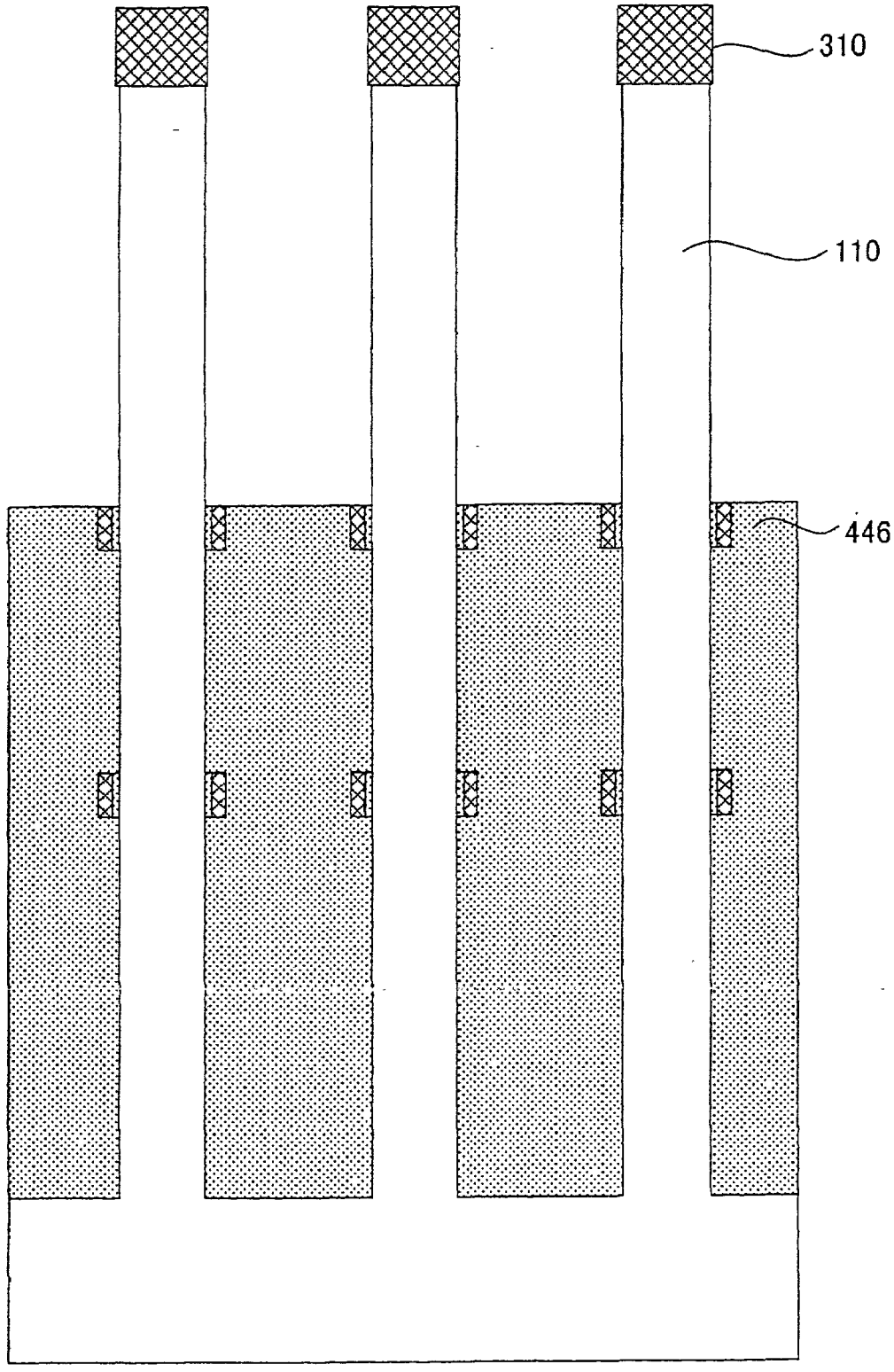


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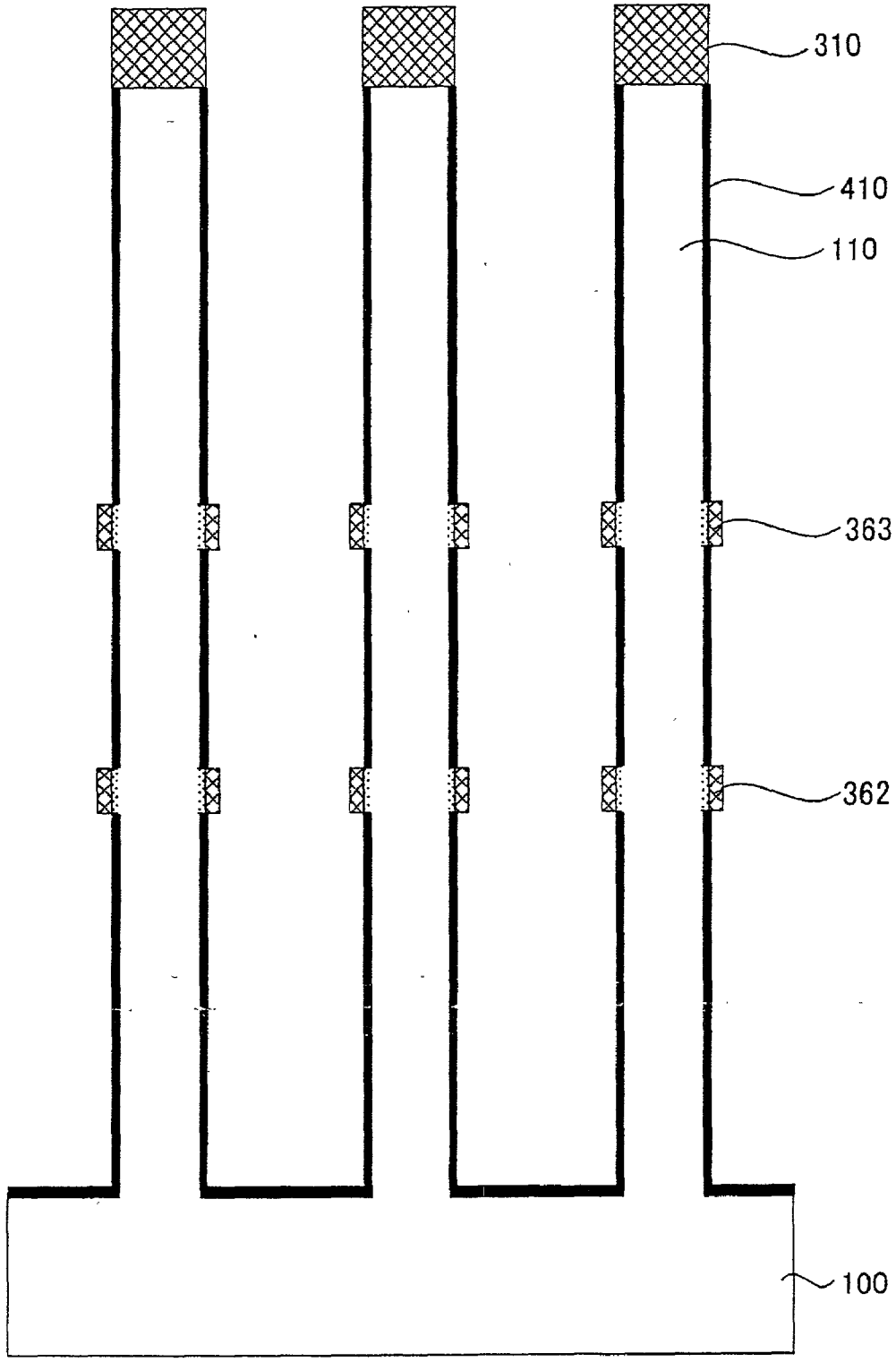


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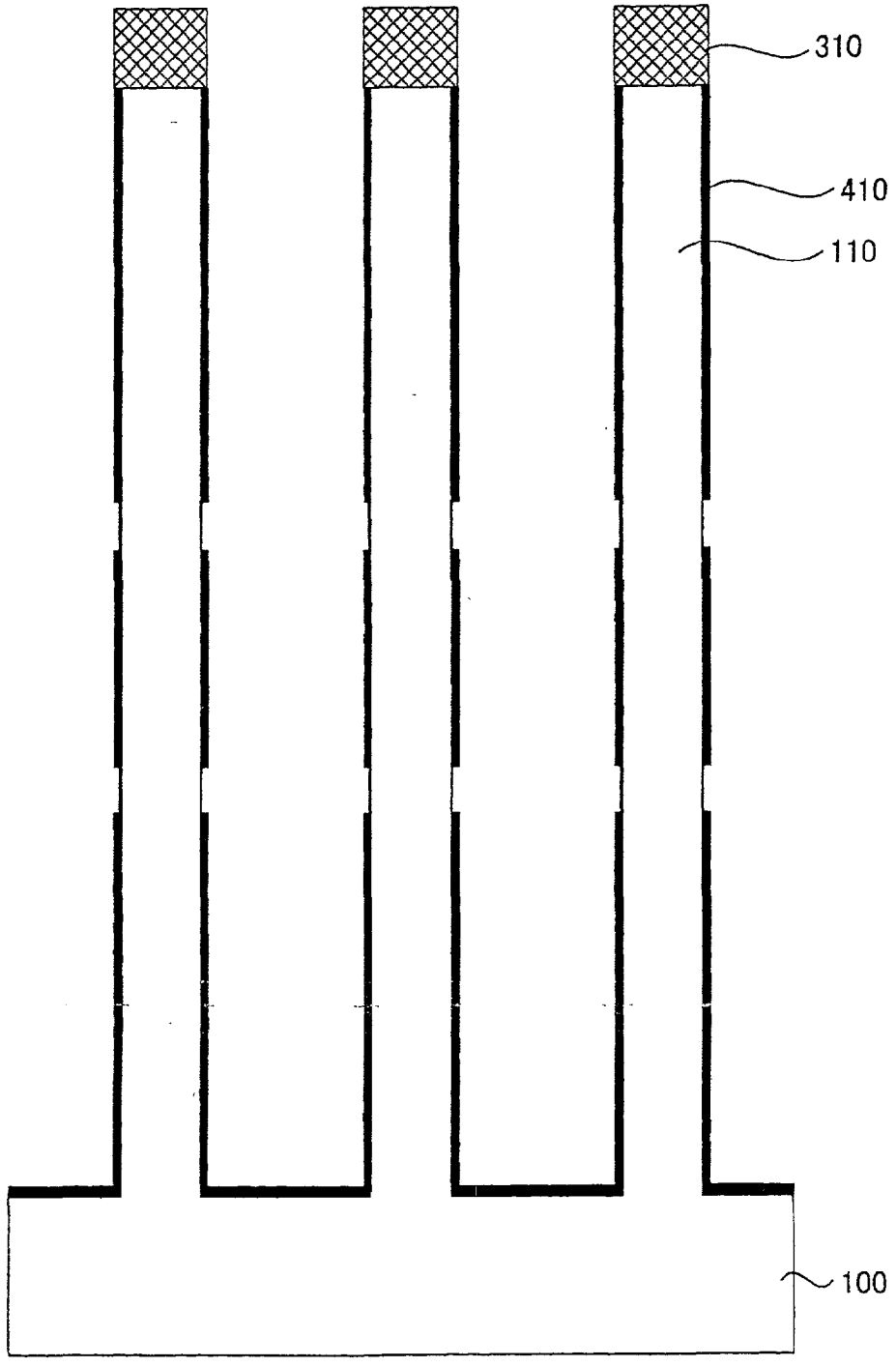


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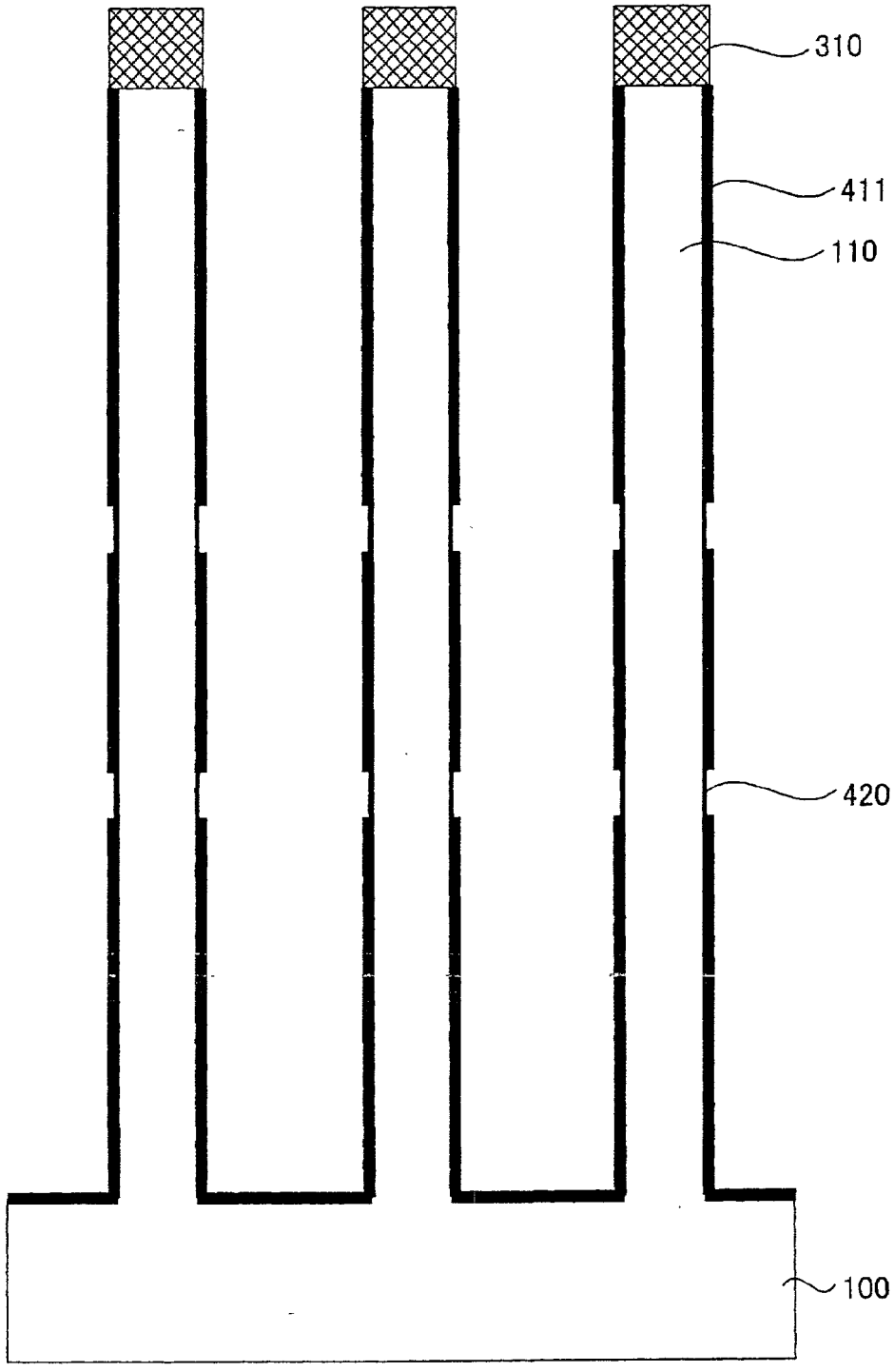


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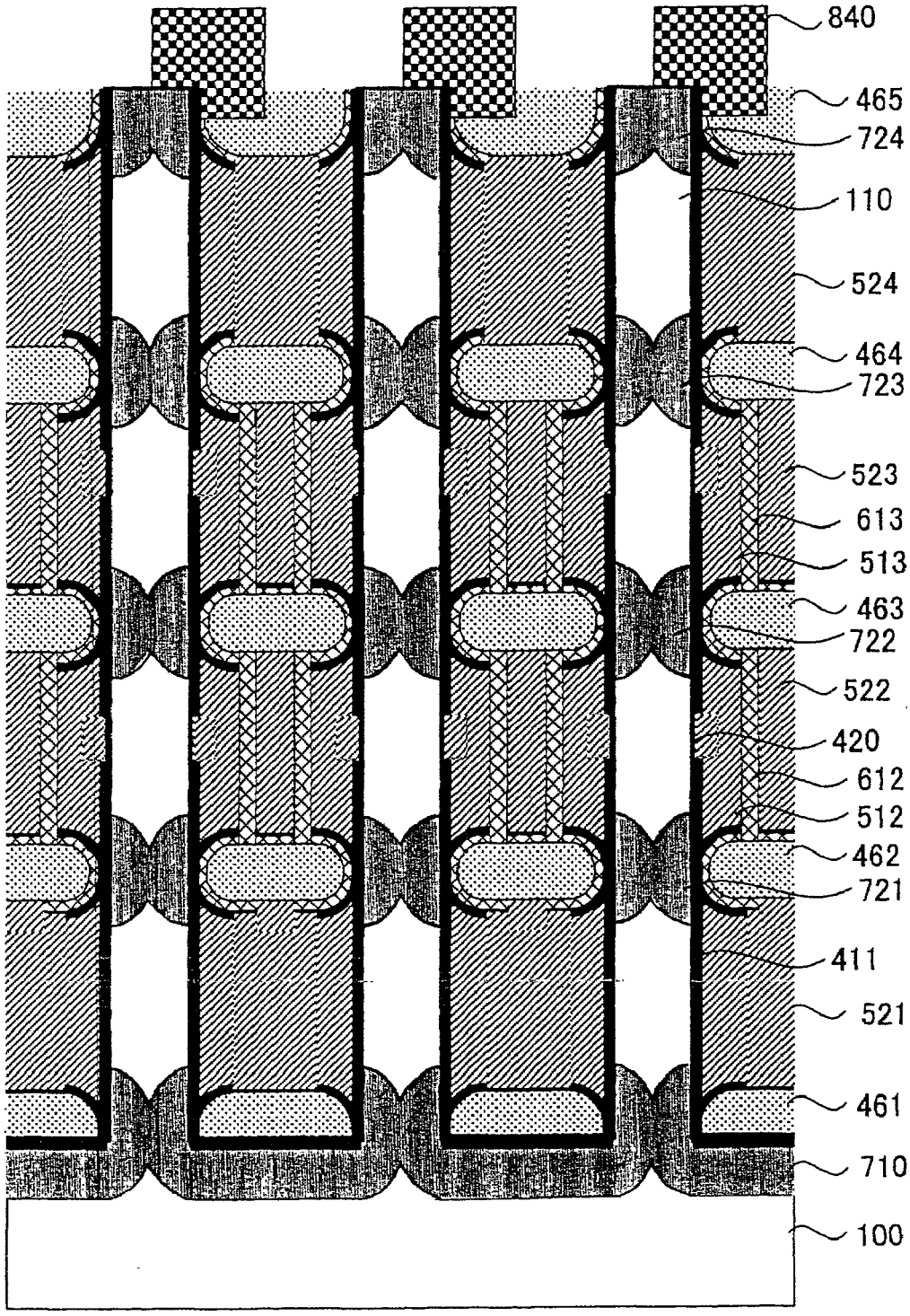

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Fig. 209

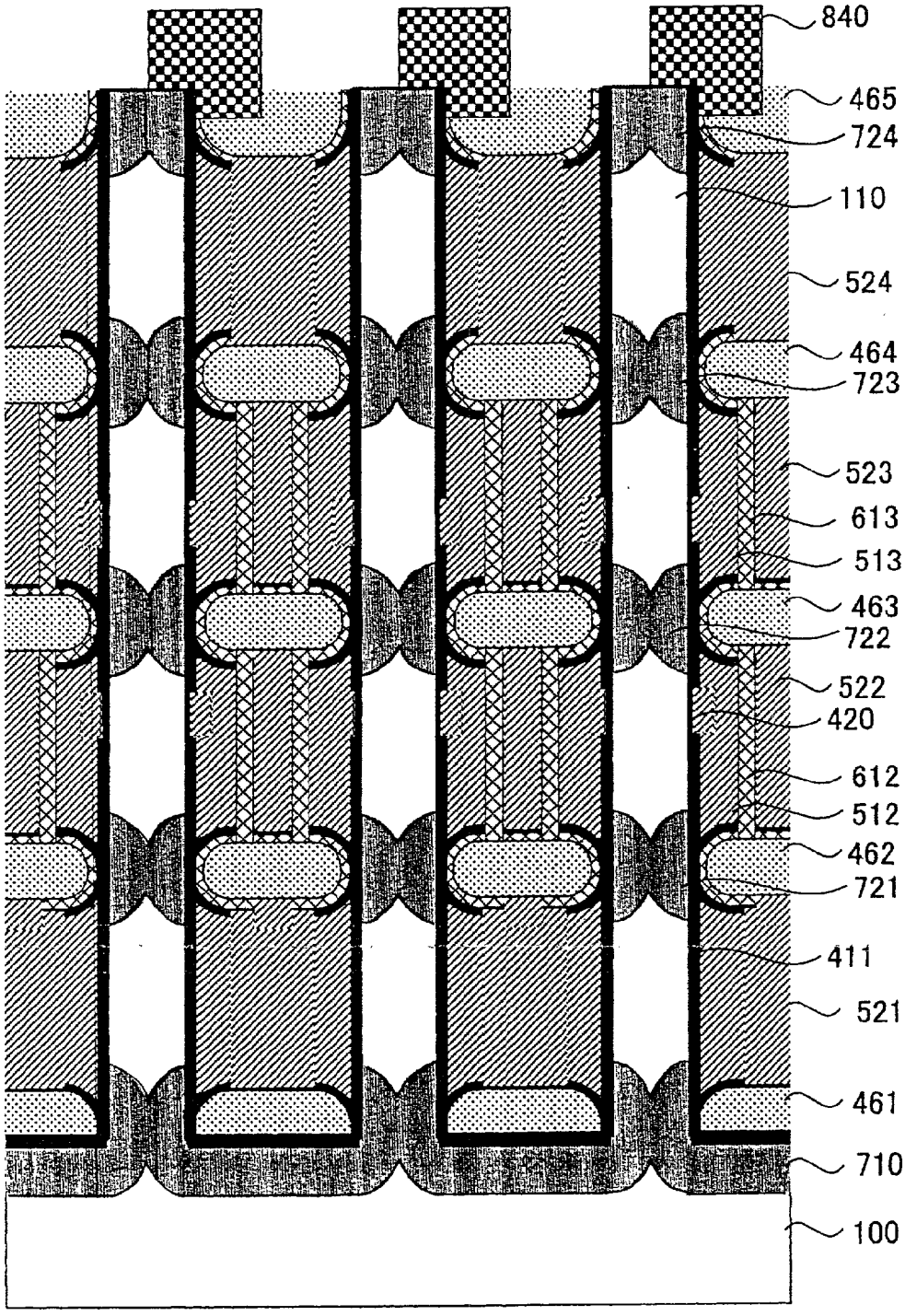

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Fig. 210

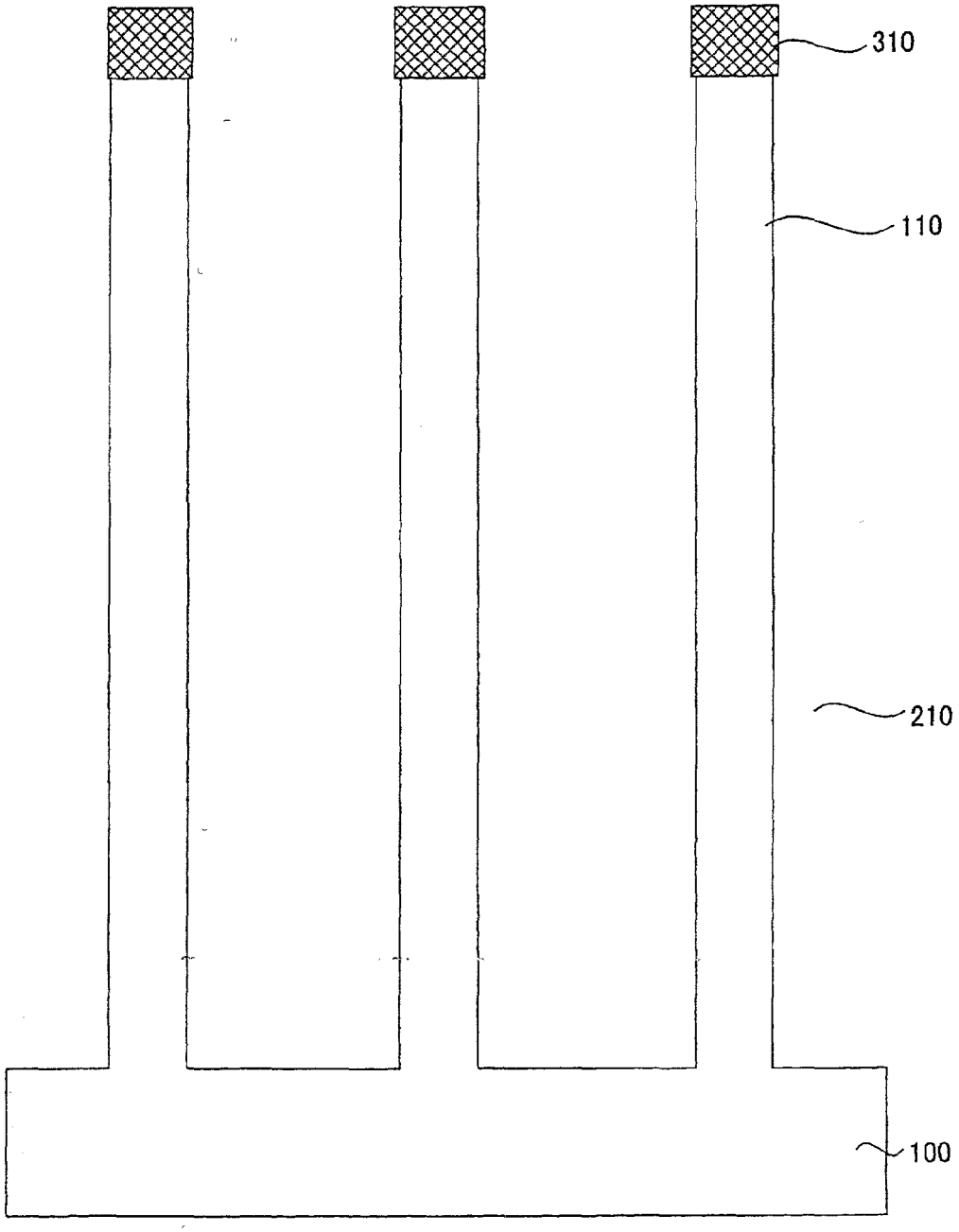


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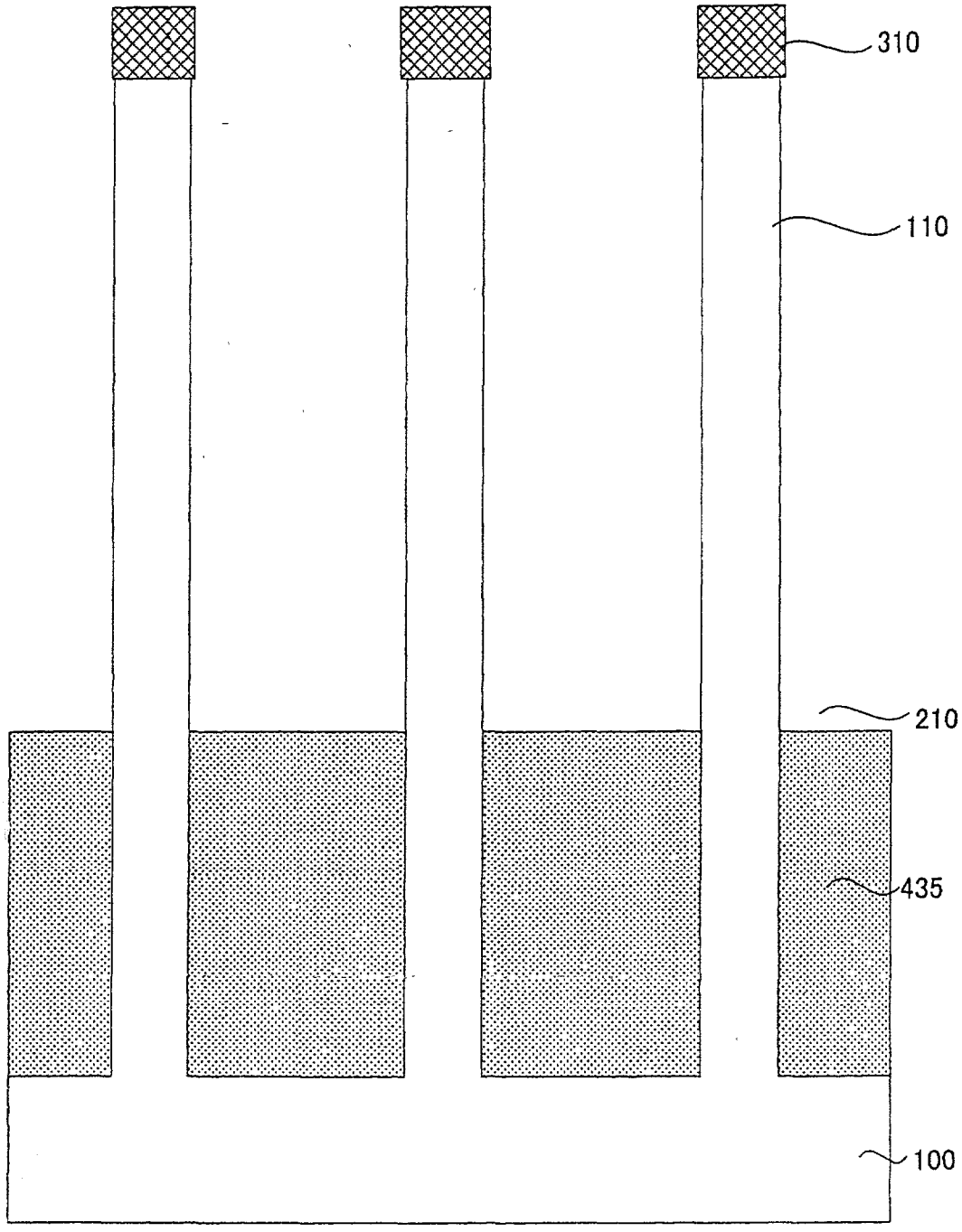


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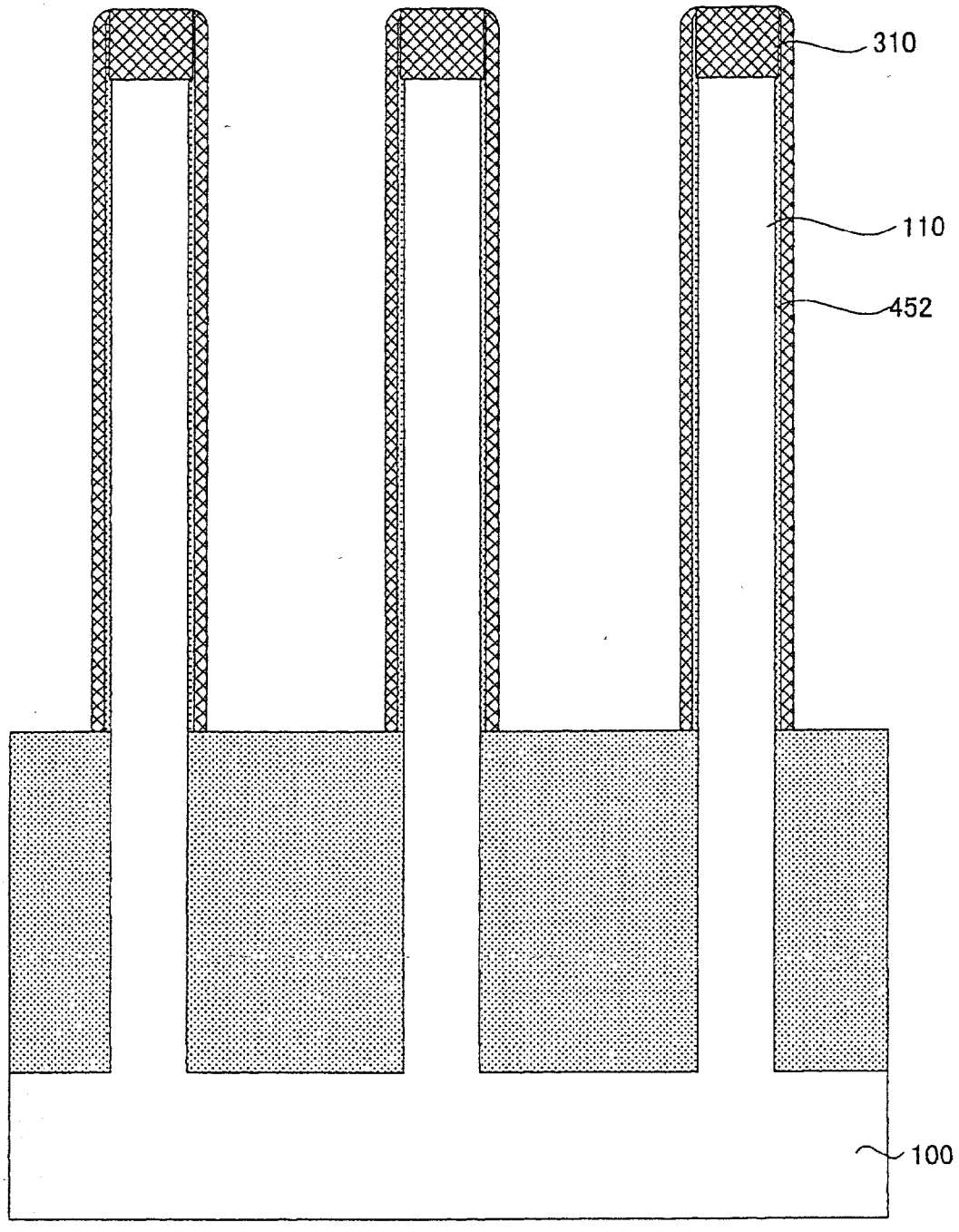


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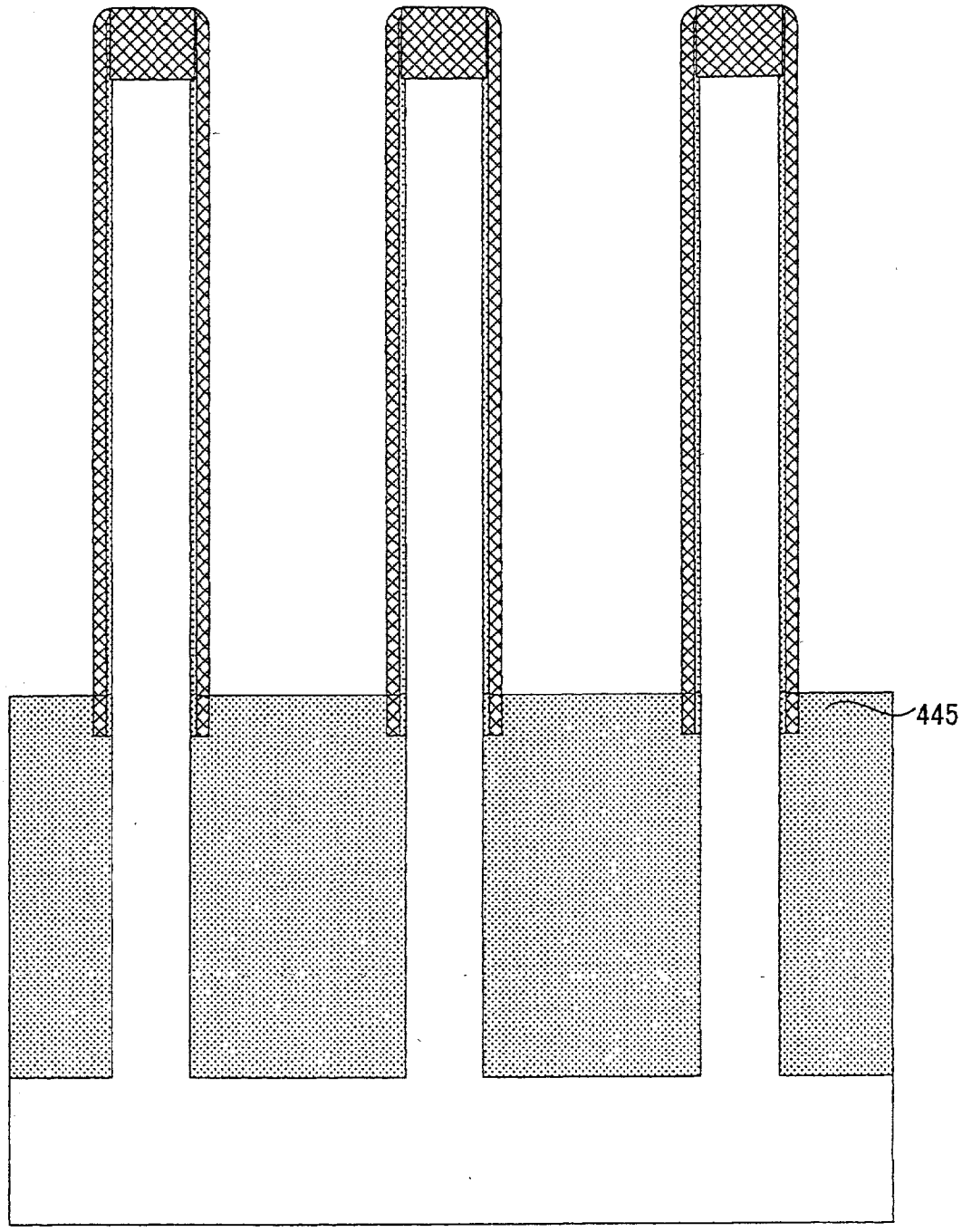


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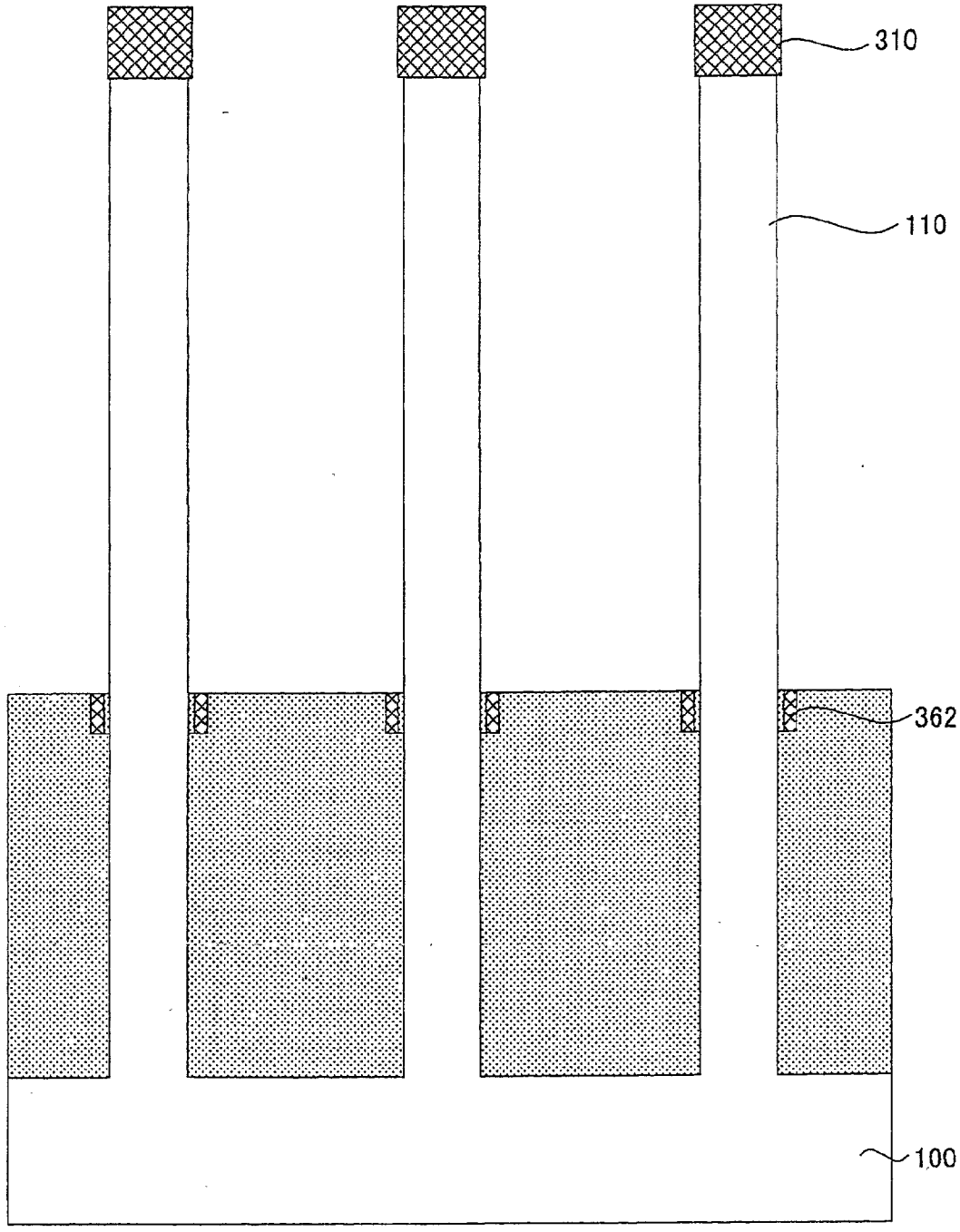


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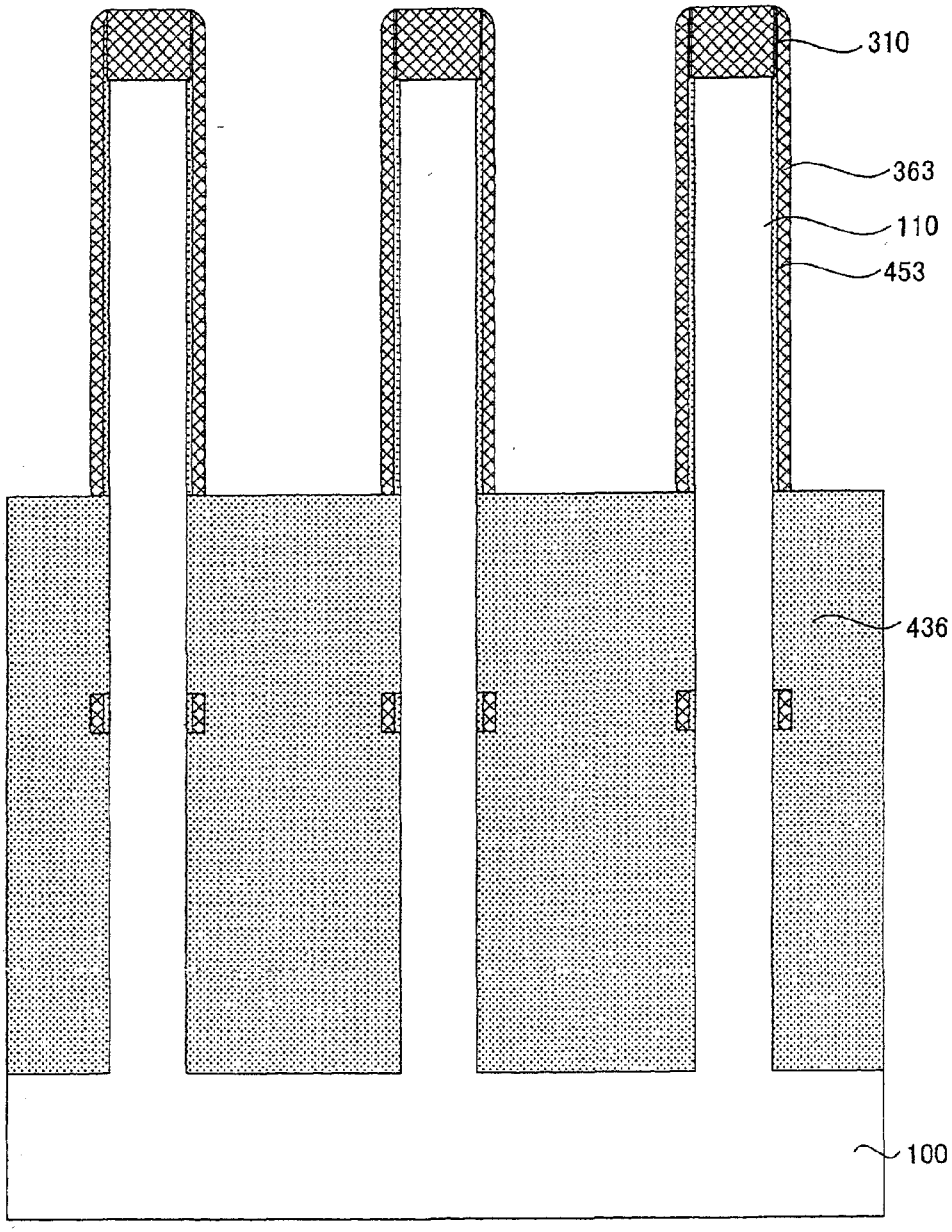


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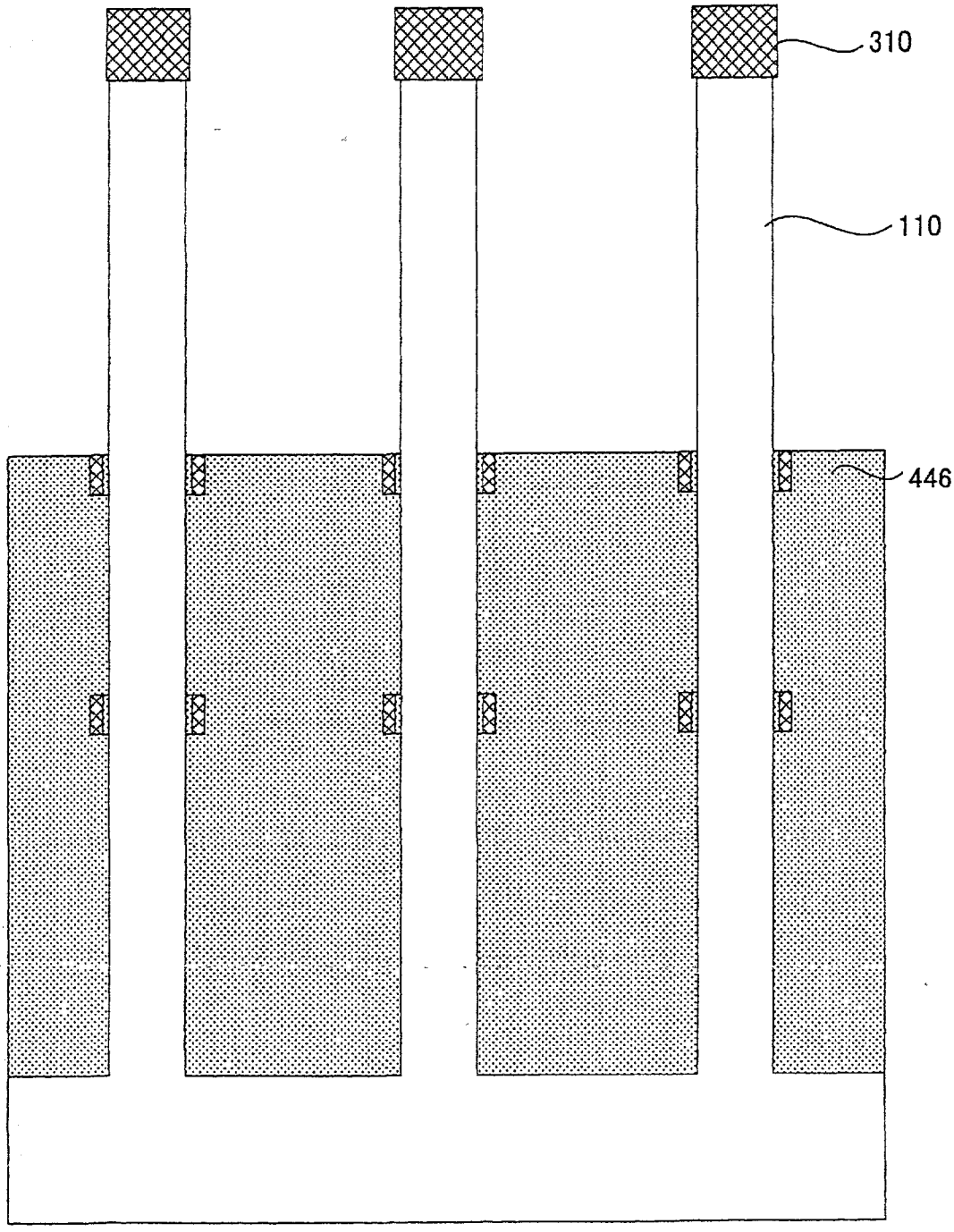


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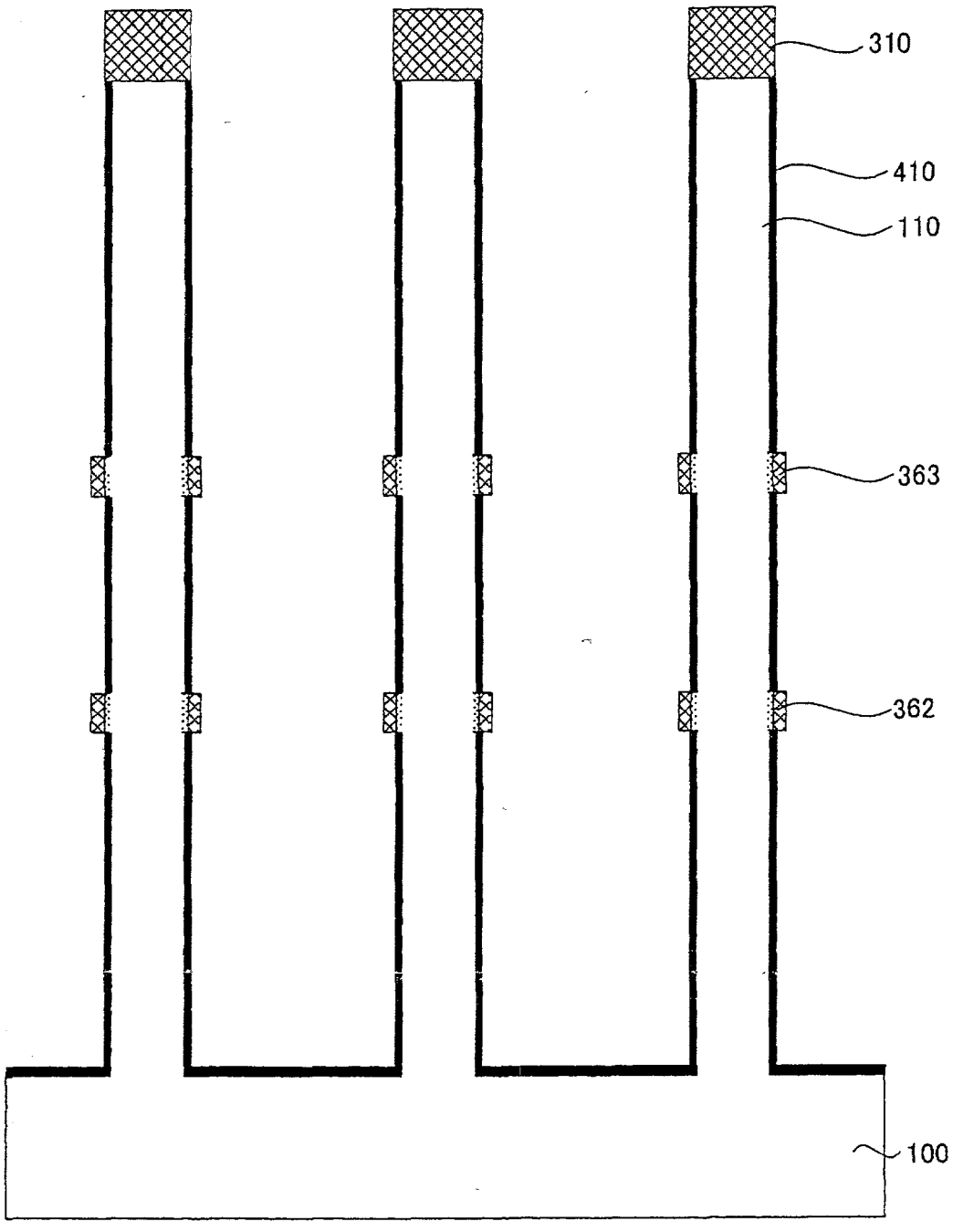


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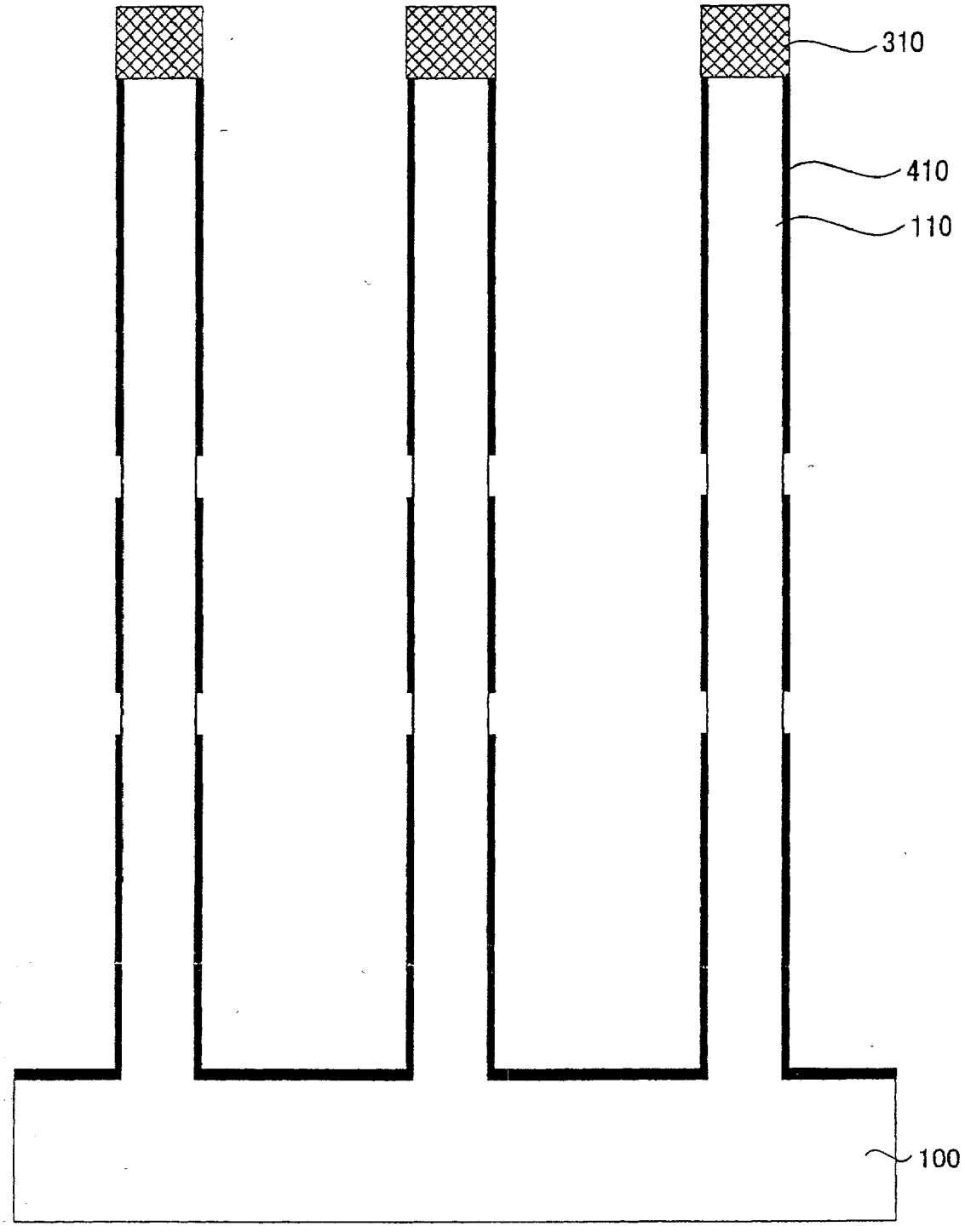


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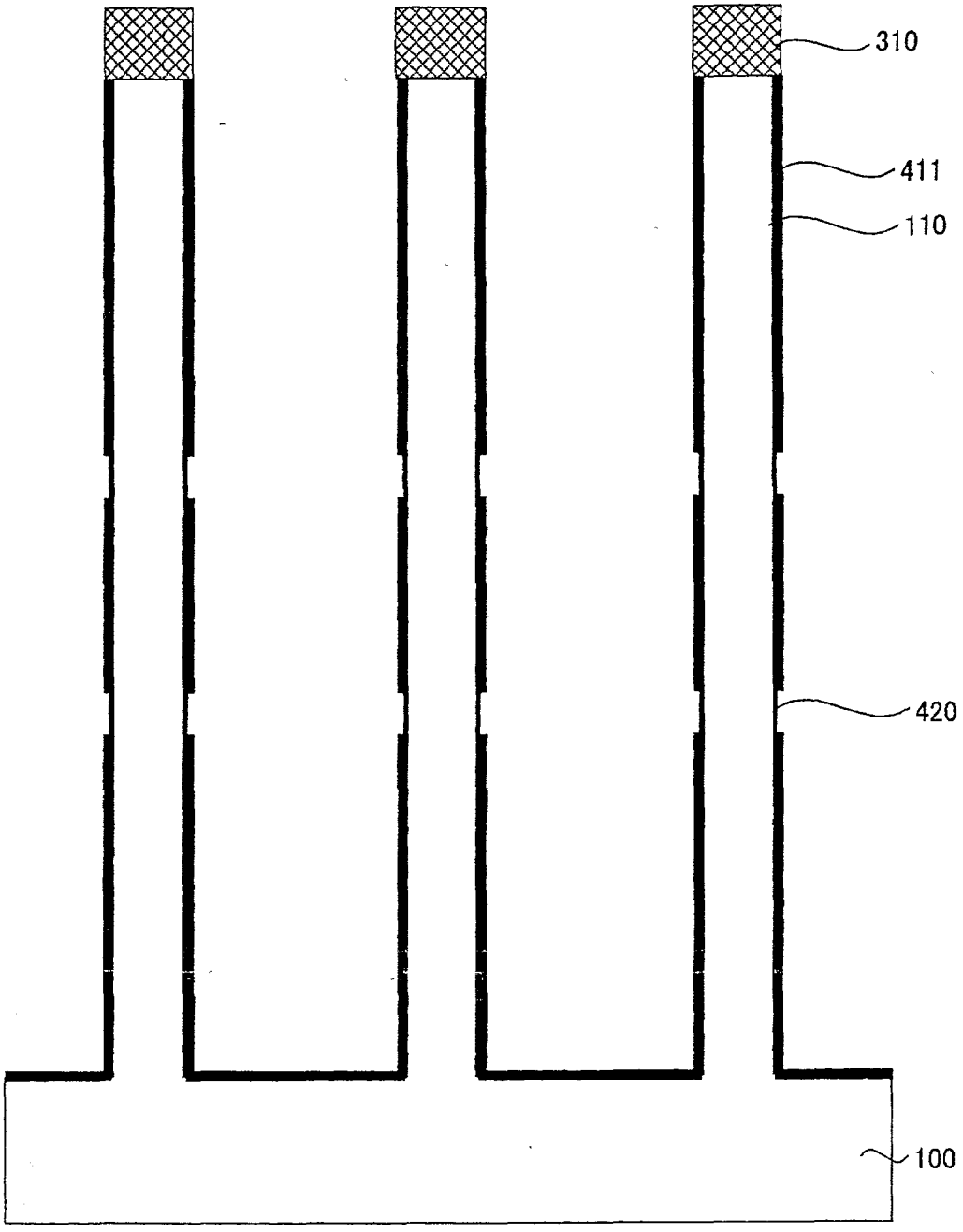


Fig. 220

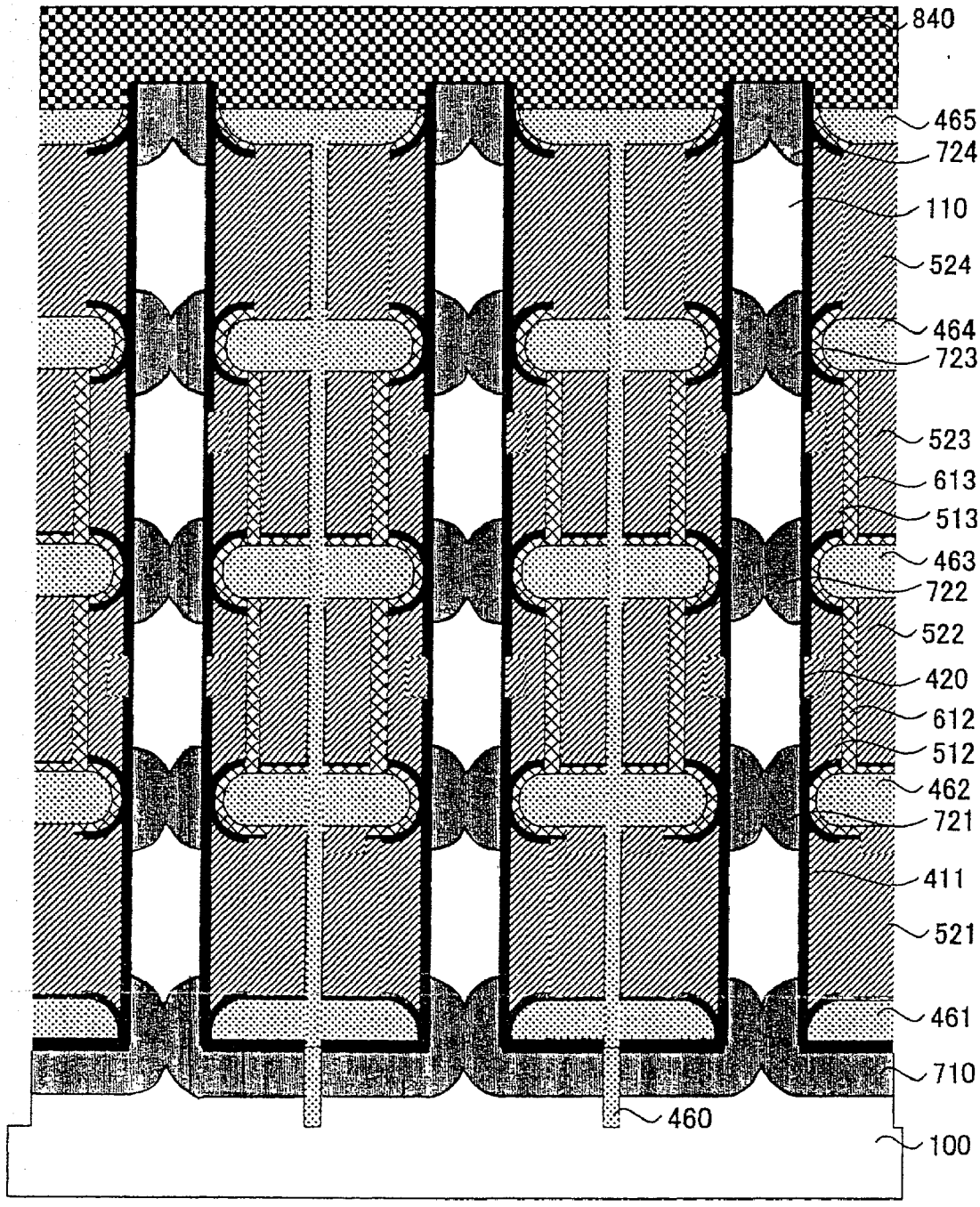

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Fig. 221

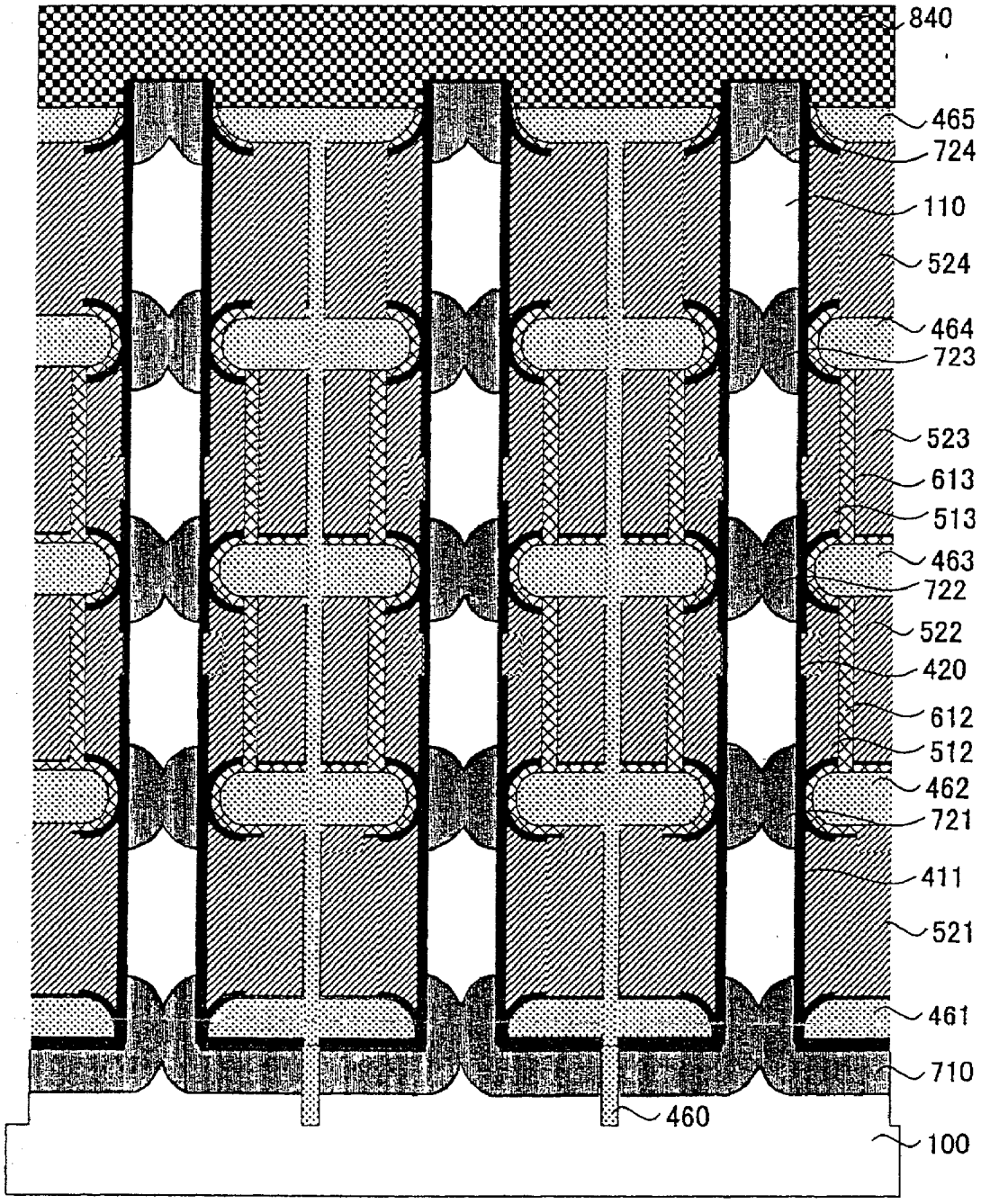

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Fig. 222

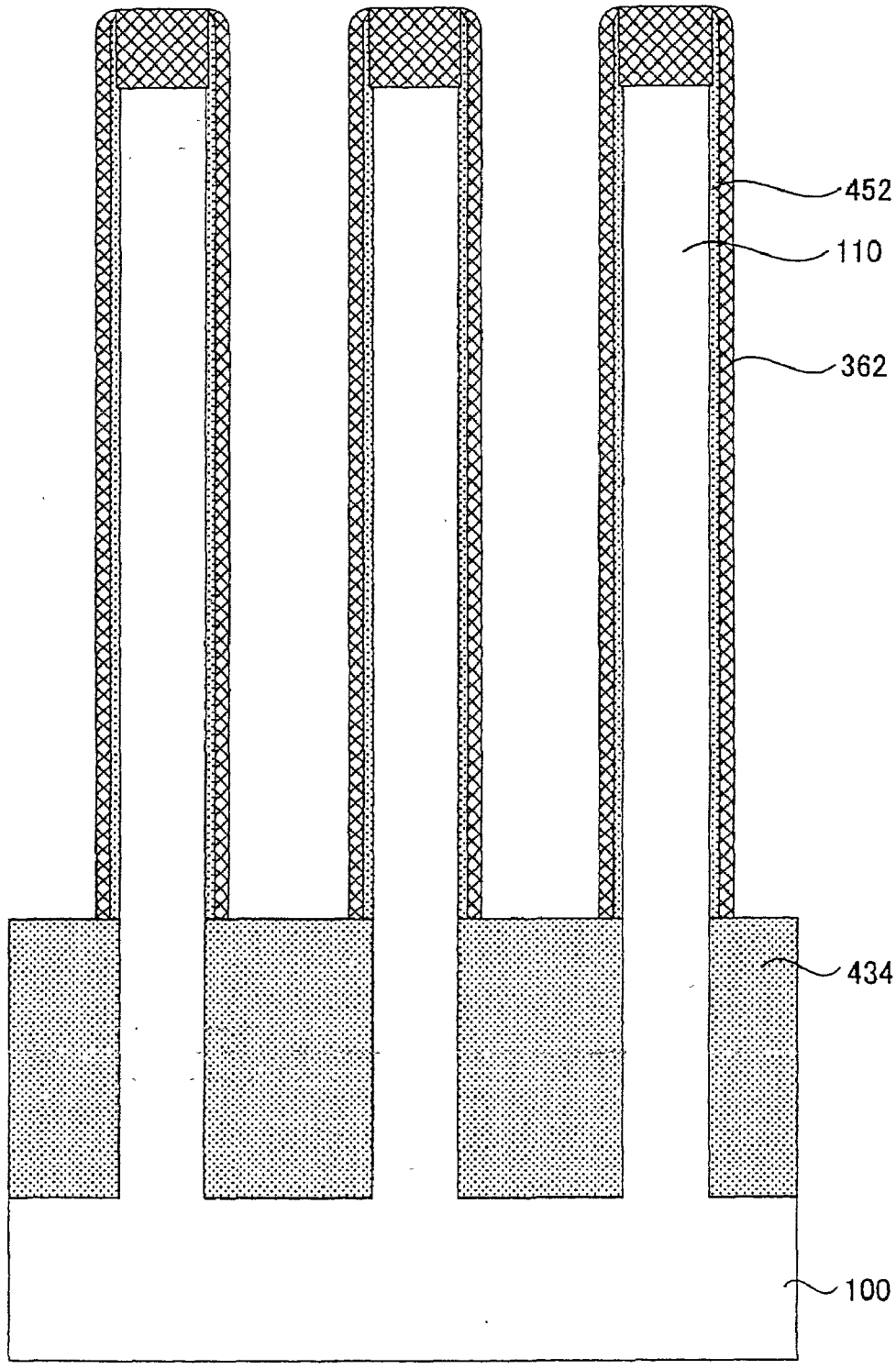


Fig. 223

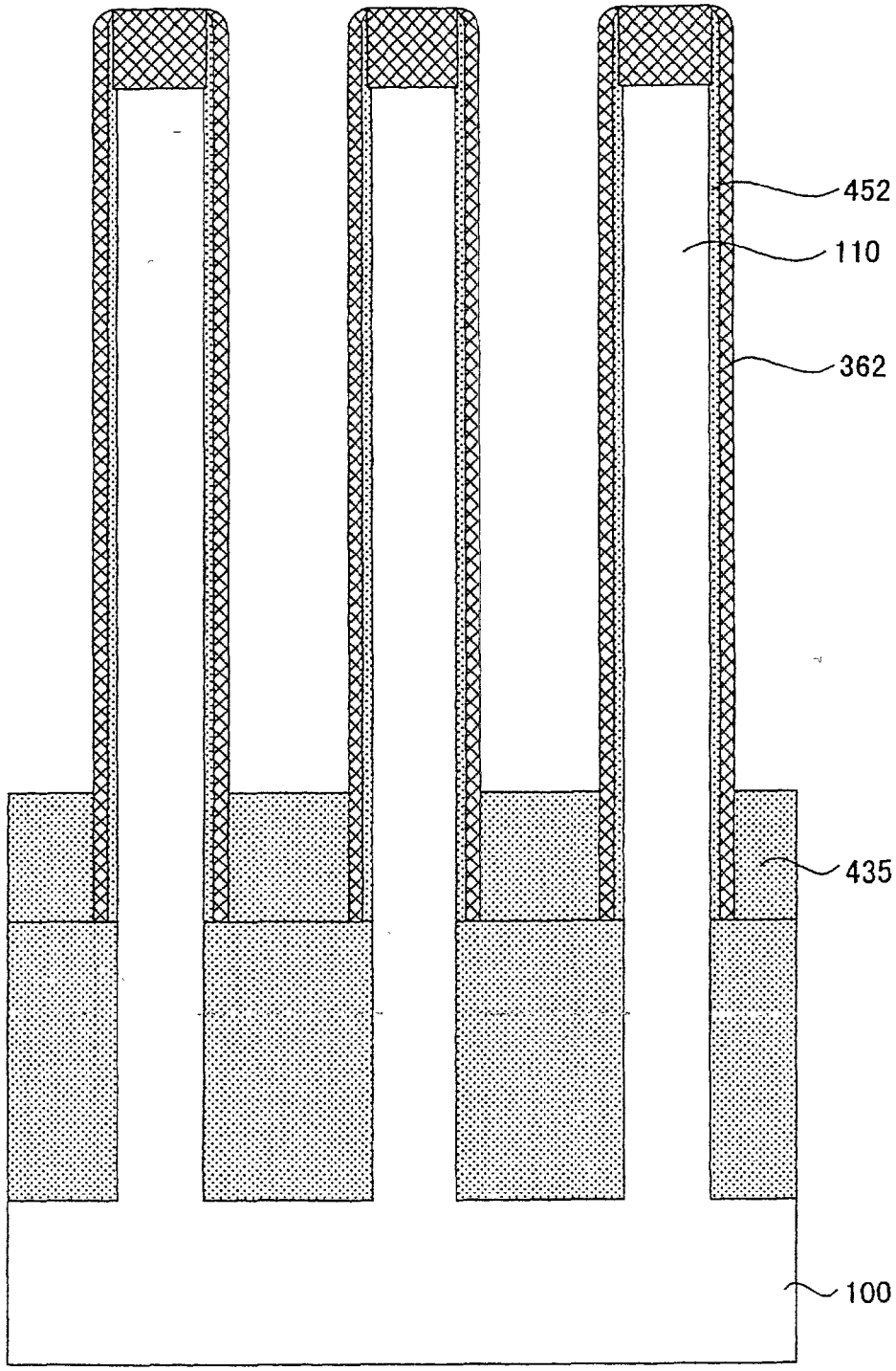


Fig. 224

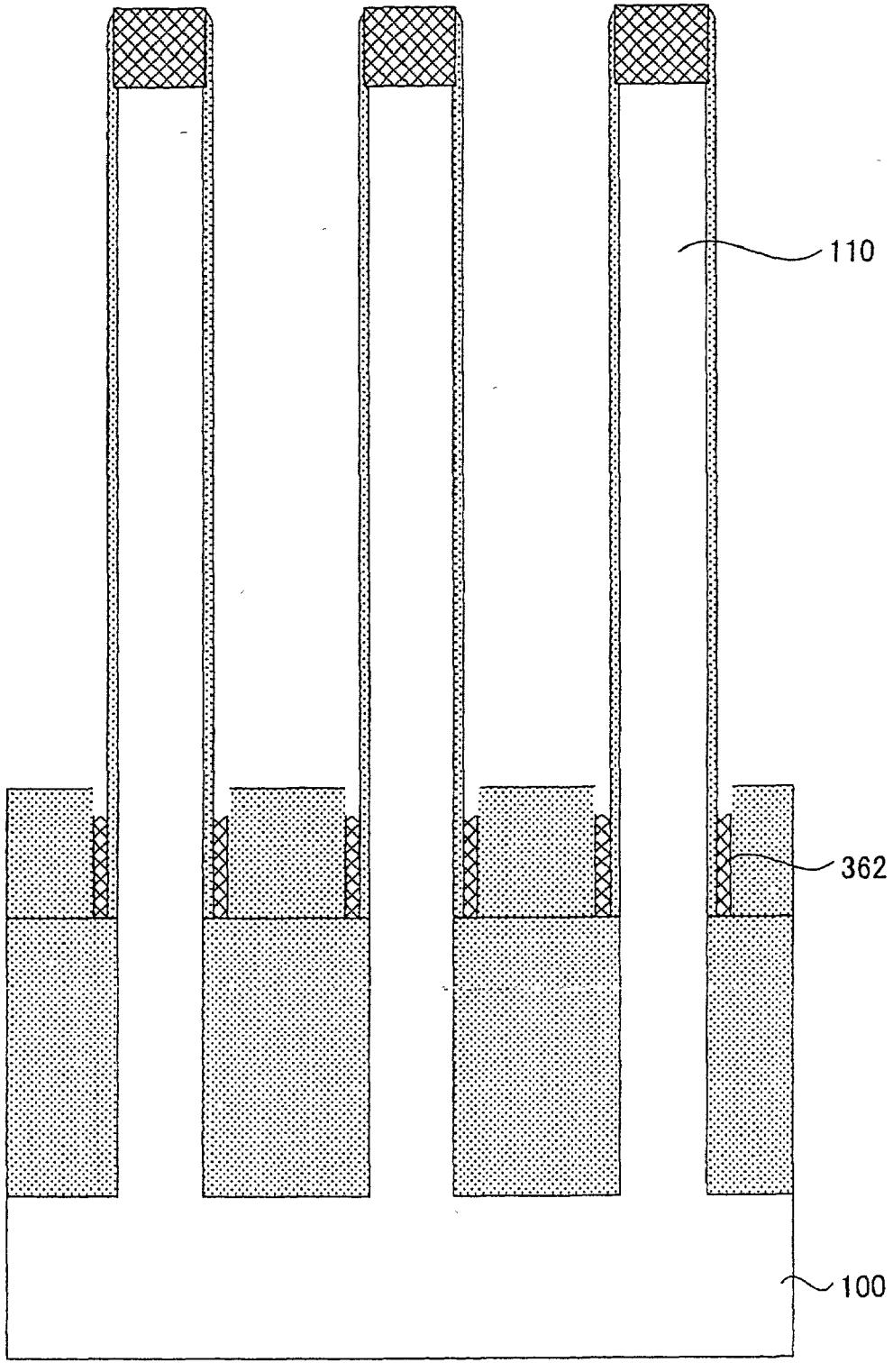


Fig. 225

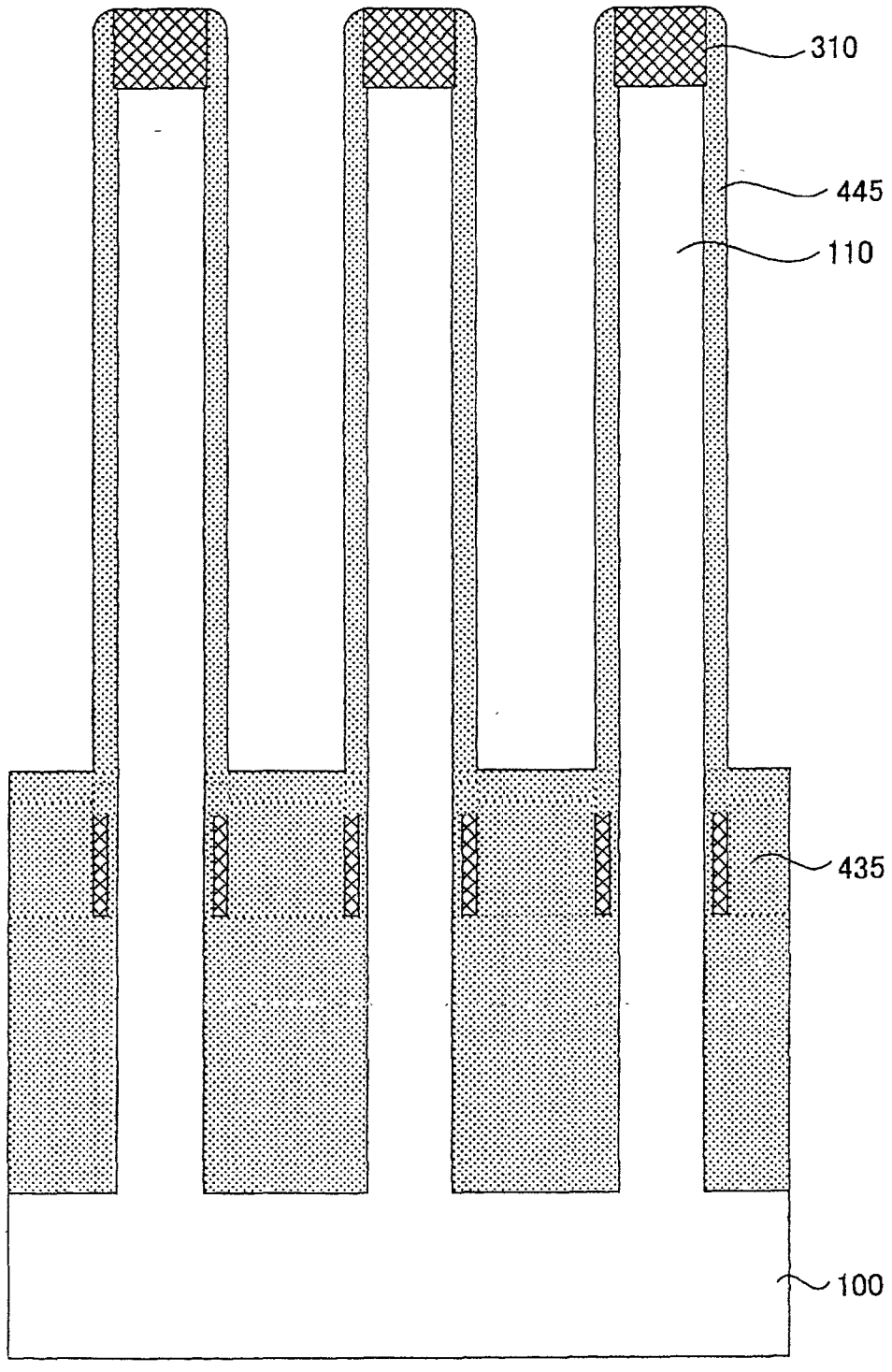


Fig. 226

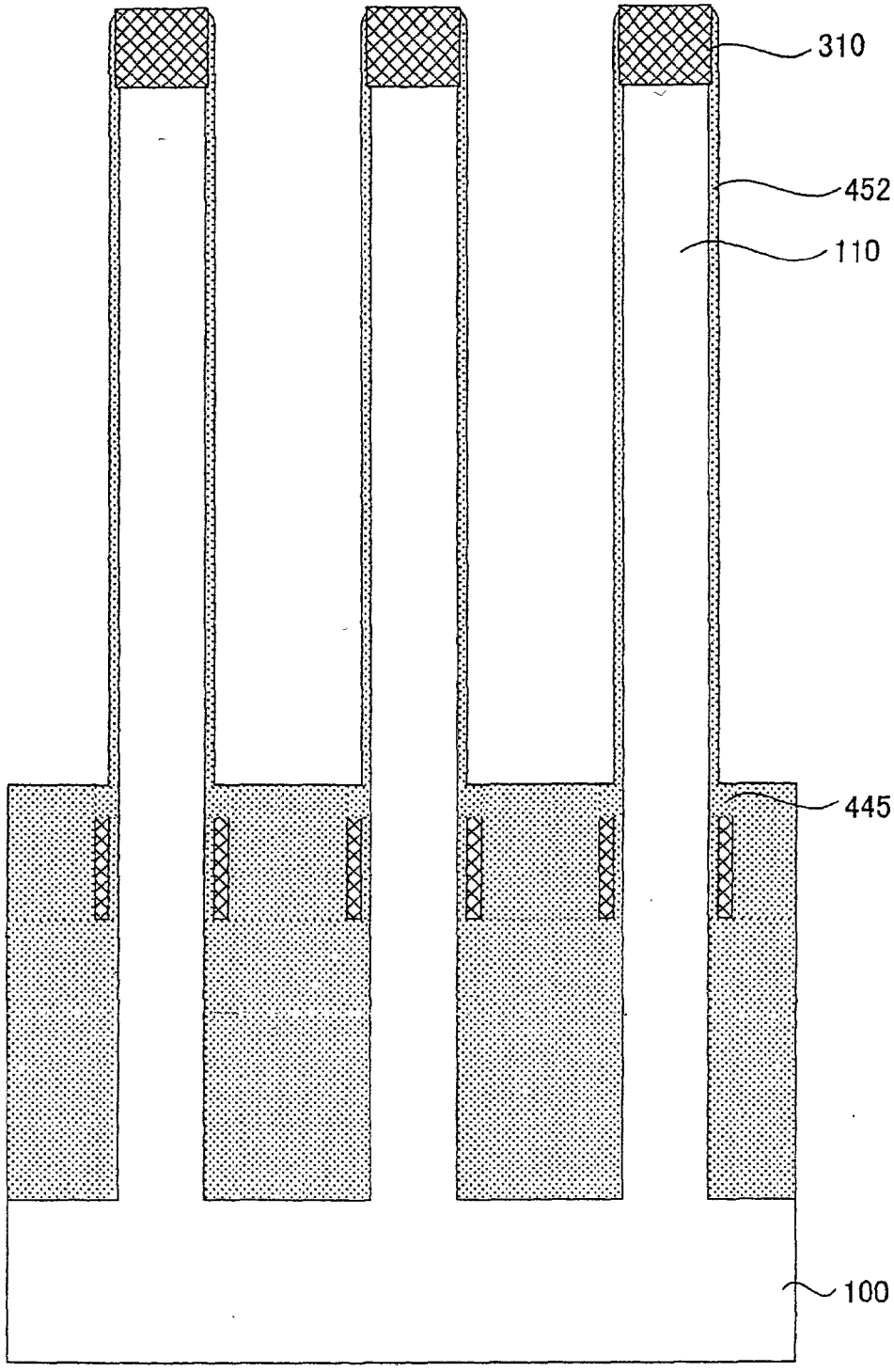


Fig. 227

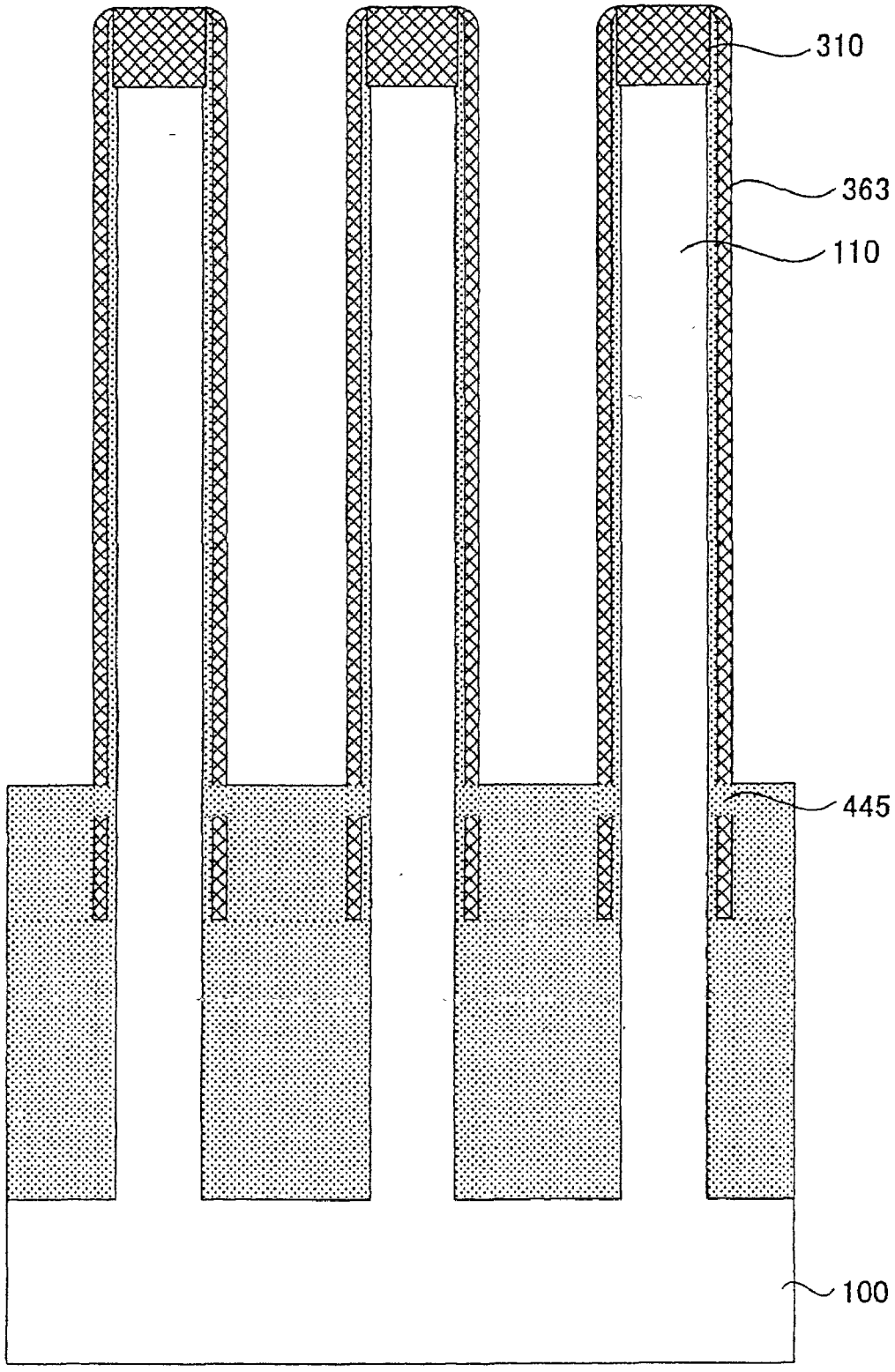


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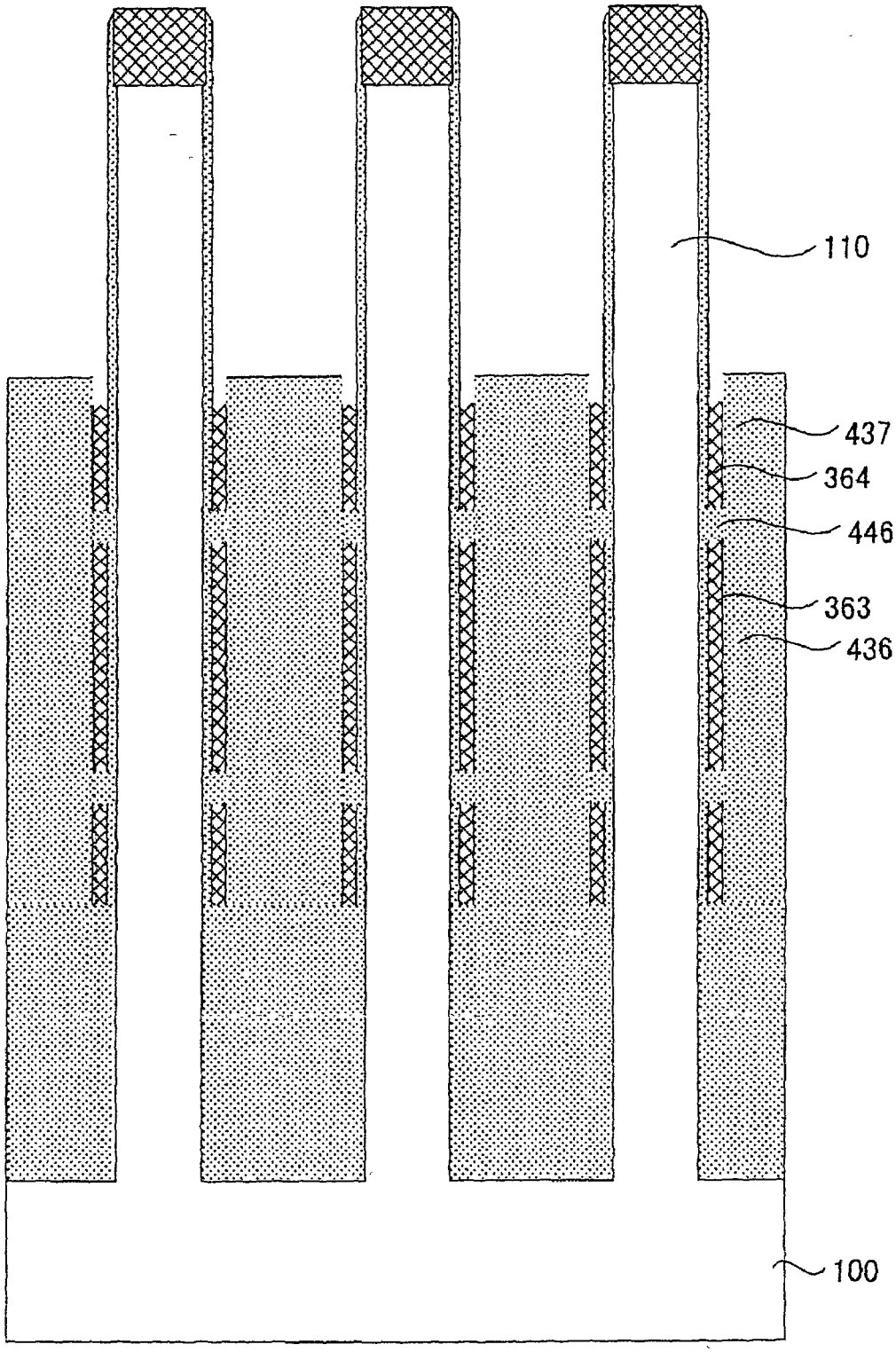


Fig. 229

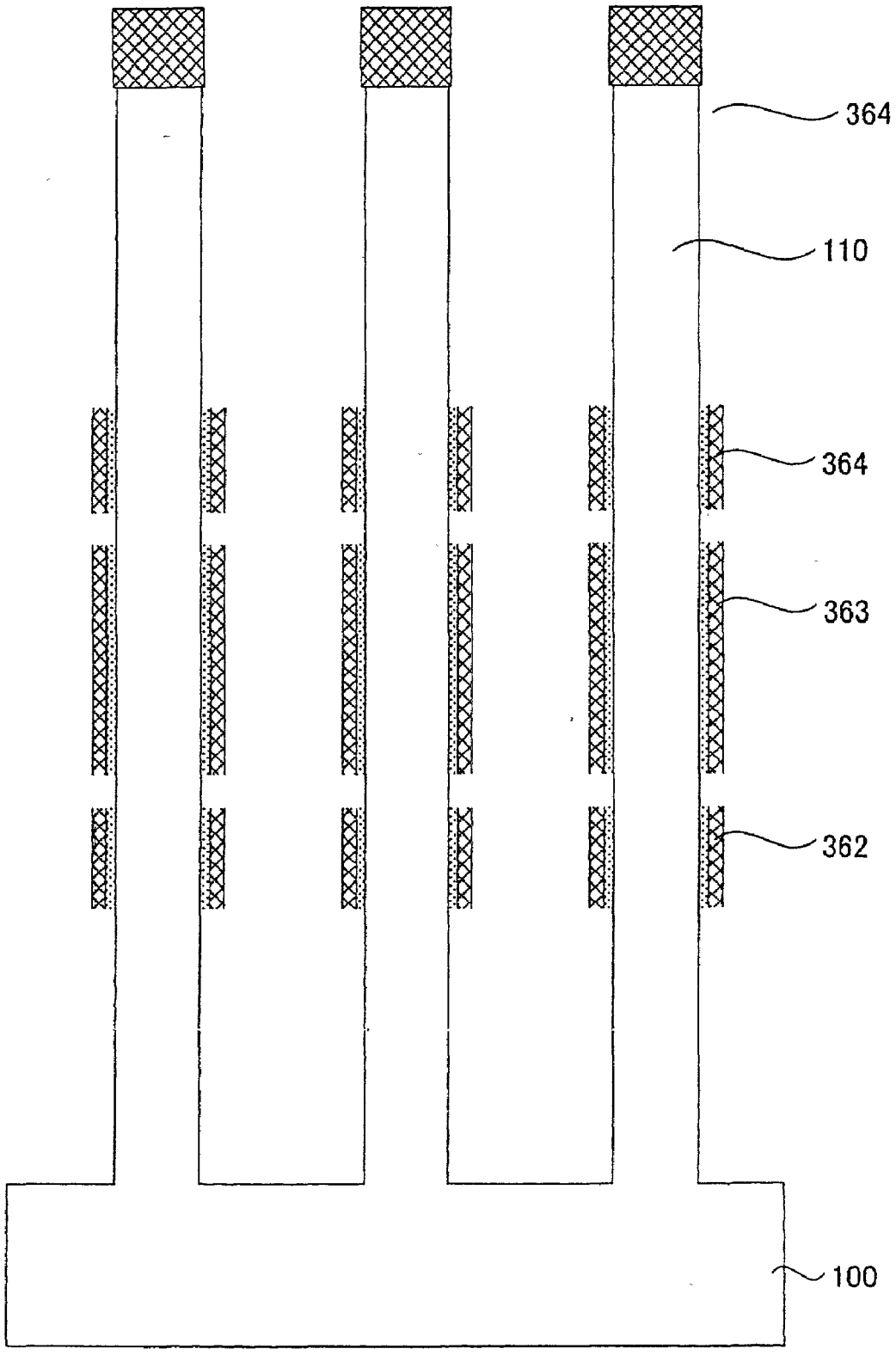


Fig. 230

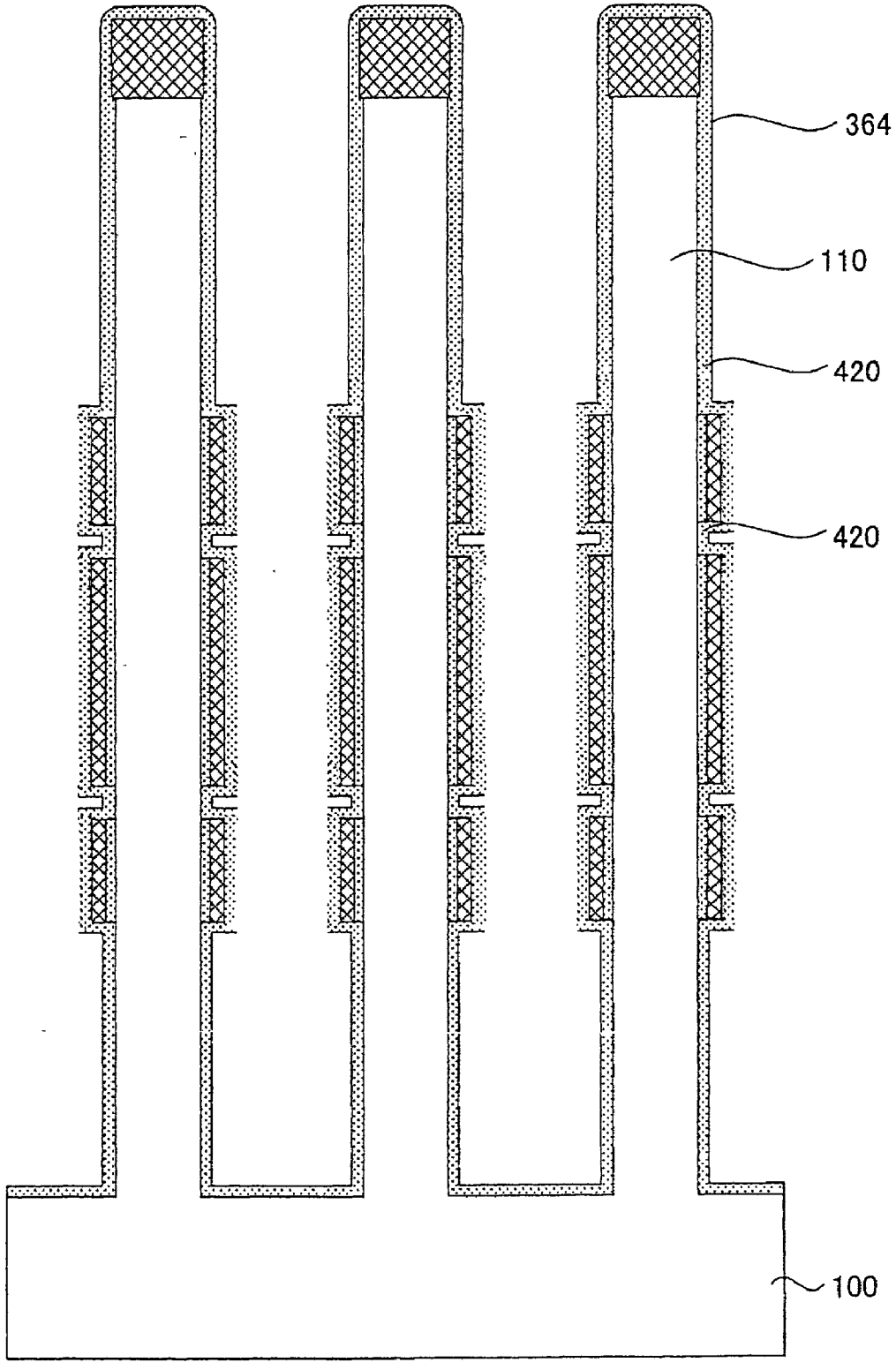


Fig. 231

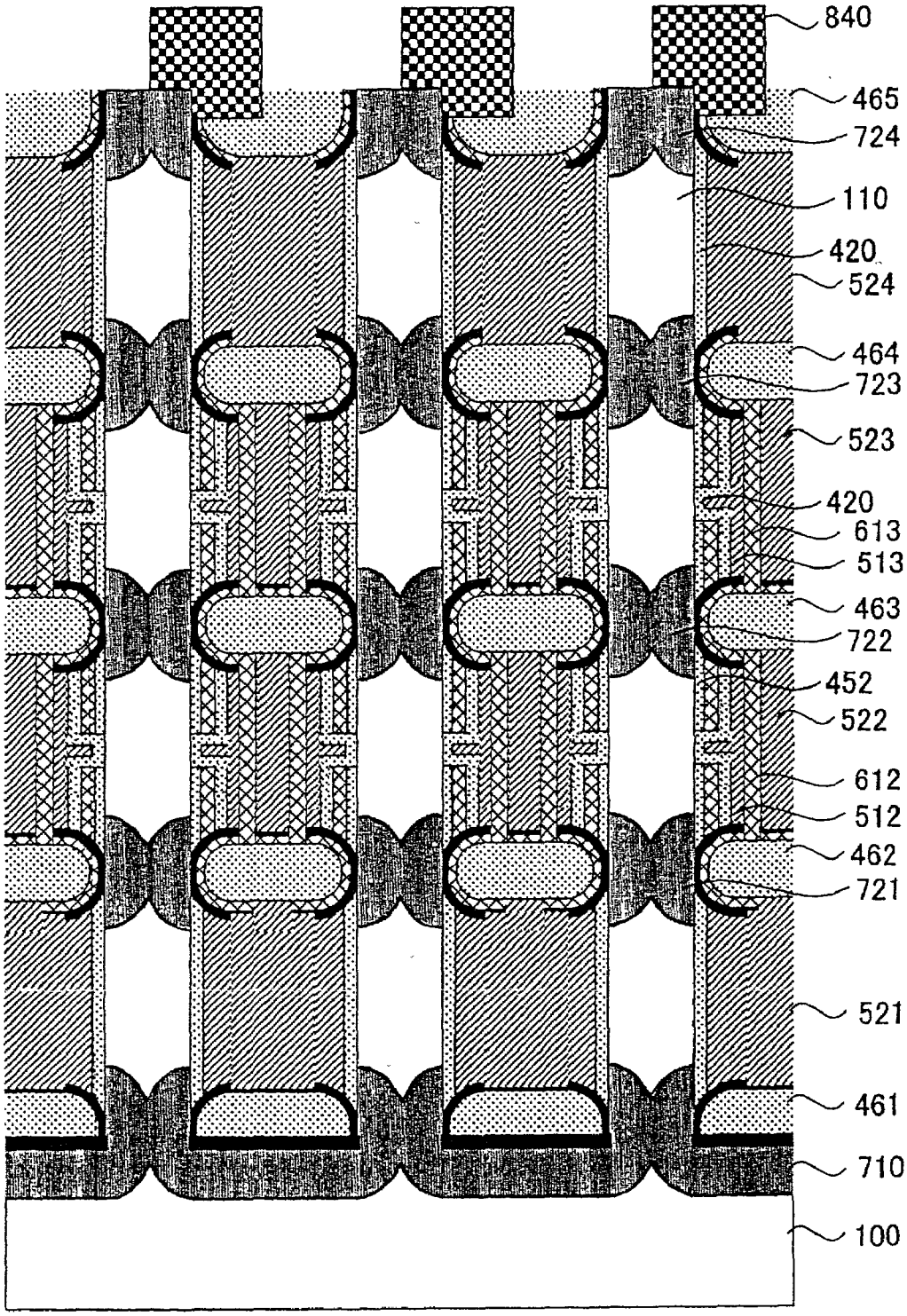

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Fig. 232

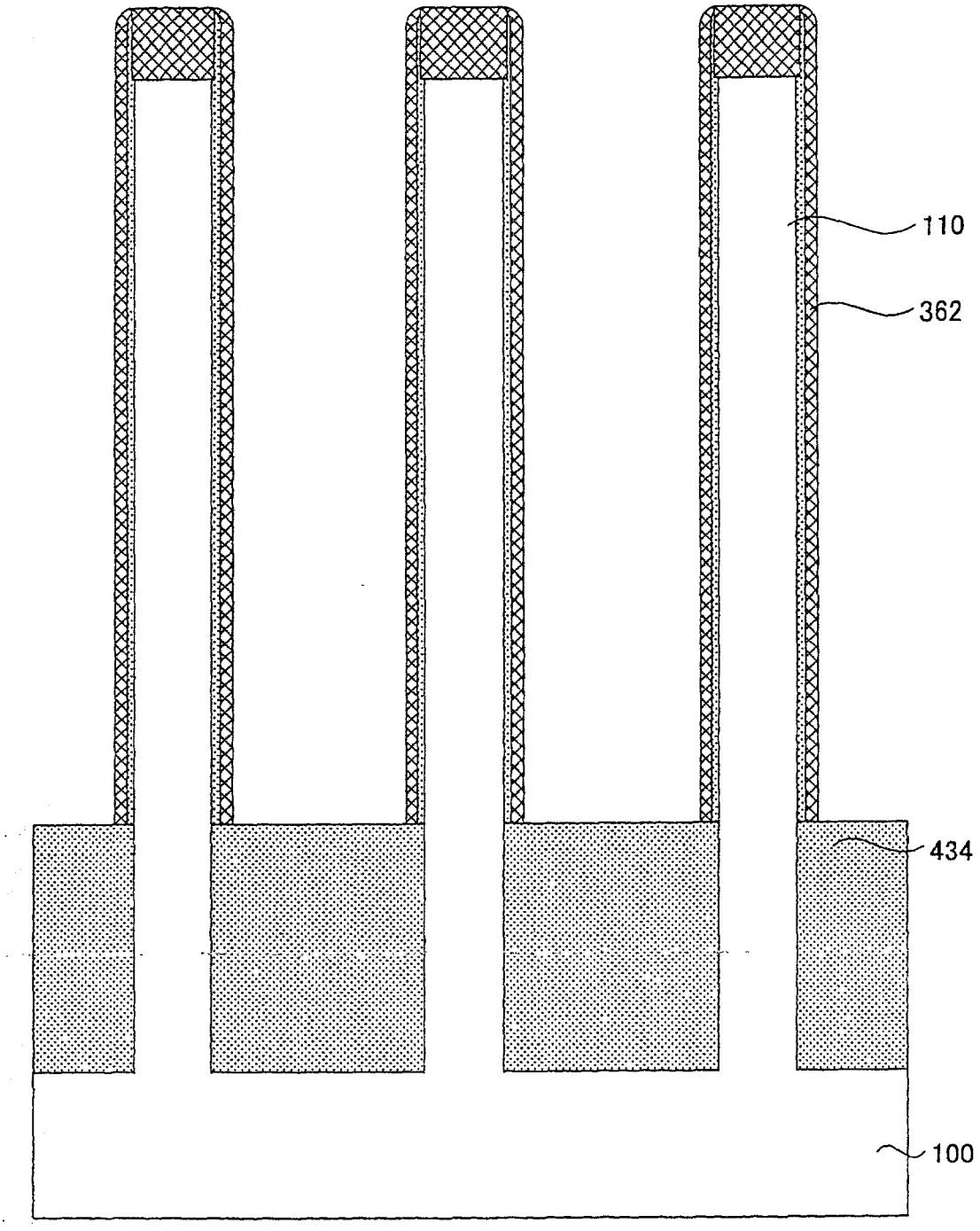


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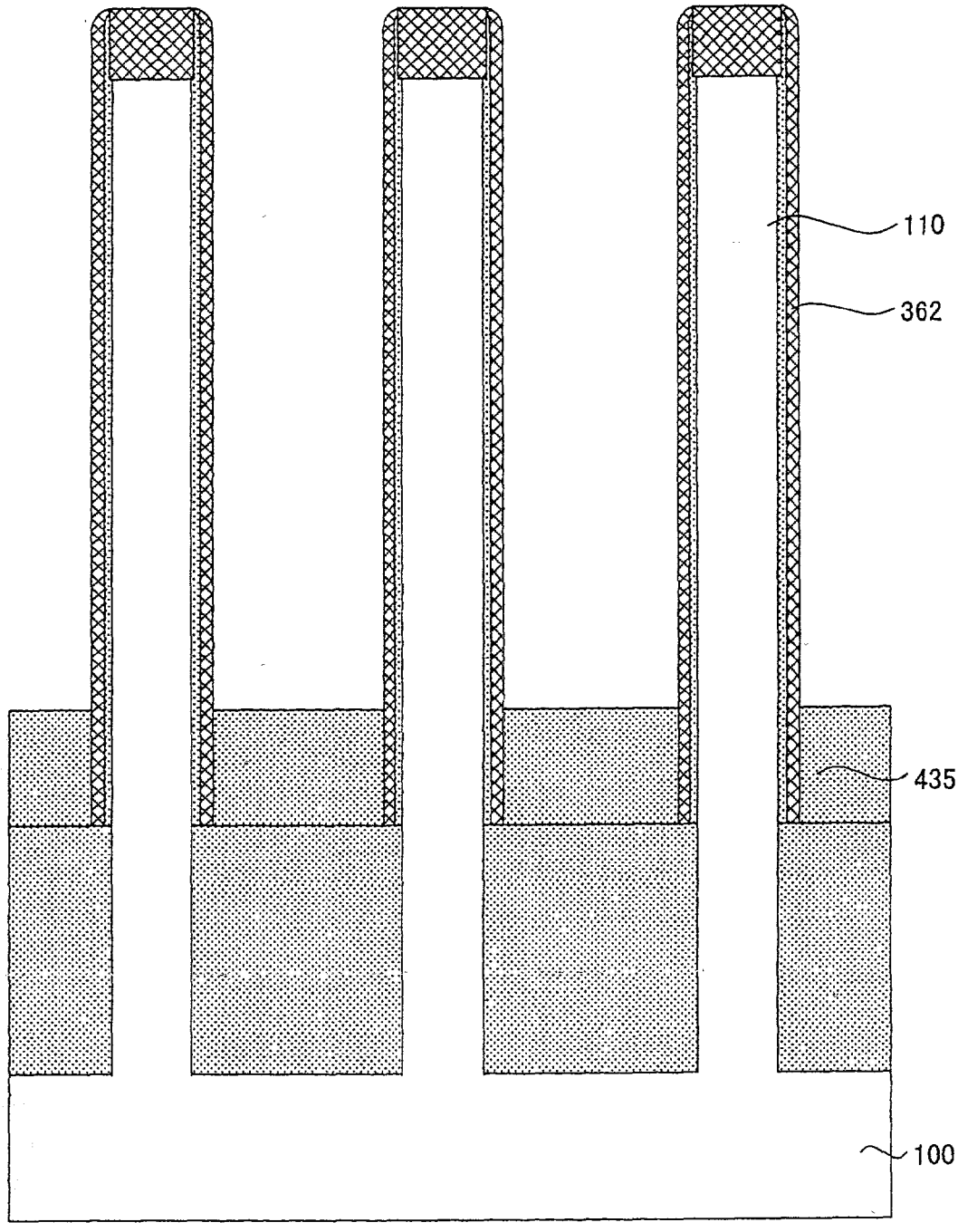


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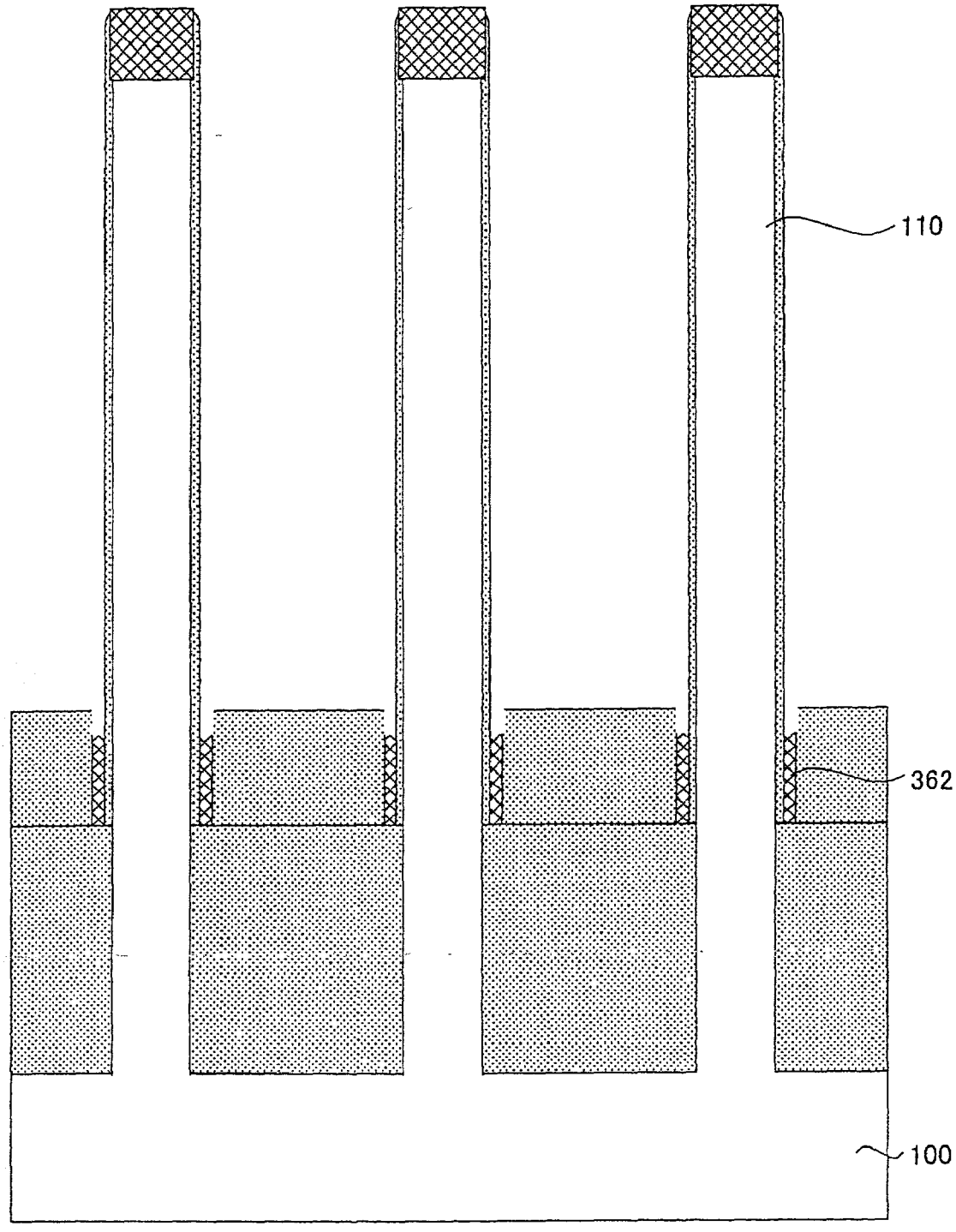


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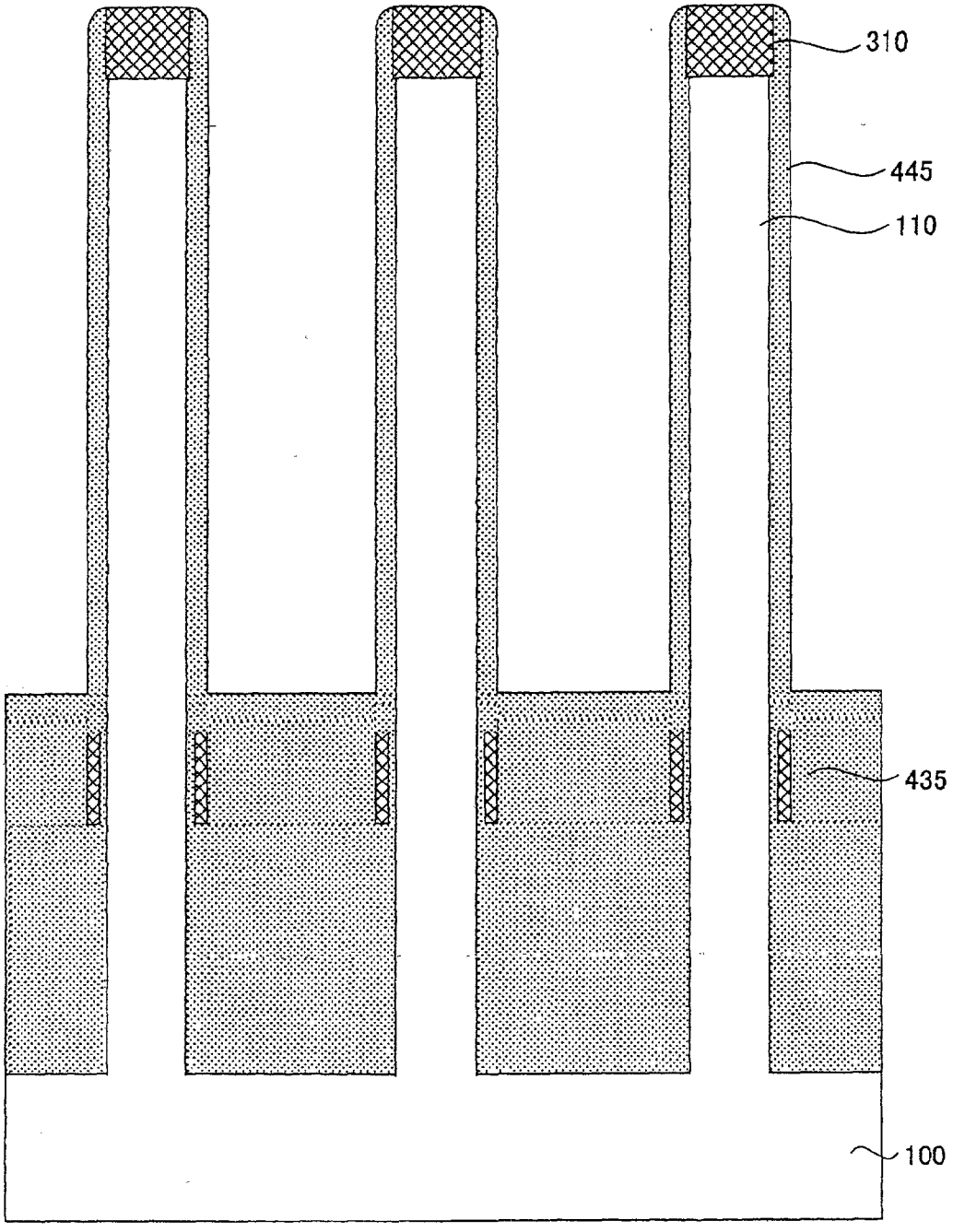


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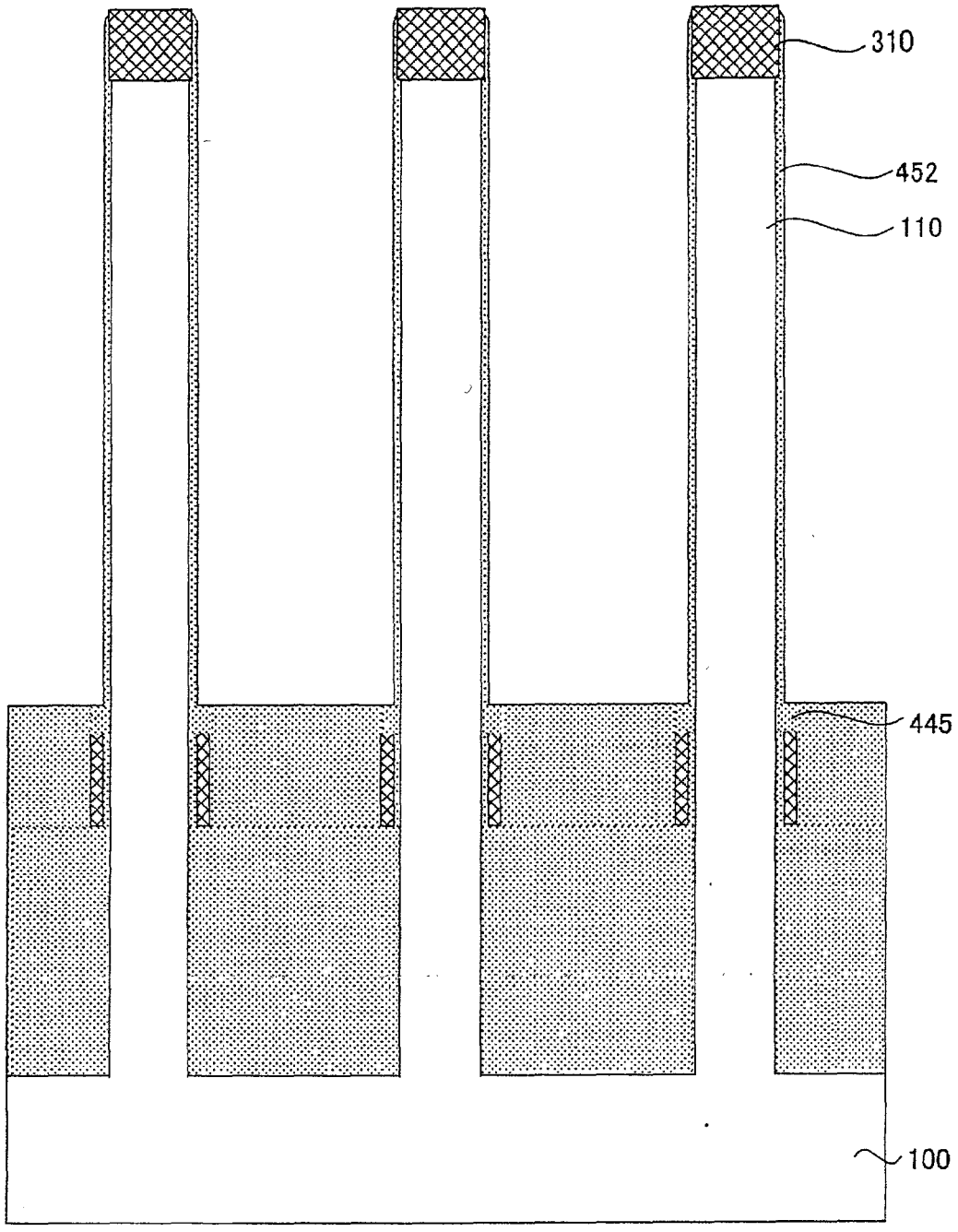


Fig. 237

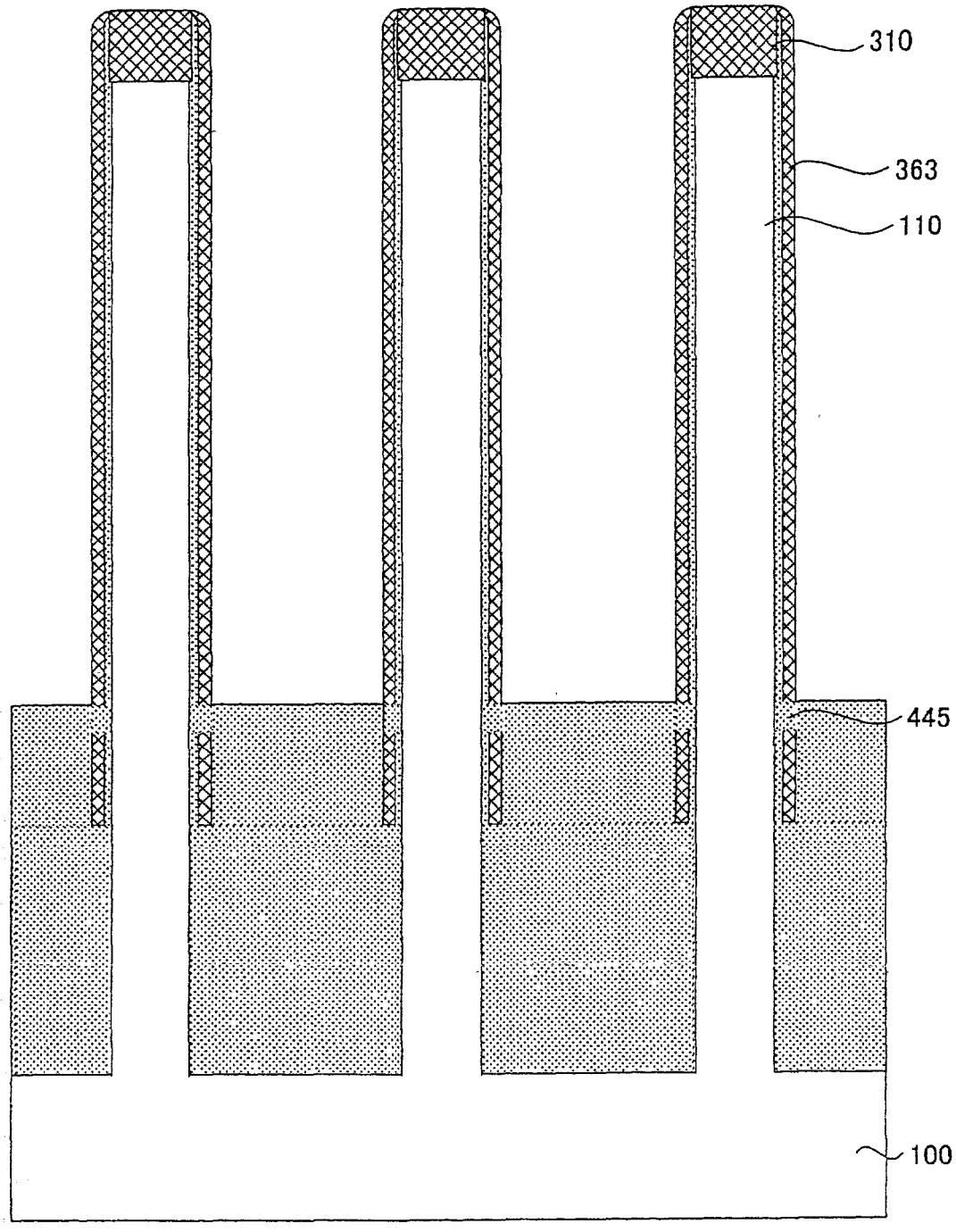


Fig. 238

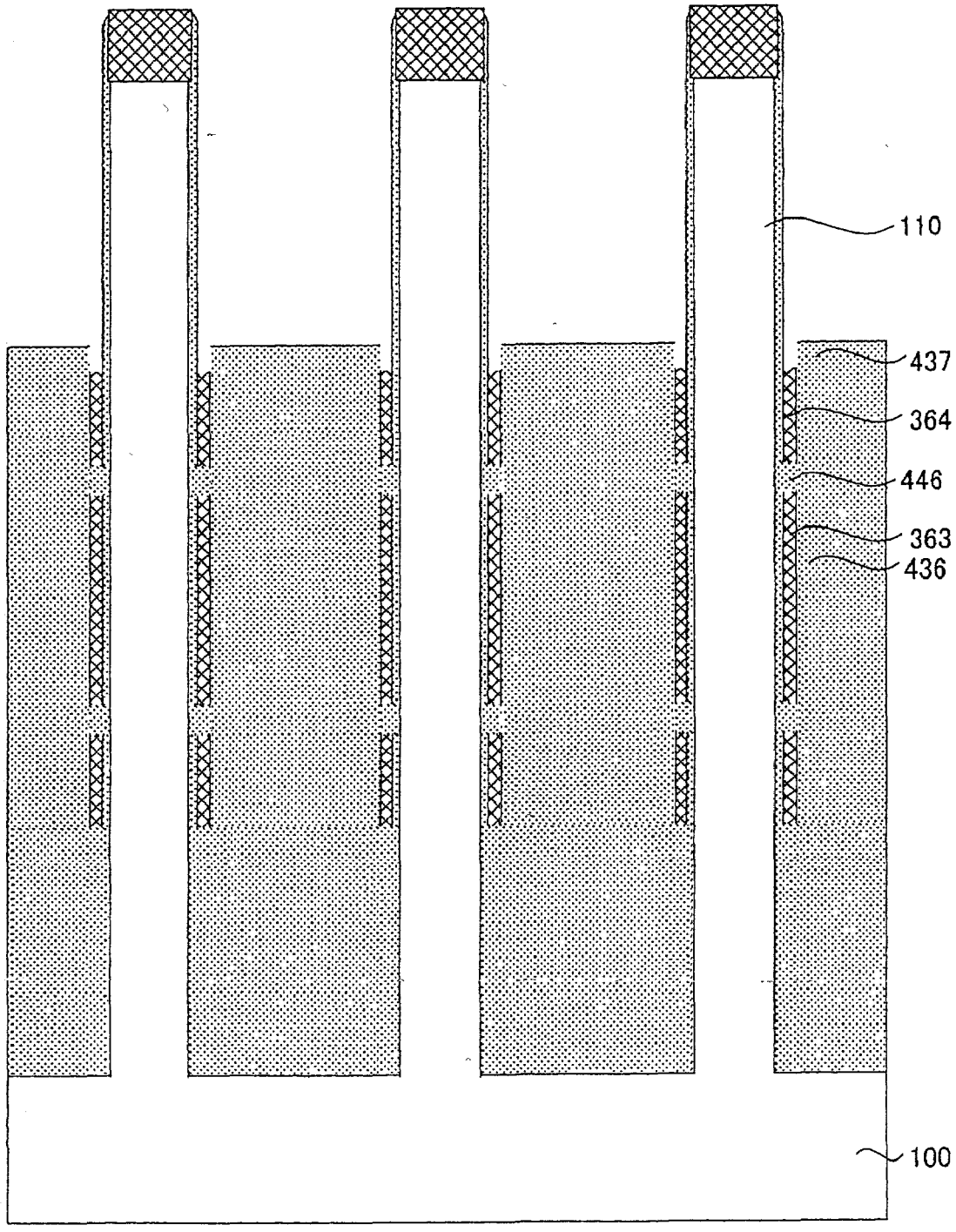


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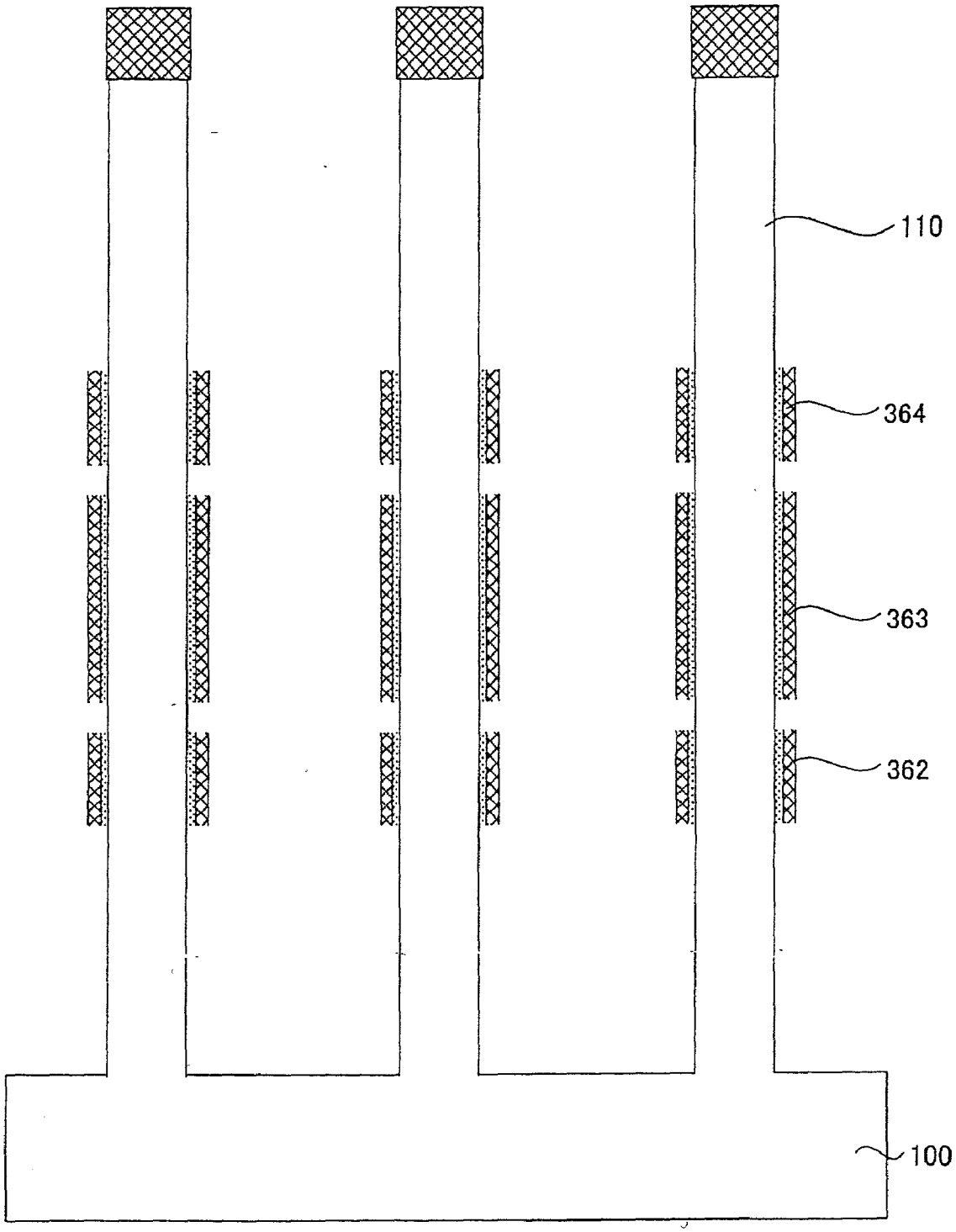


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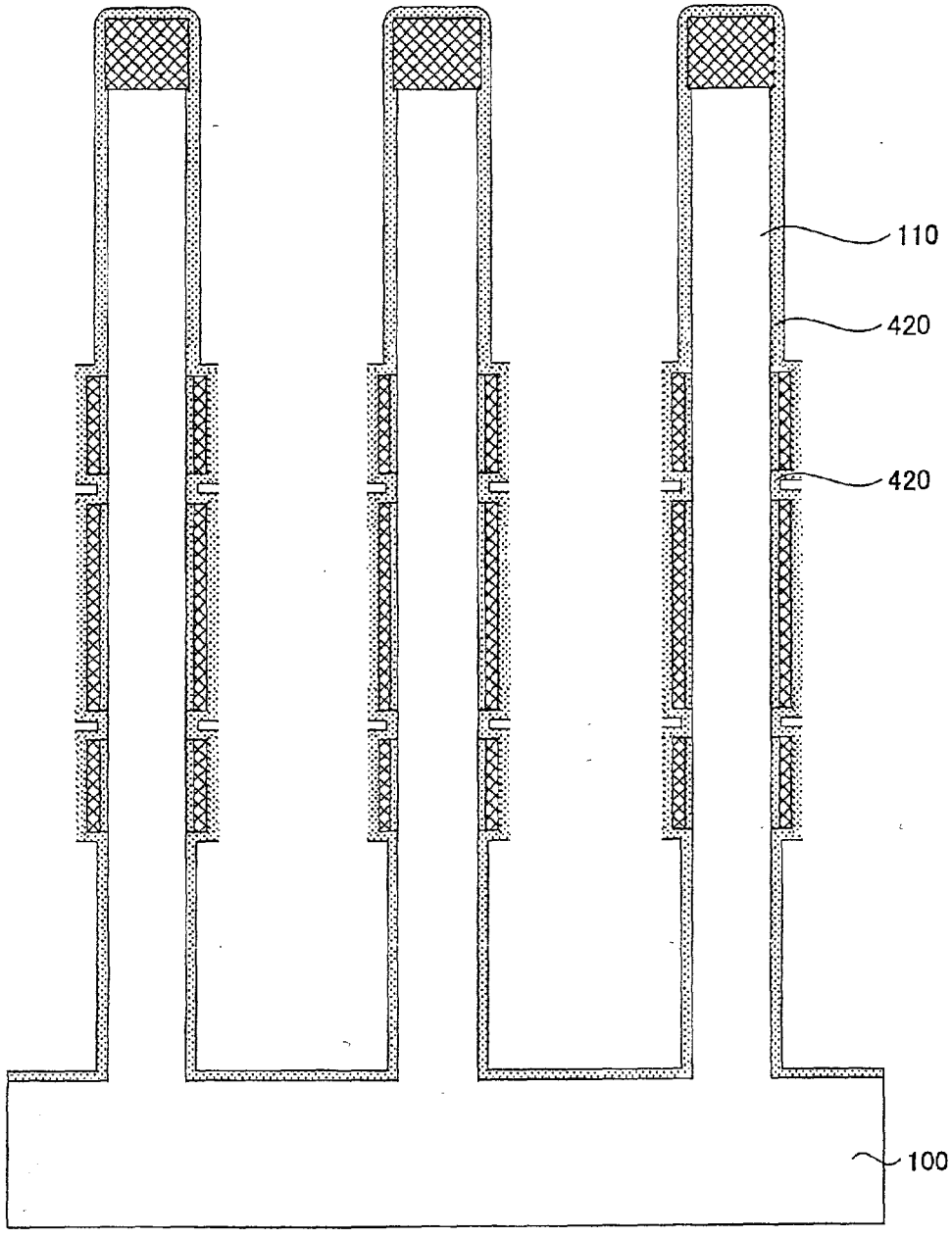


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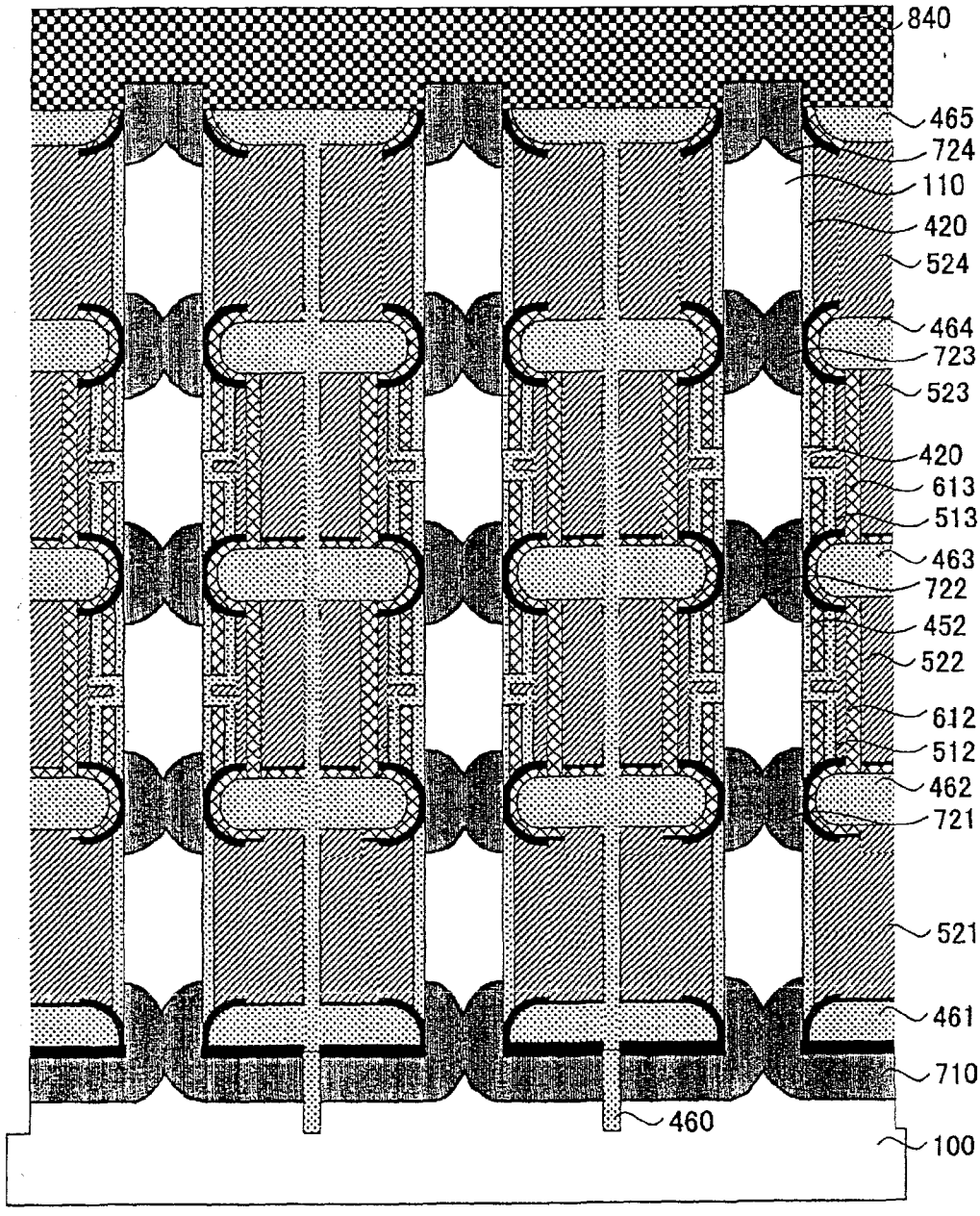

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Fig. 242

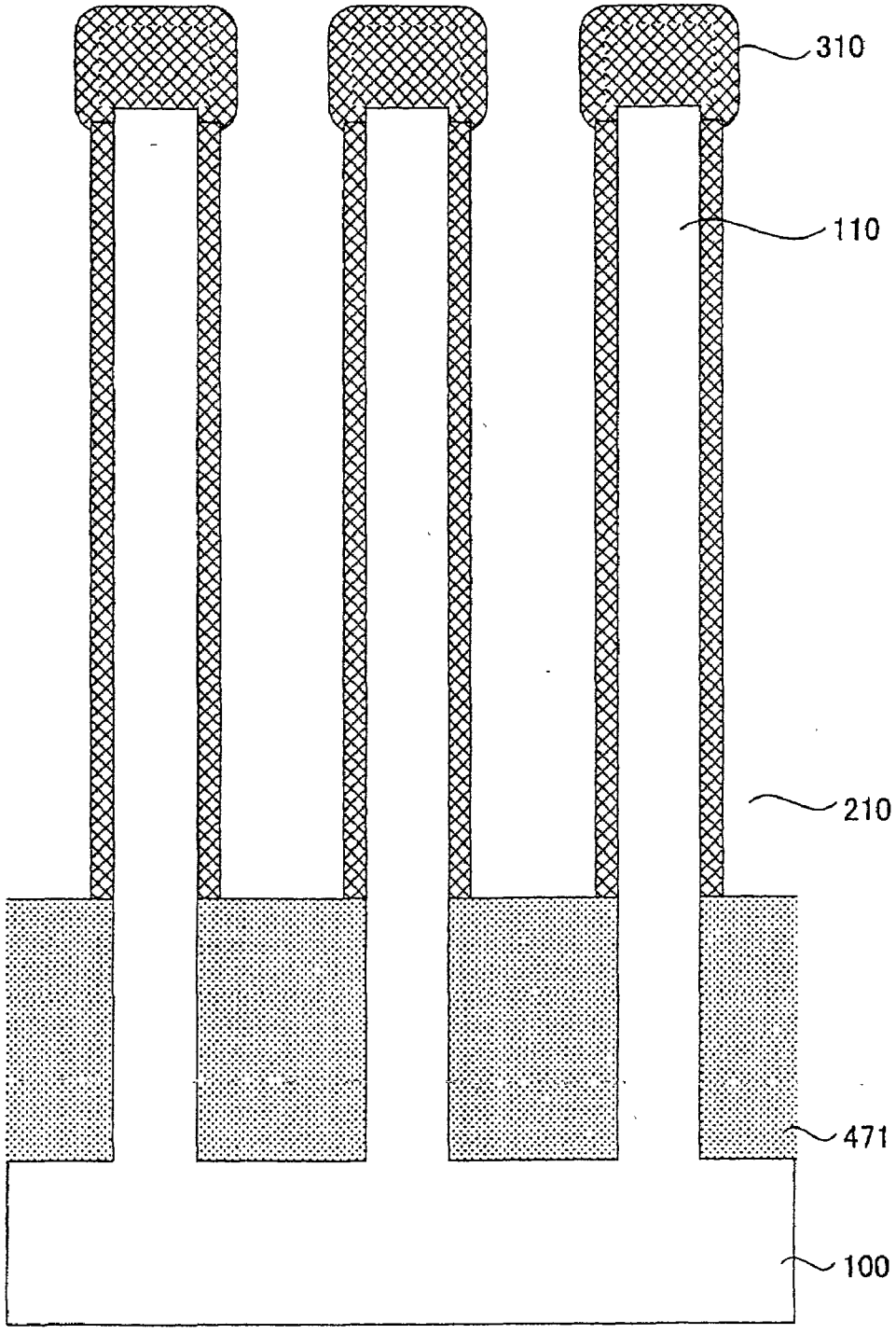


Fig. 243

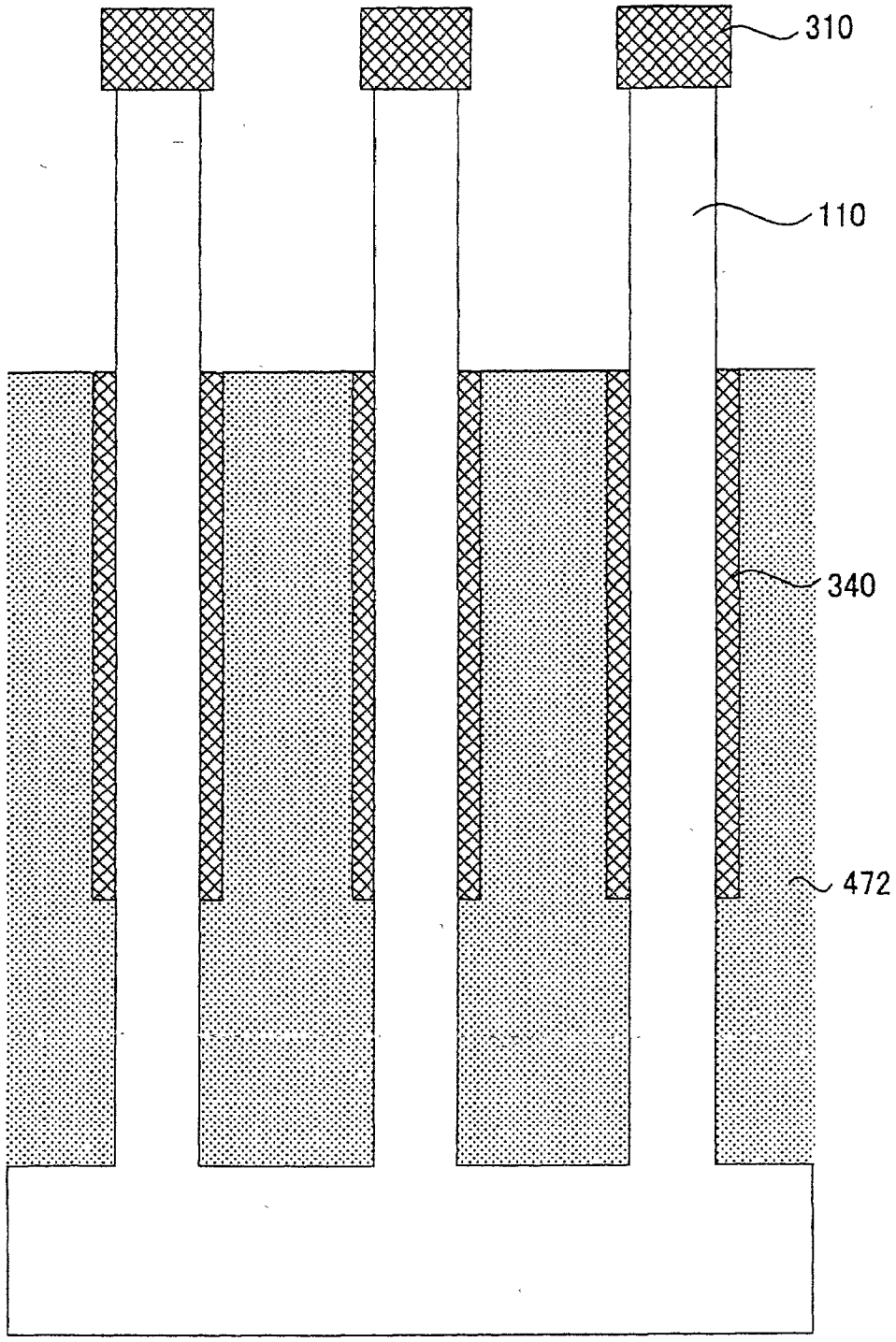


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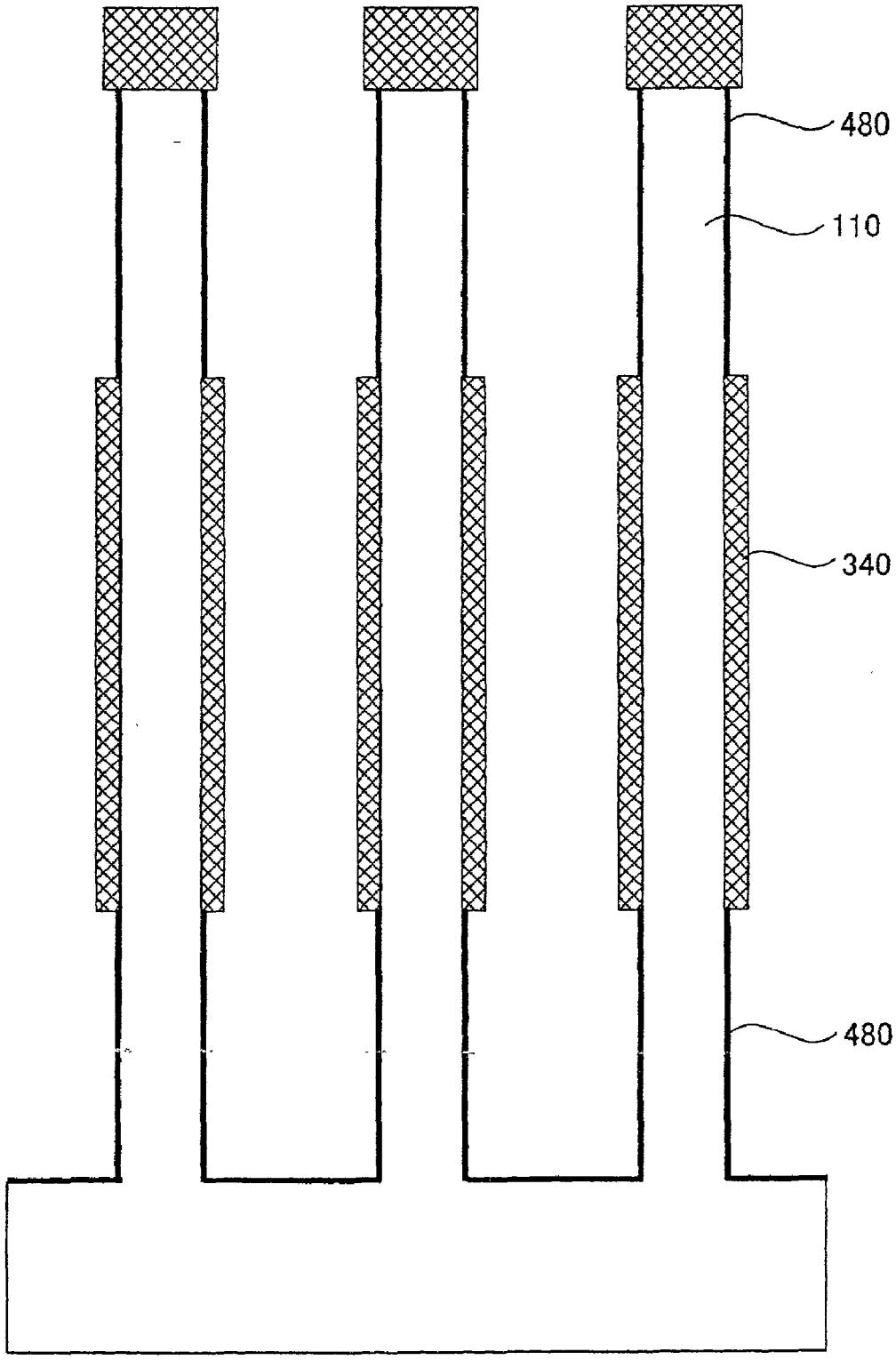


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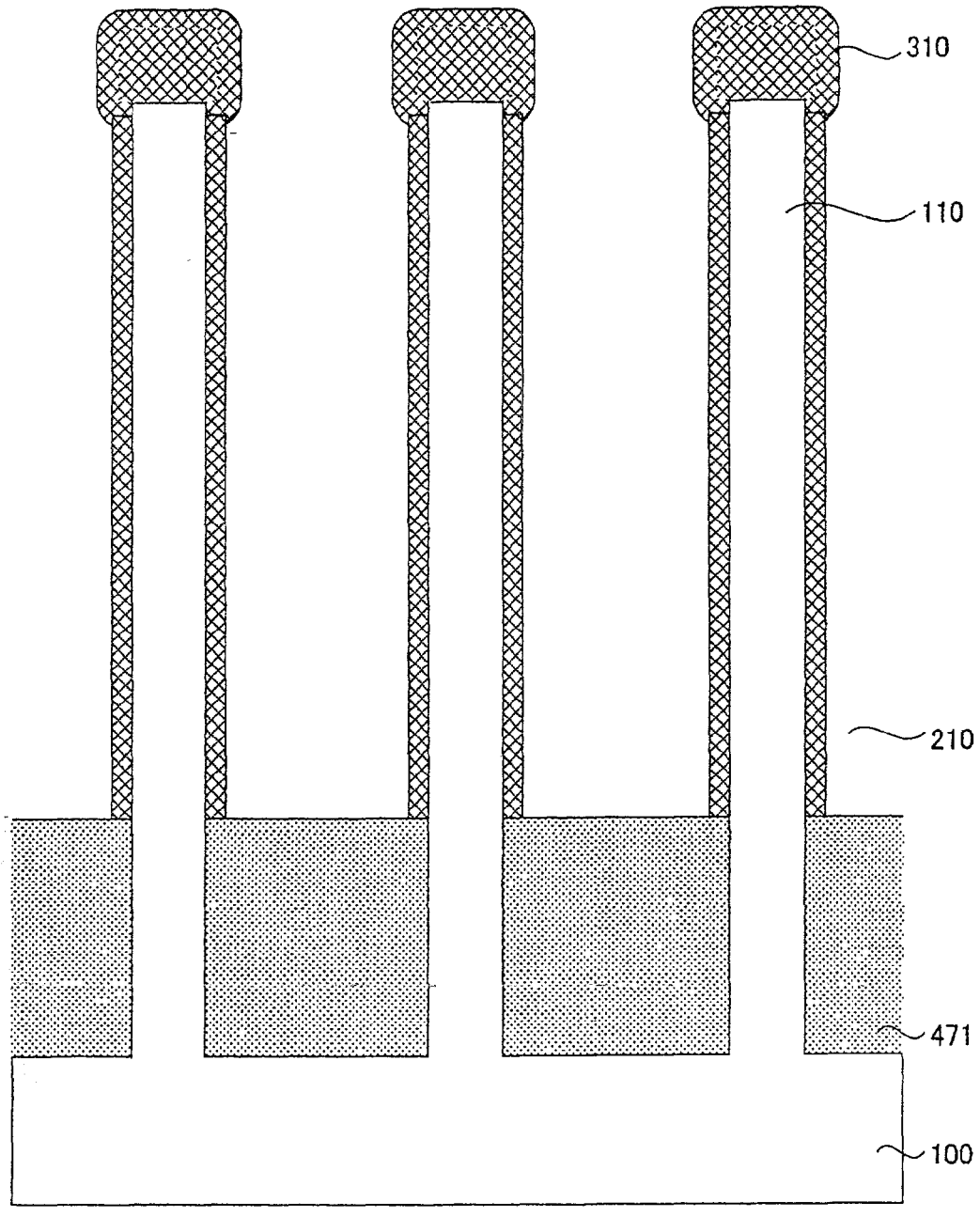


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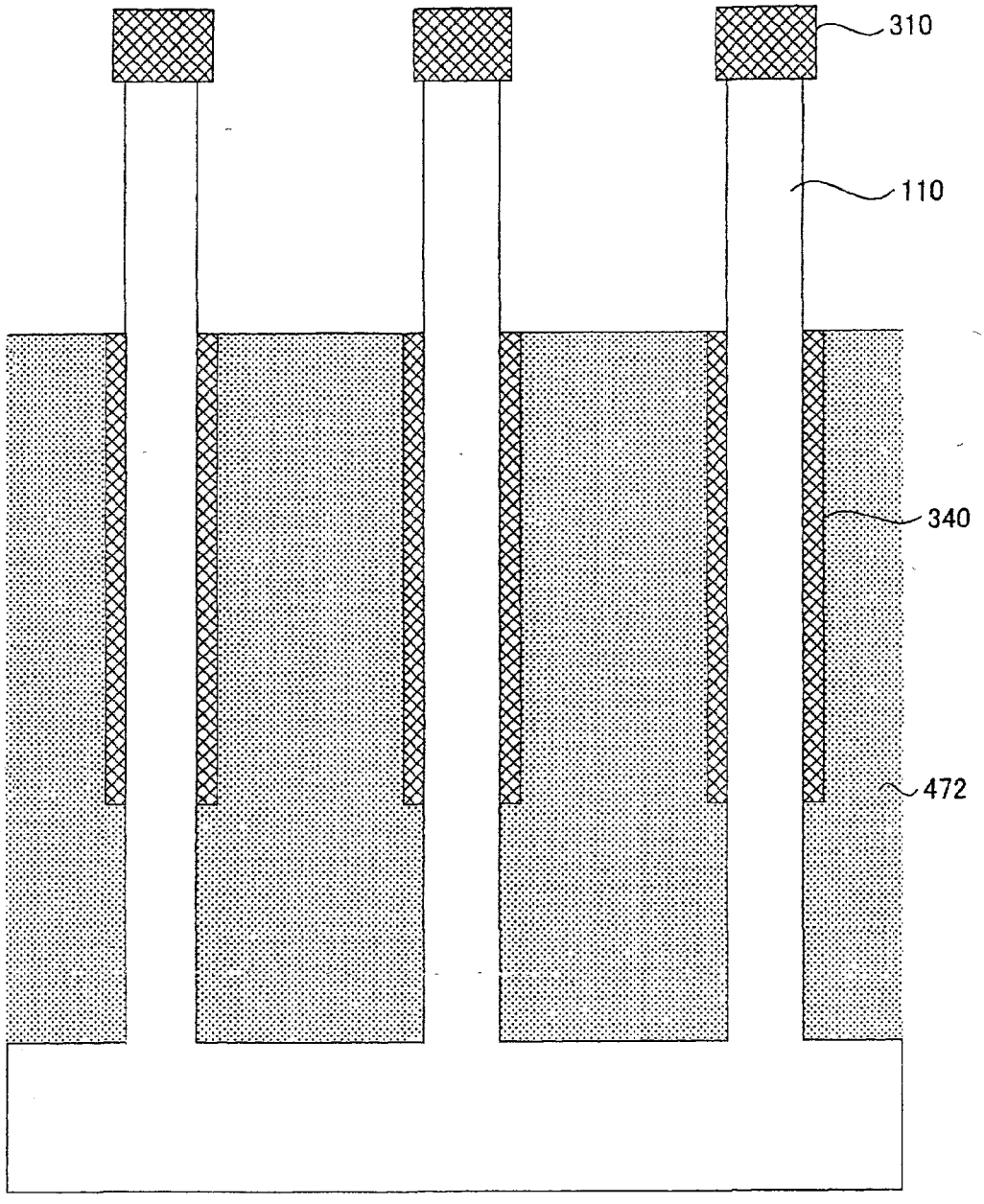


Fig. 247

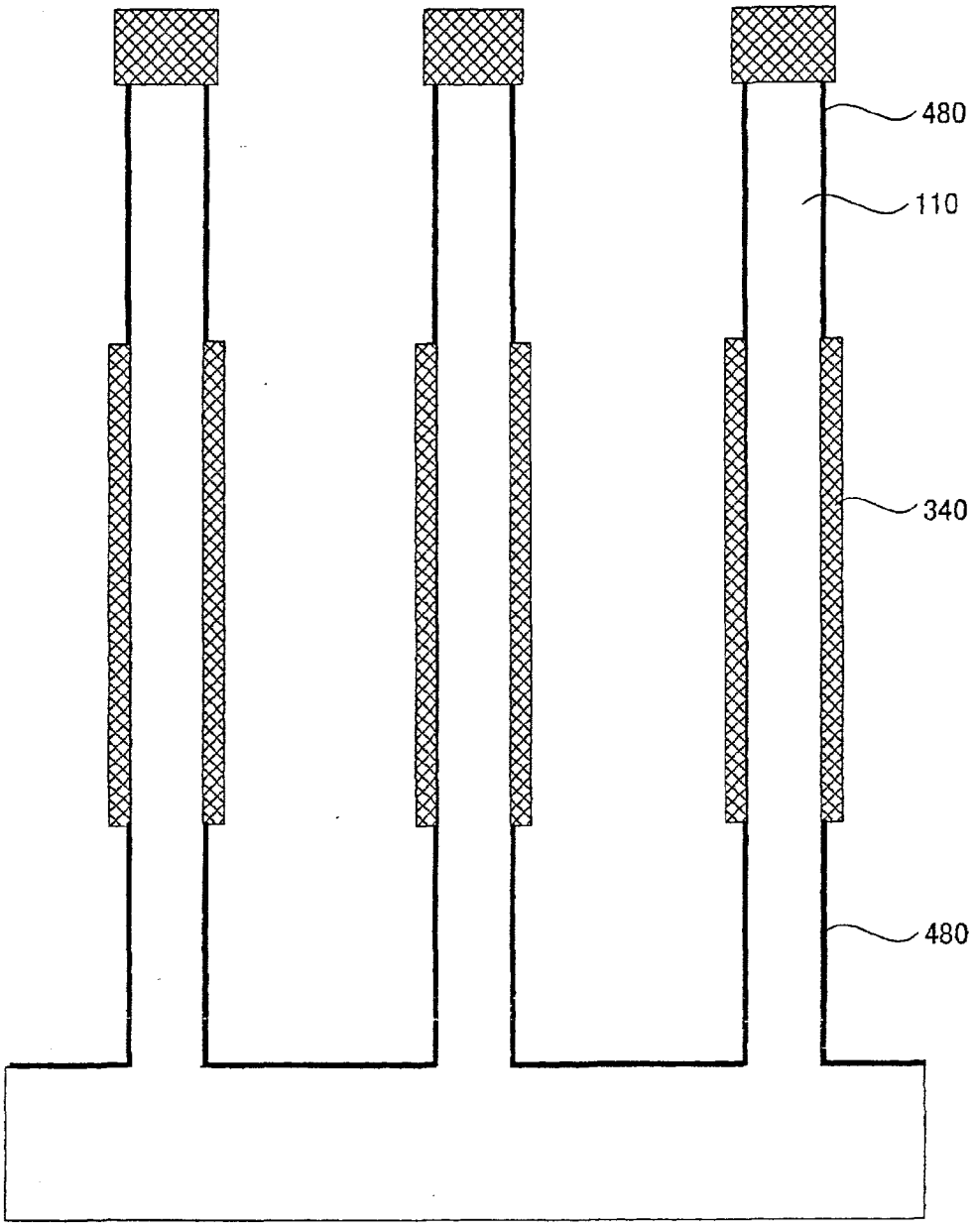


Fig. 248

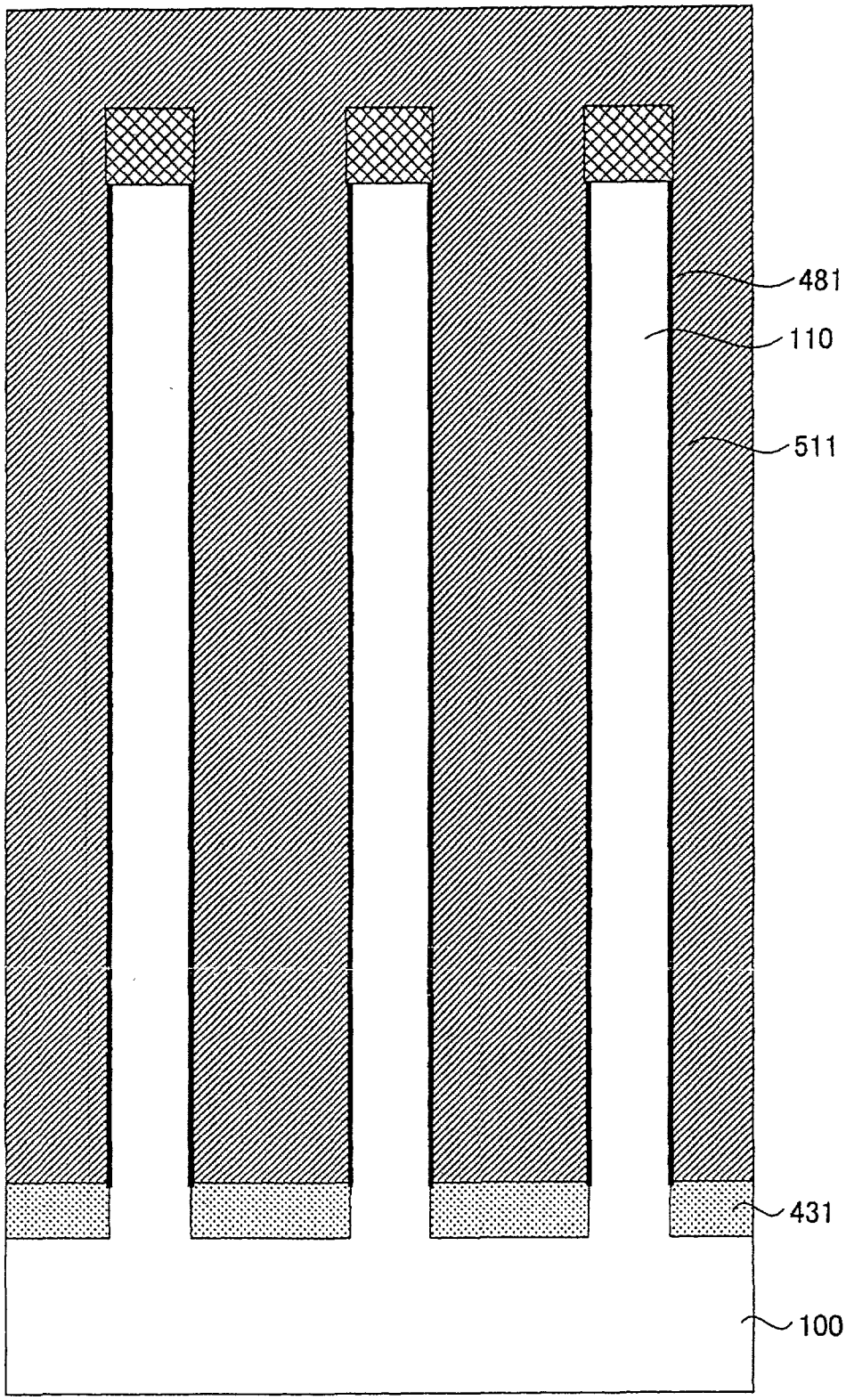


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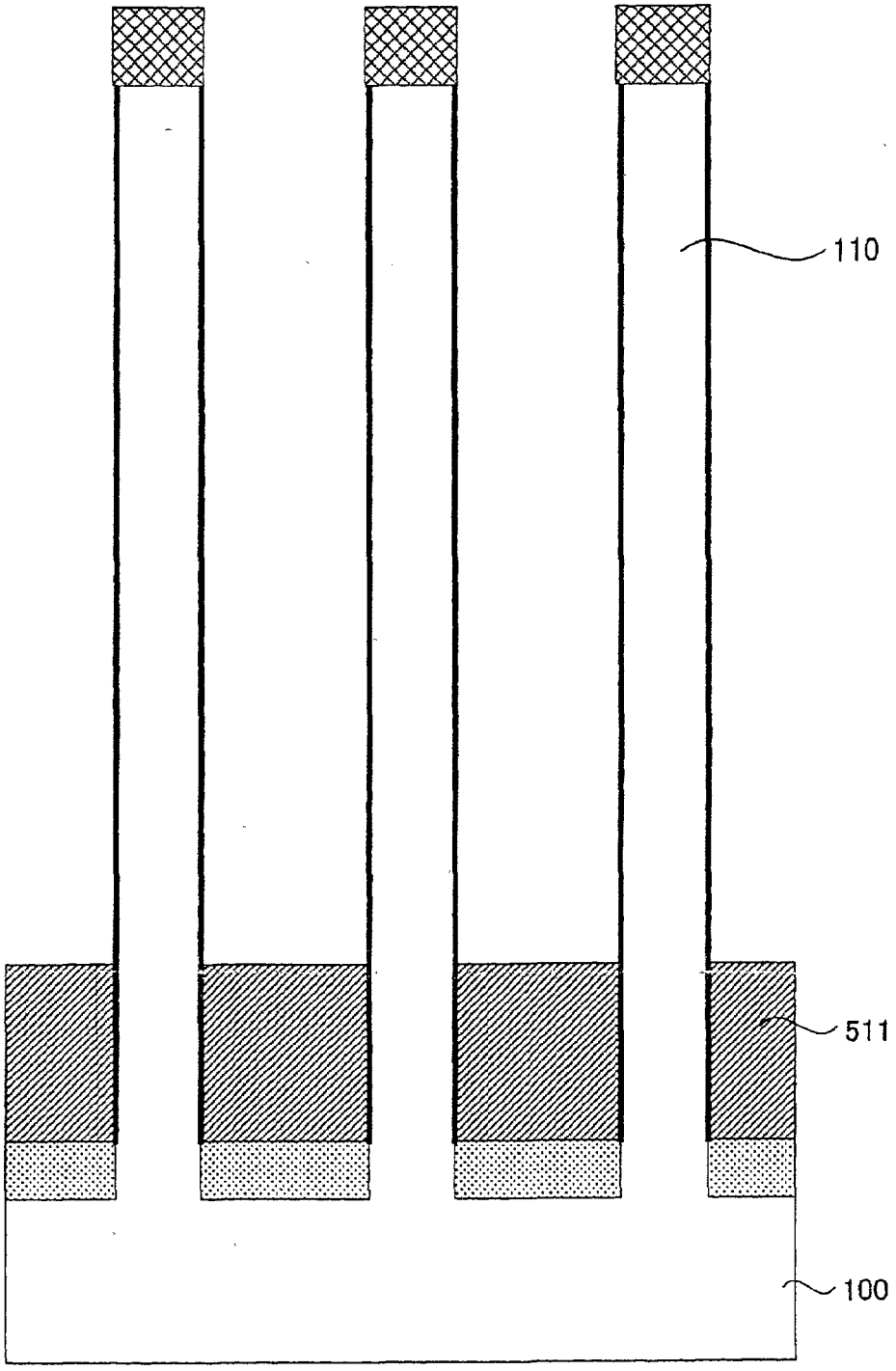


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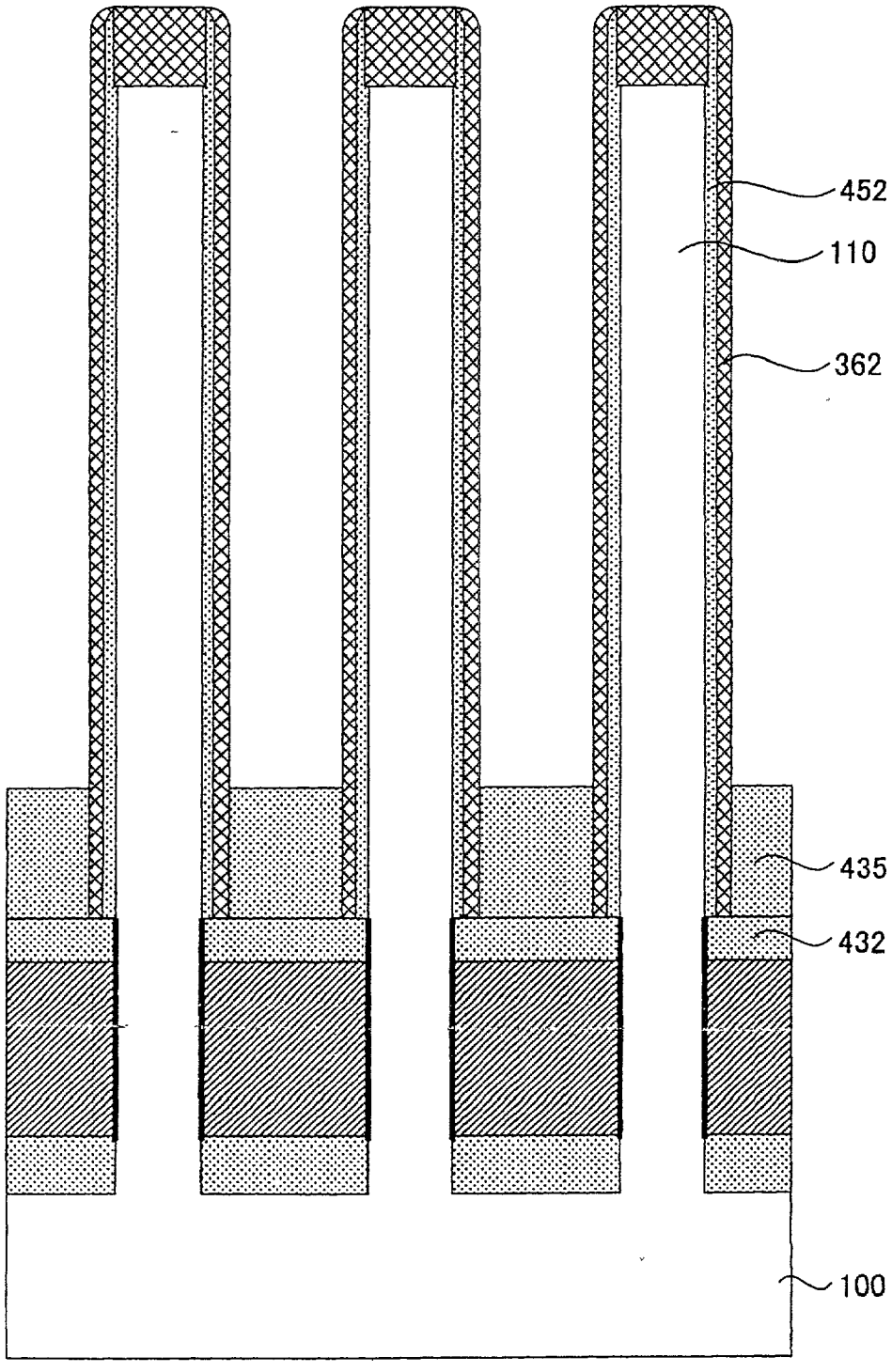


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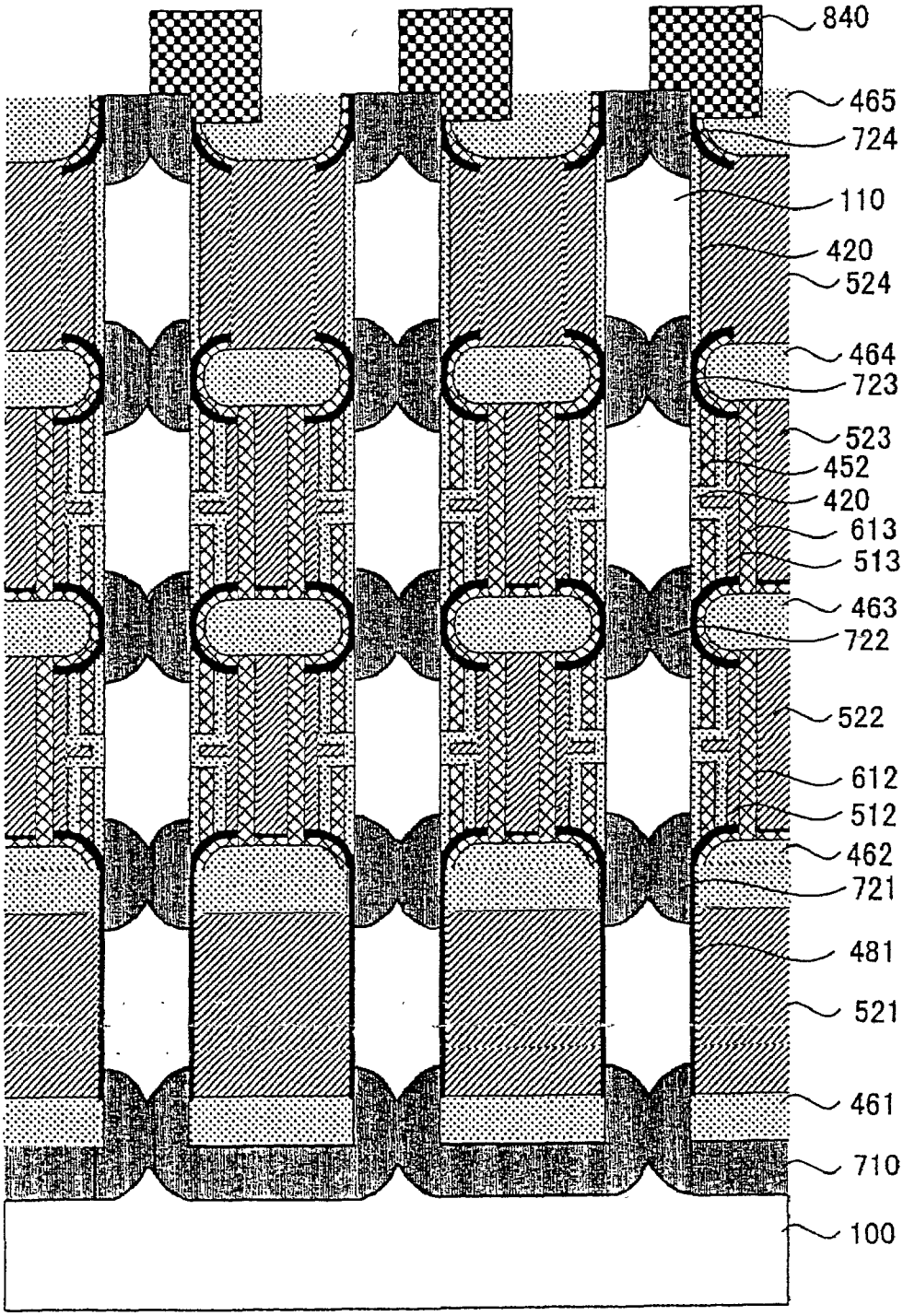

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Fig. 252

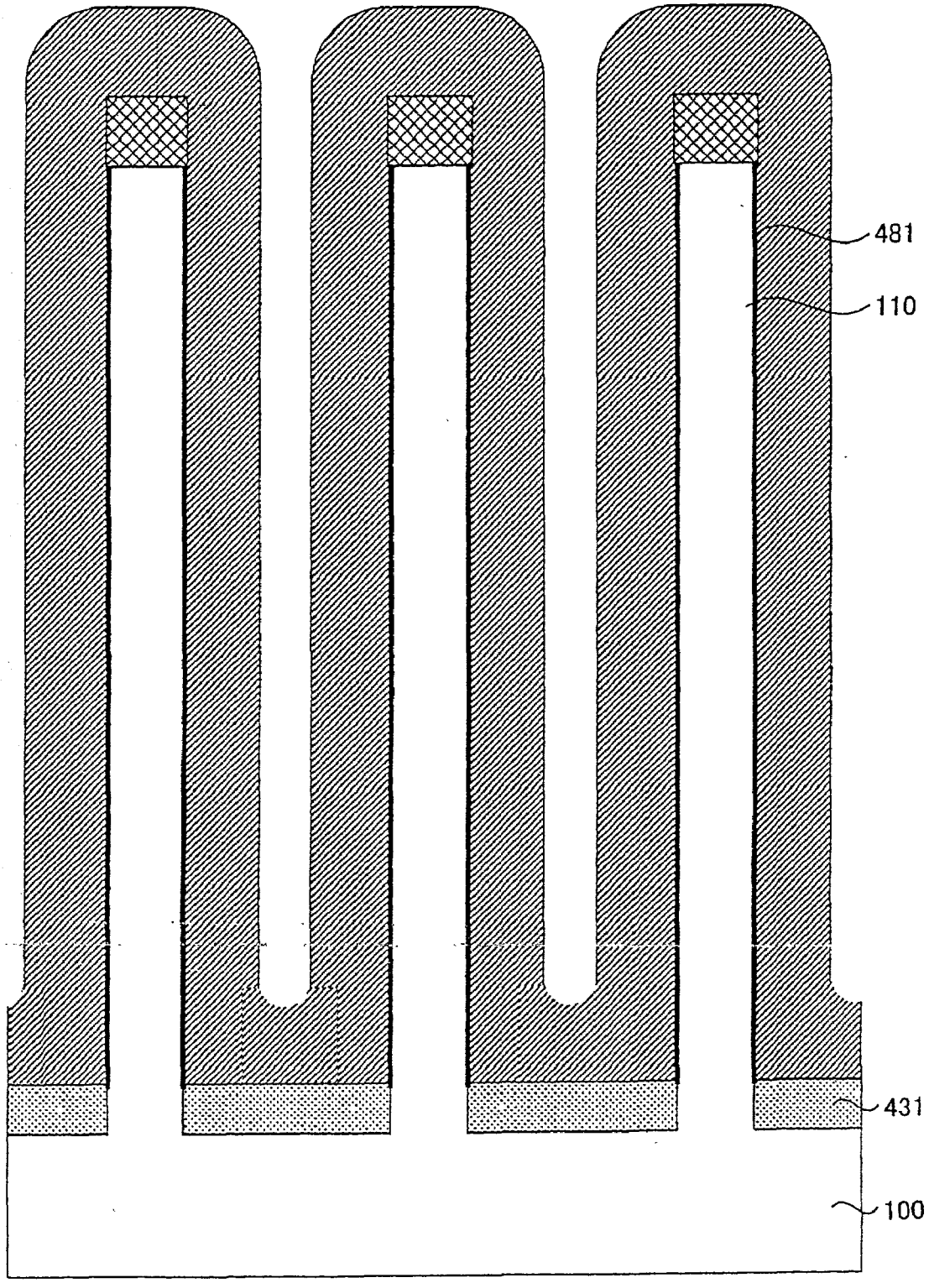


Fig. 253

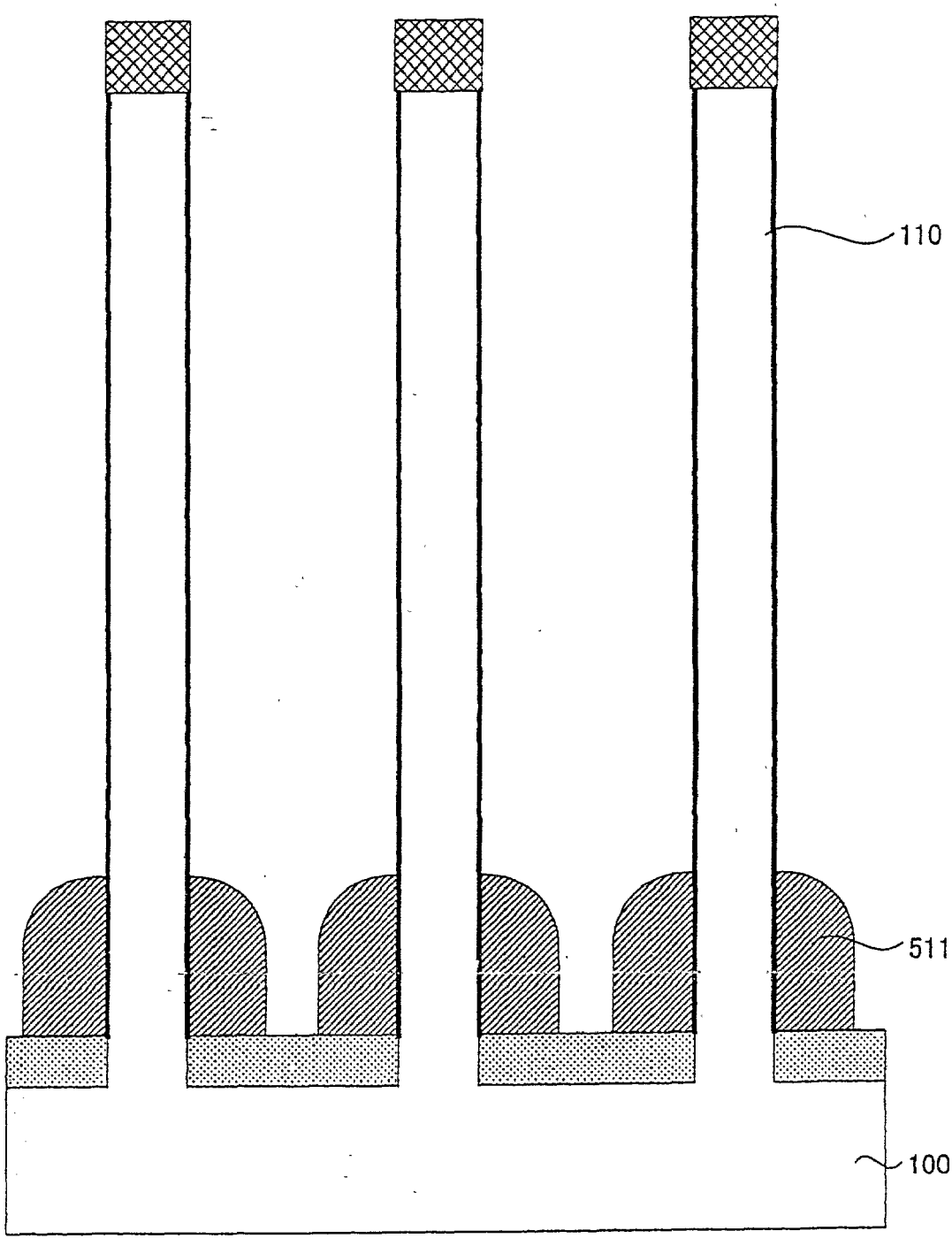


Fig. 254

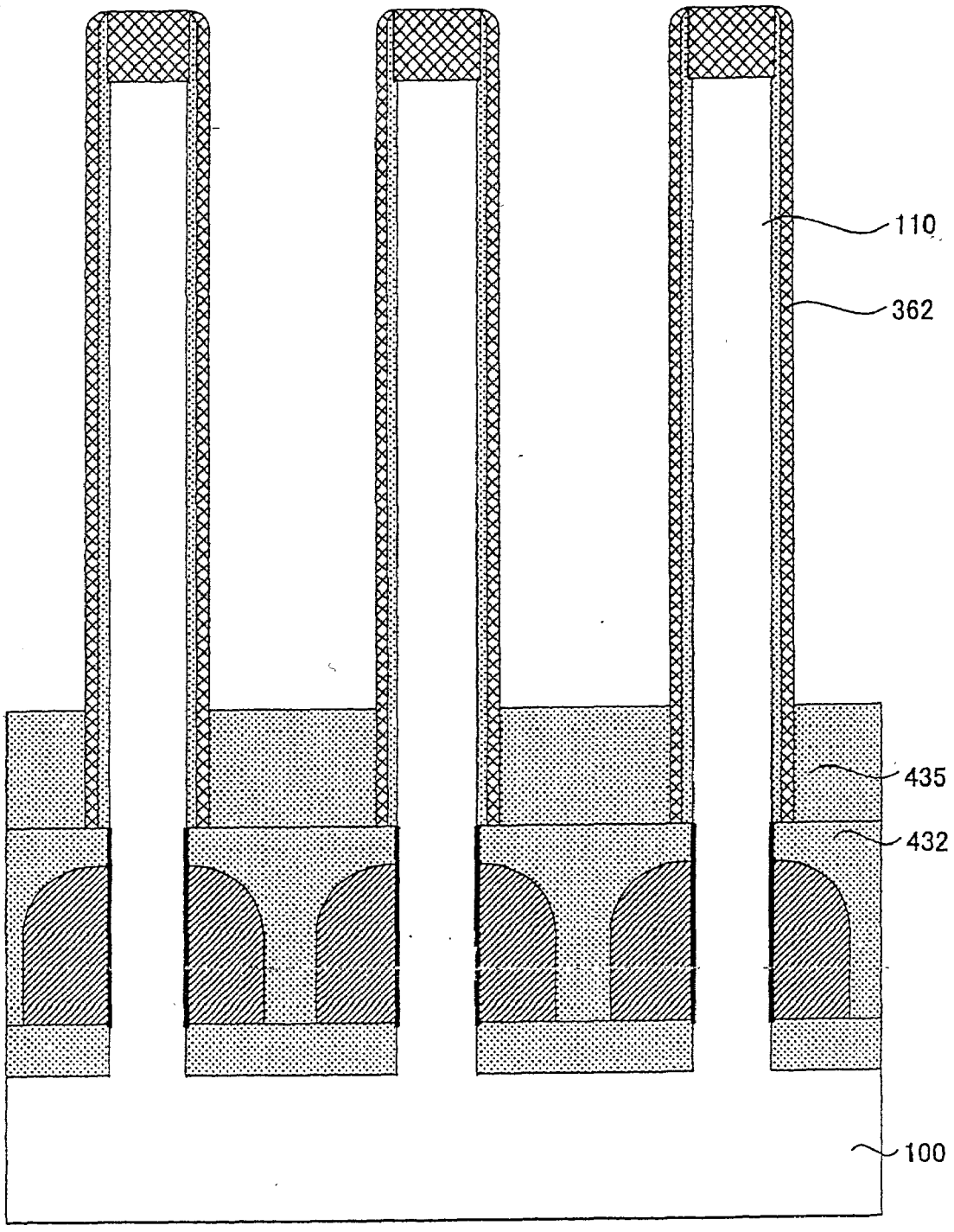


Fig. 255

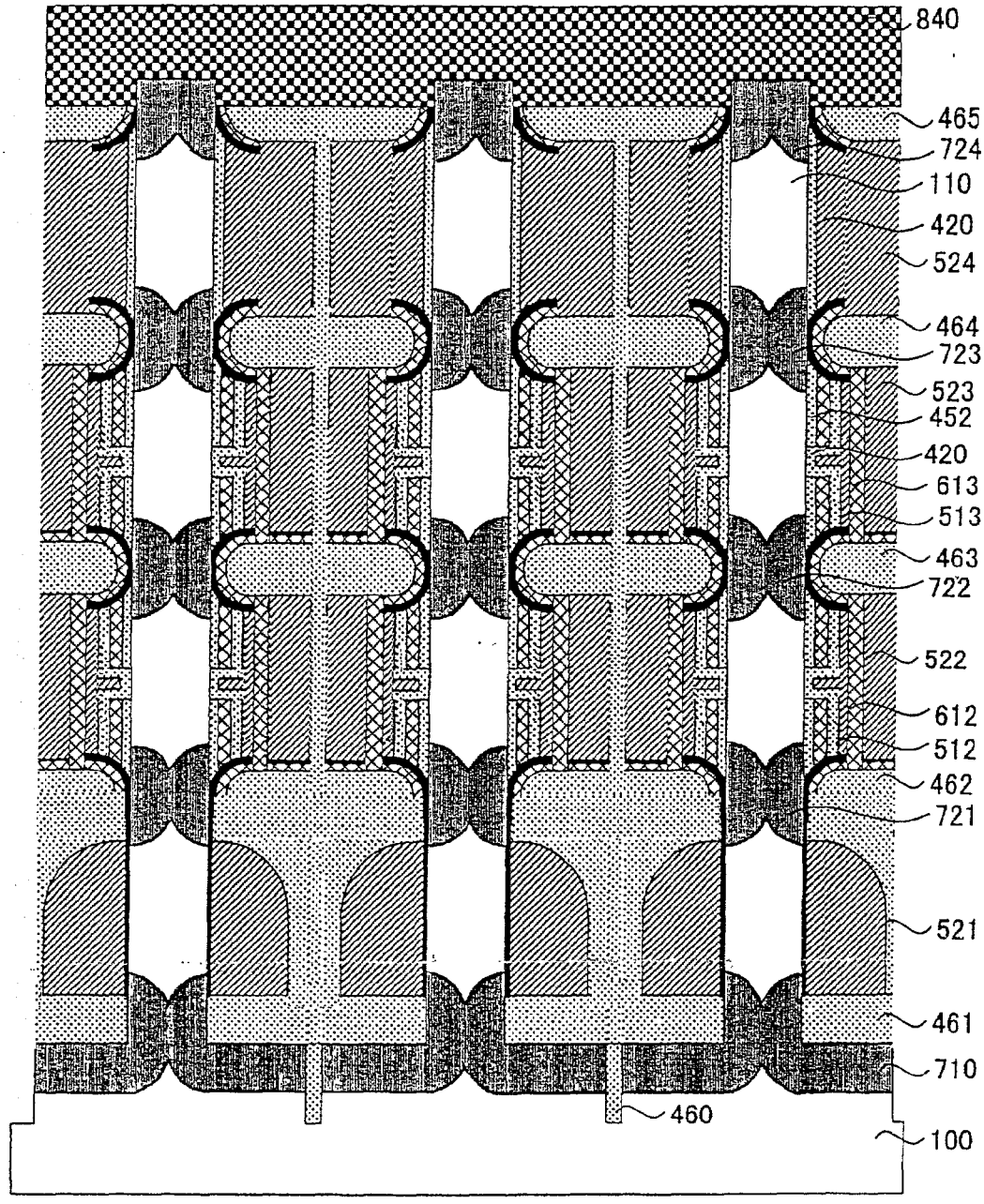

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Fig. 256

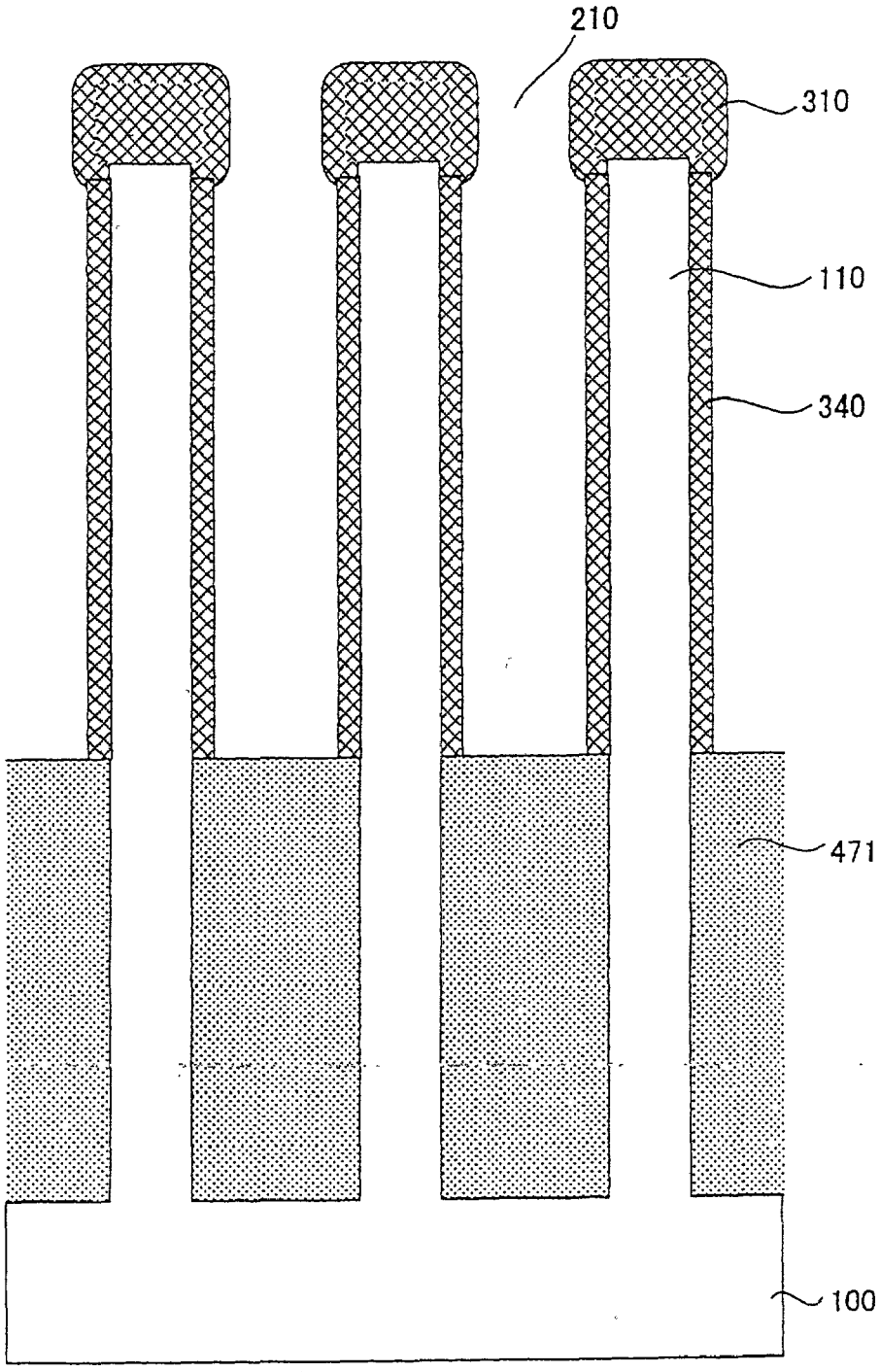


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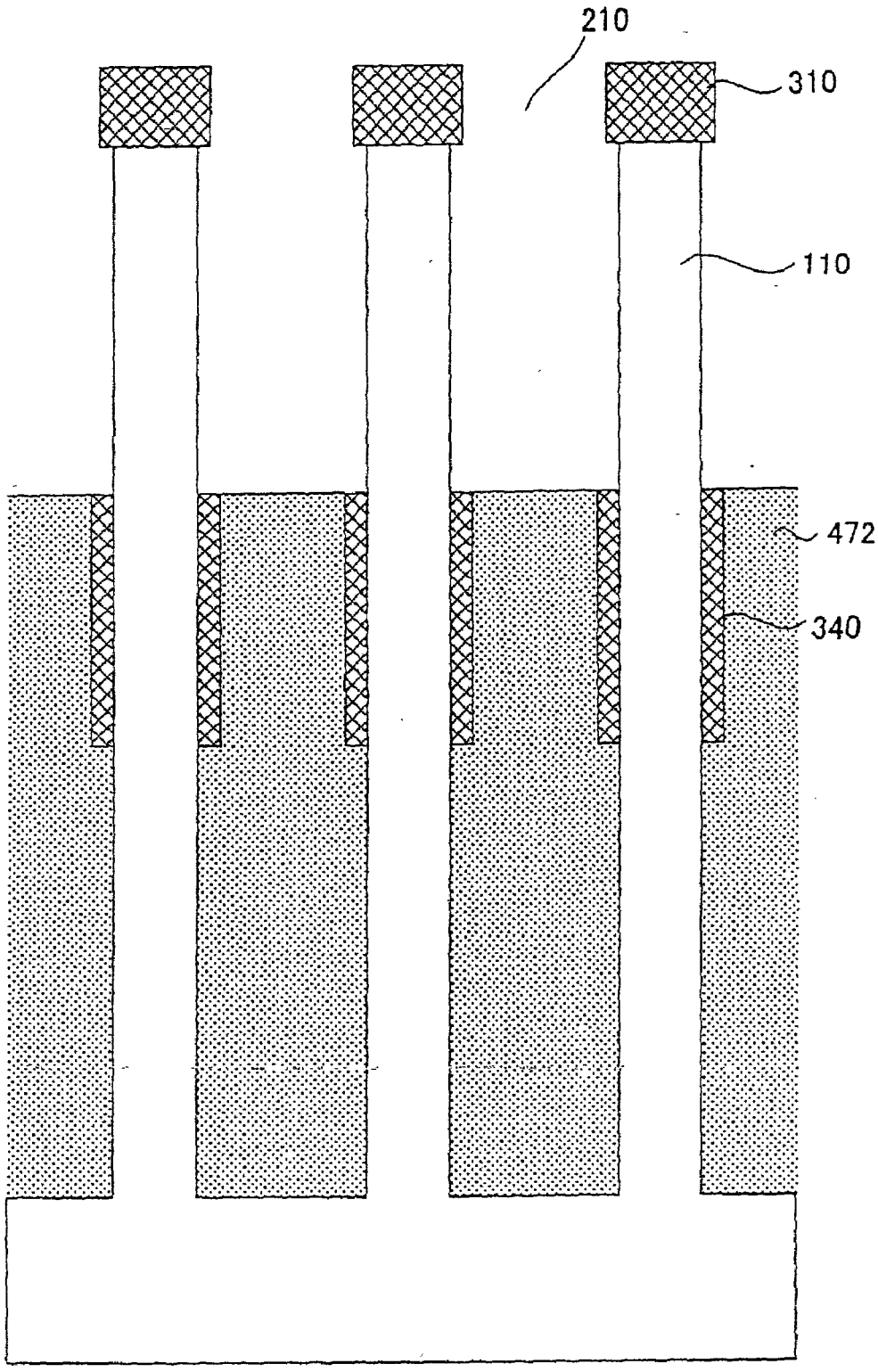


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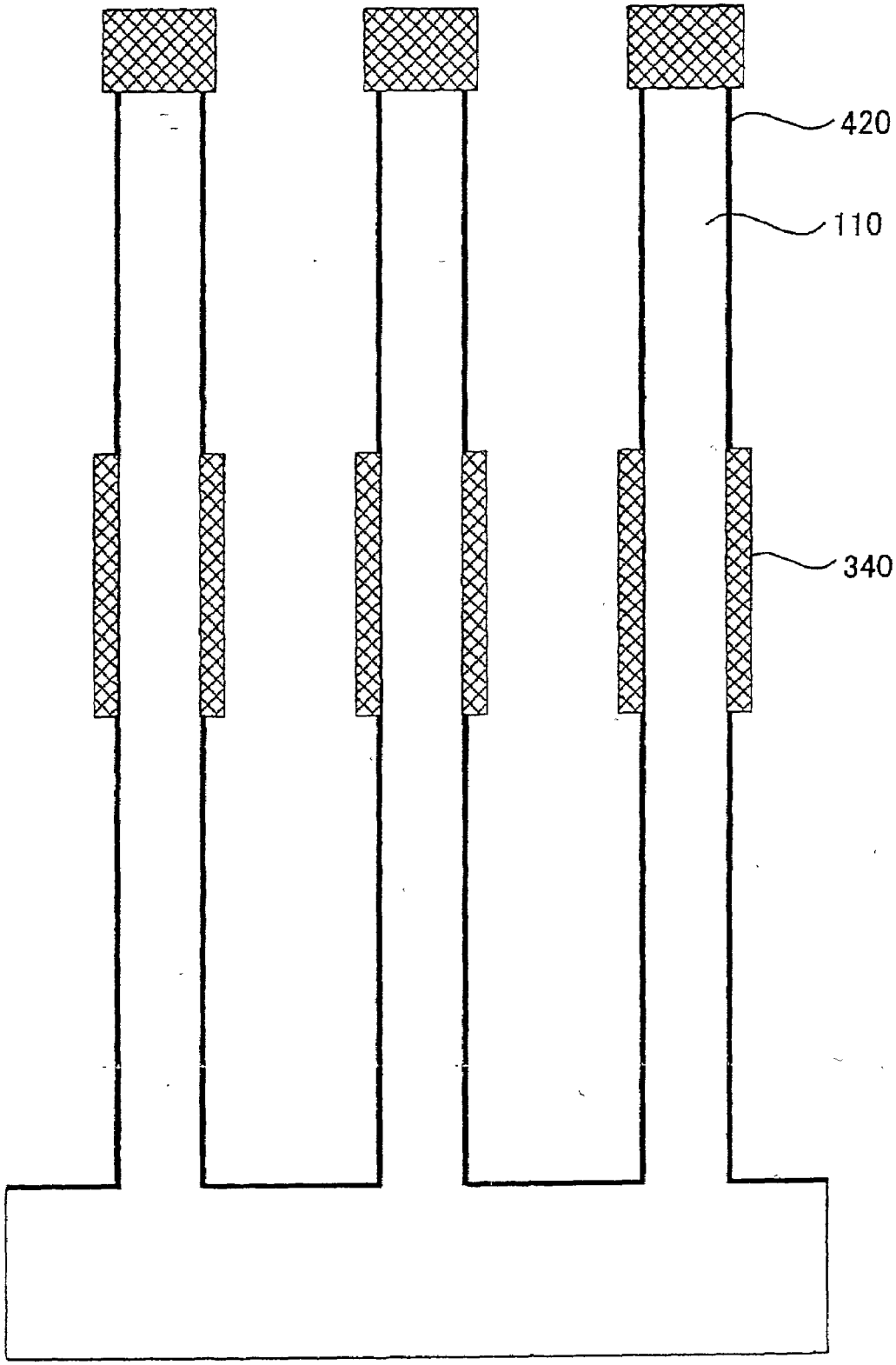


Fig. 259

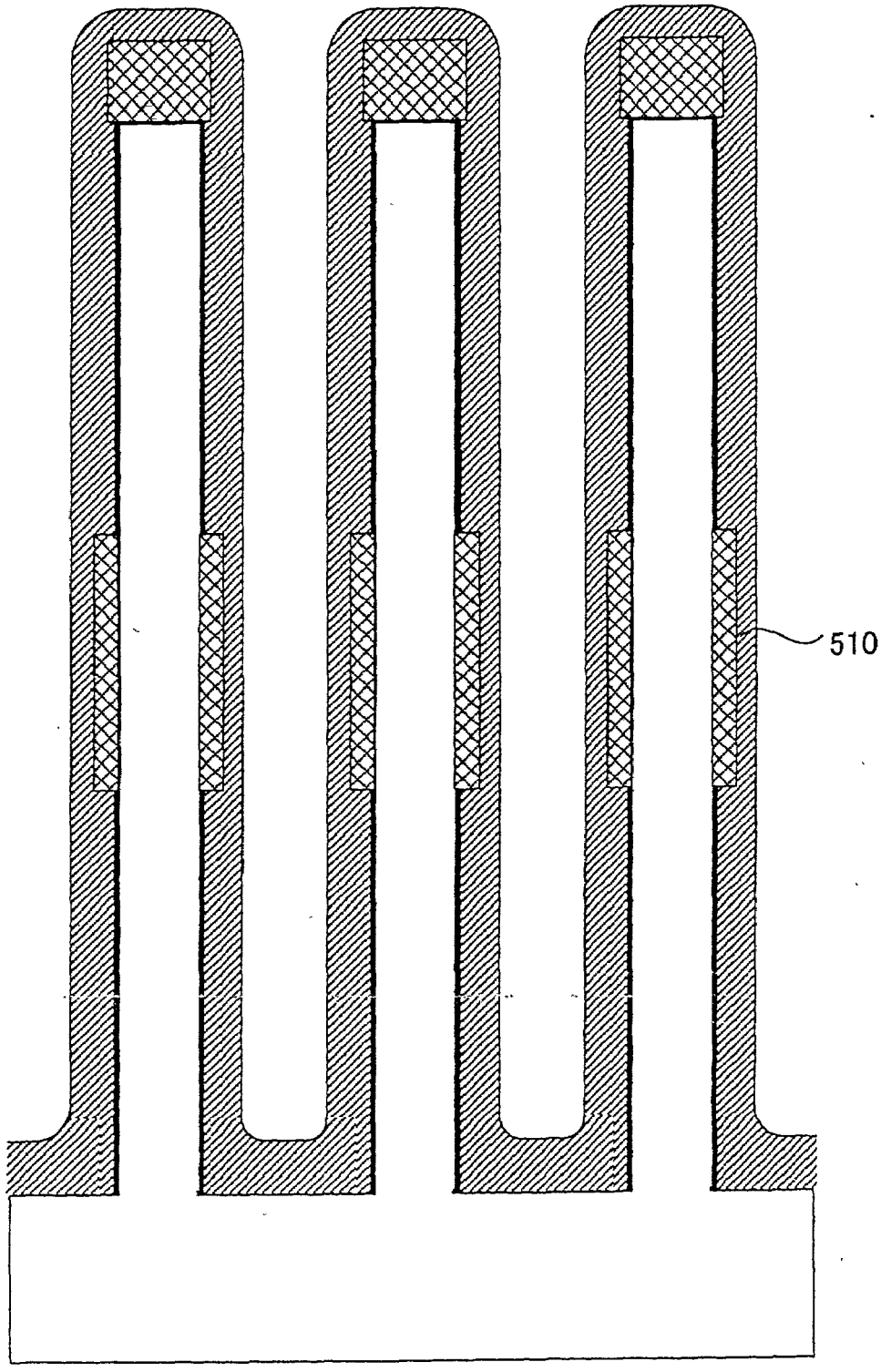


Fig. 260

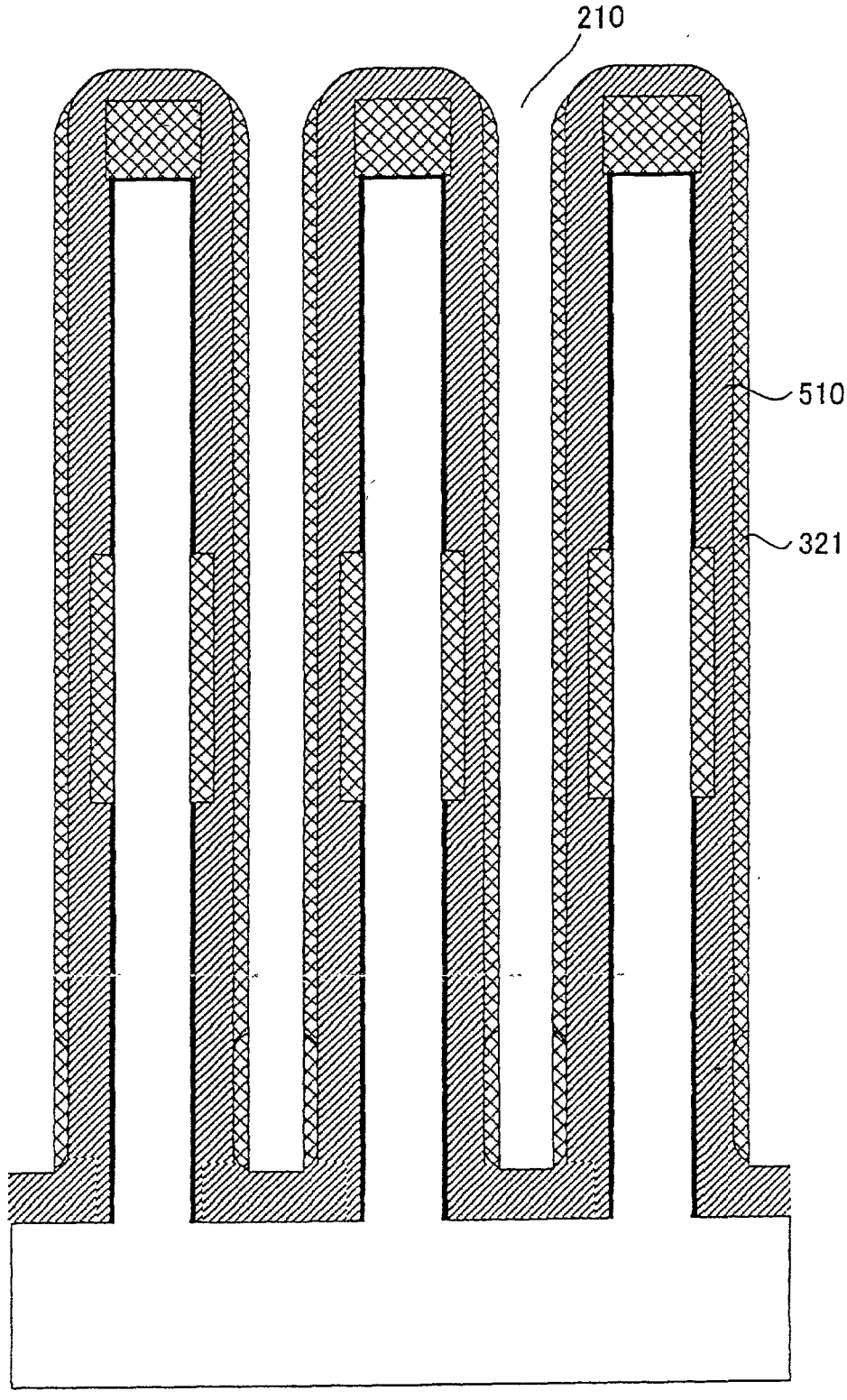


Fig. 261

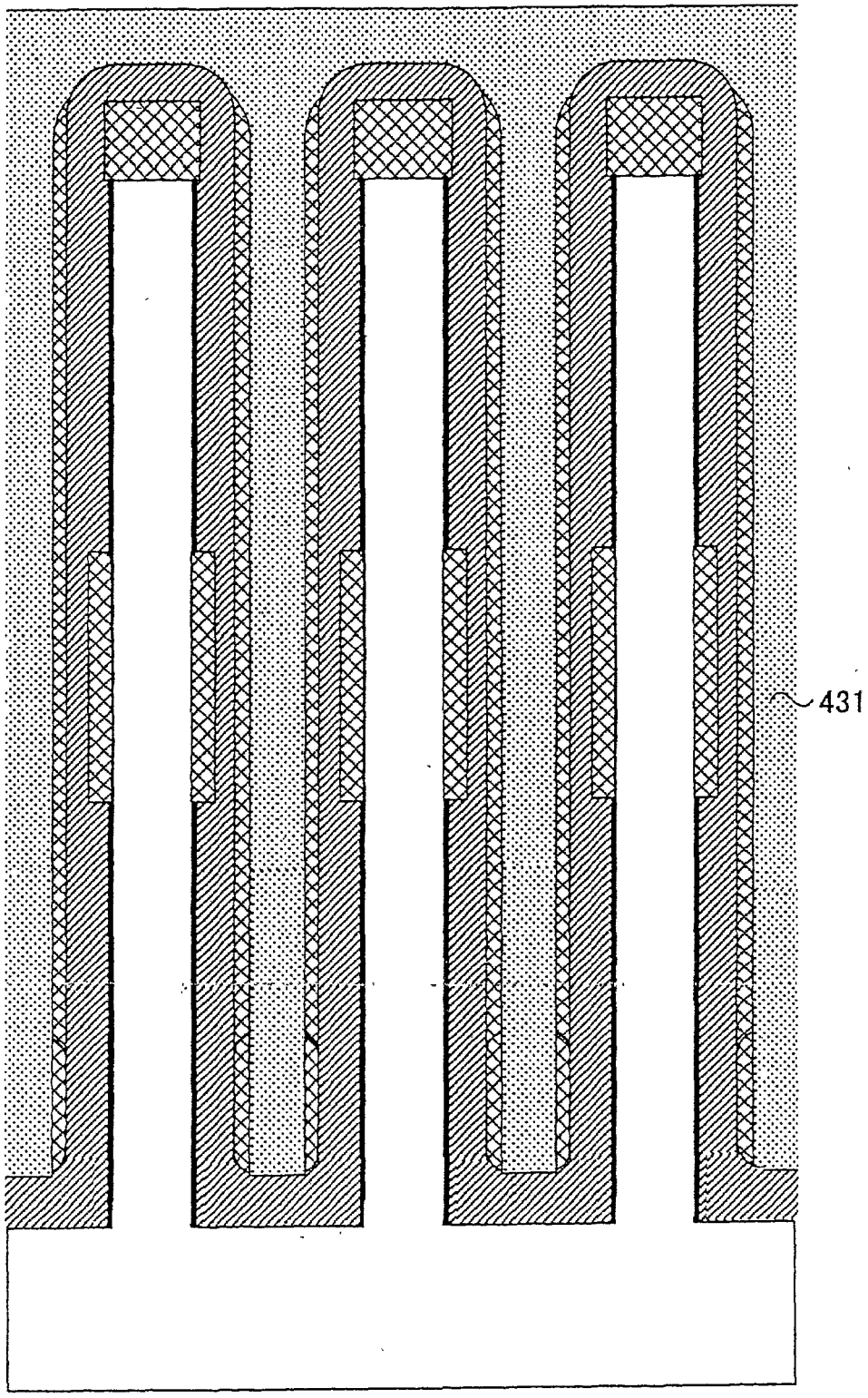


Fig. 262

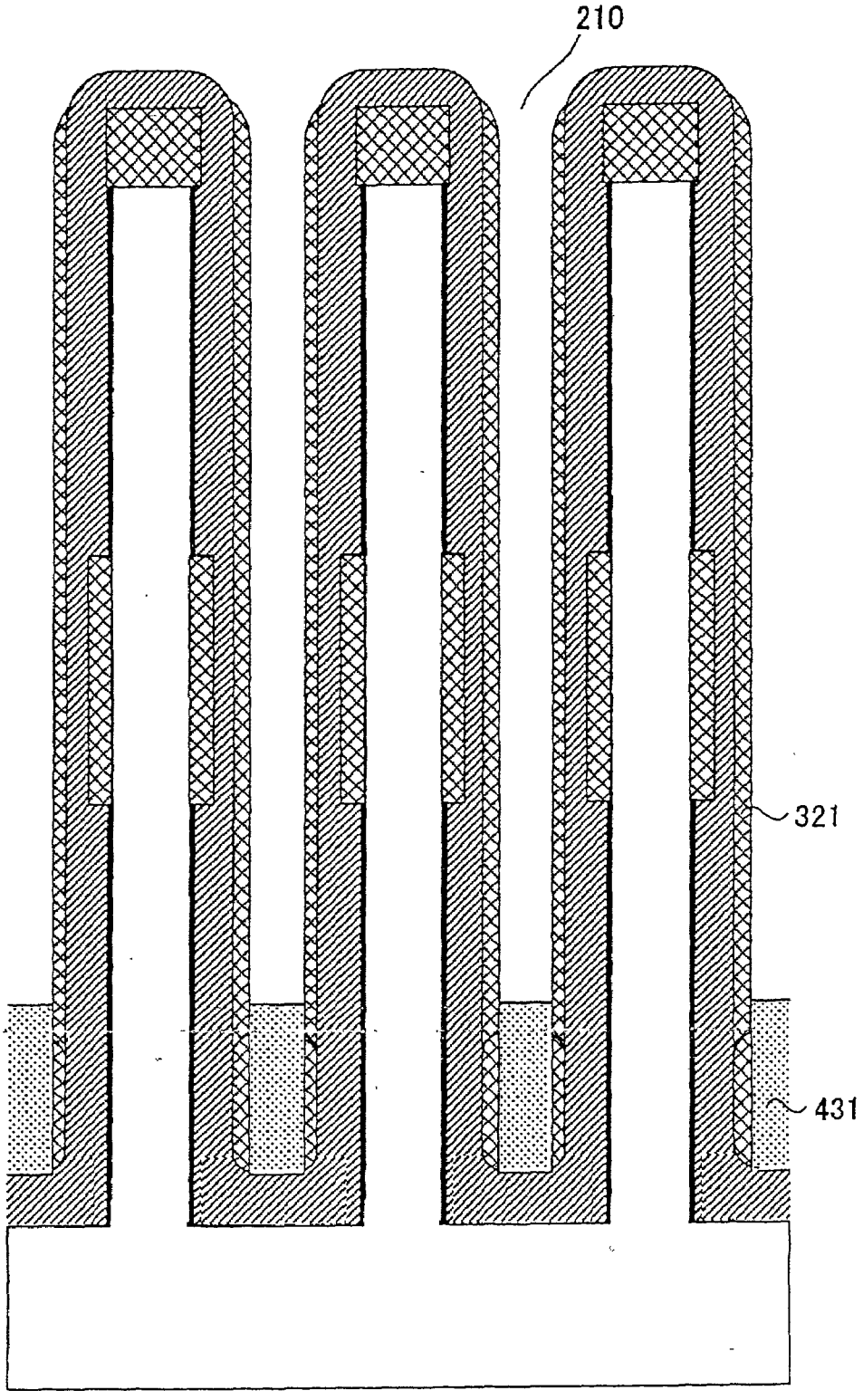


Fig. 263

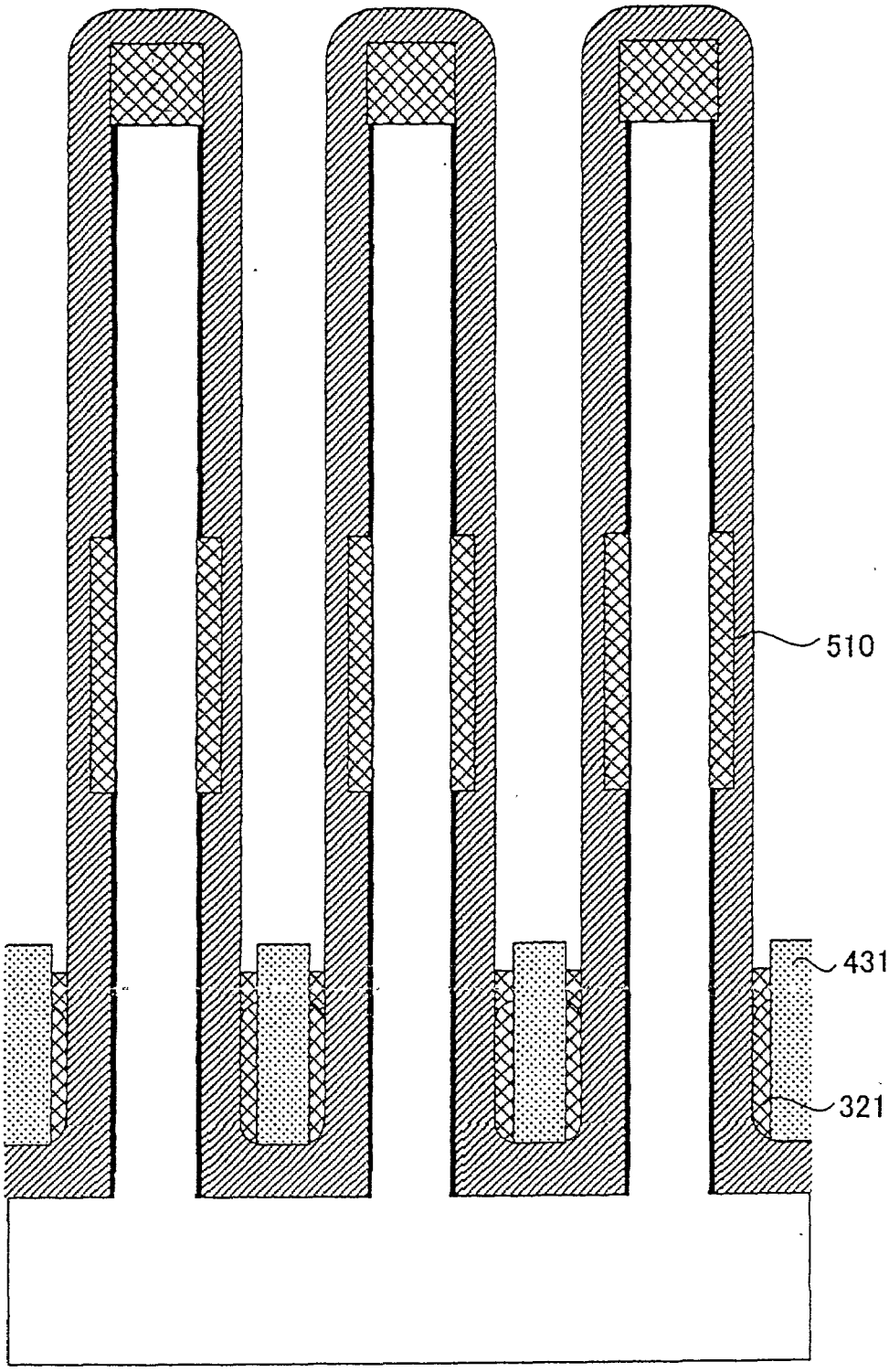


Fig. 264

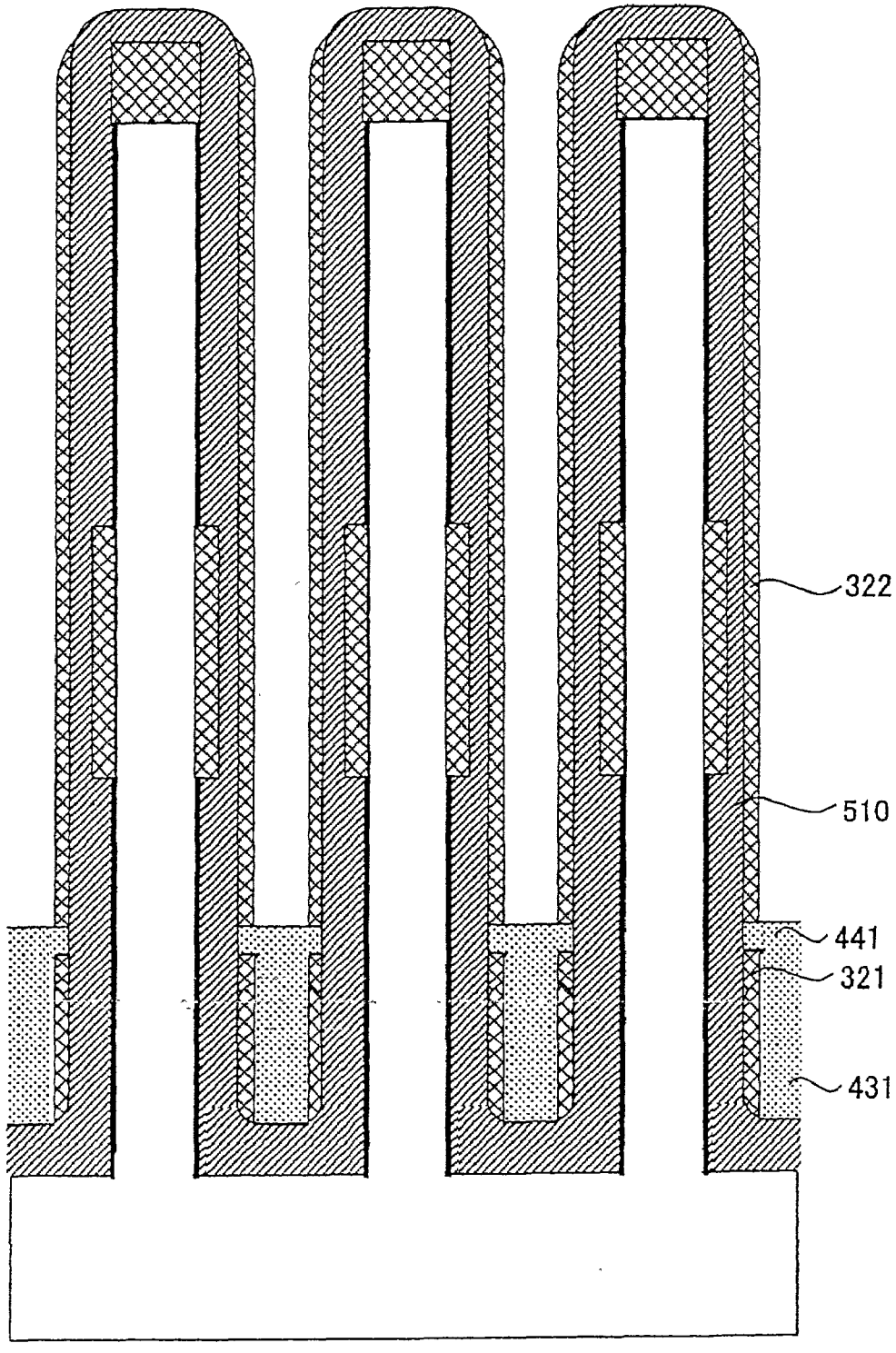


Fig. 265

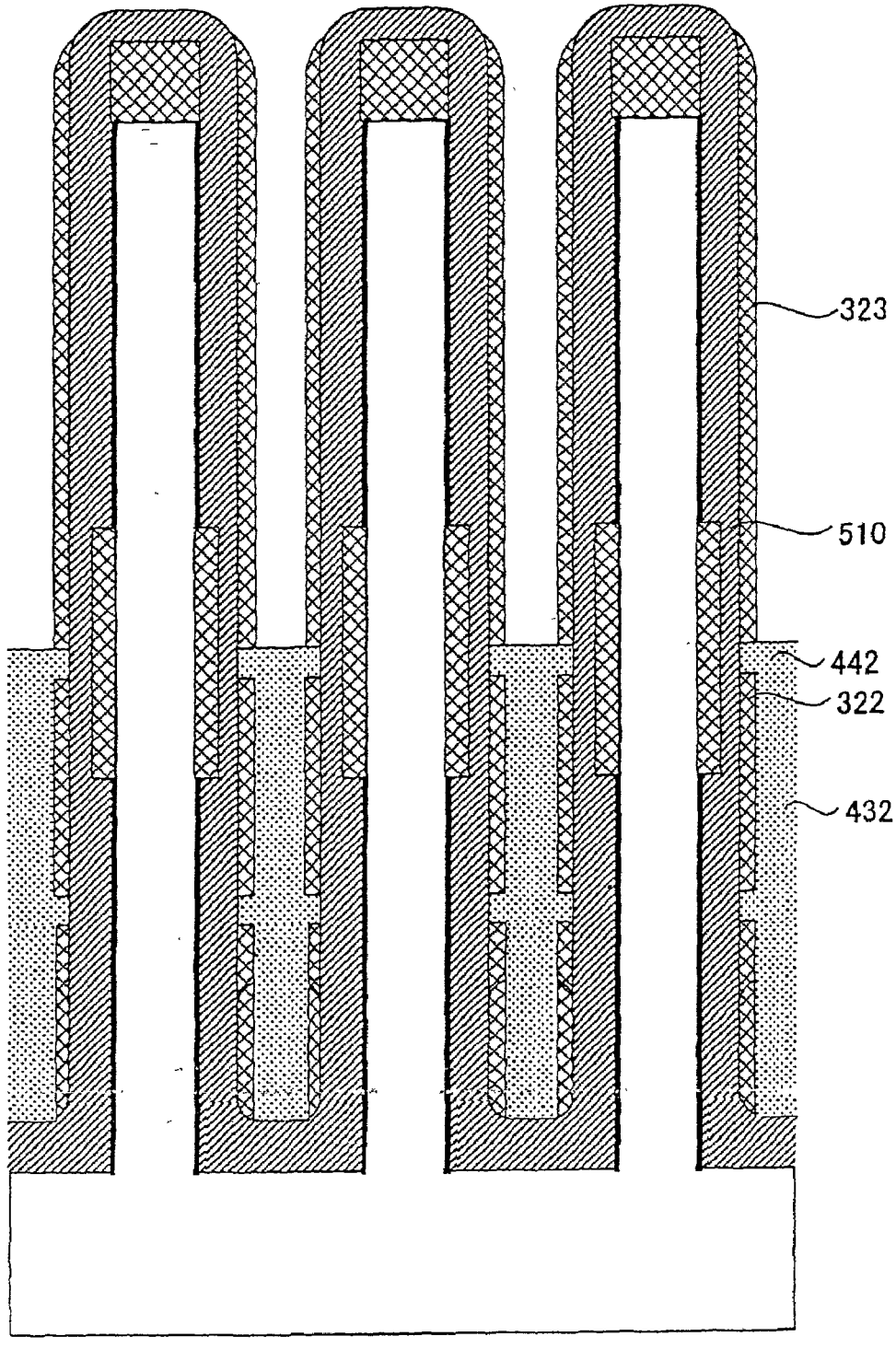


Fig. 266

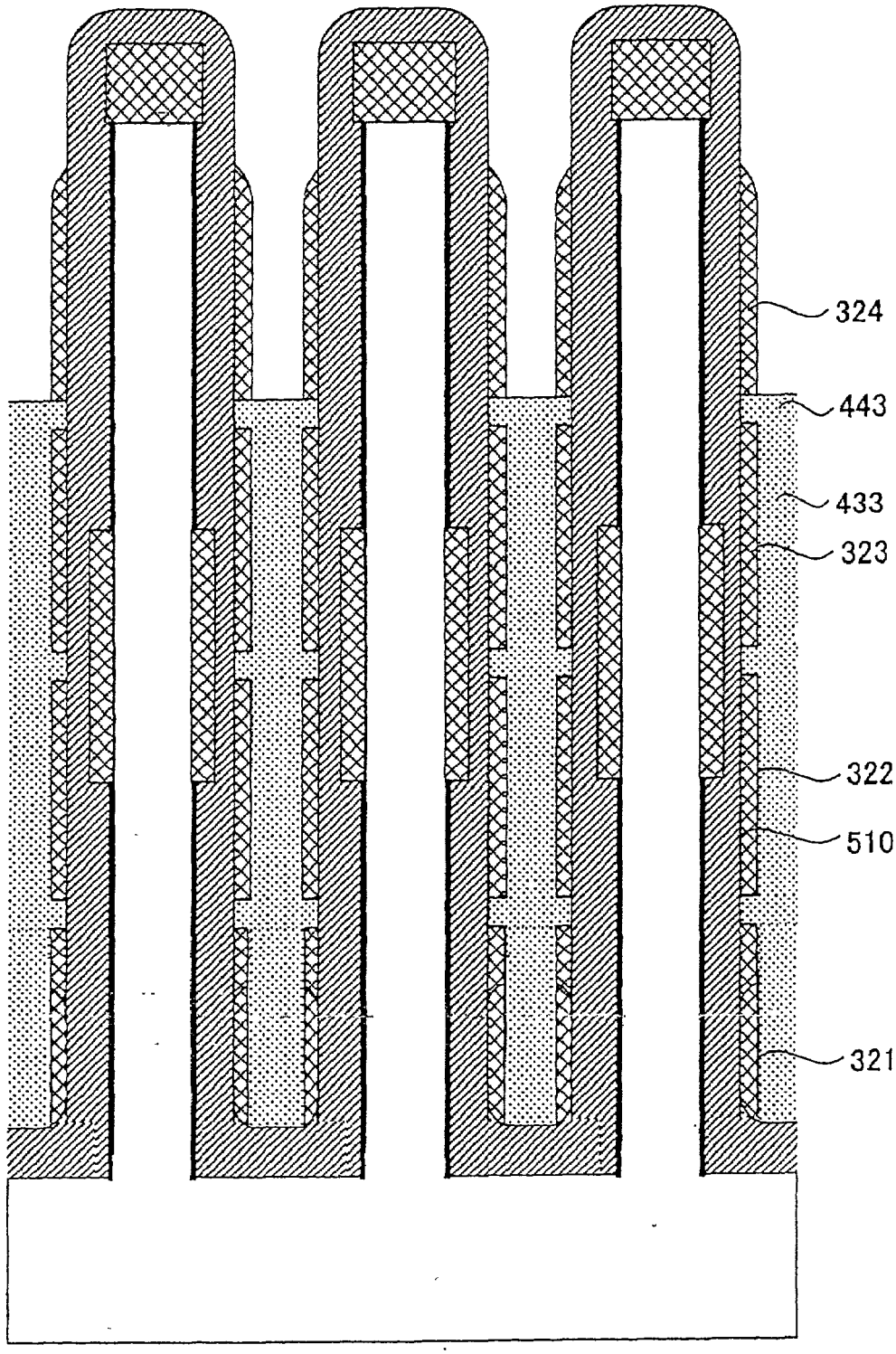


Fig. 267

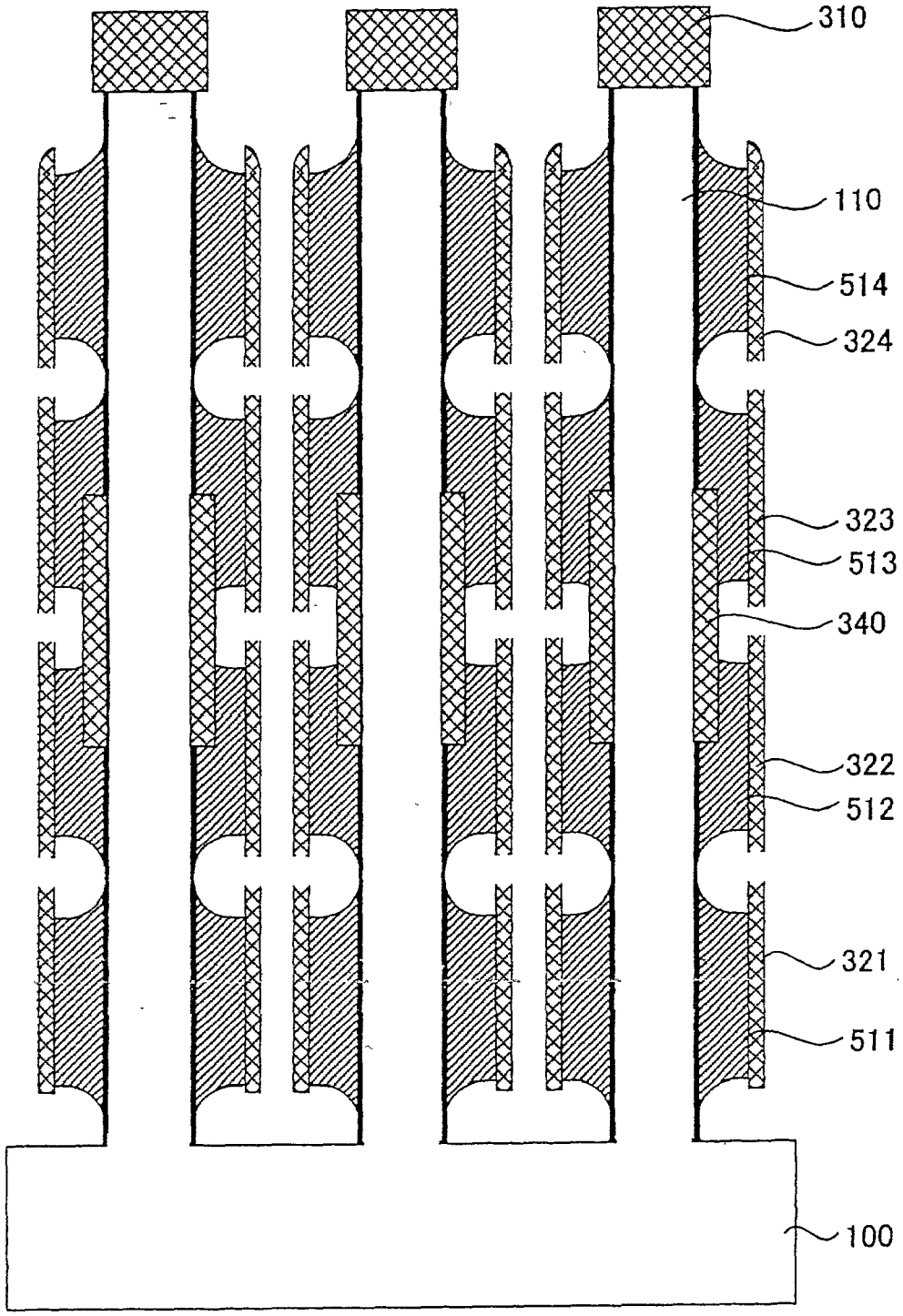


Fig. 268

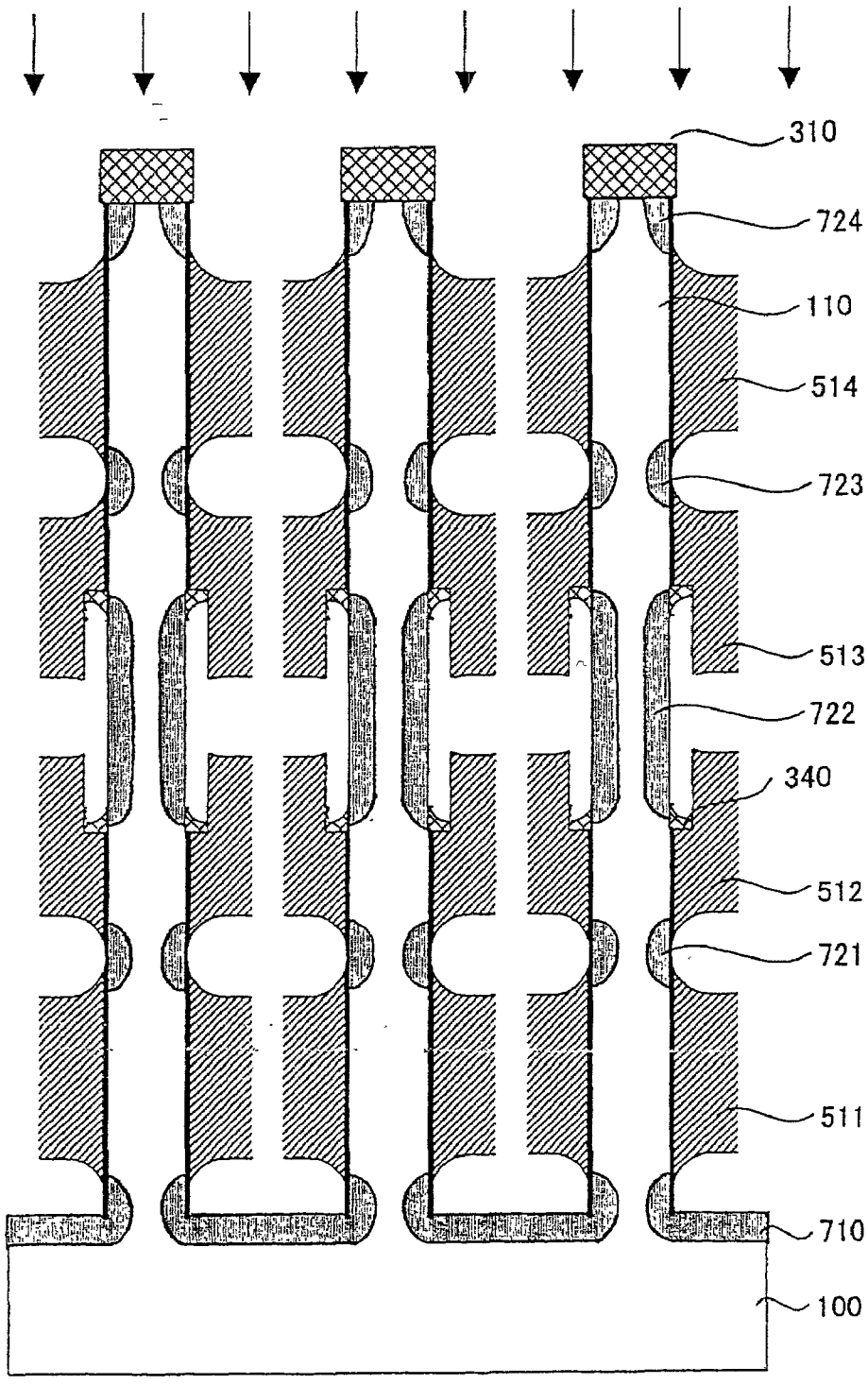


Fig. 269

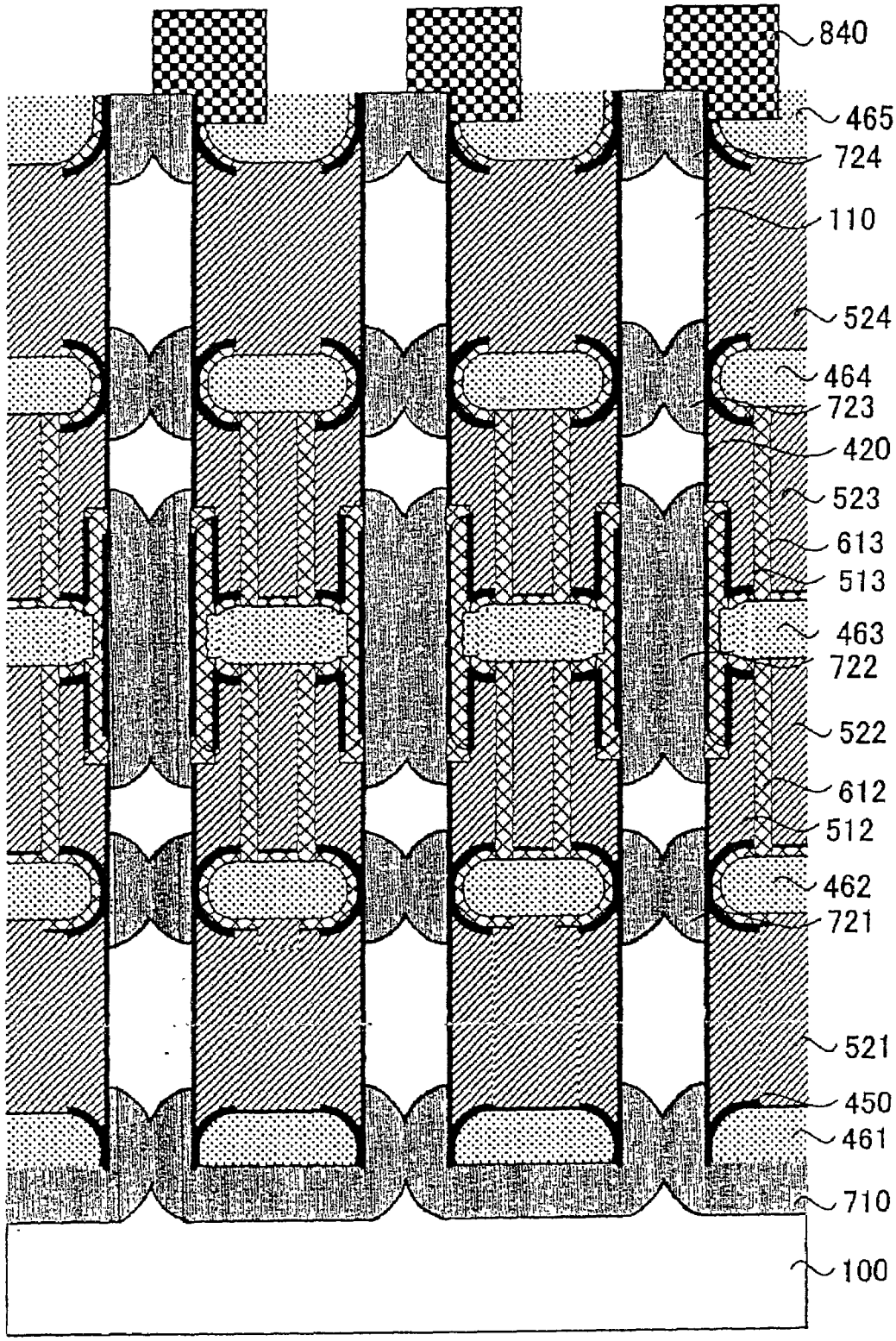

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Fig. 270

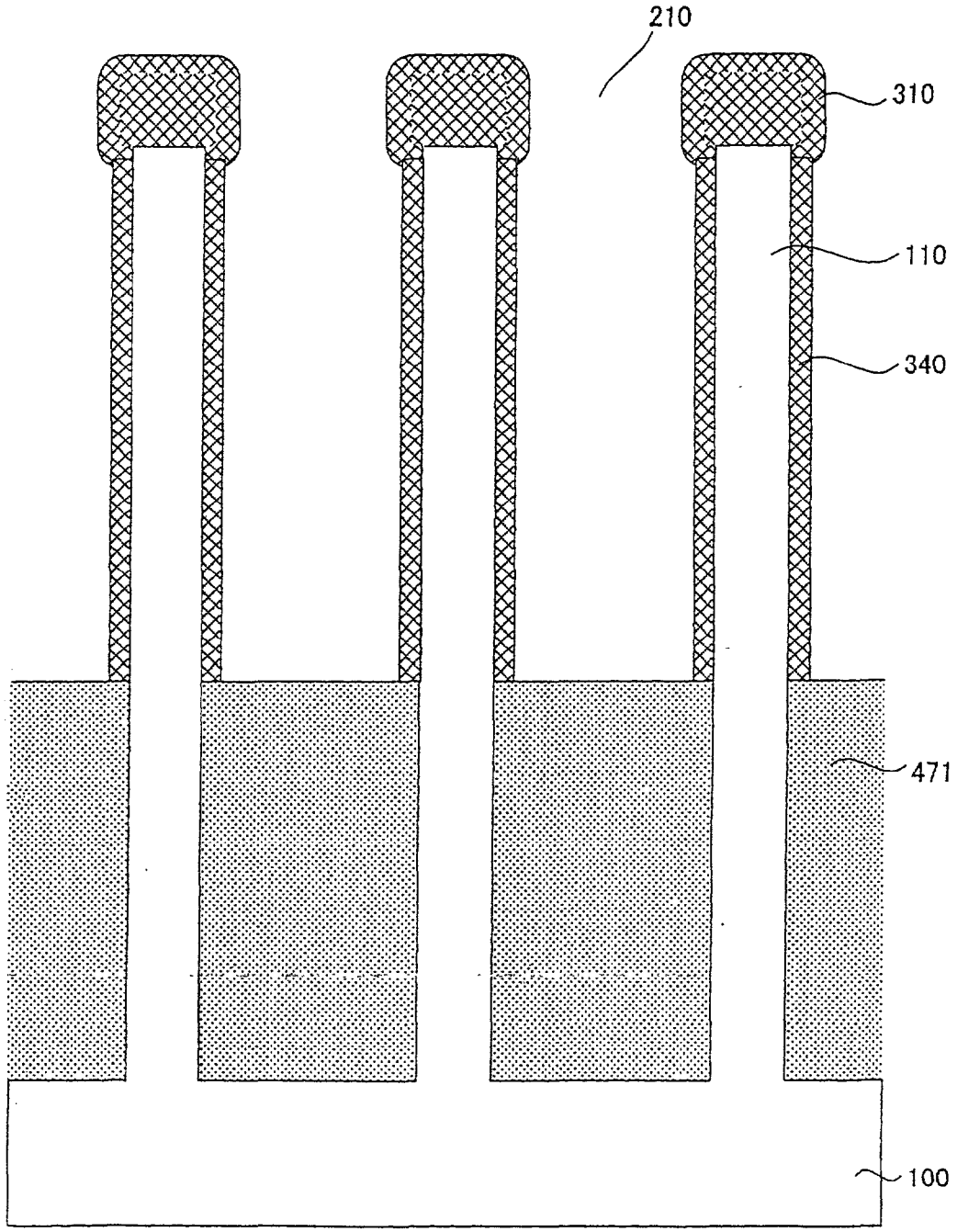


Fig. 271

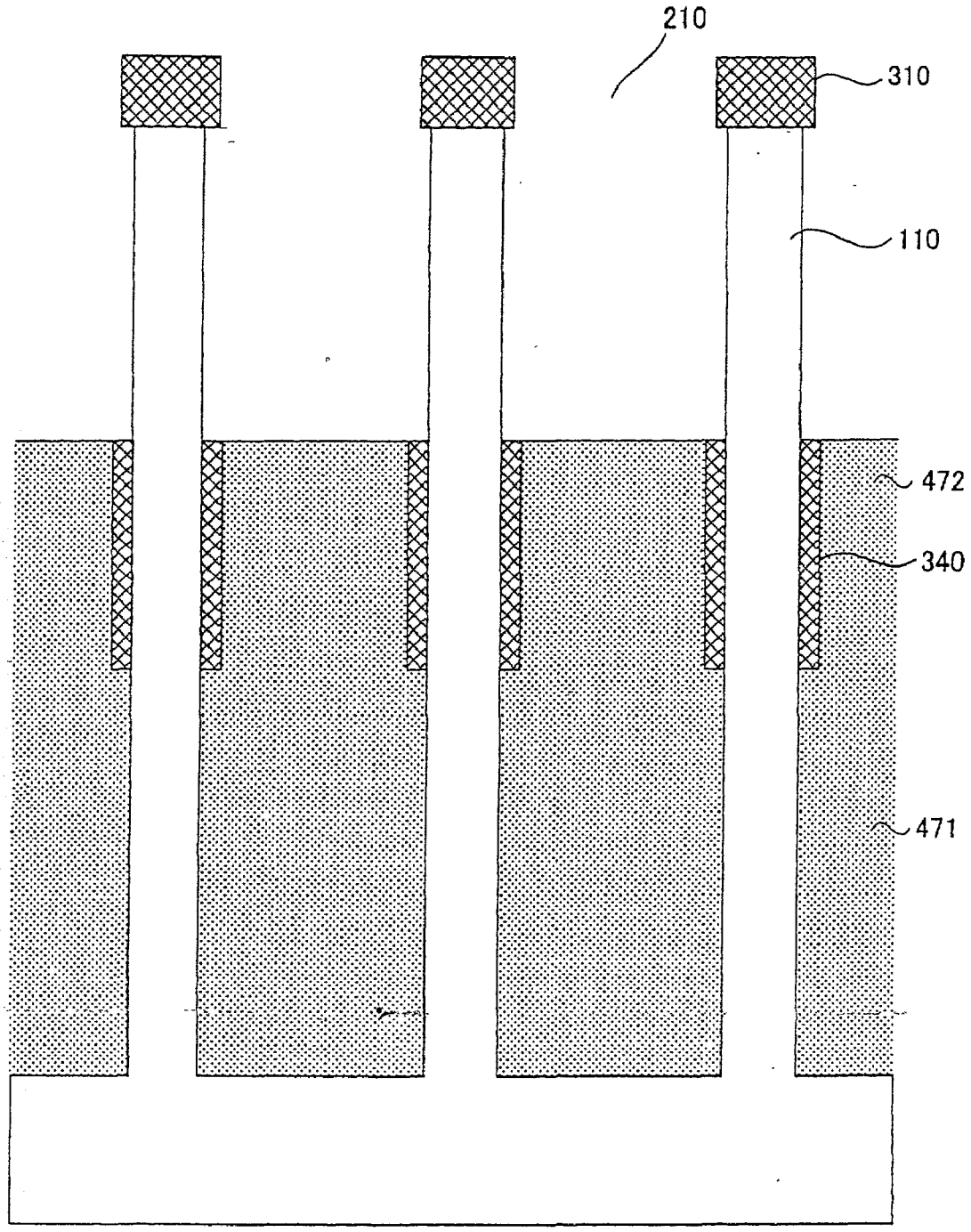


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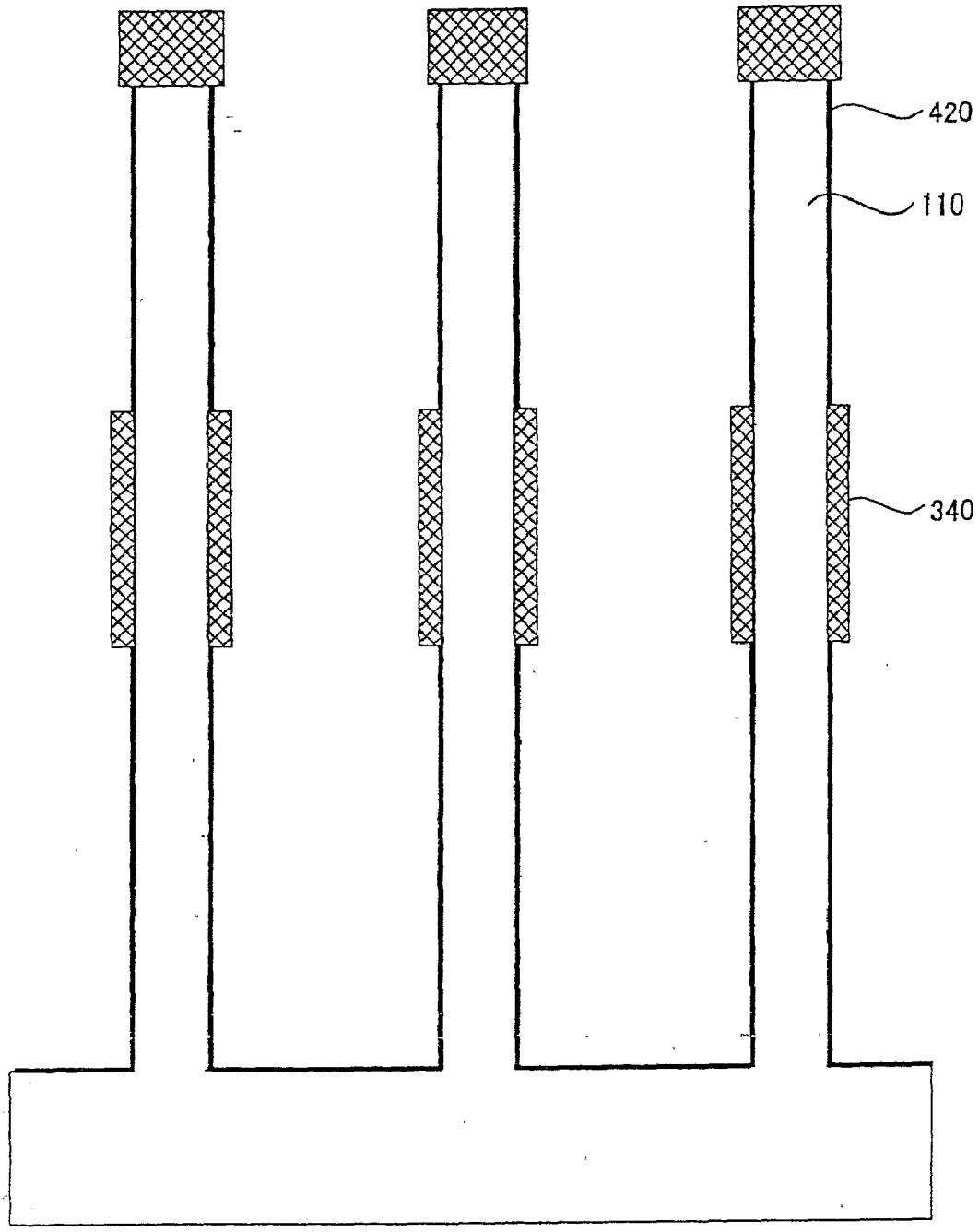


Fig. 273

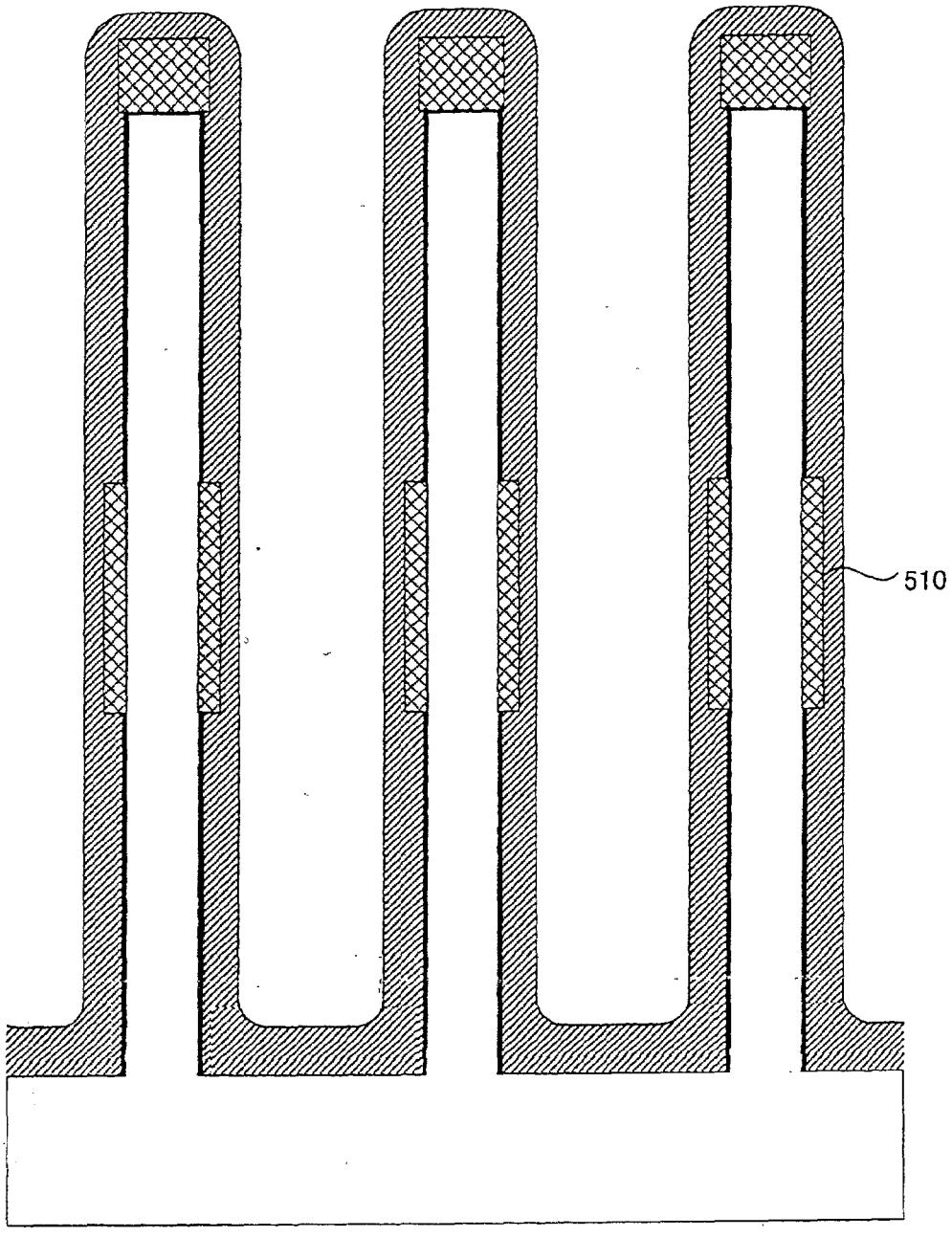


Fig. 274

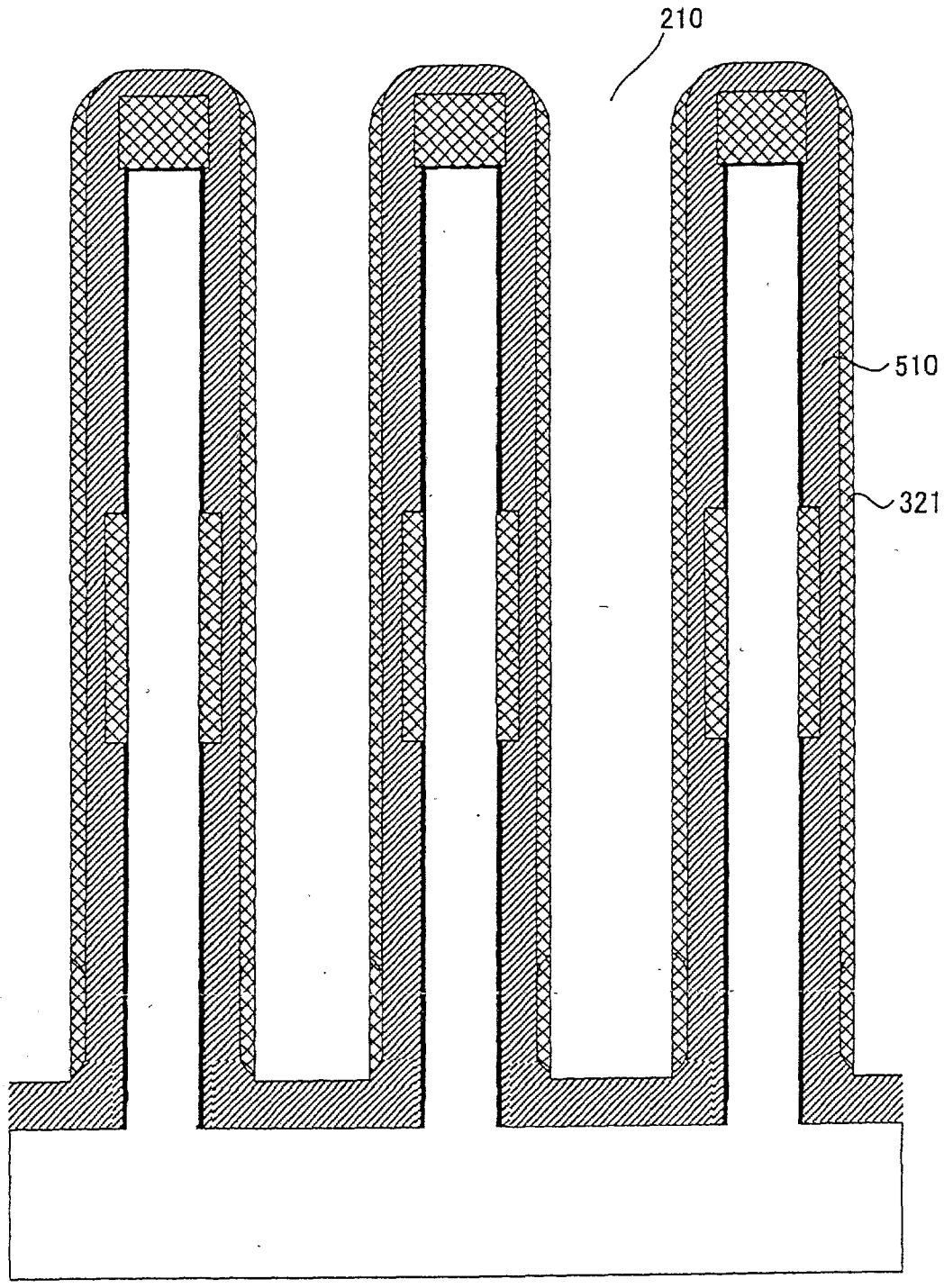


Fig. 275

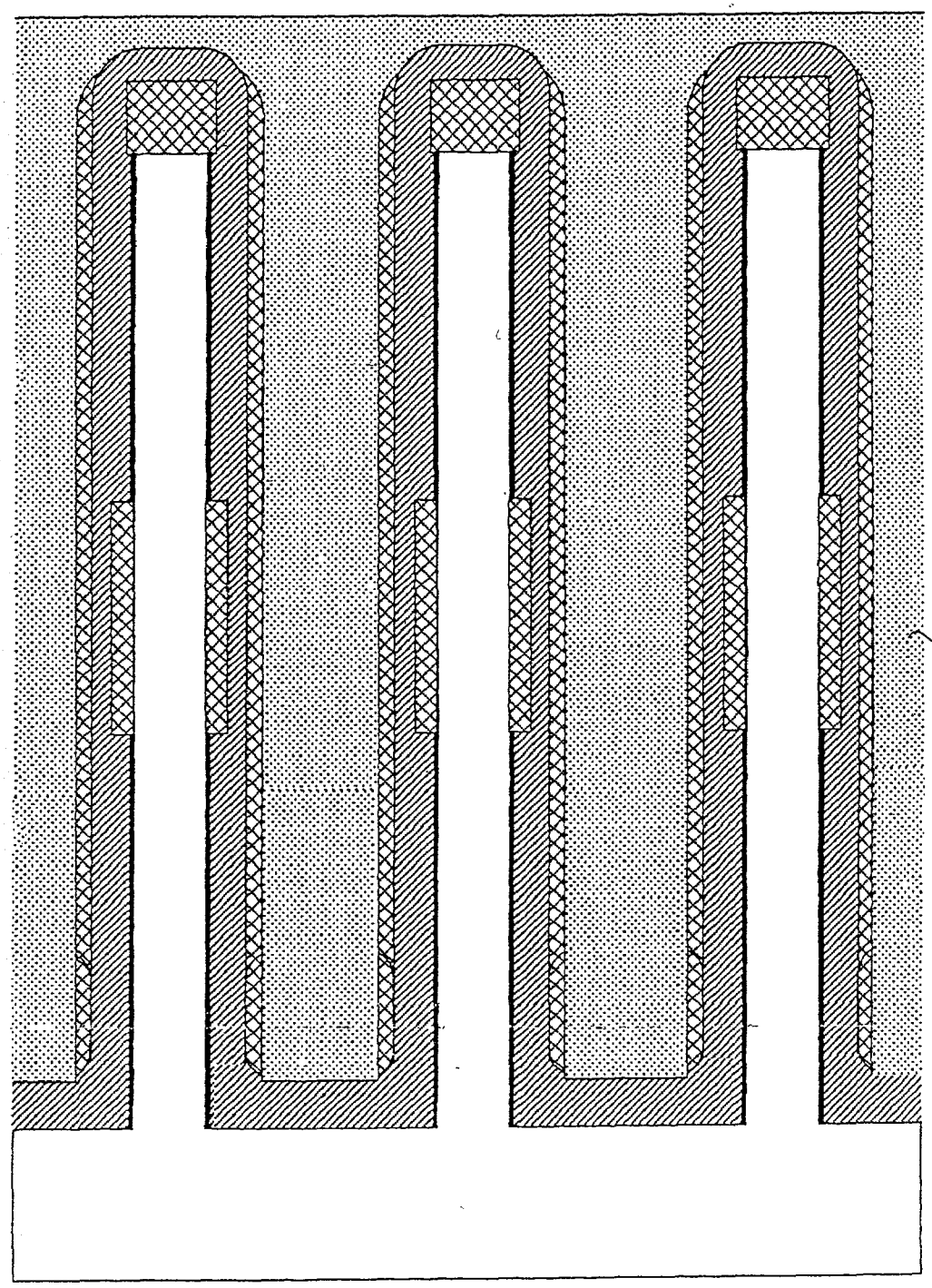


Fig. 276

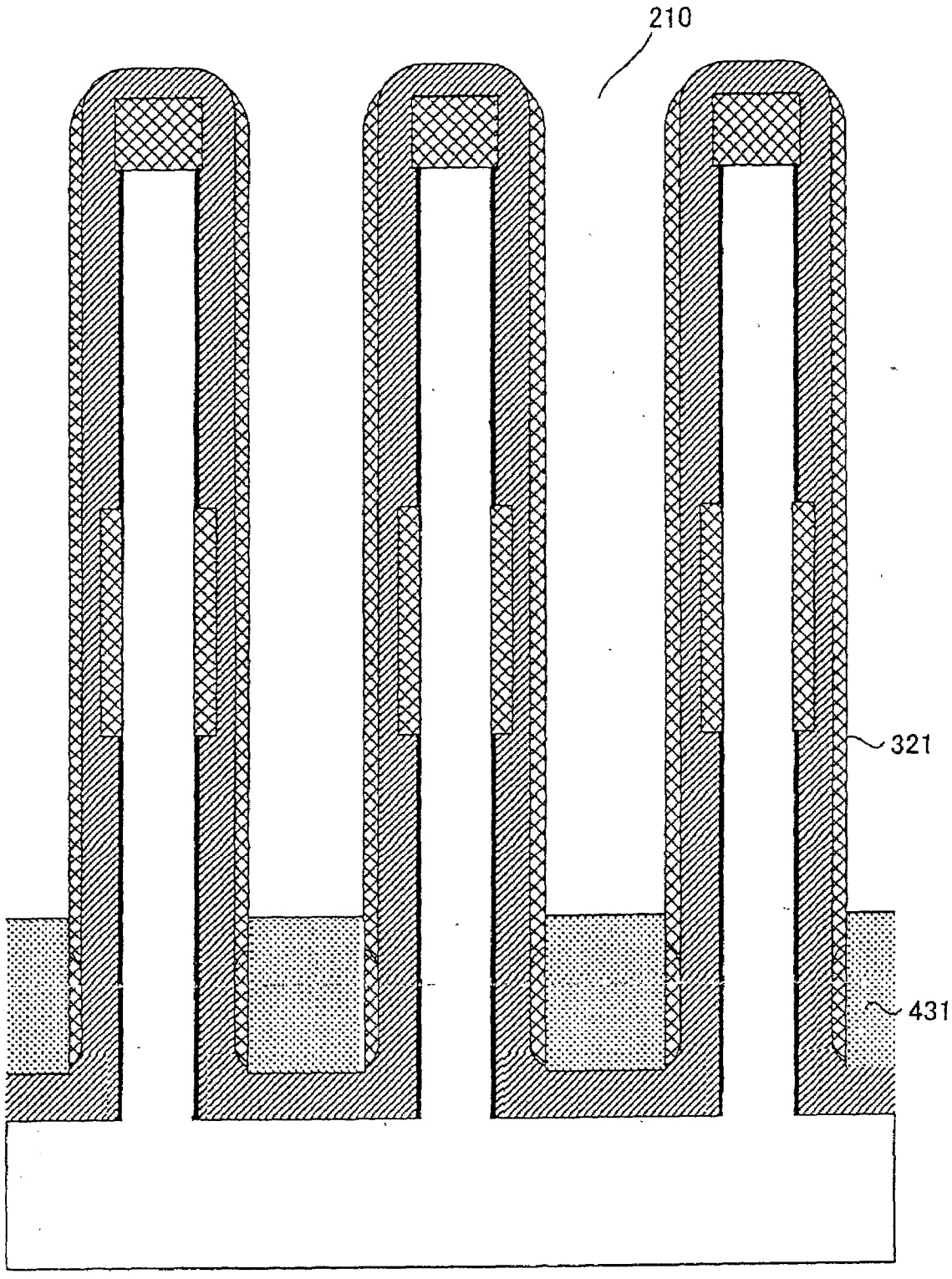


Fig. 277

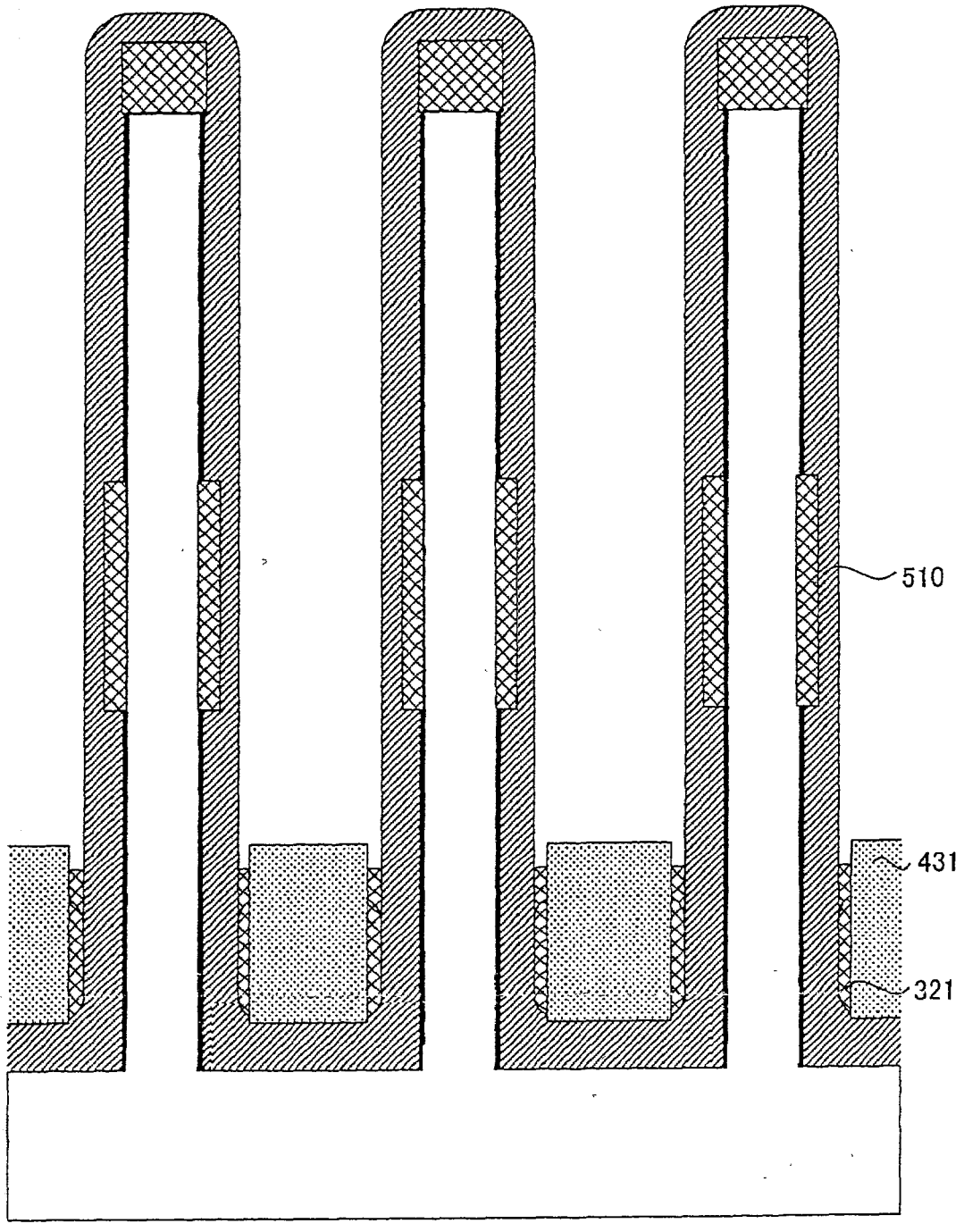


Fig. 278

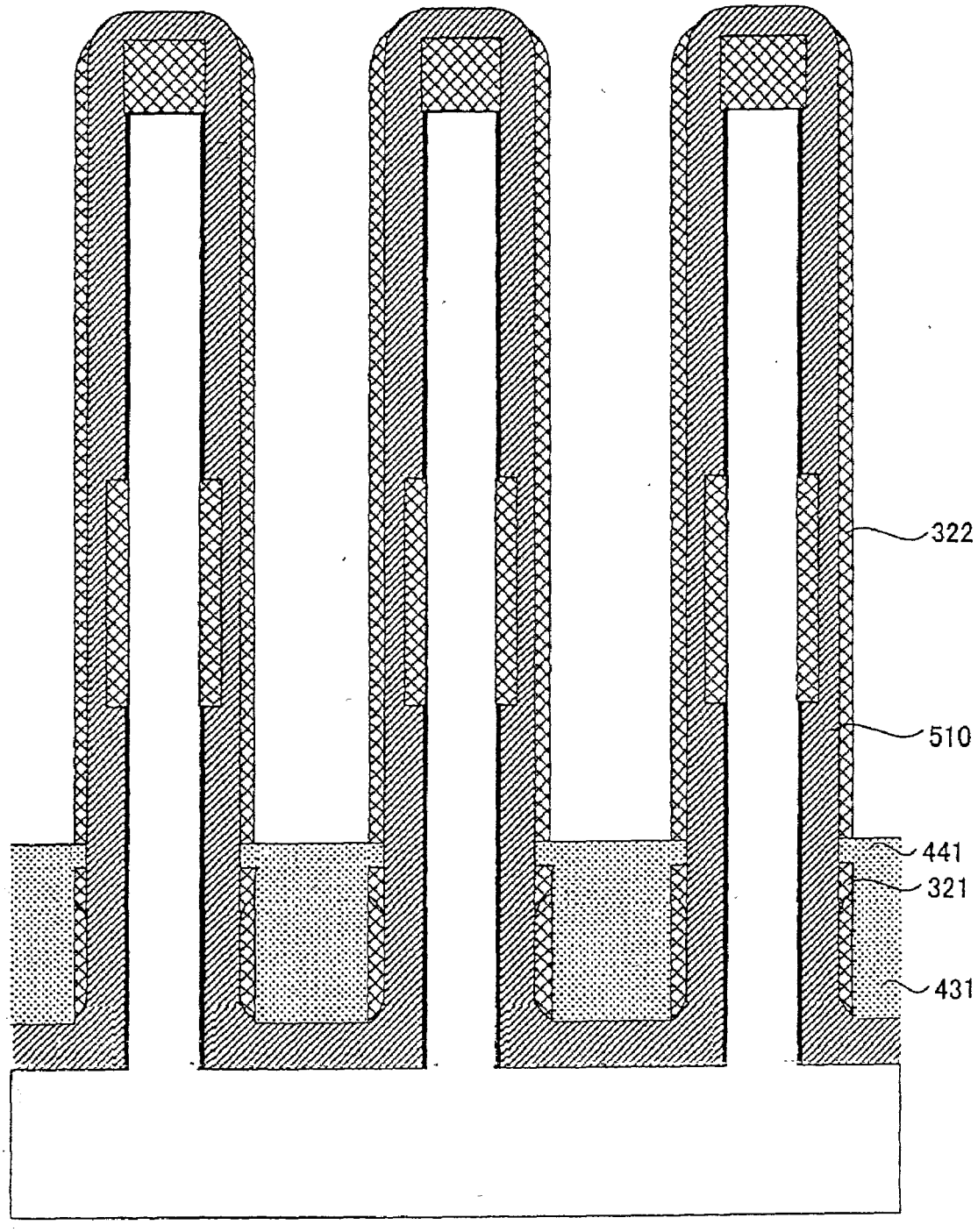


Fig. 279

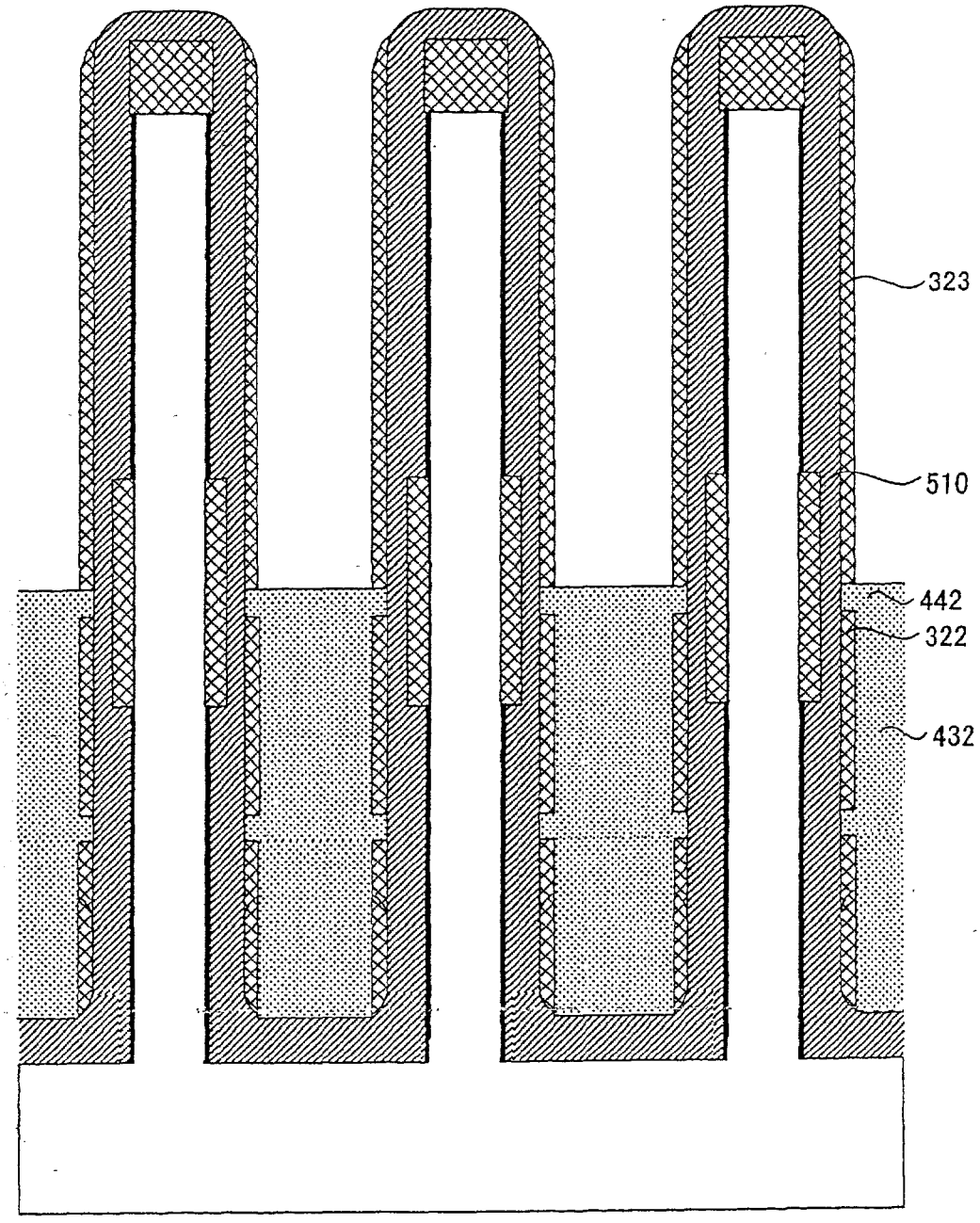


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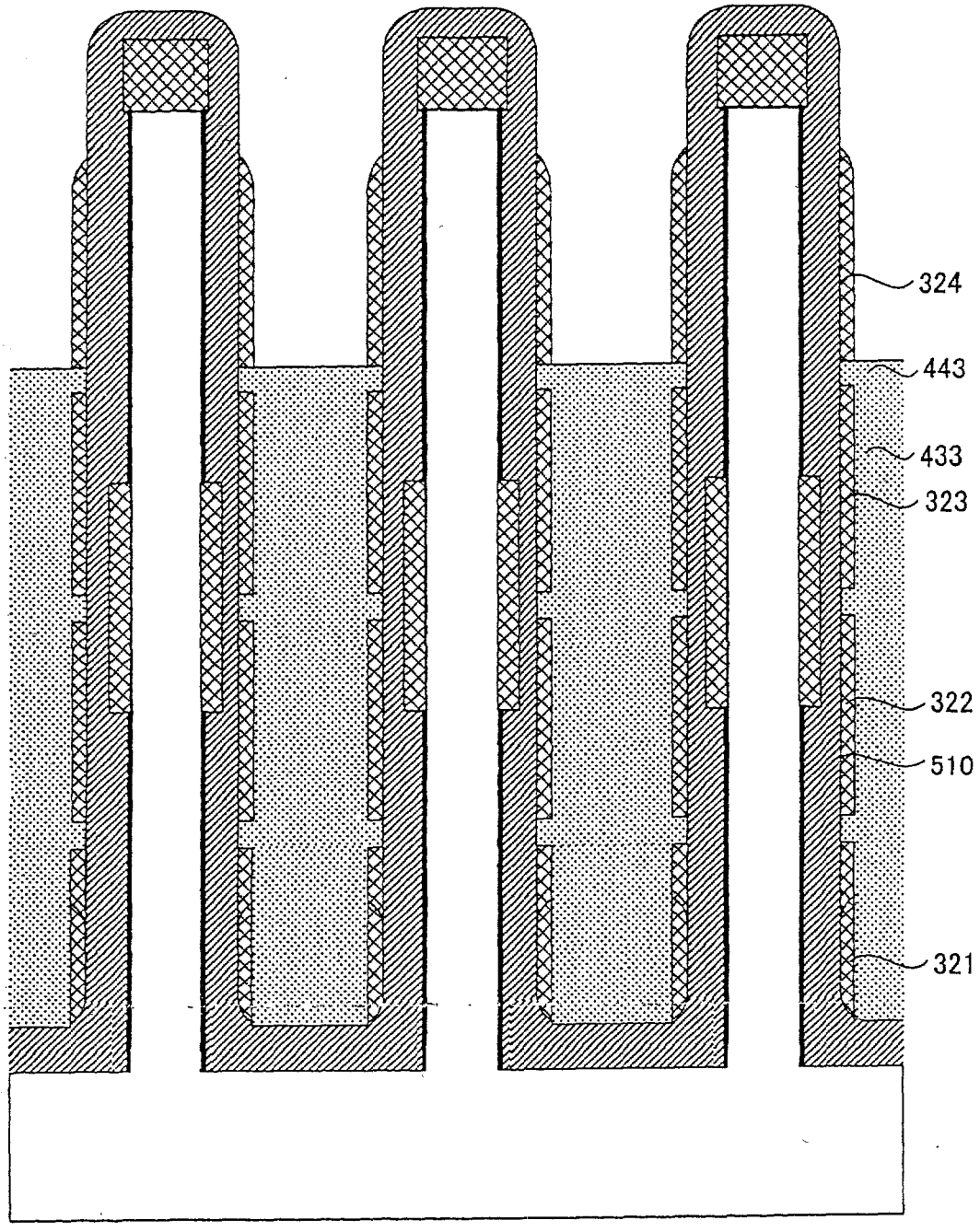


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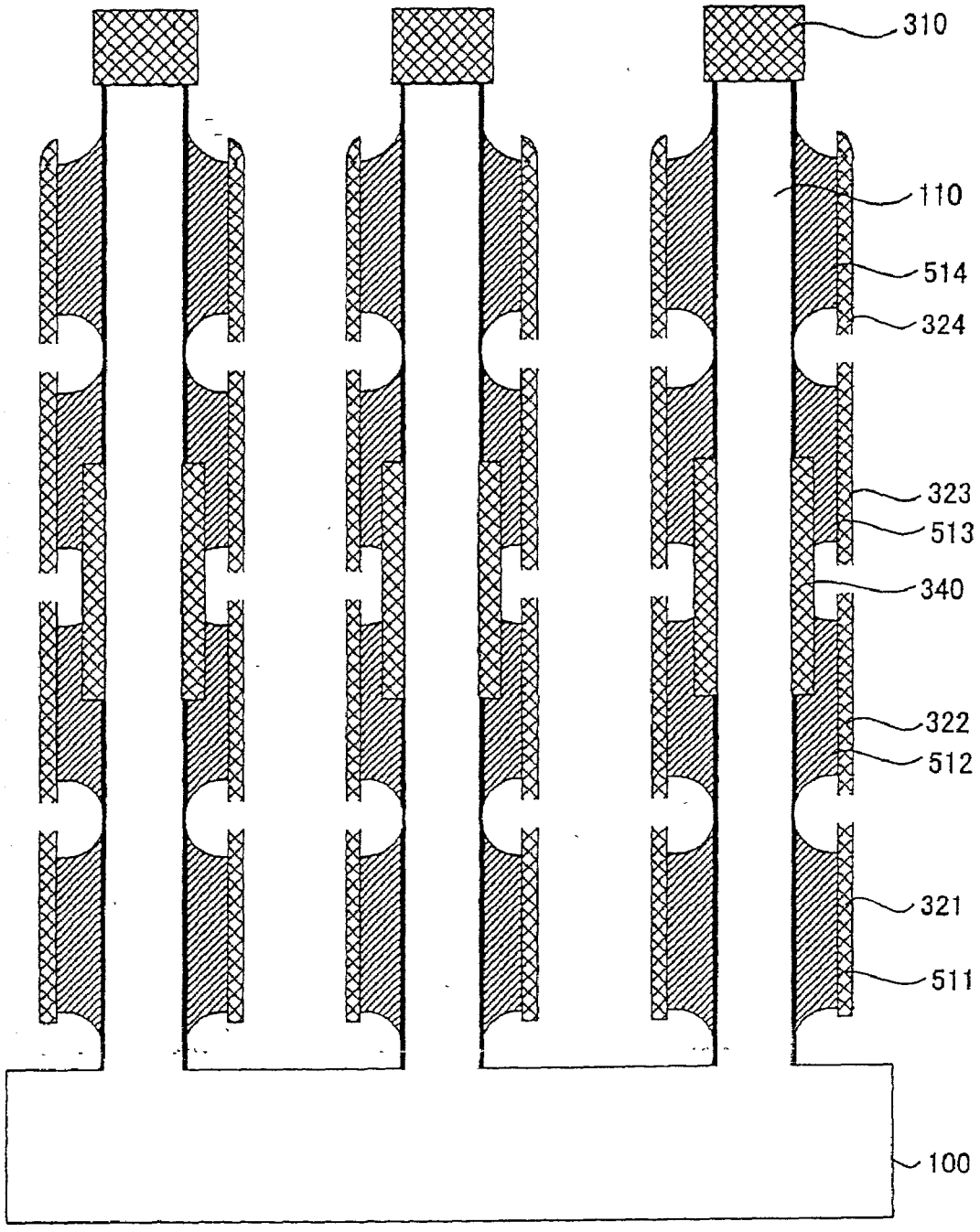


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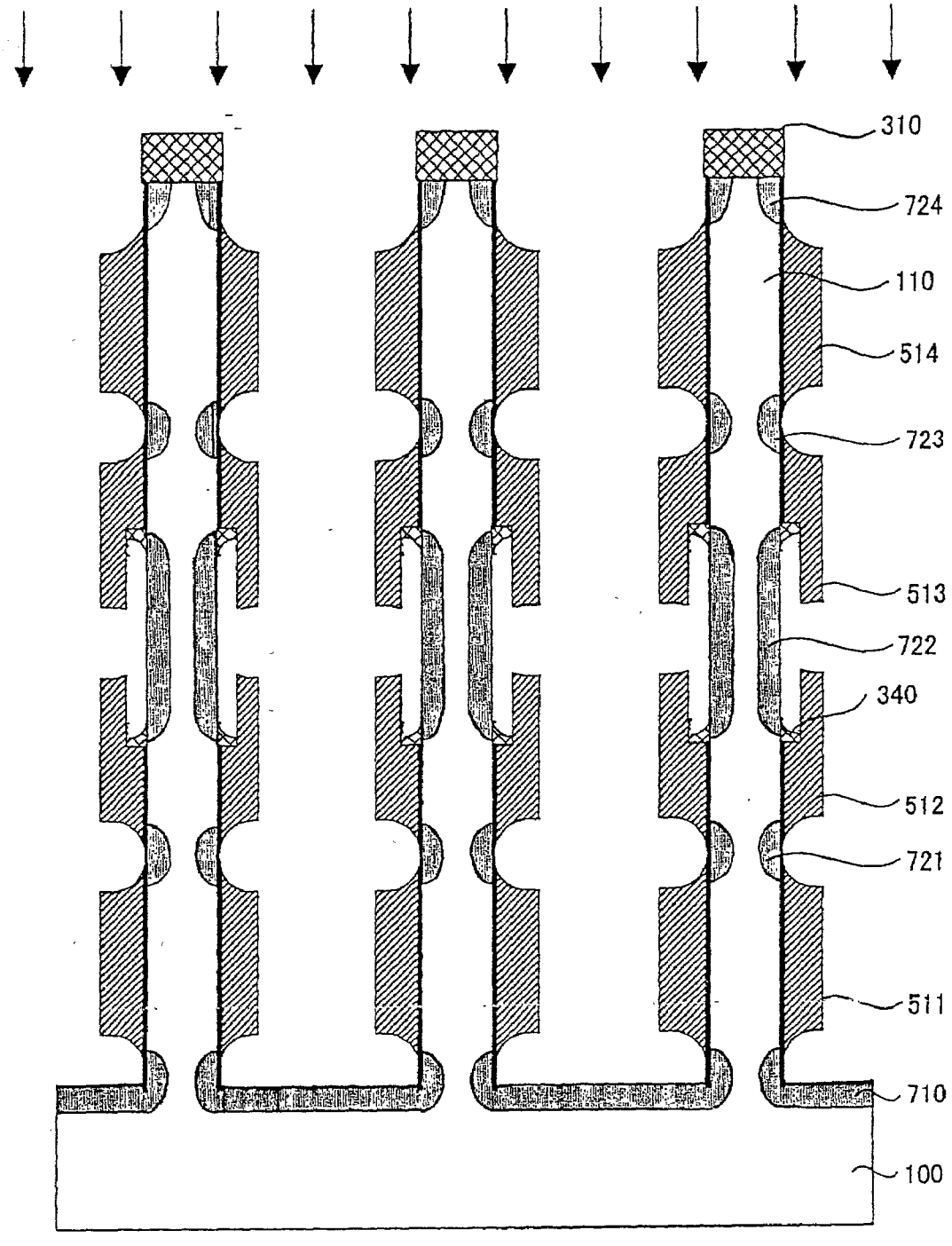


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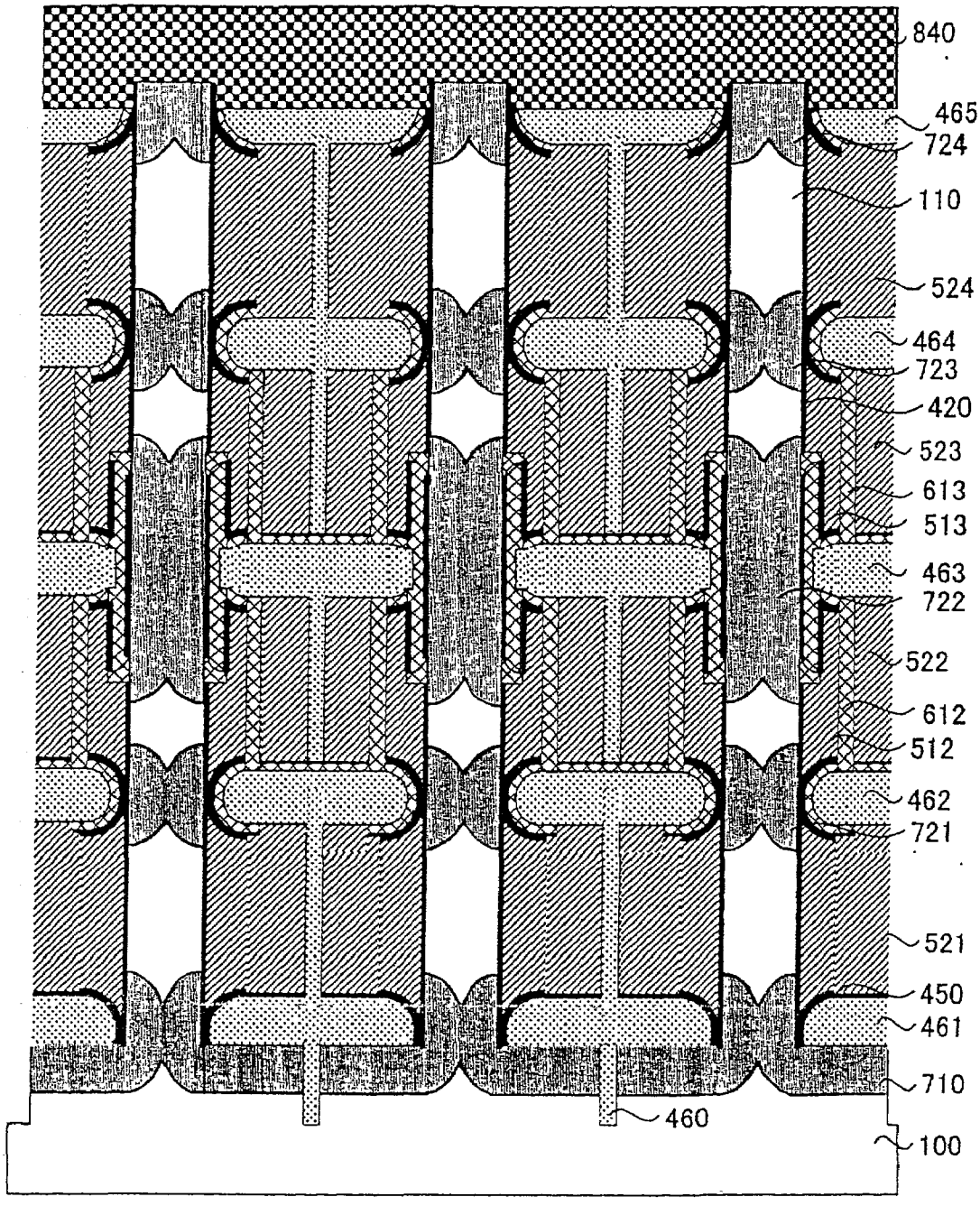

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Fig. 284

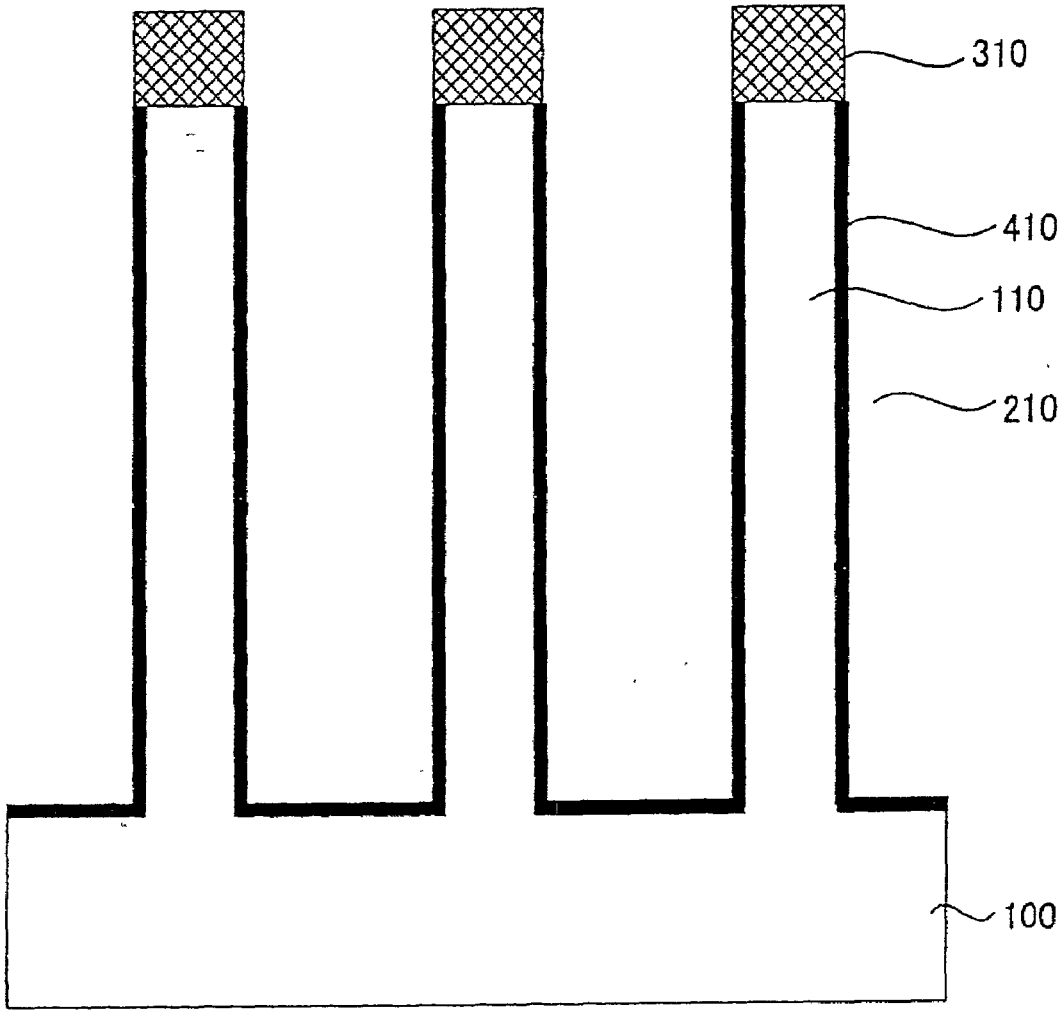


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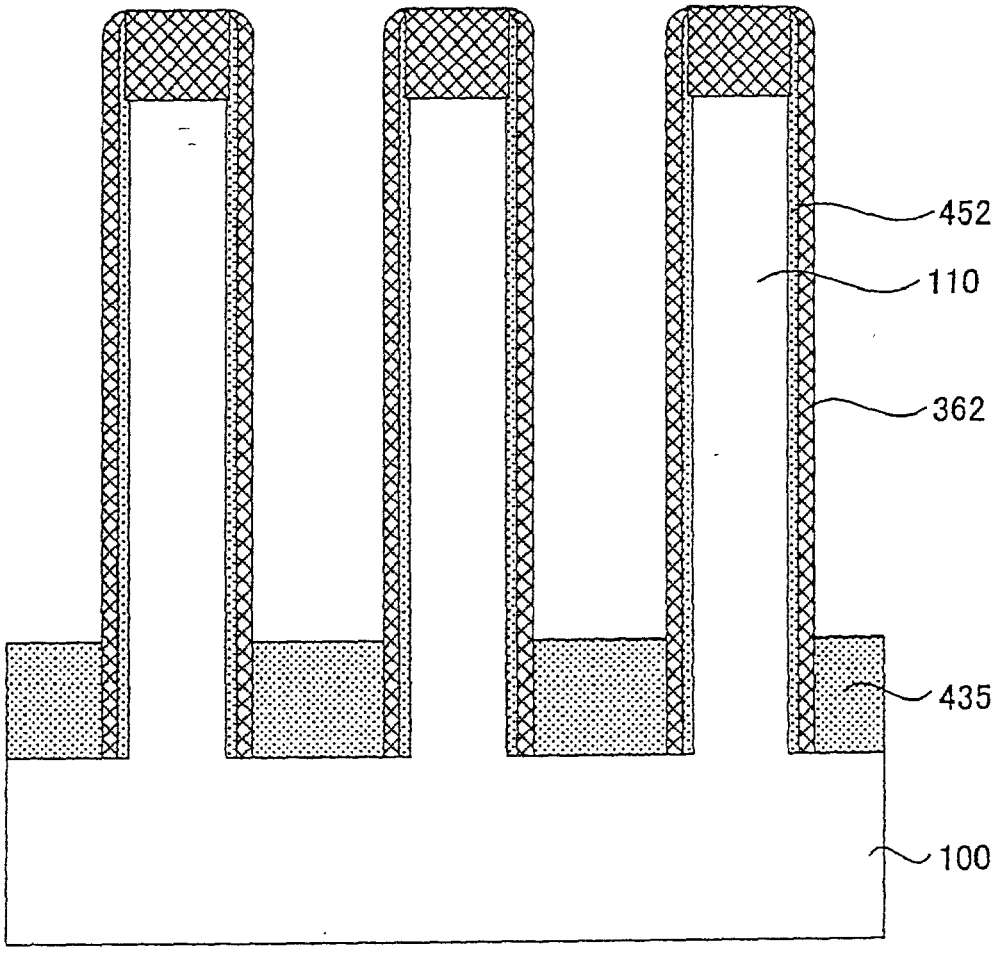


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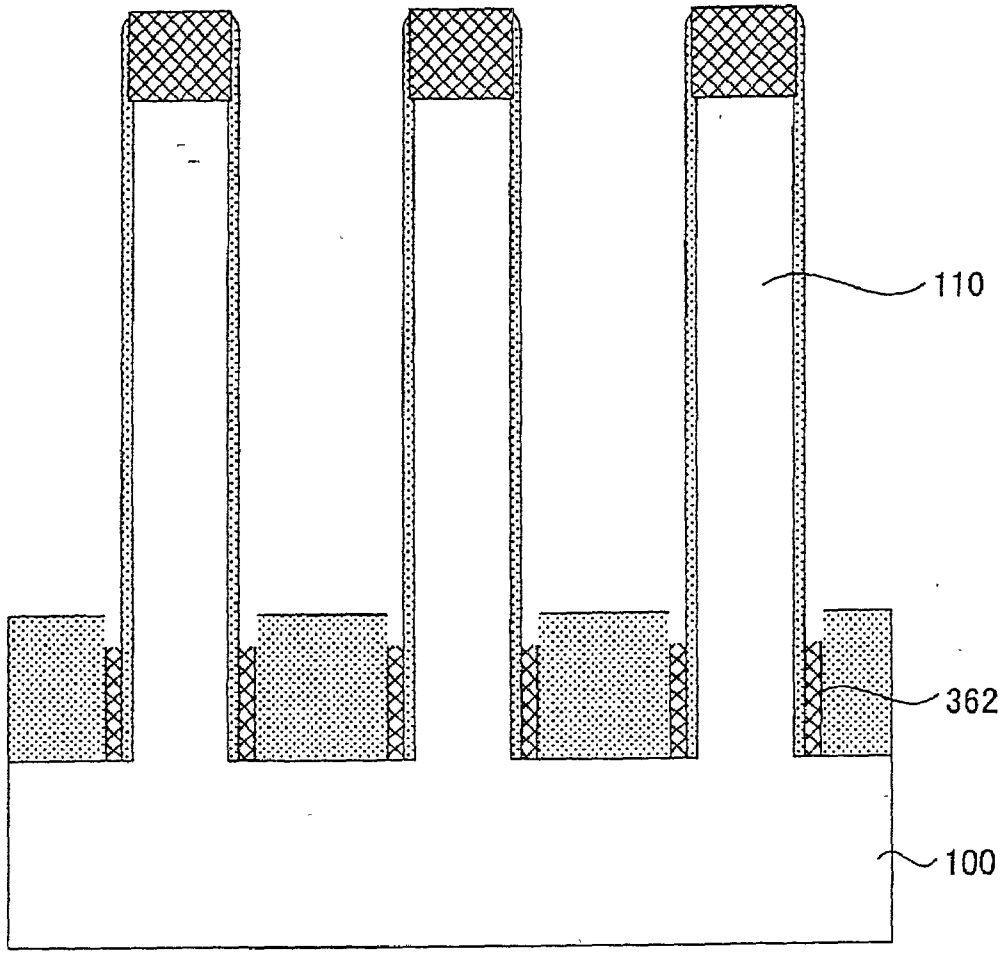


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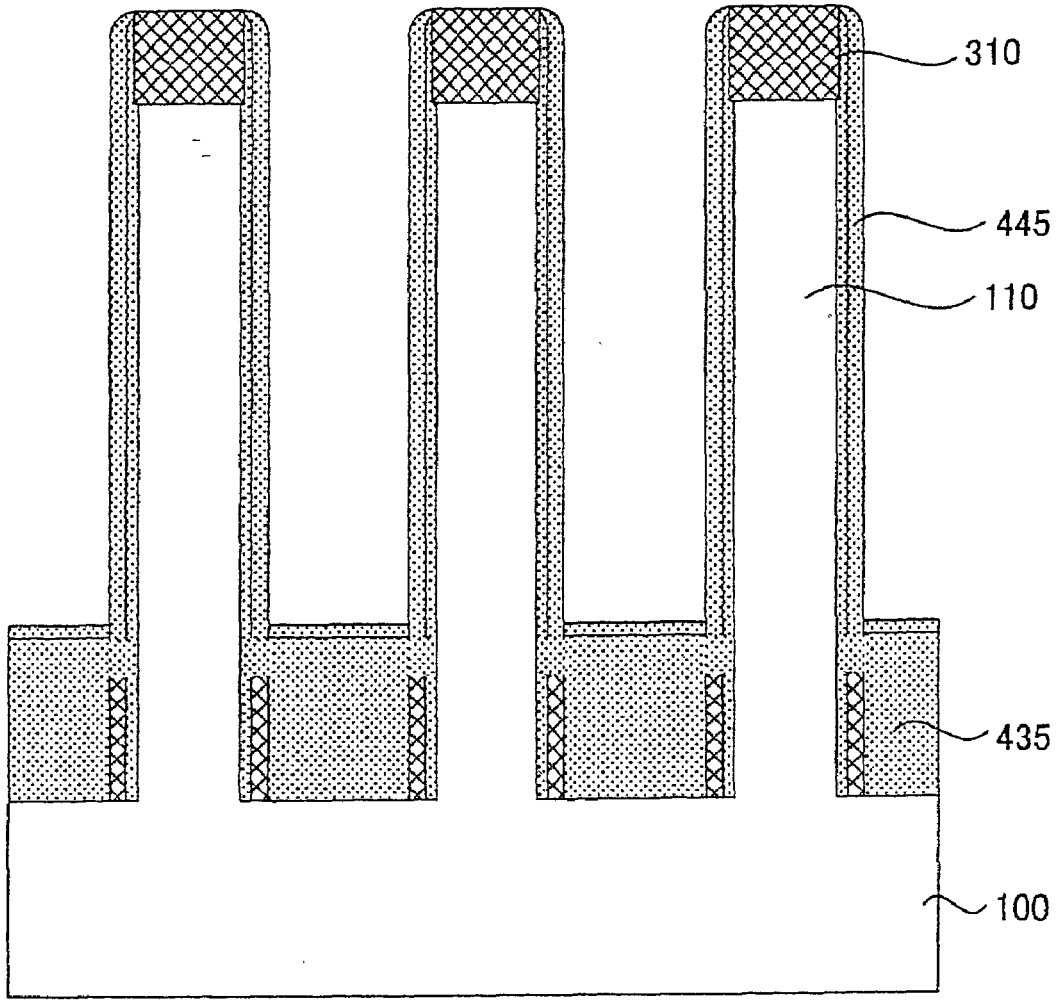


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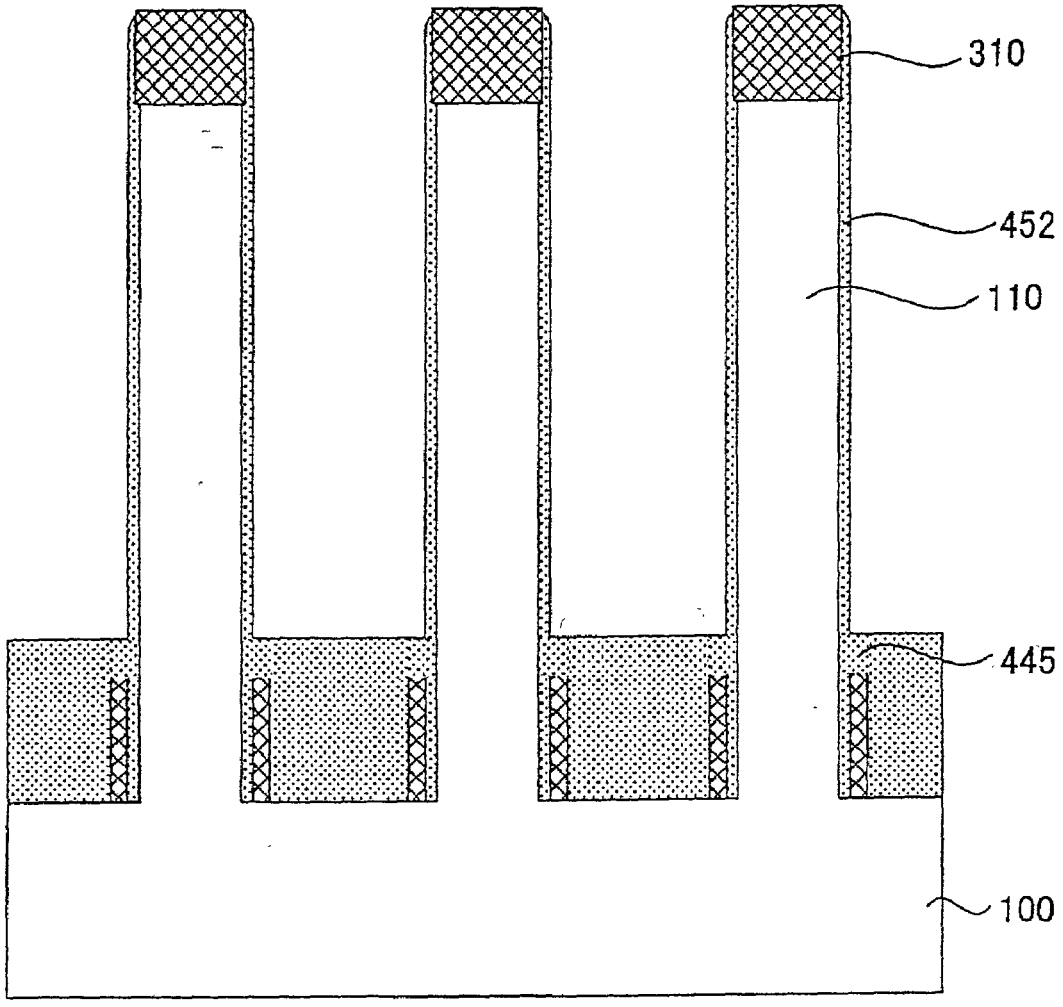


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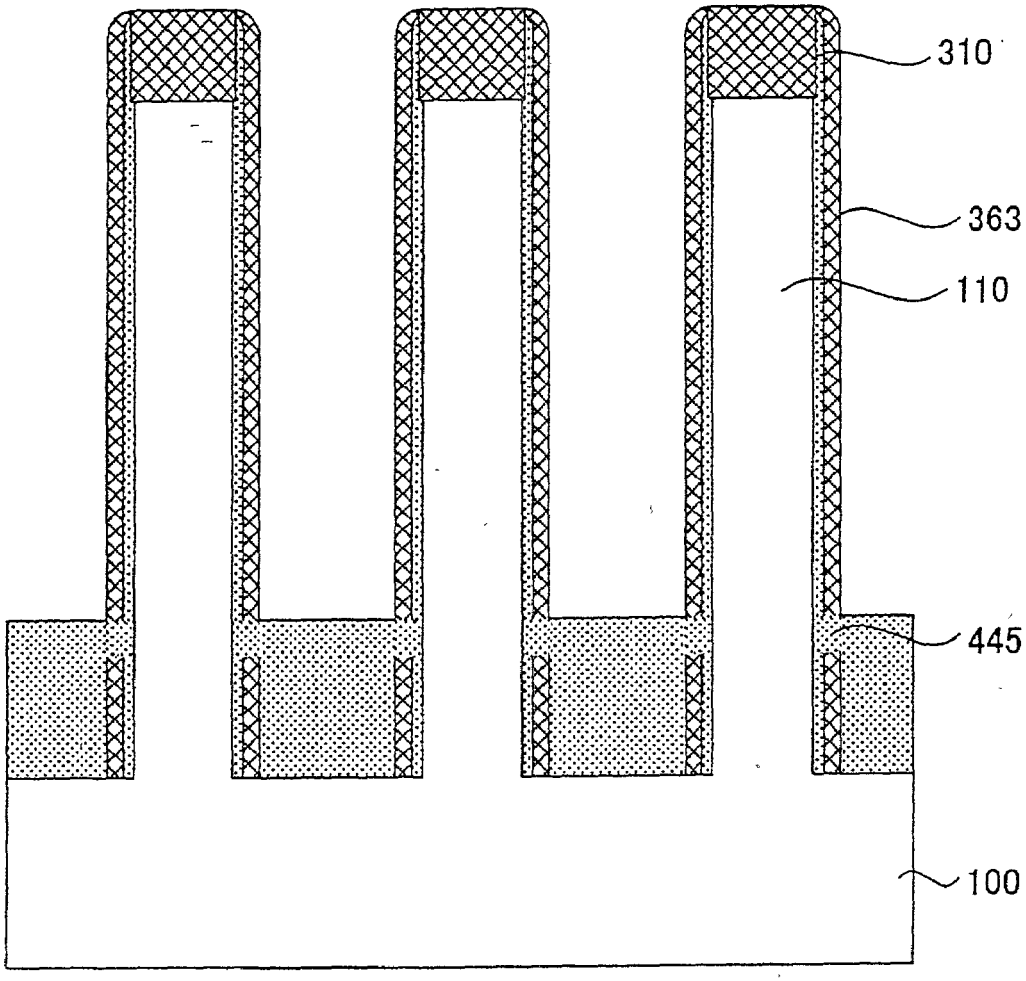


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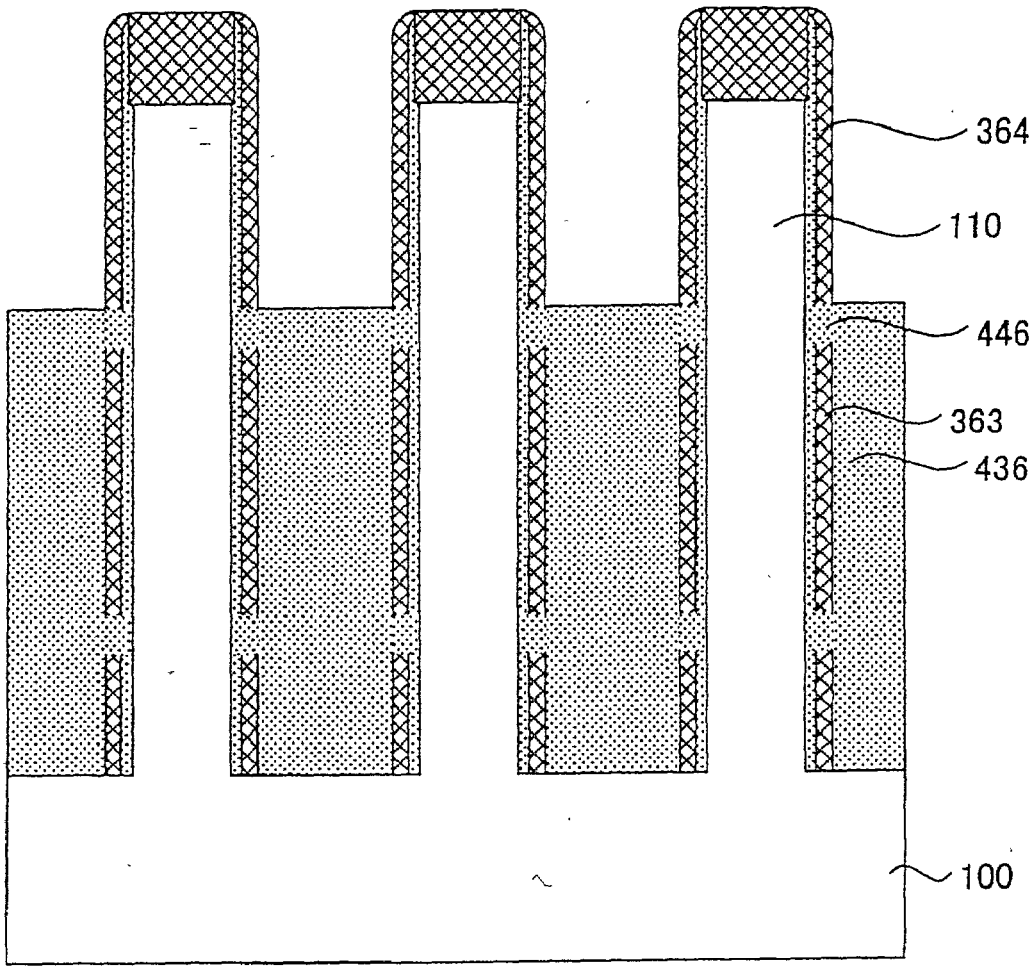


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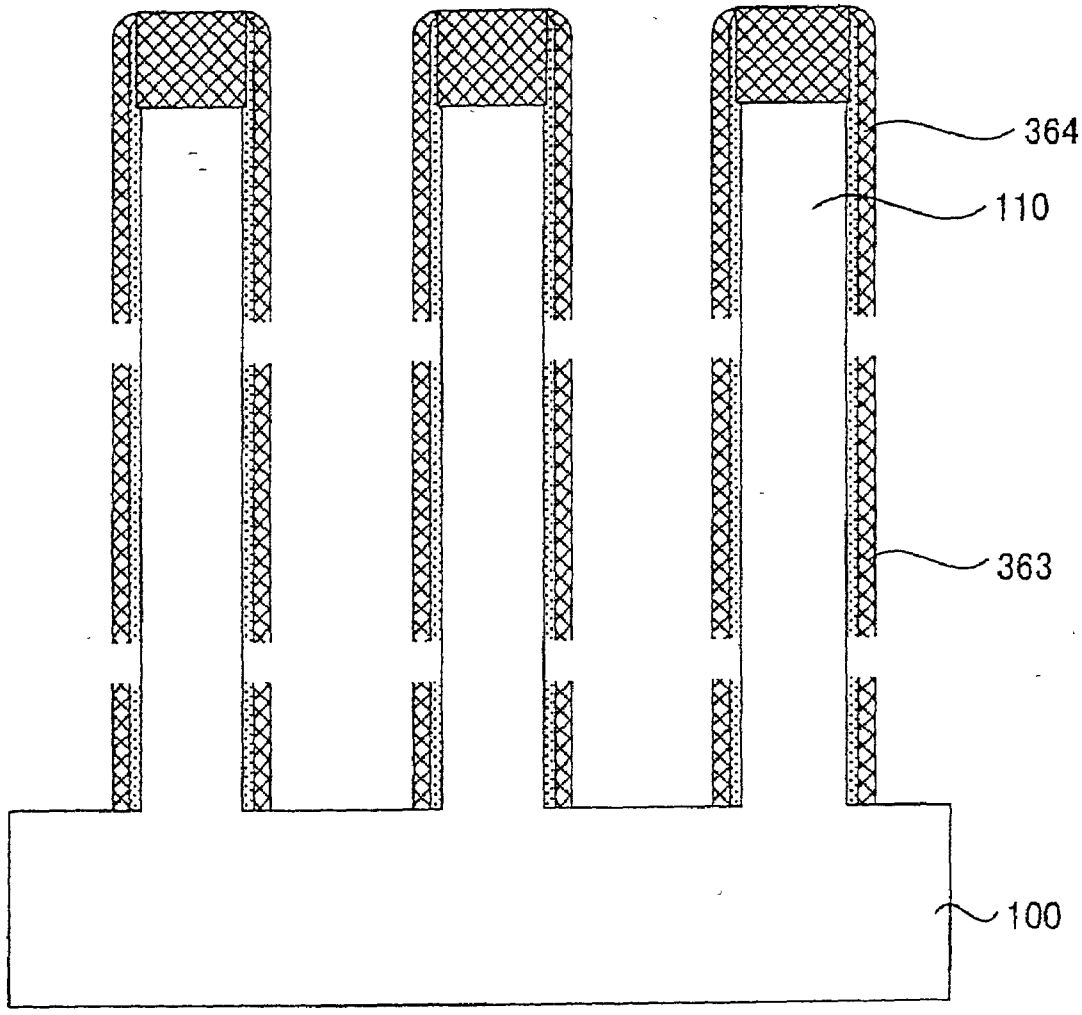


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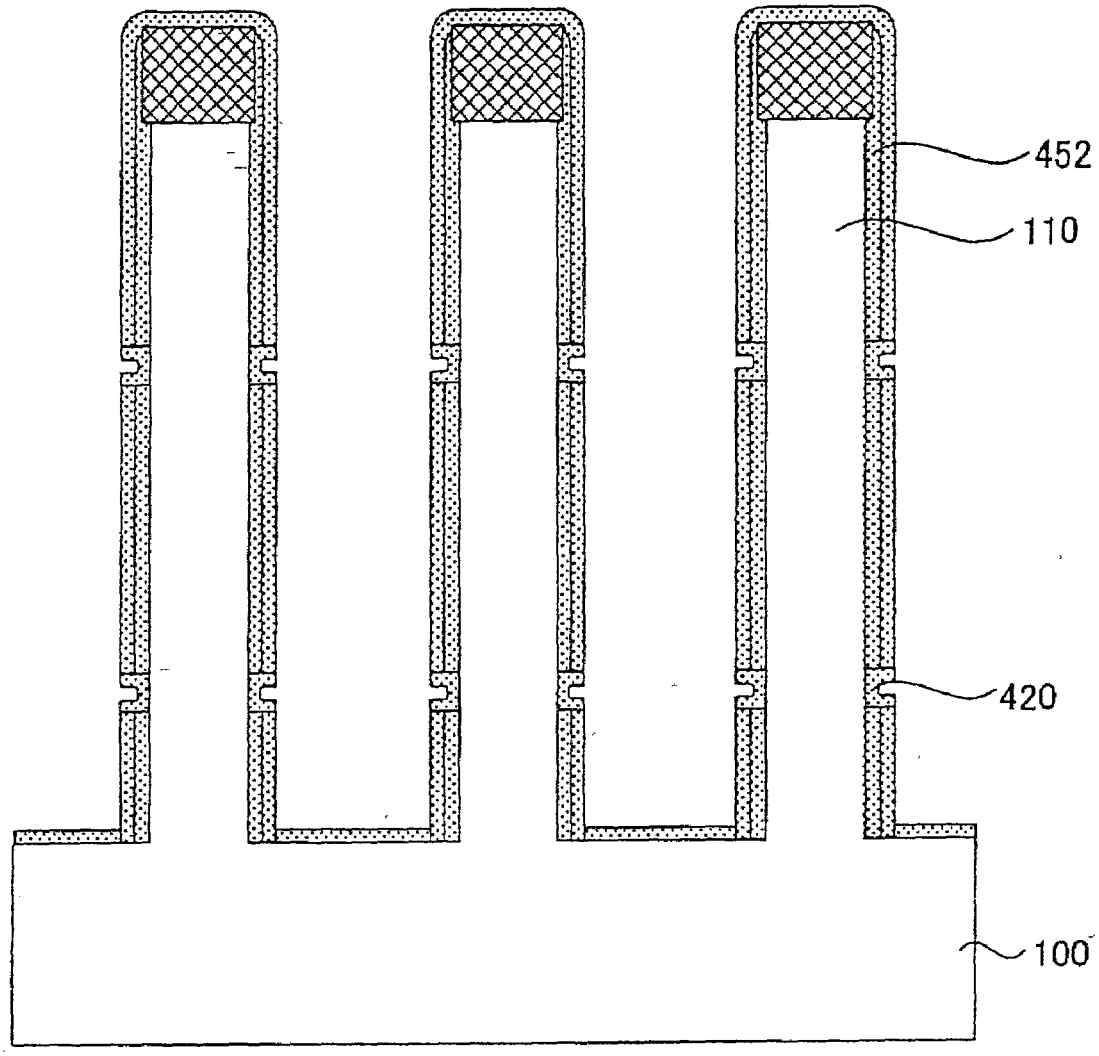


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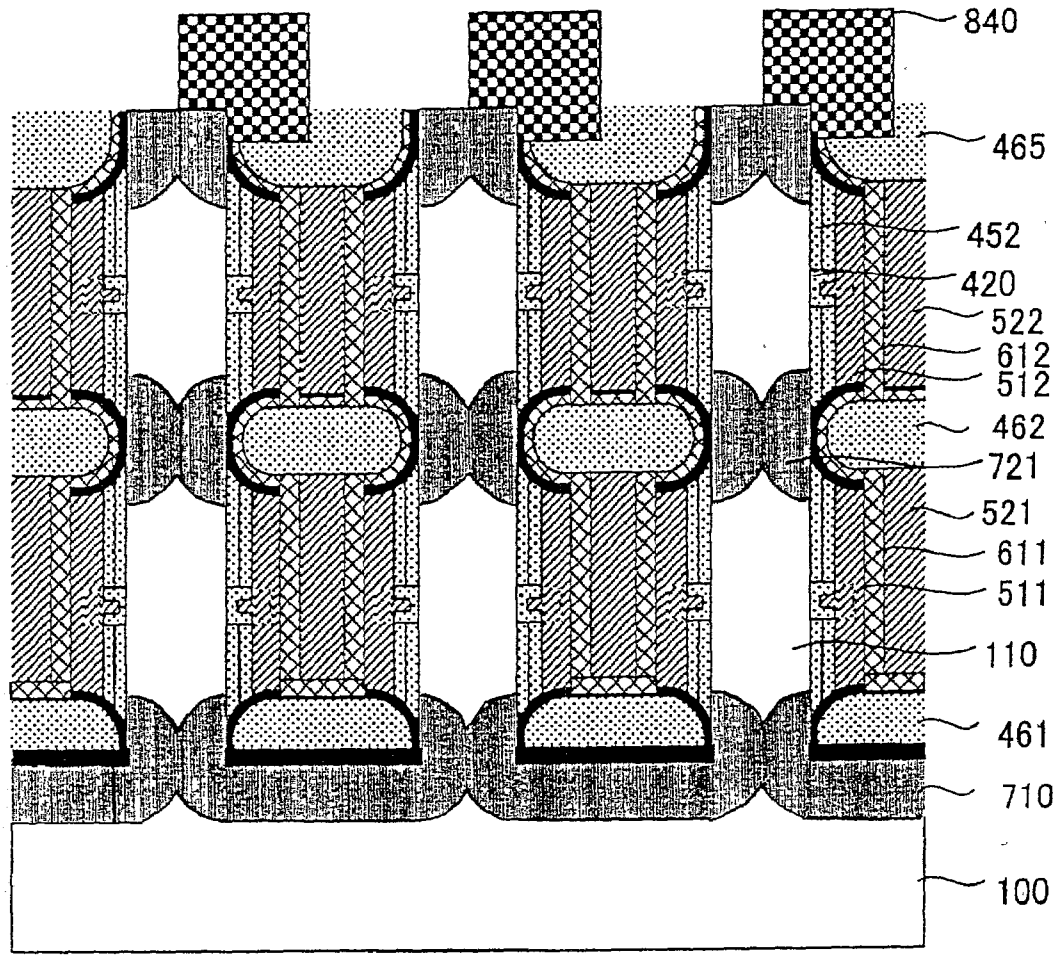


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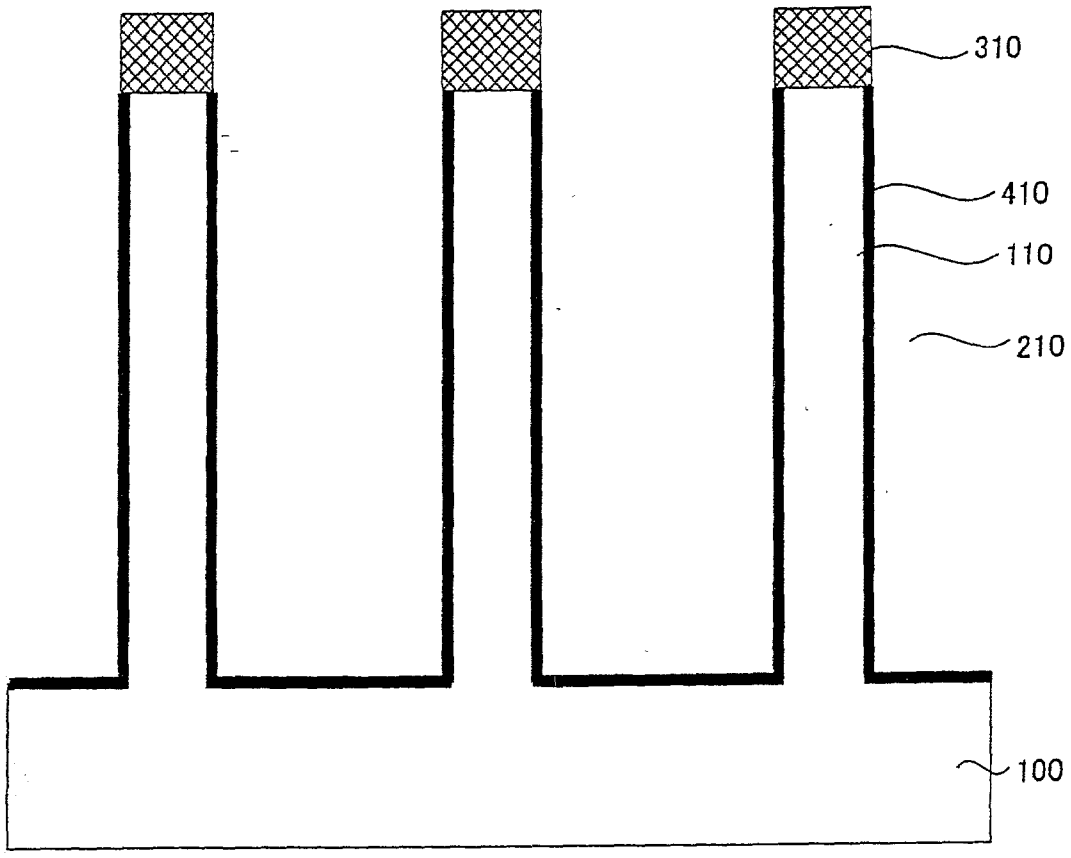


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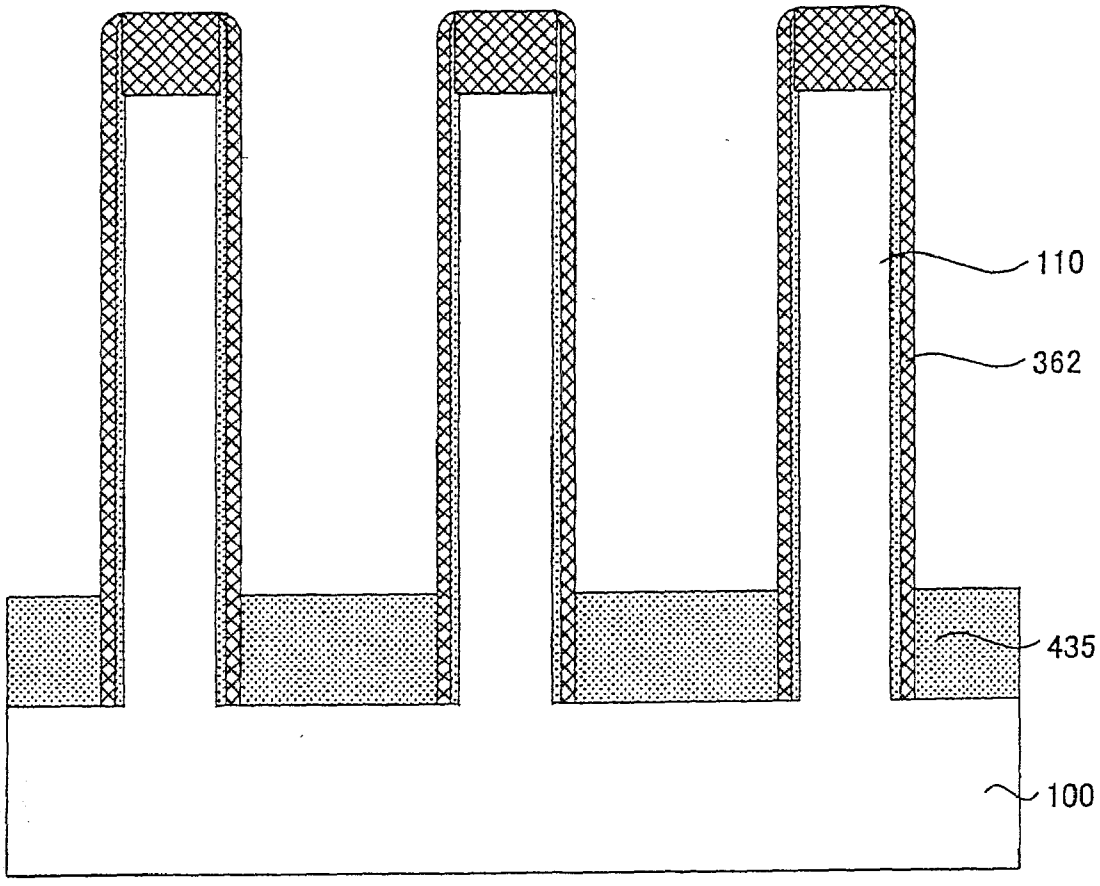


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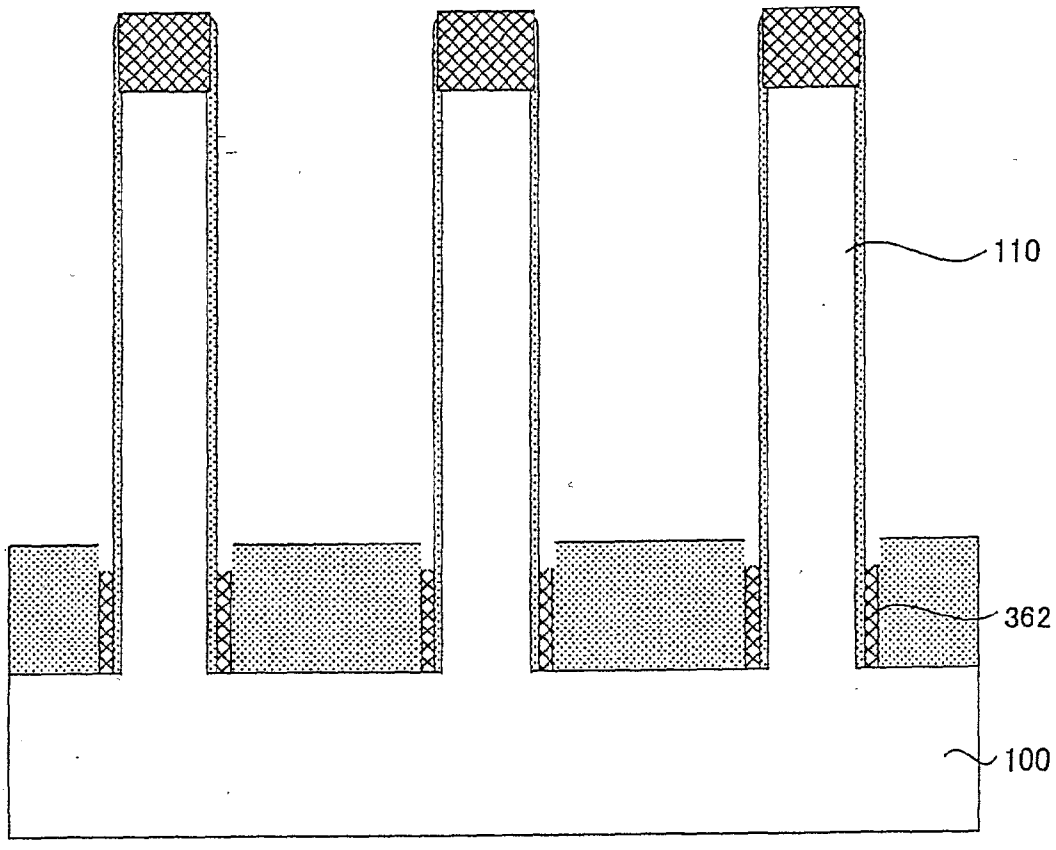


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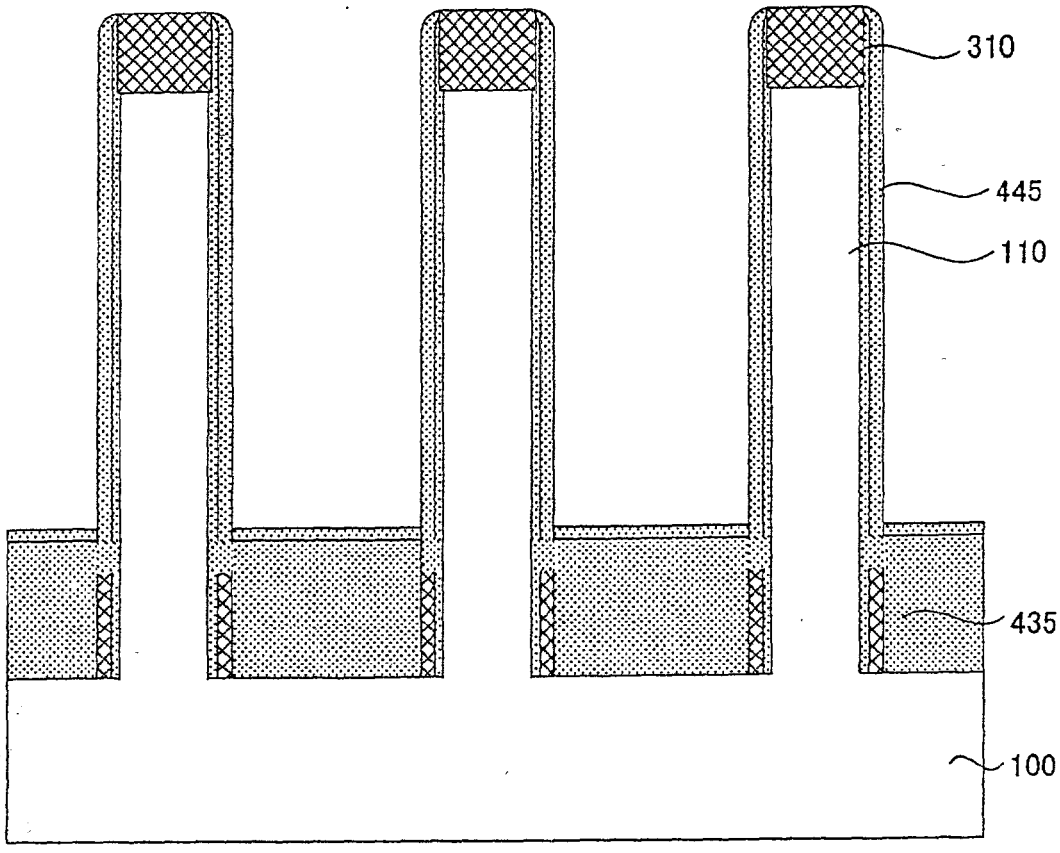


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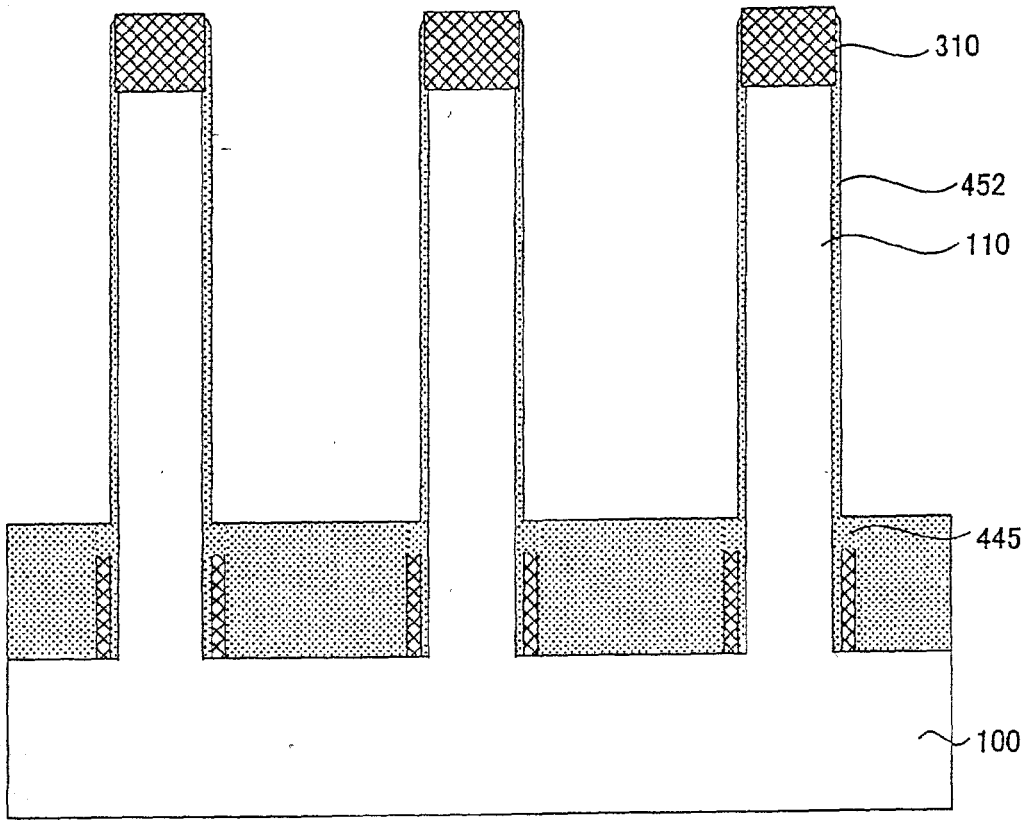


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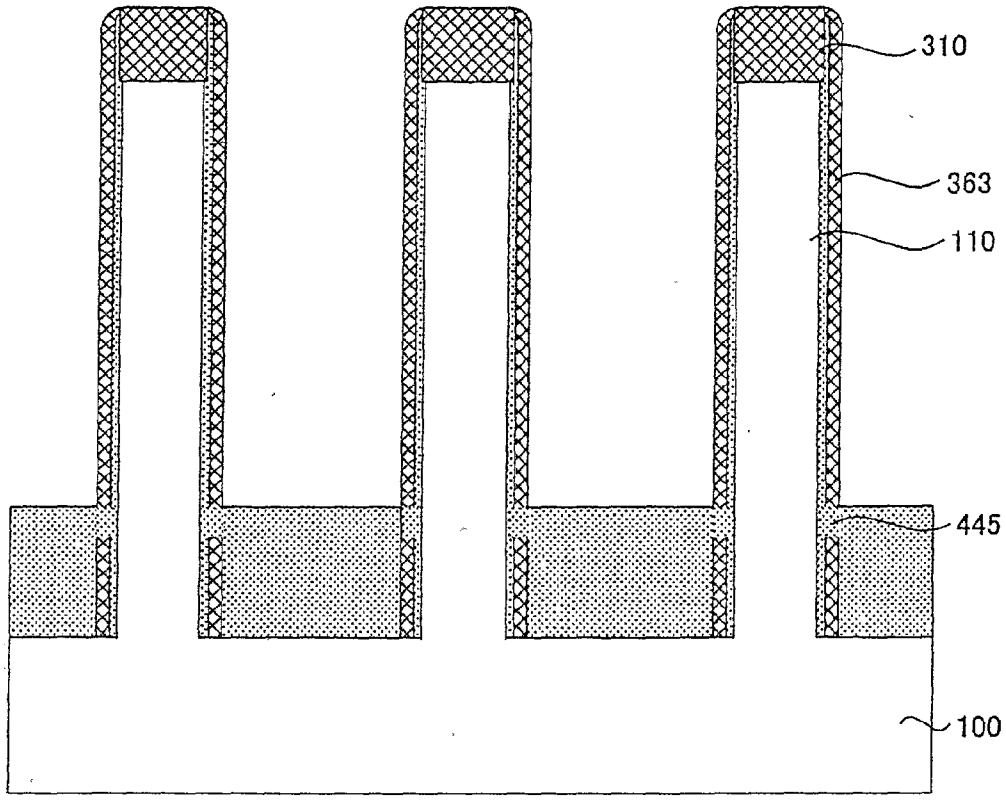


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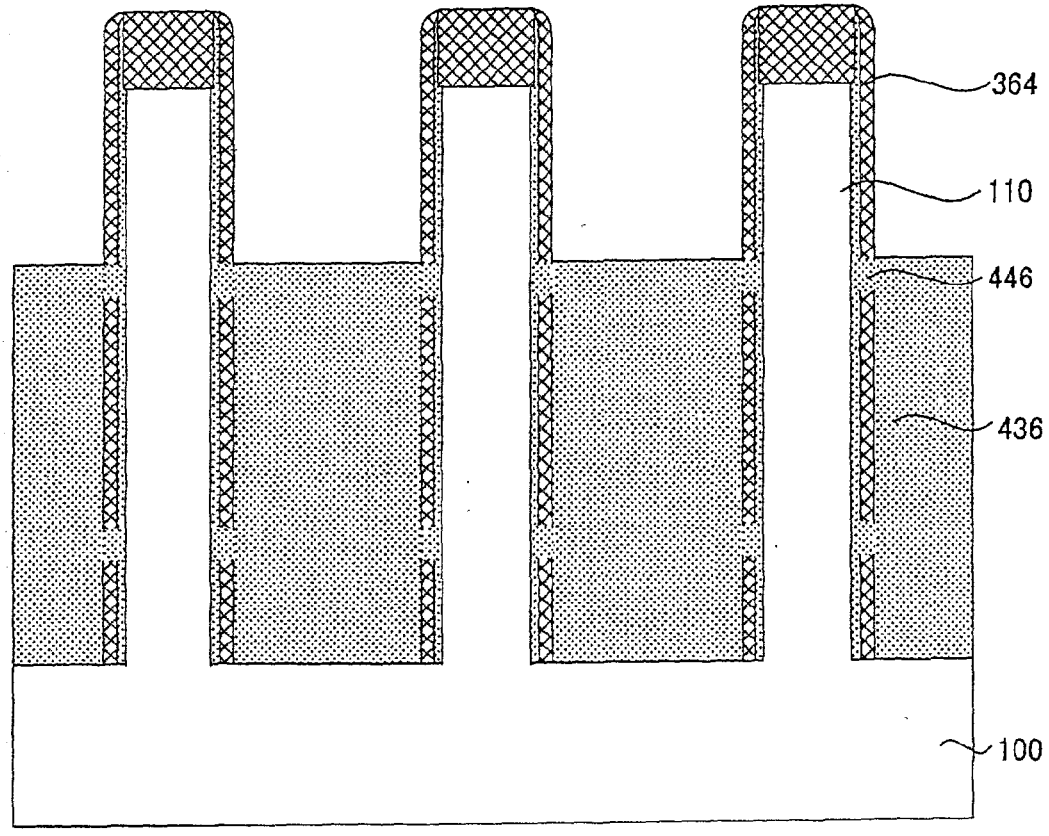


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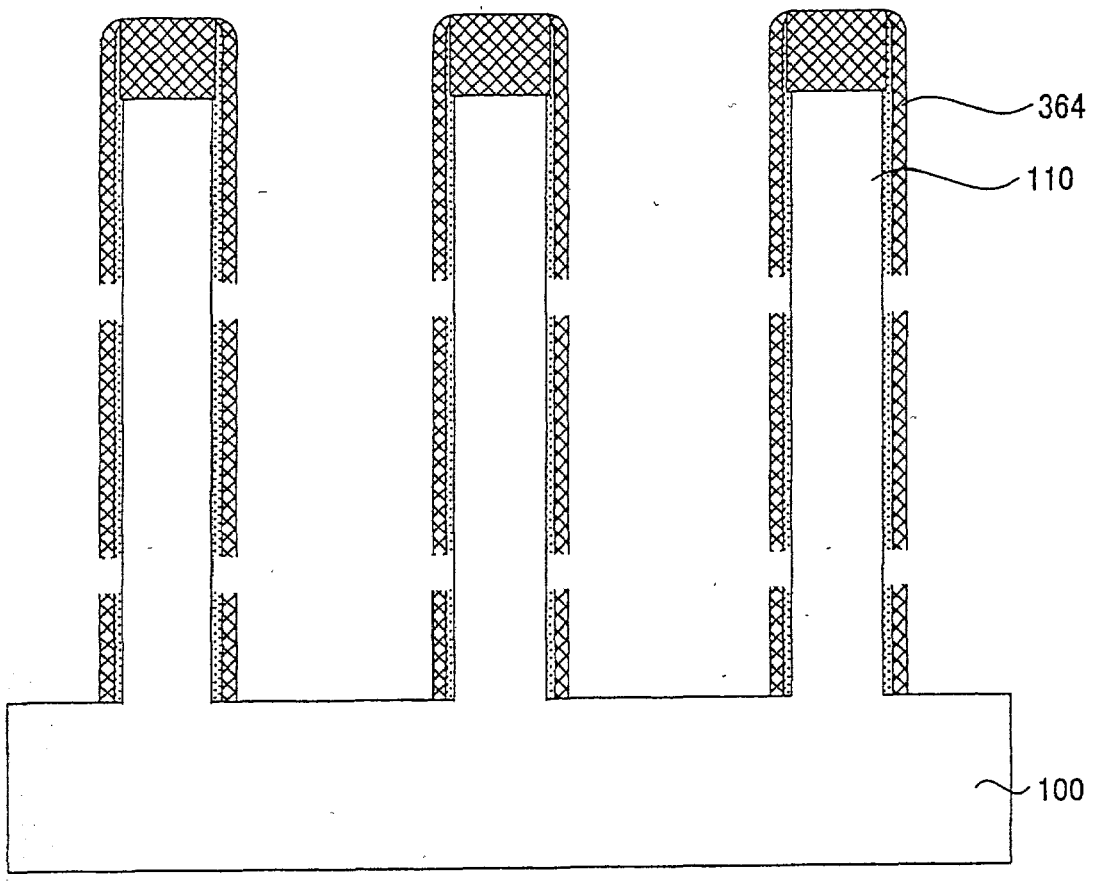


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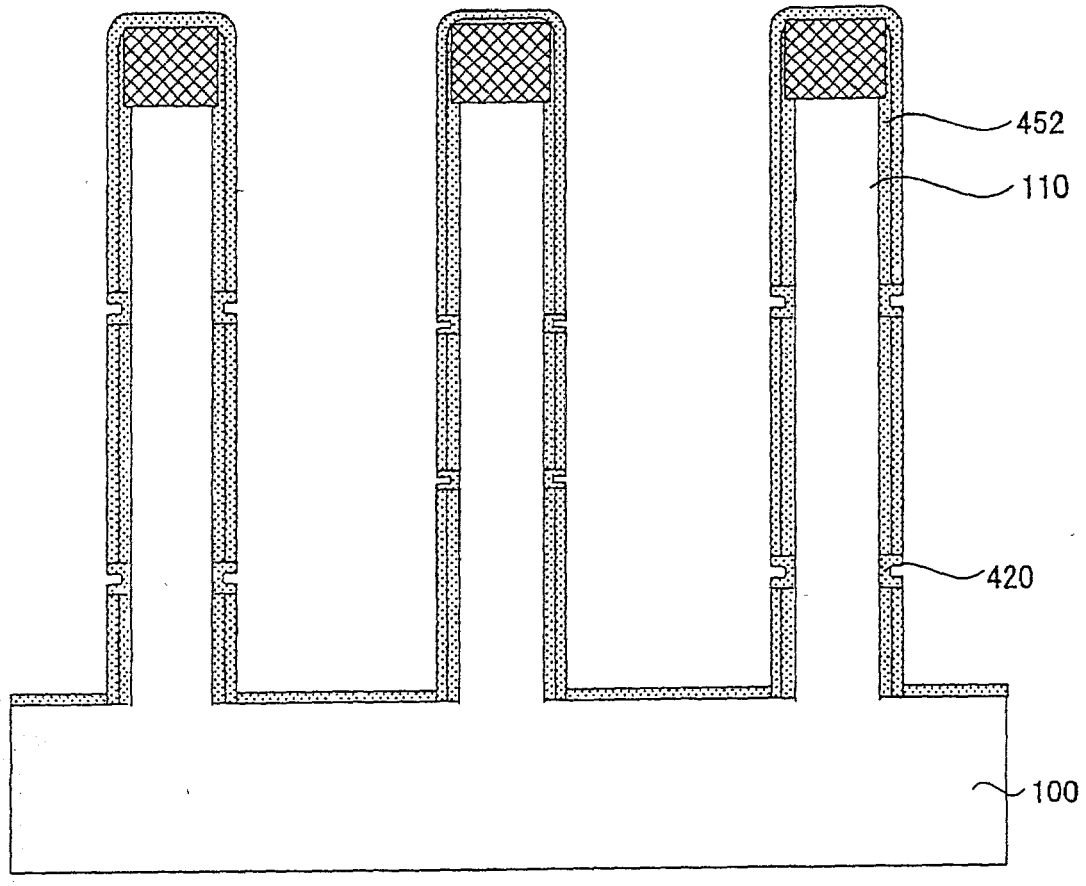


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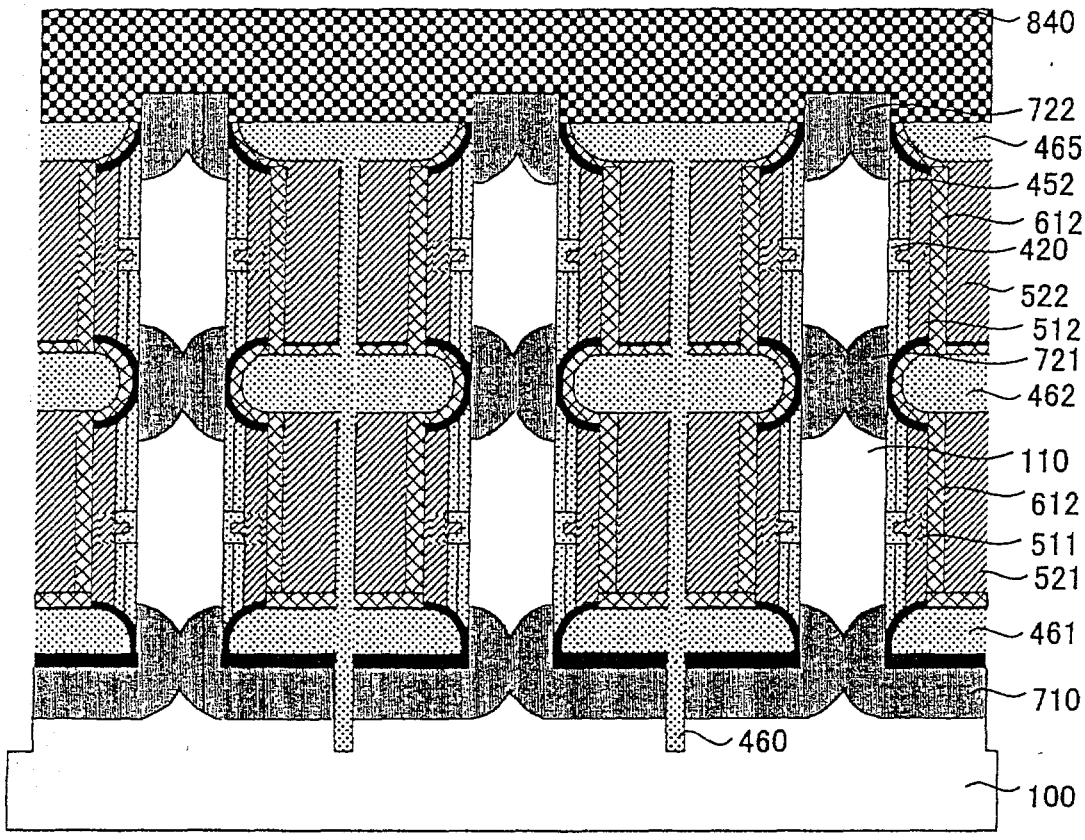

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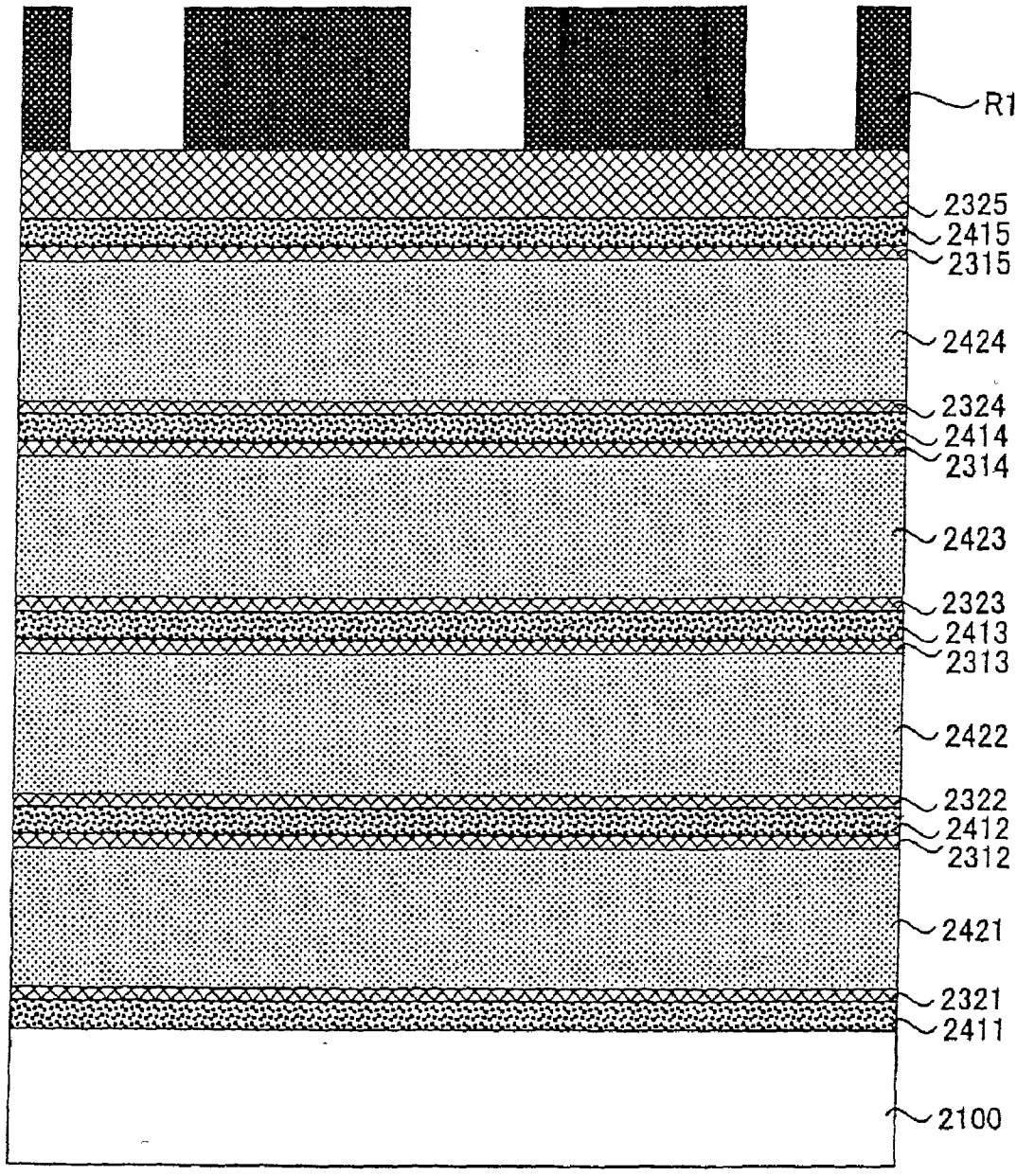

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Fig. 305

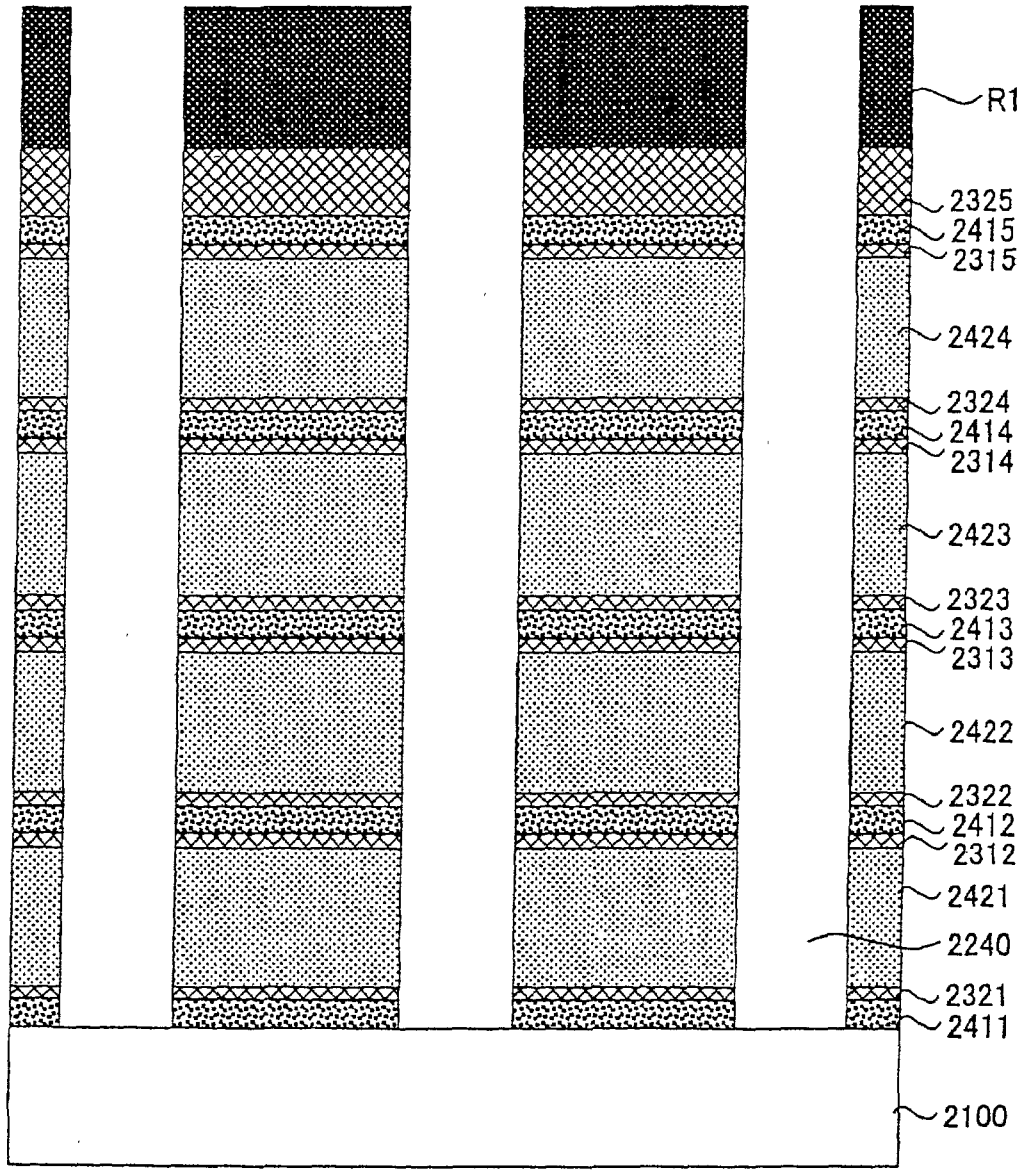

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Fig. 306

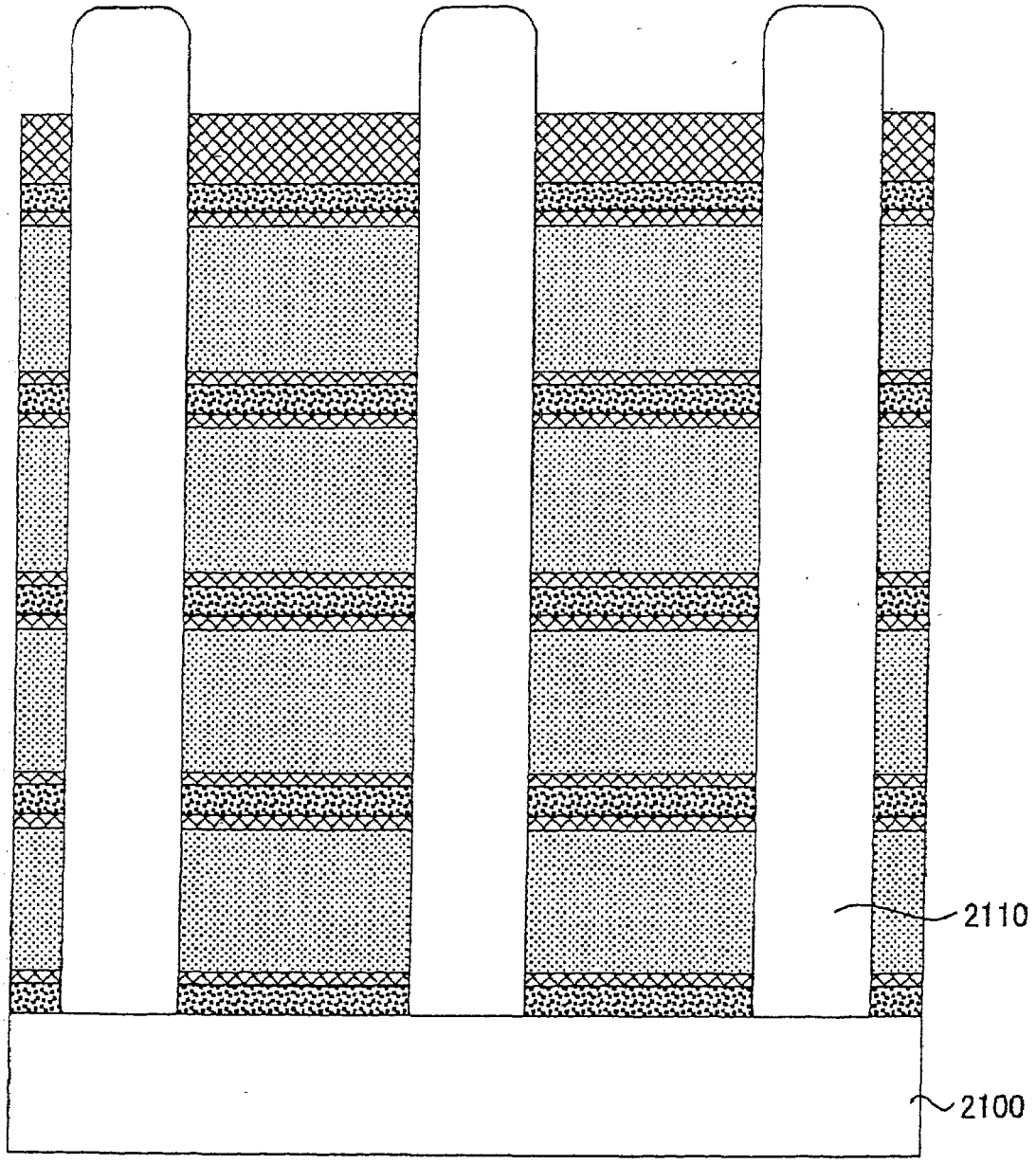


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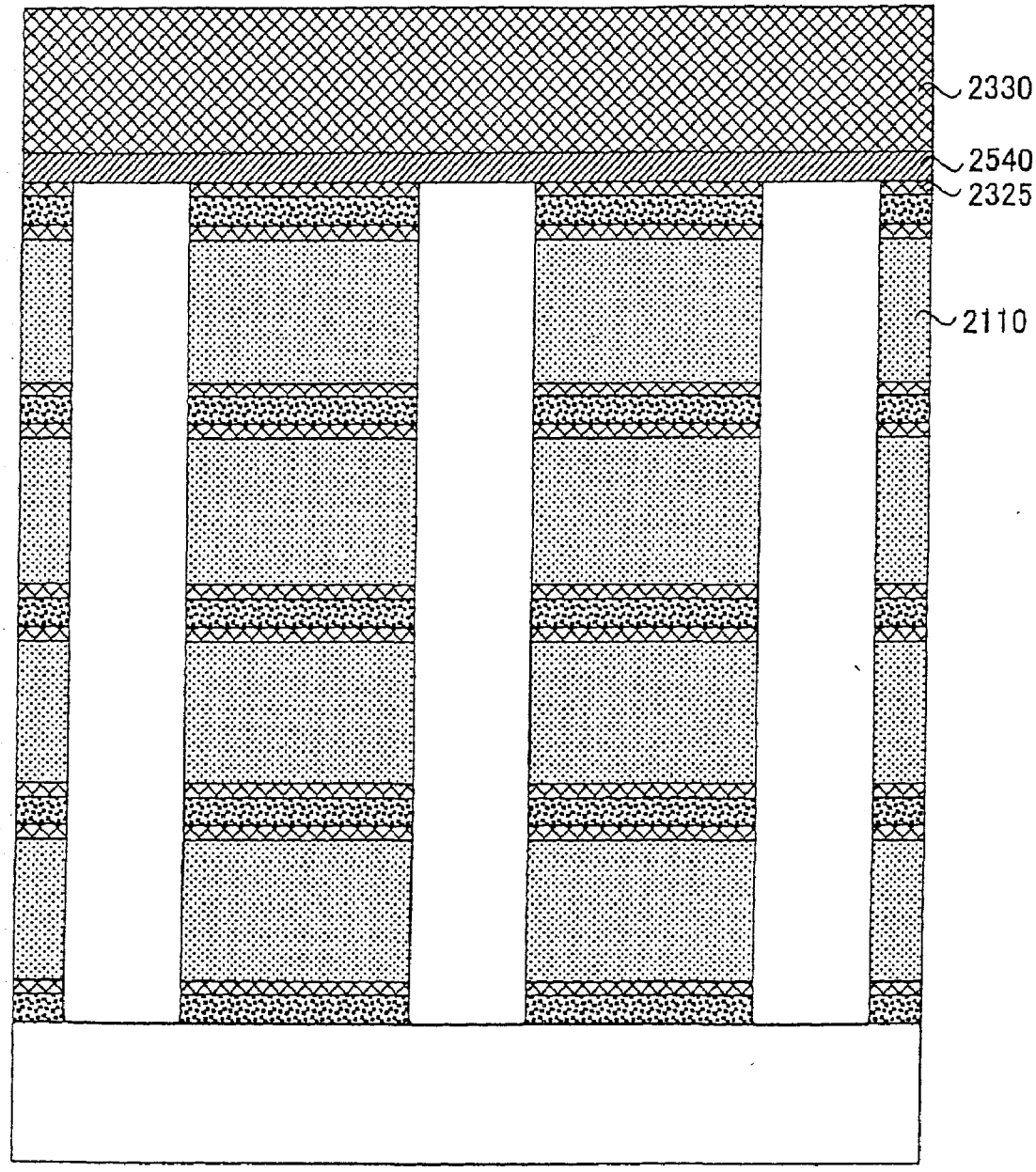


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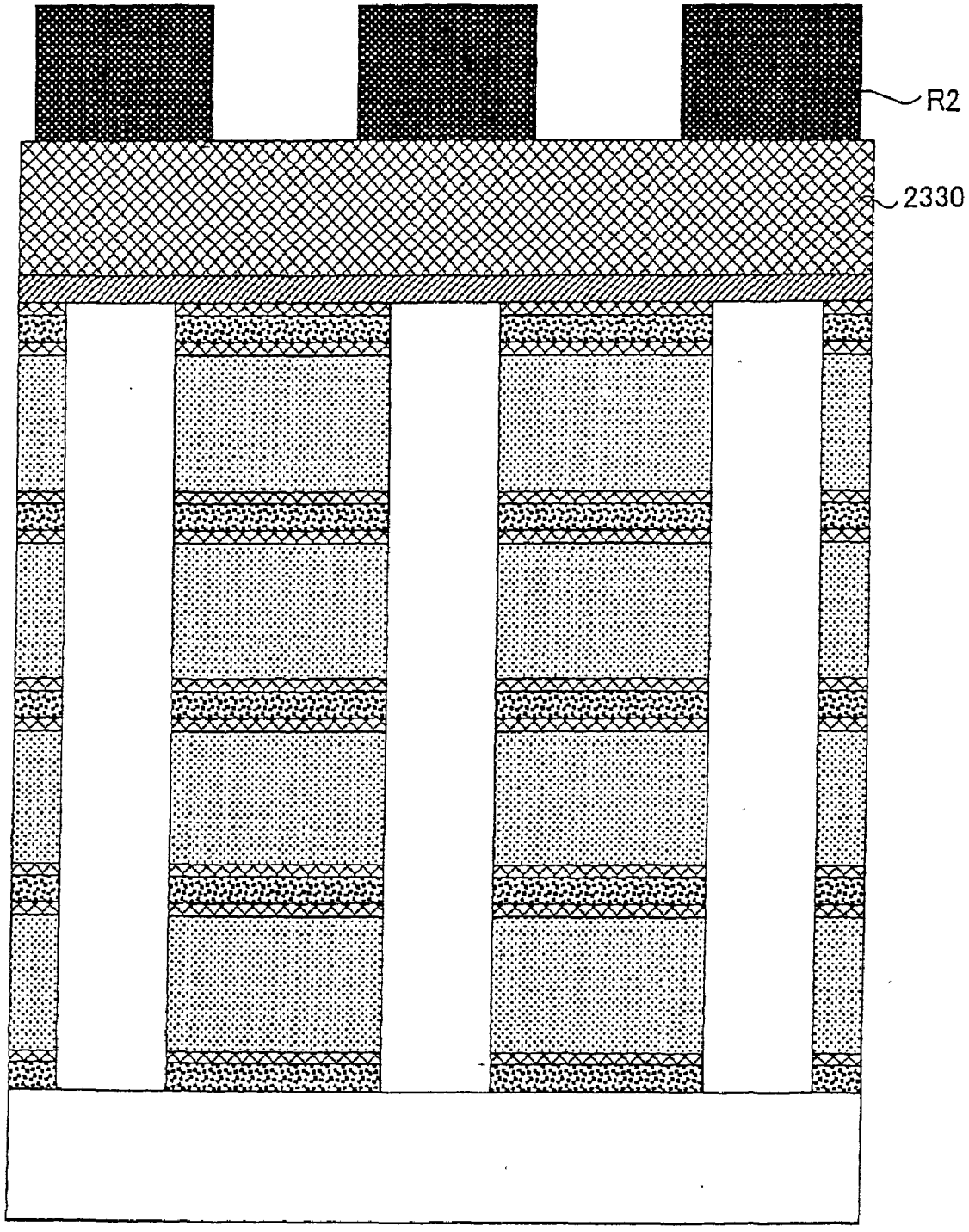


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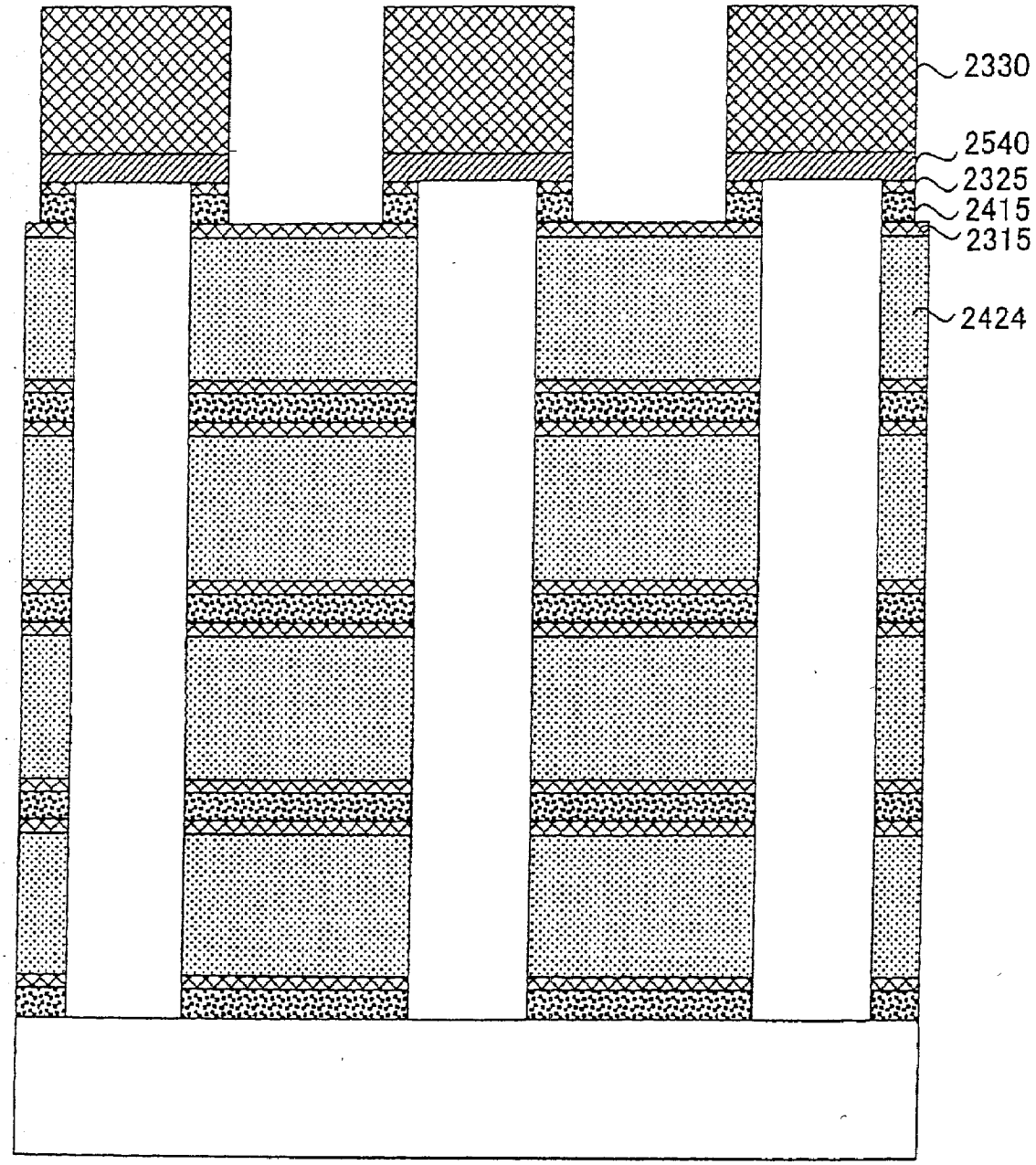


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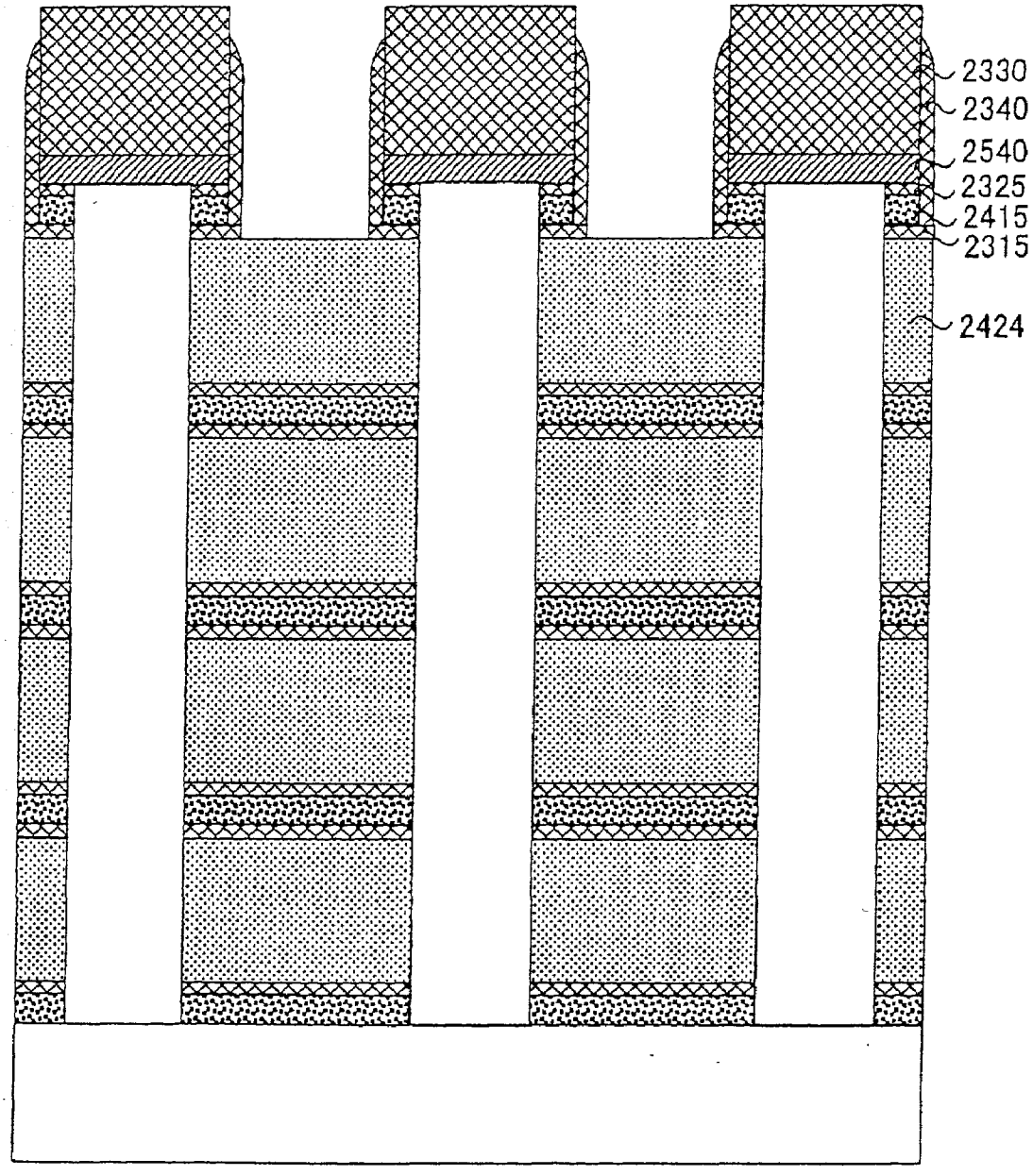


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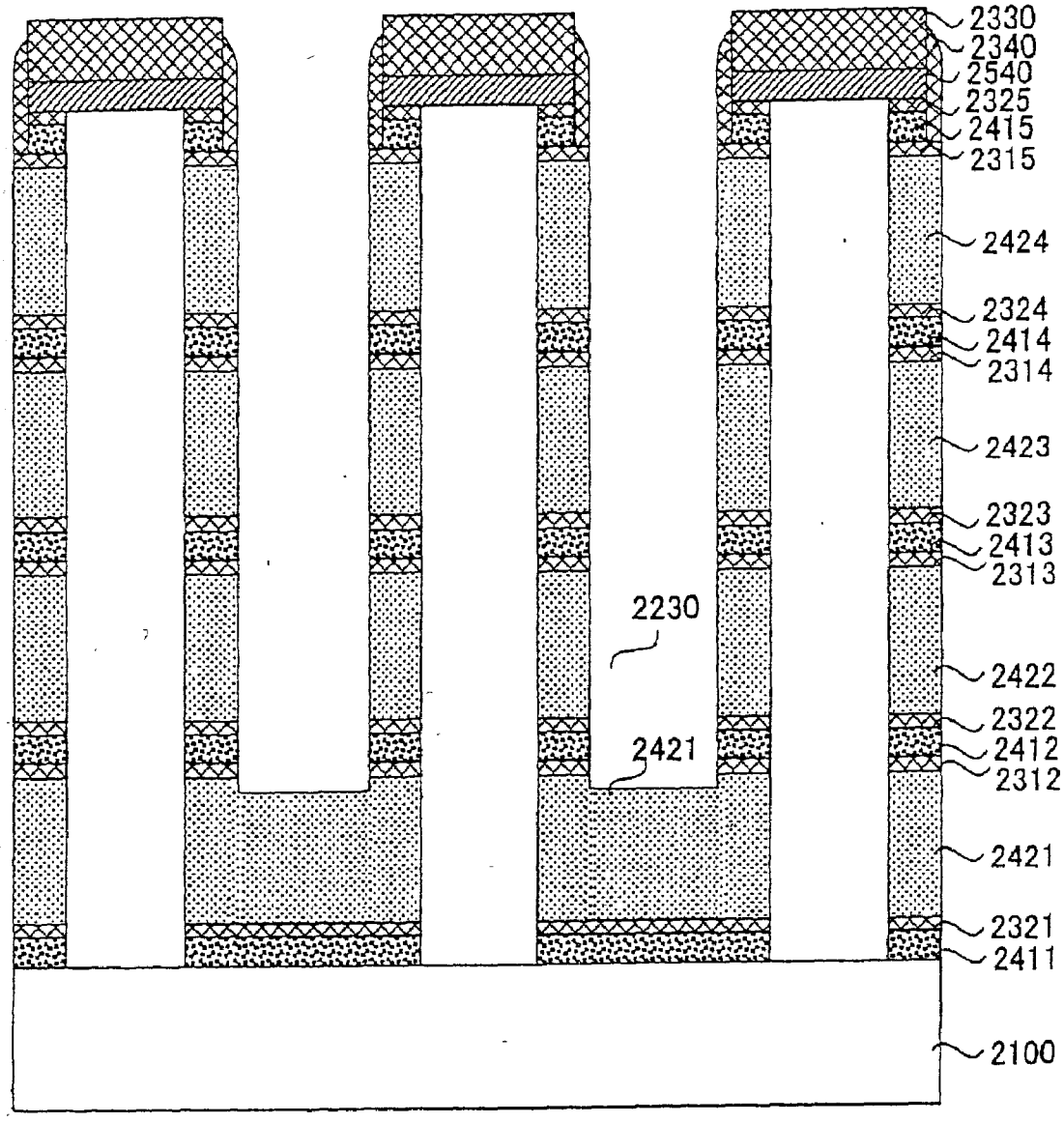

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Fig. 312

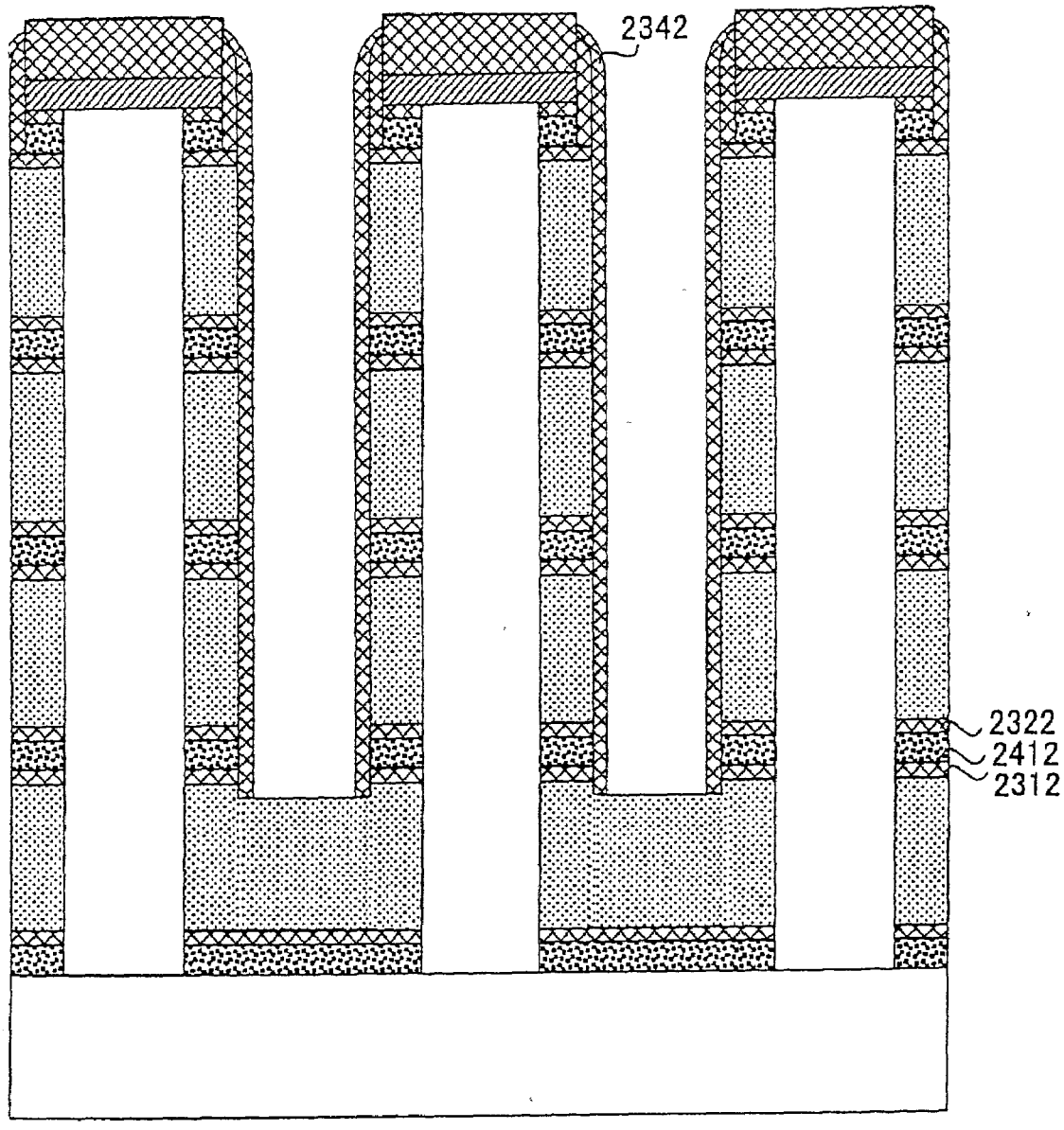


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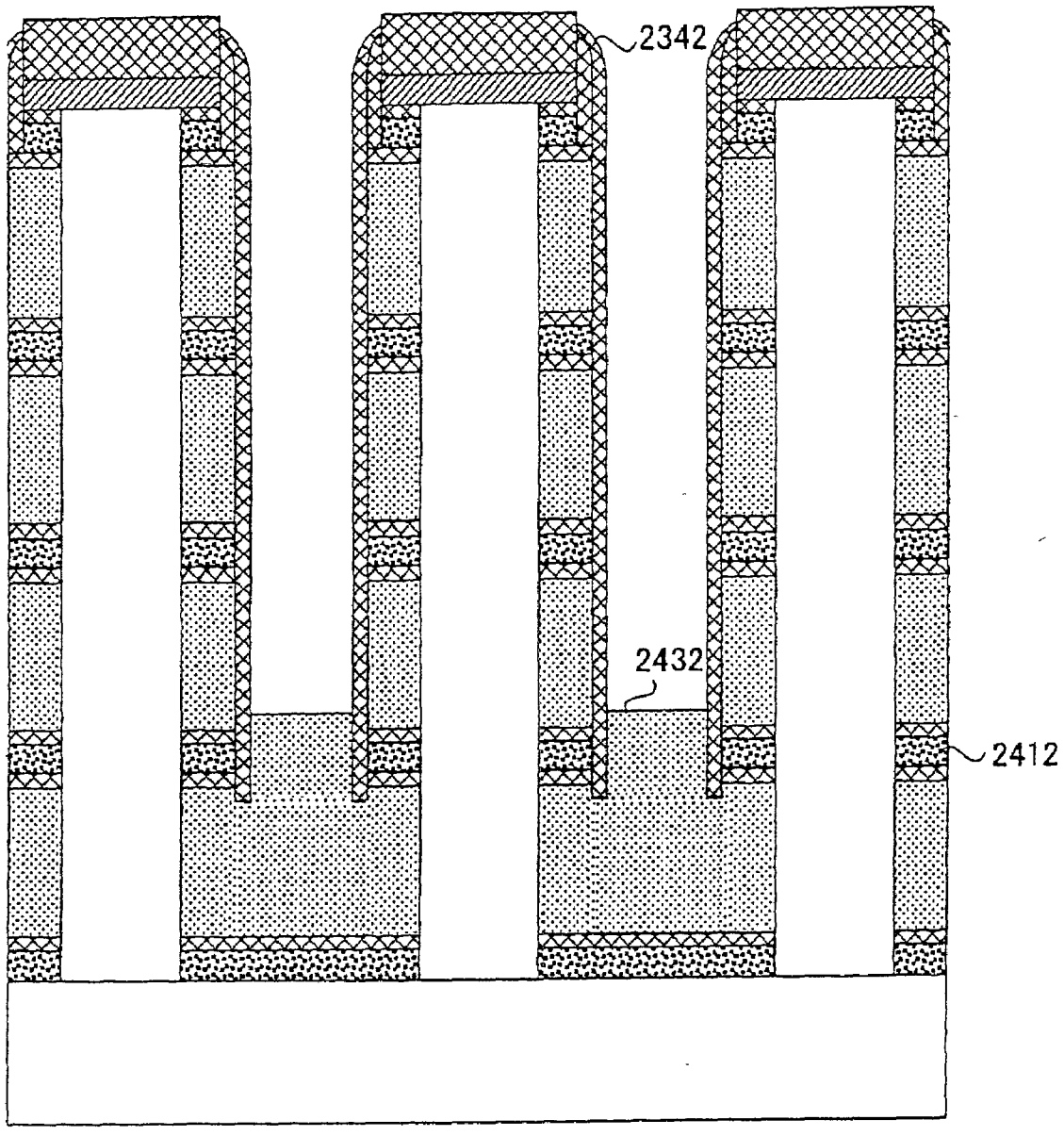


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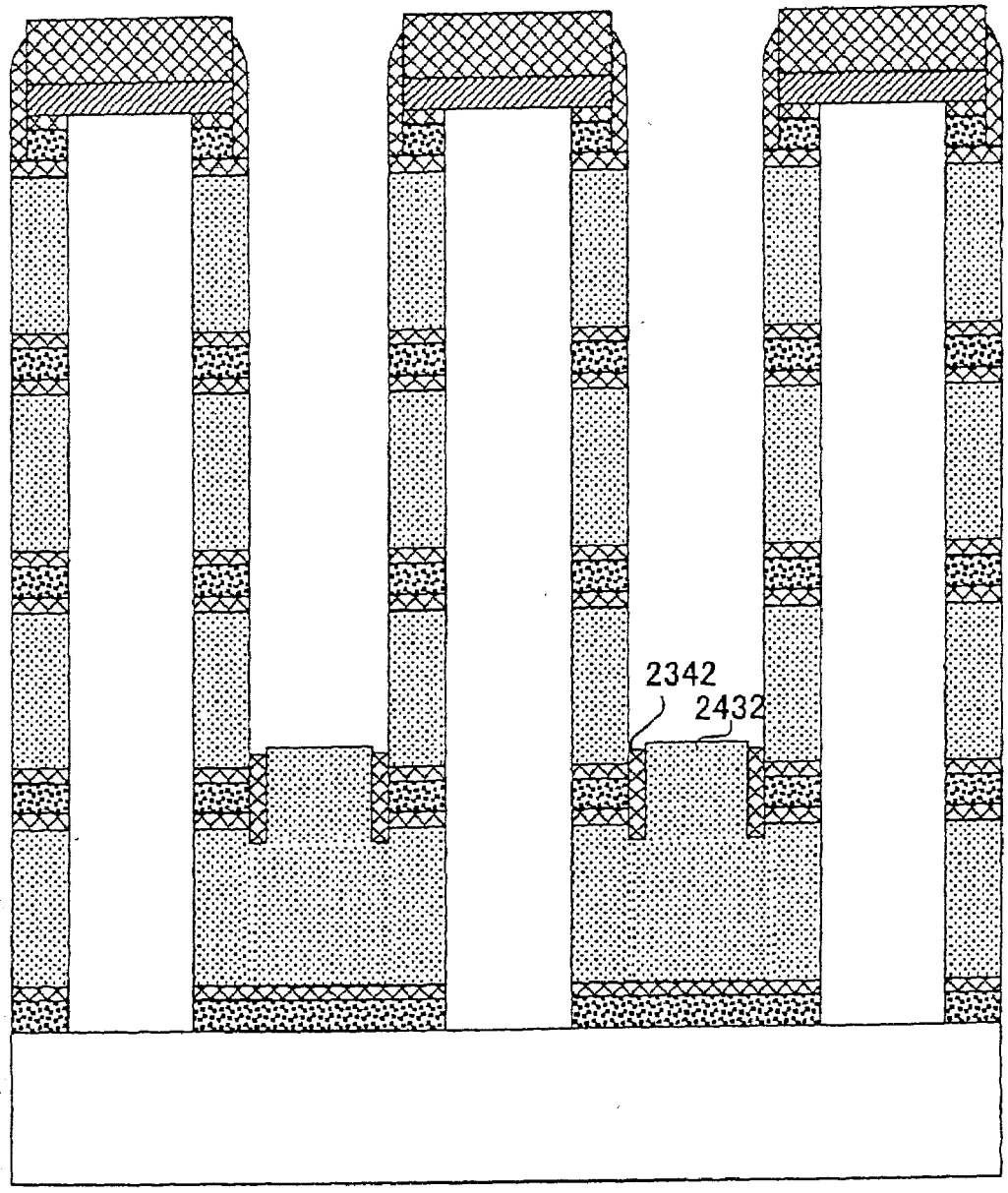


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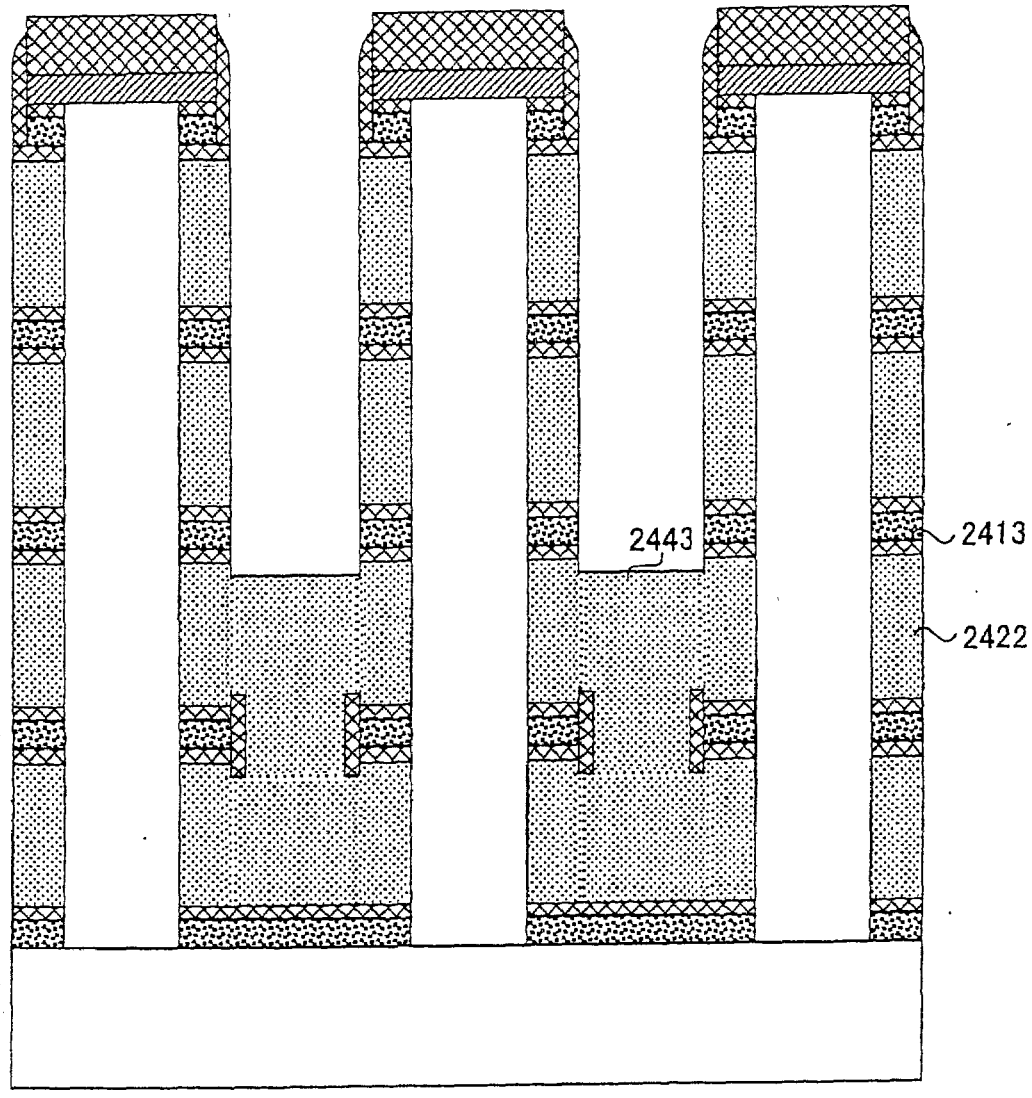


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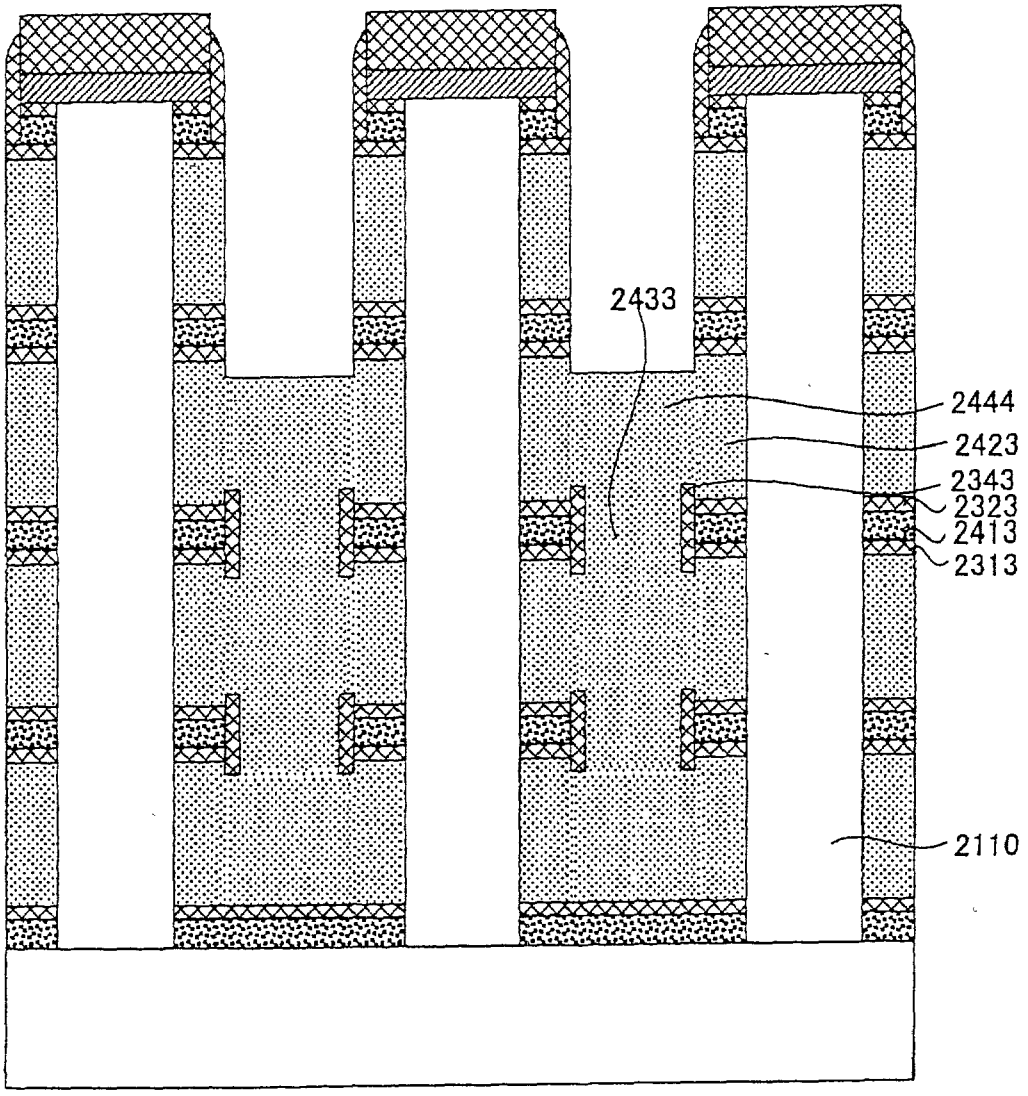


Fig. 317

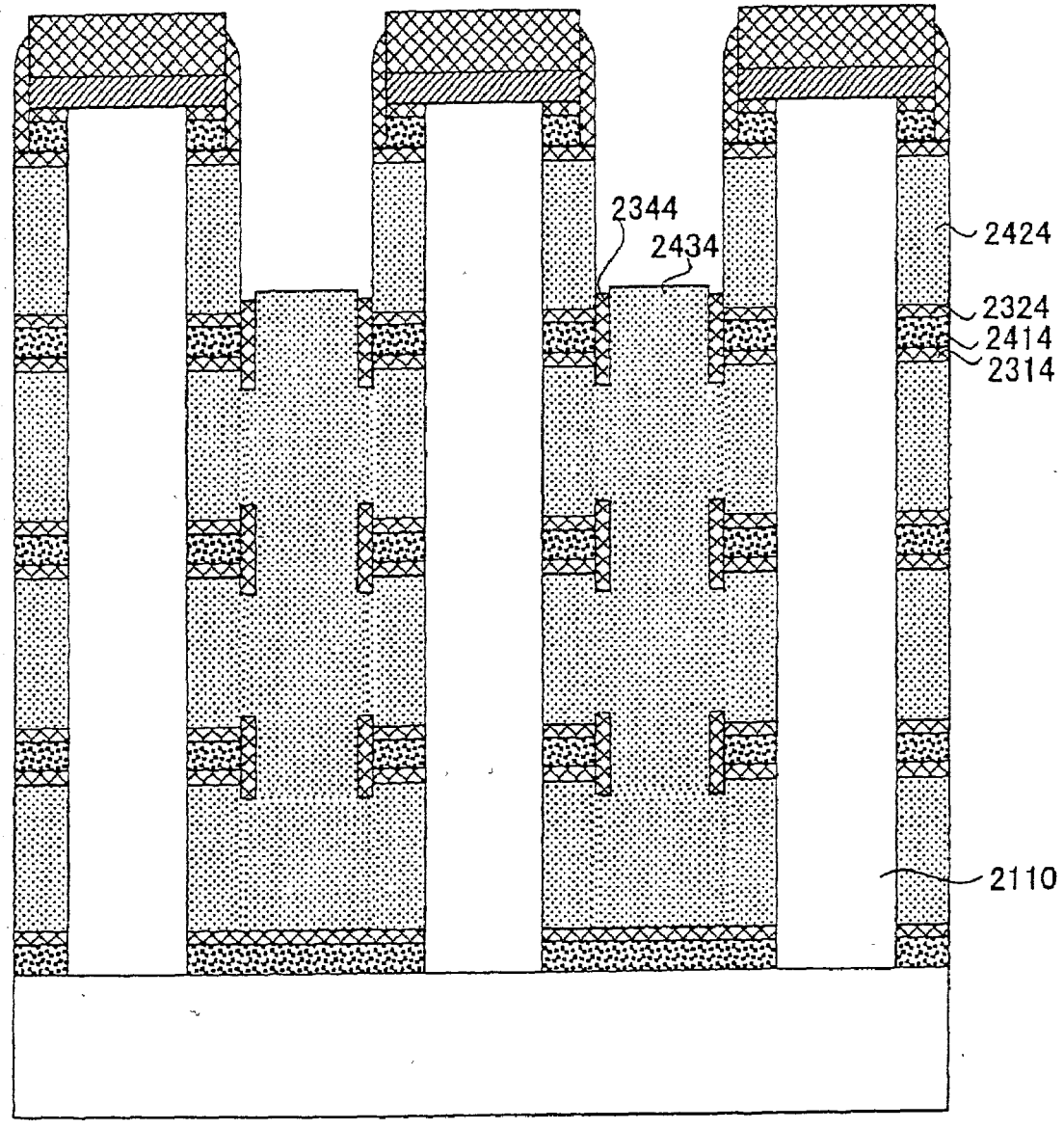


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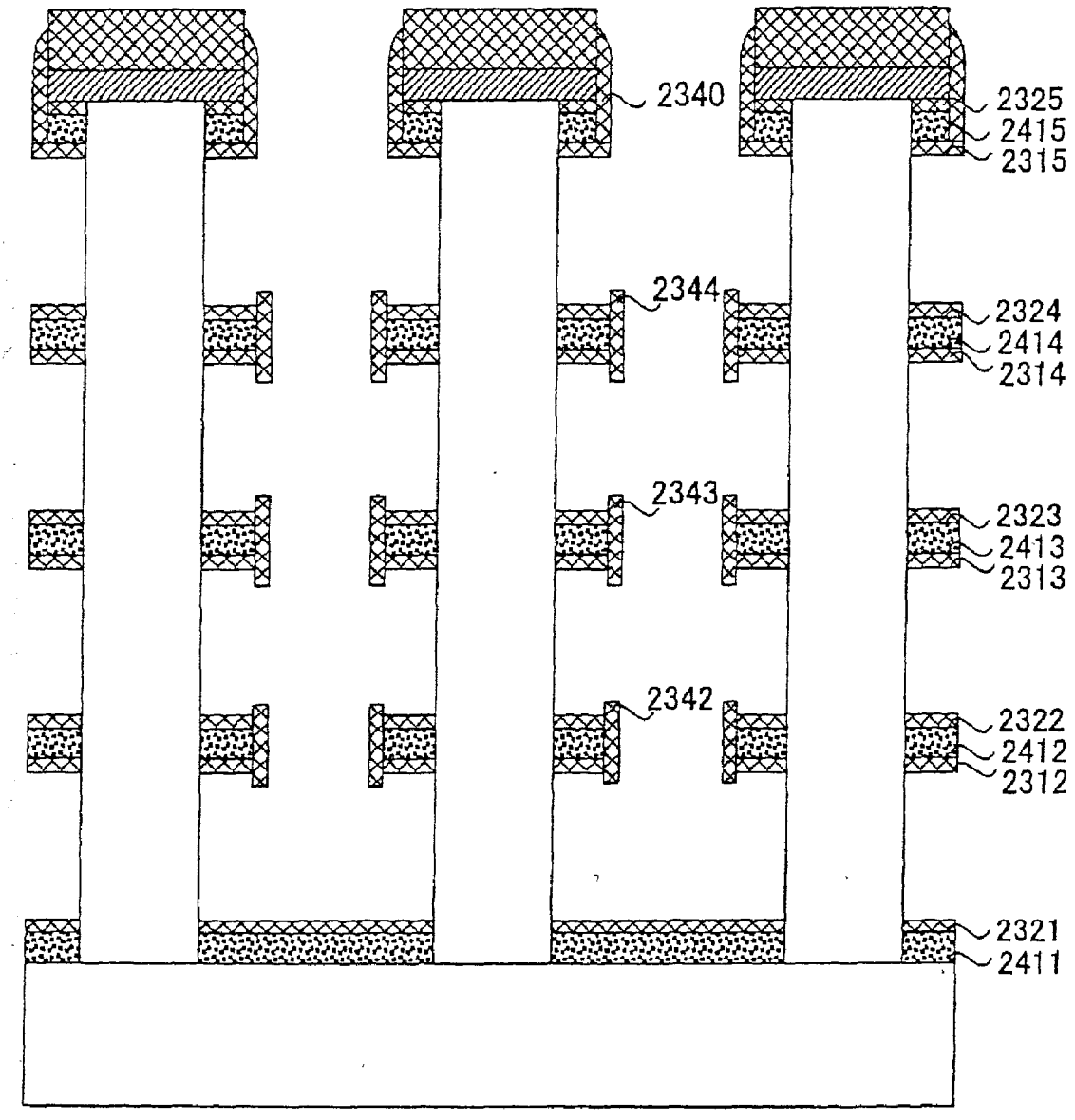

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Fig. 319

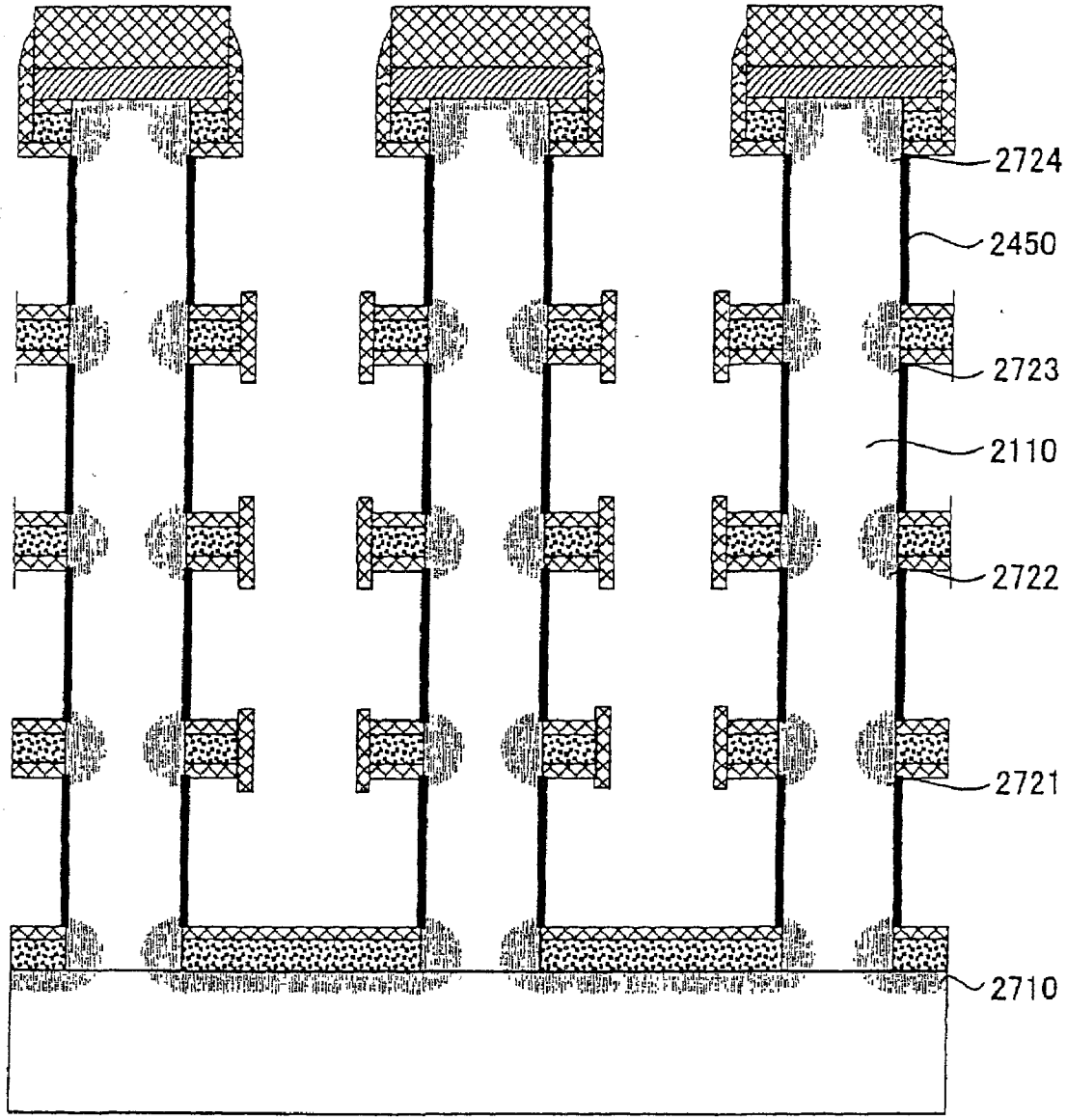


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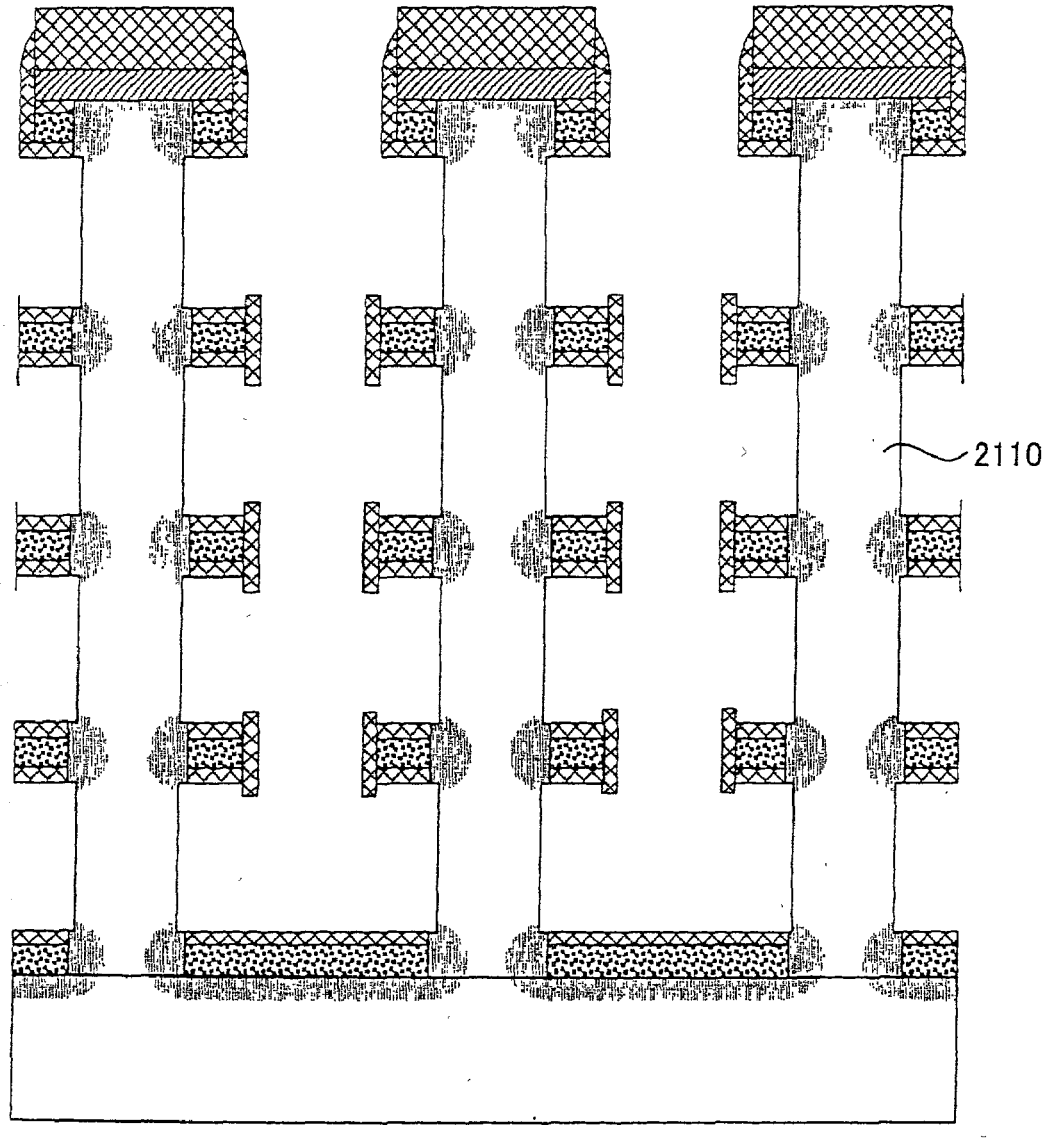


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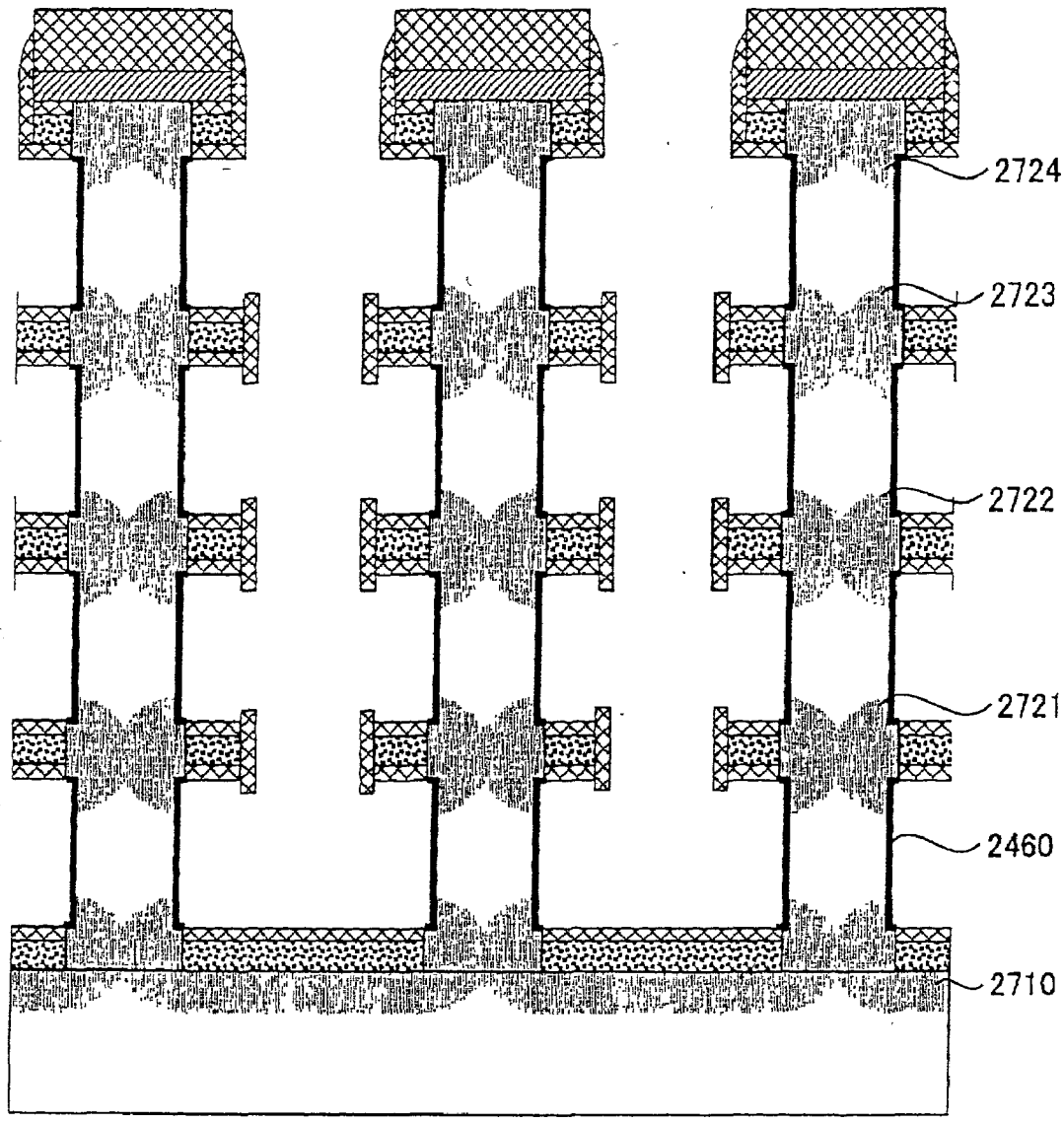


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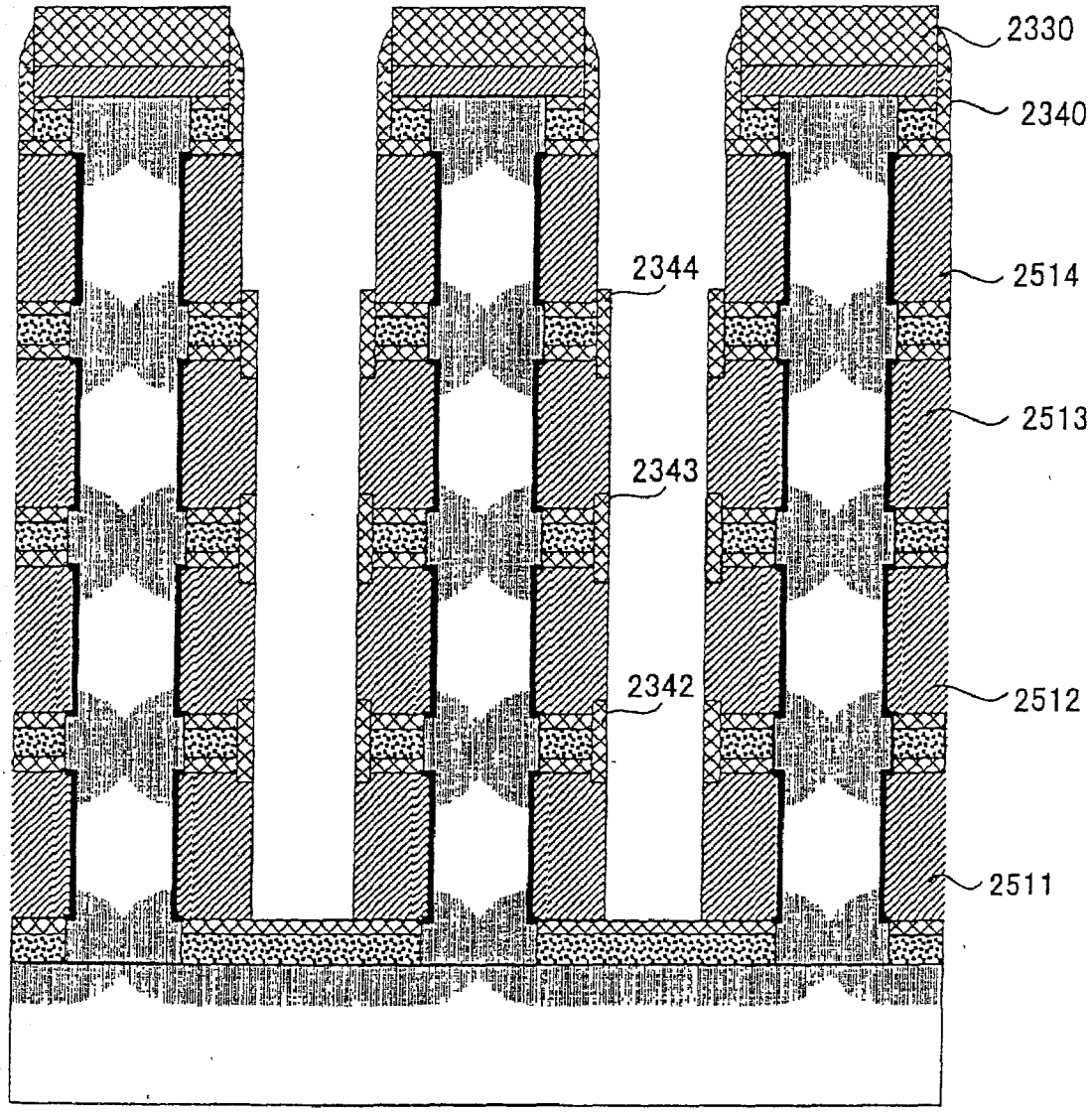


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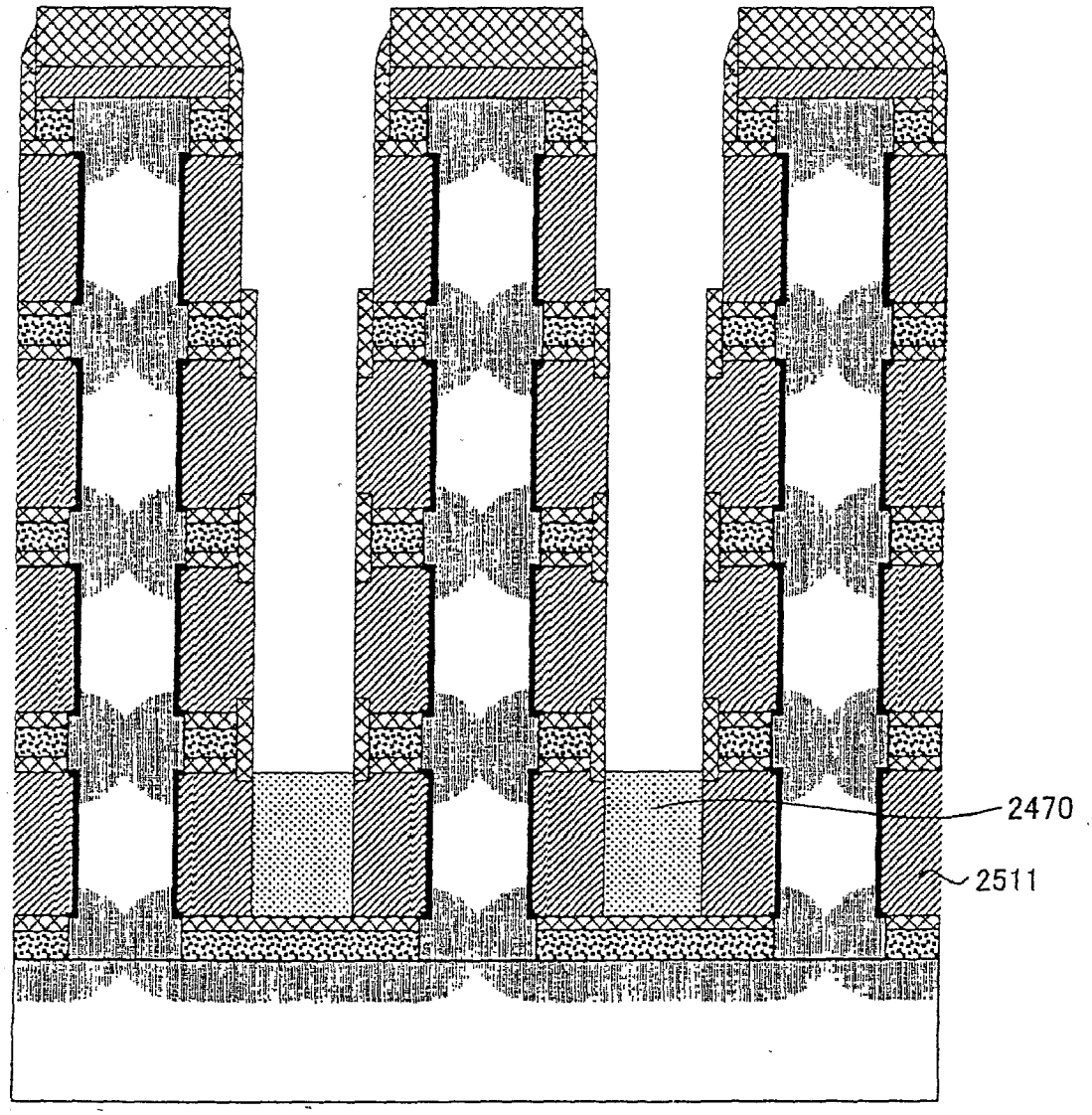


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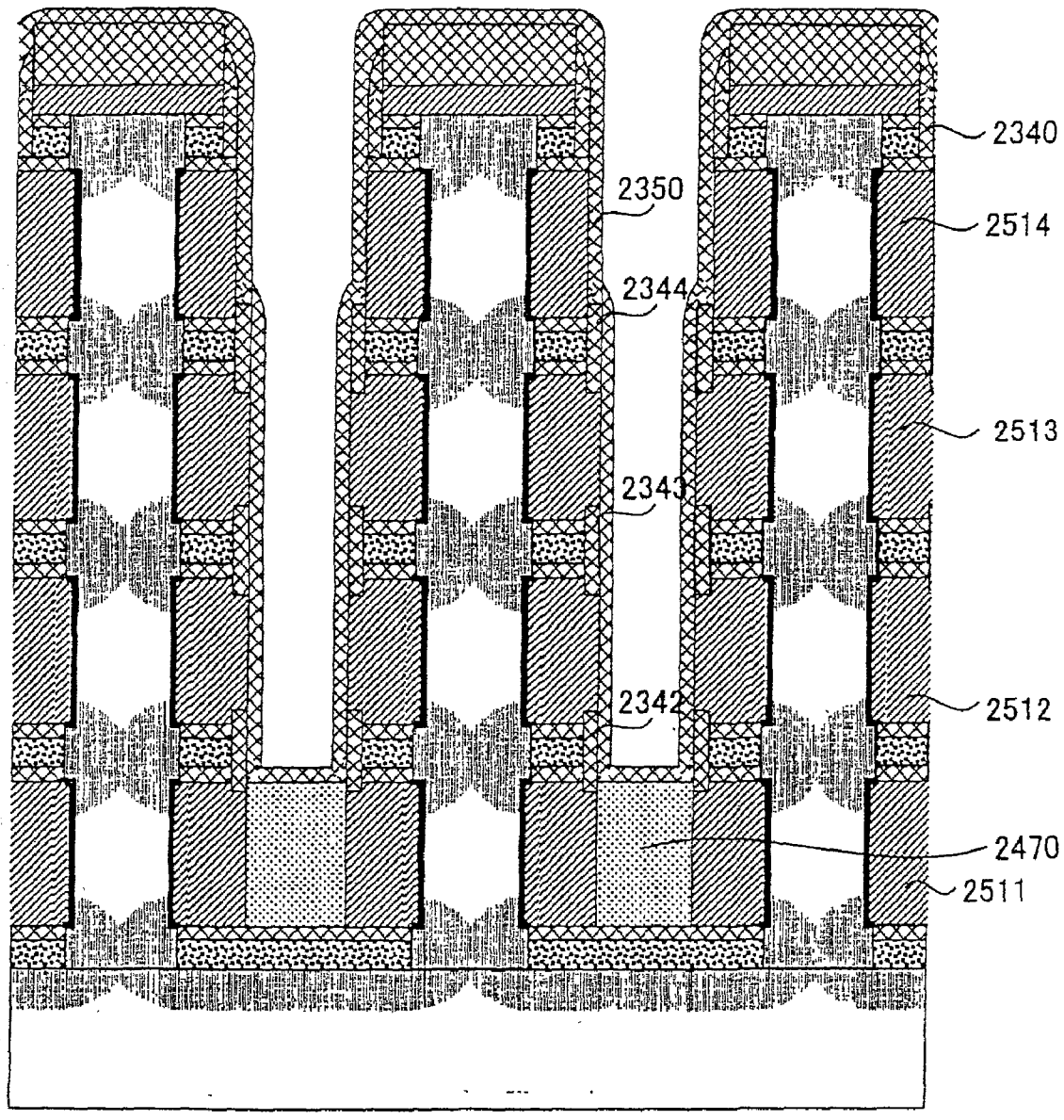


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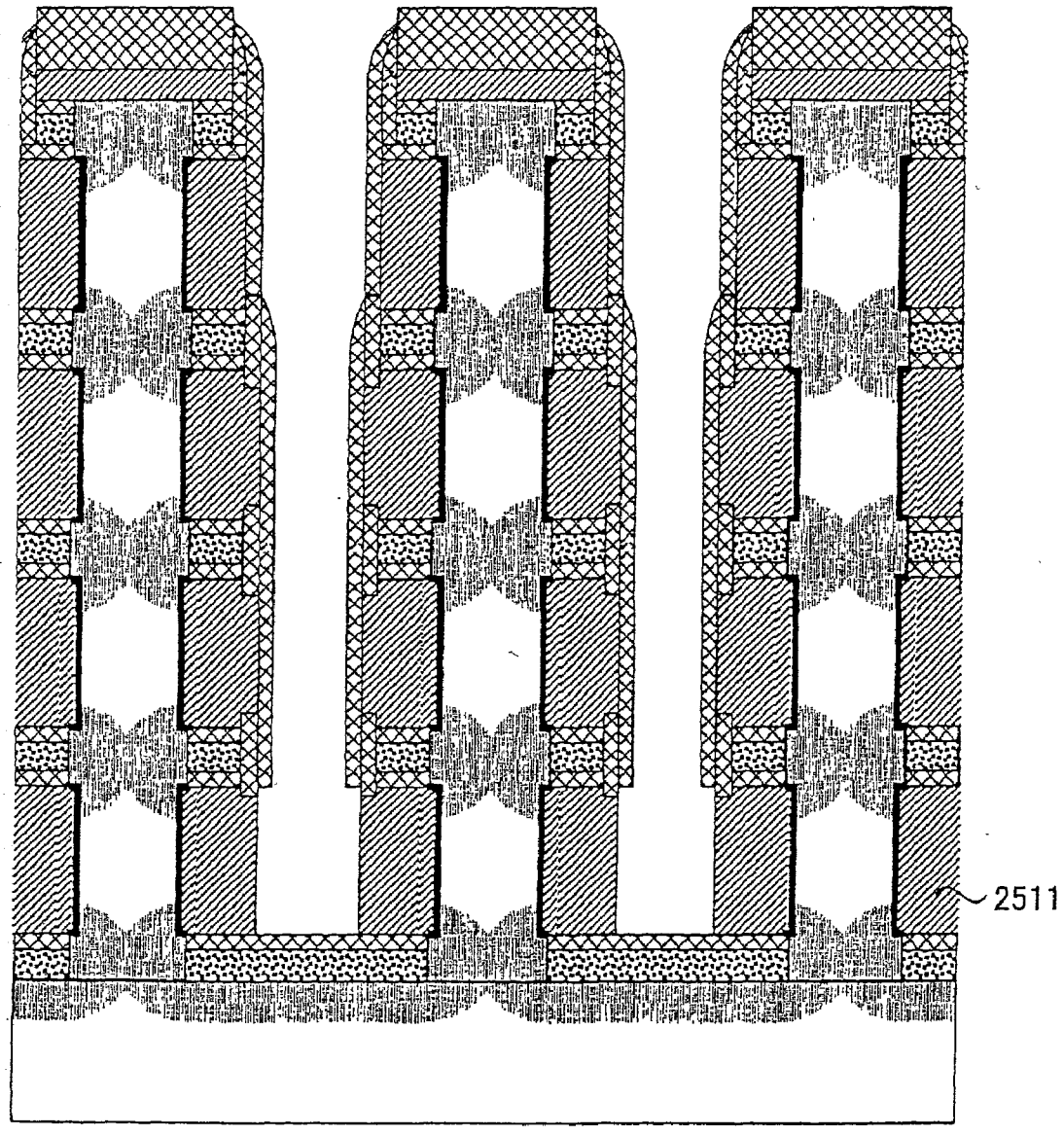


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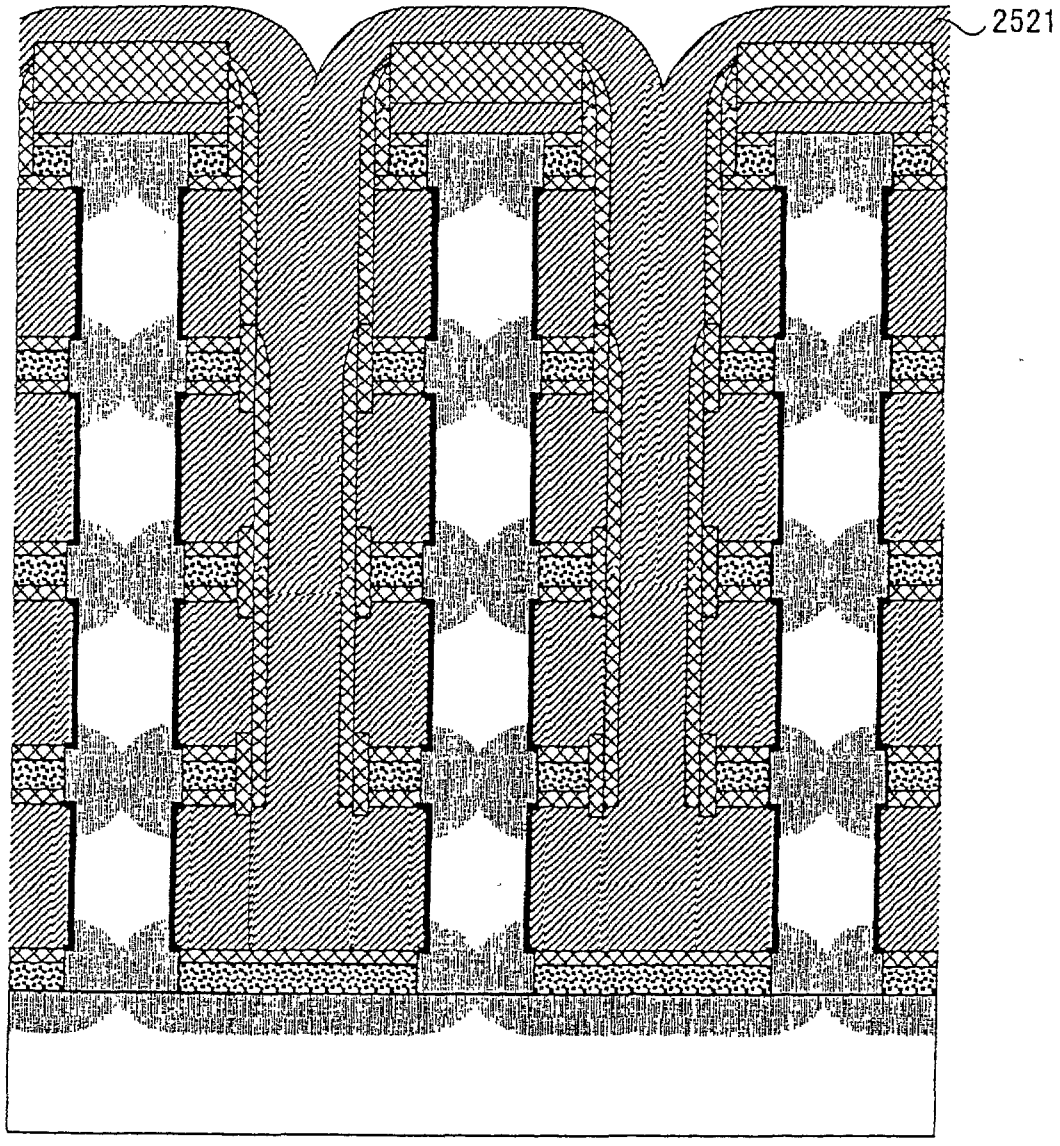


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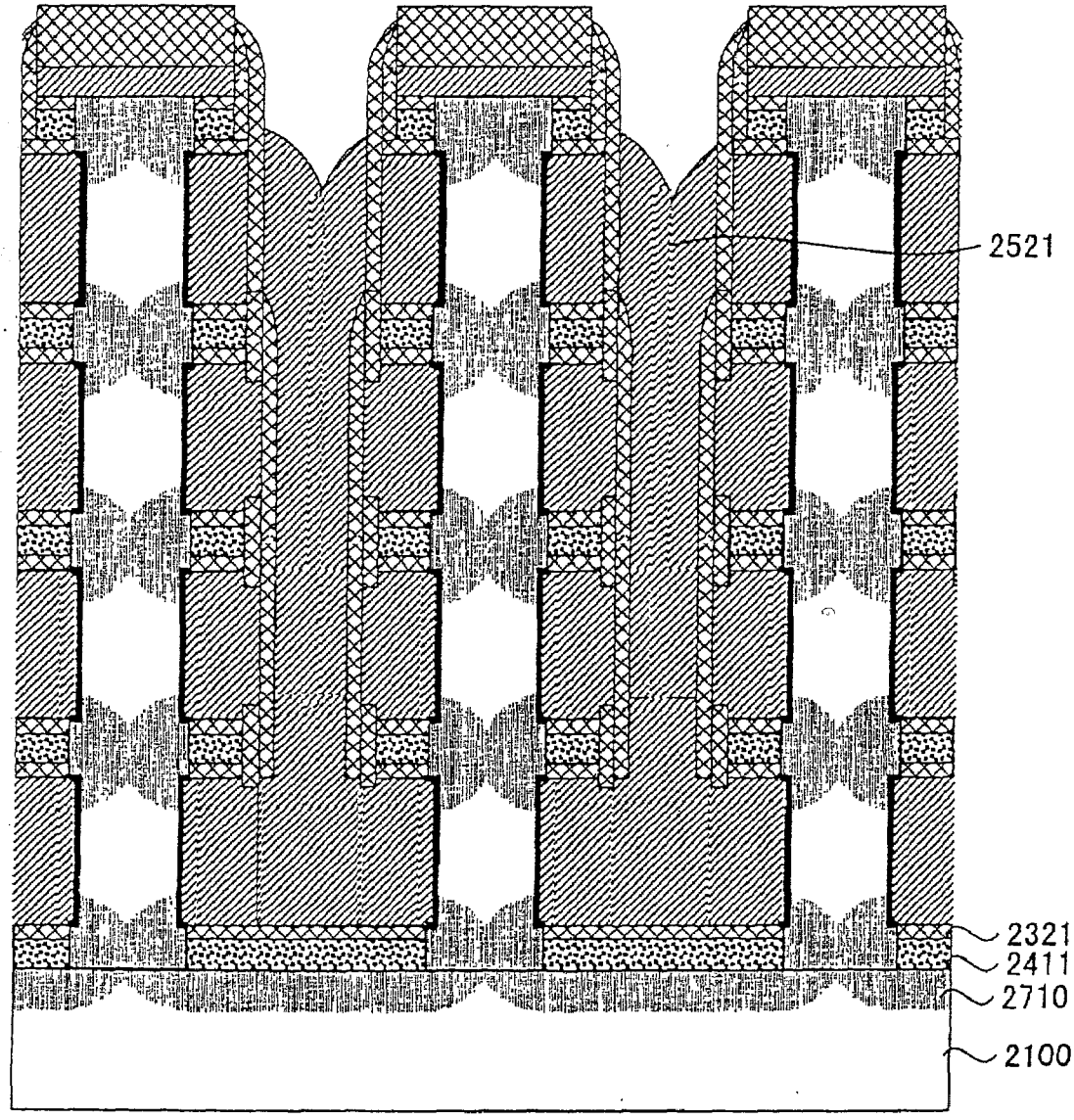


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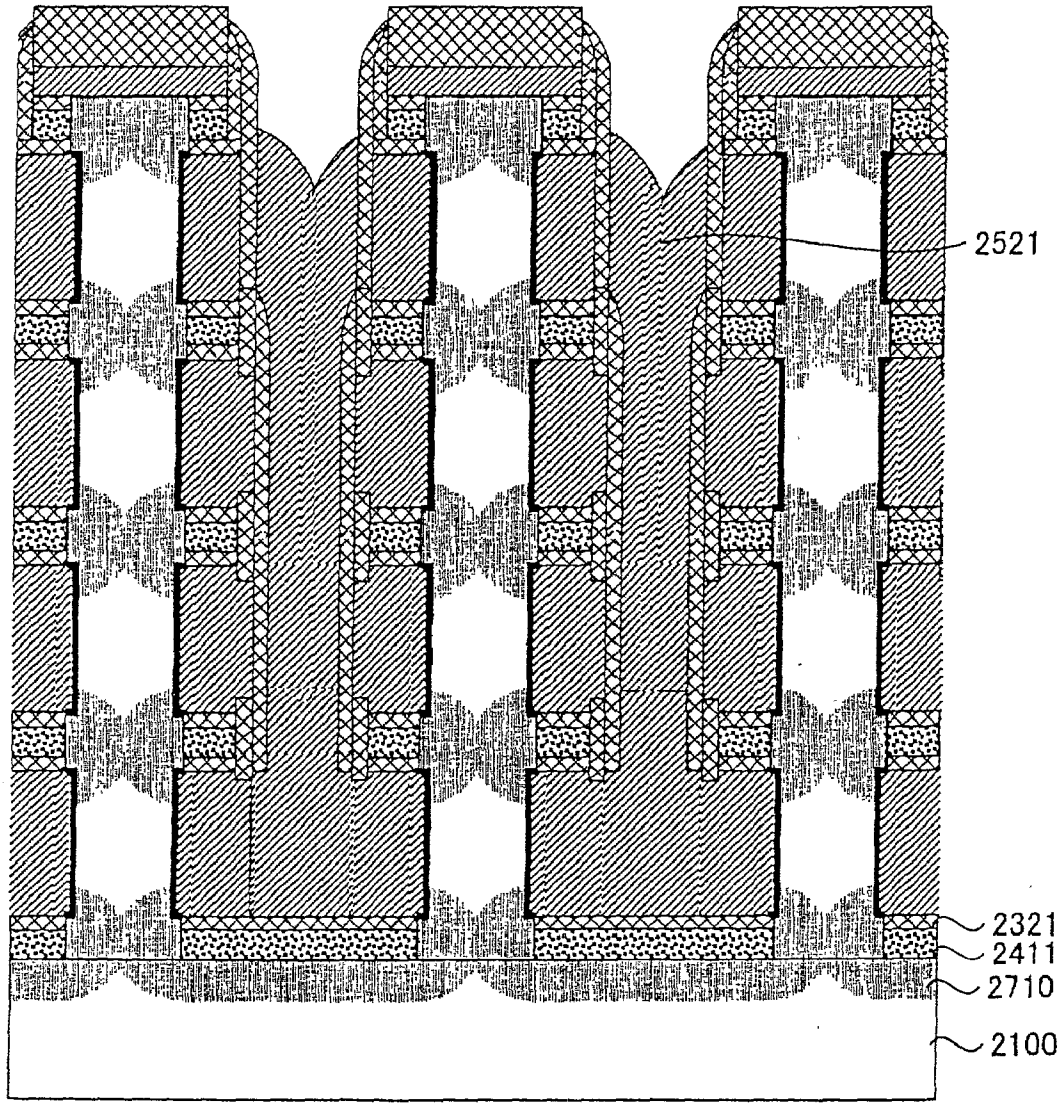


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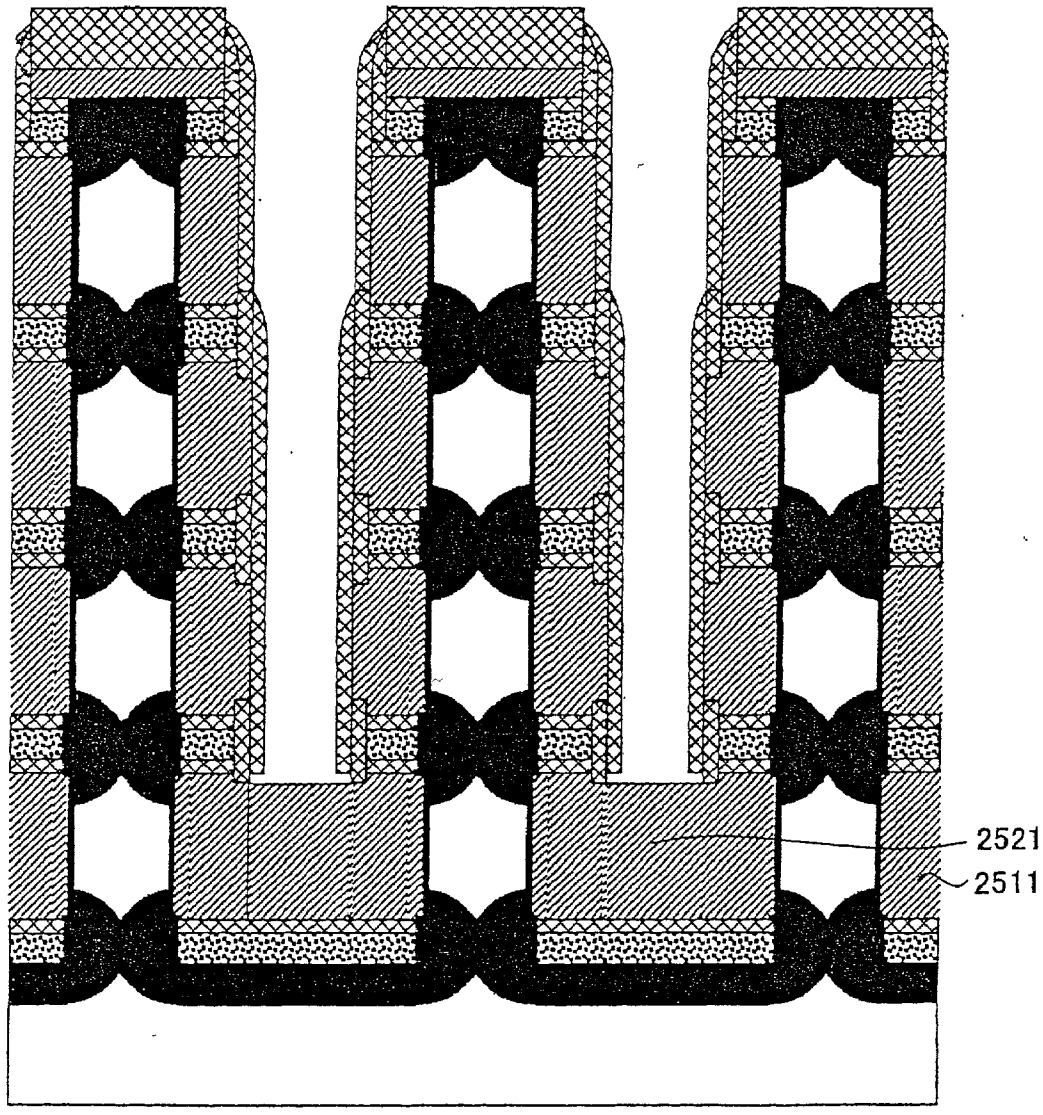


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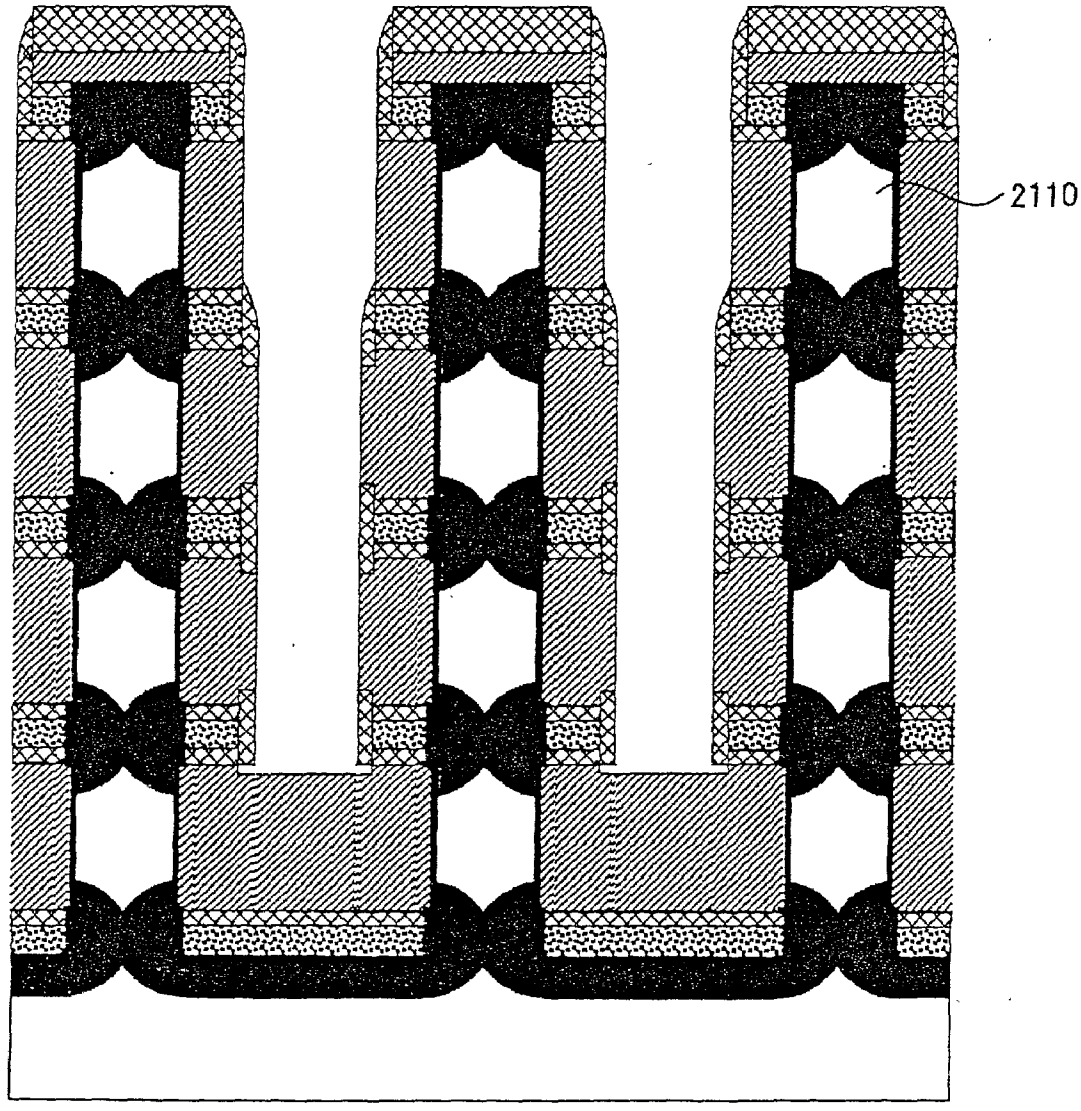


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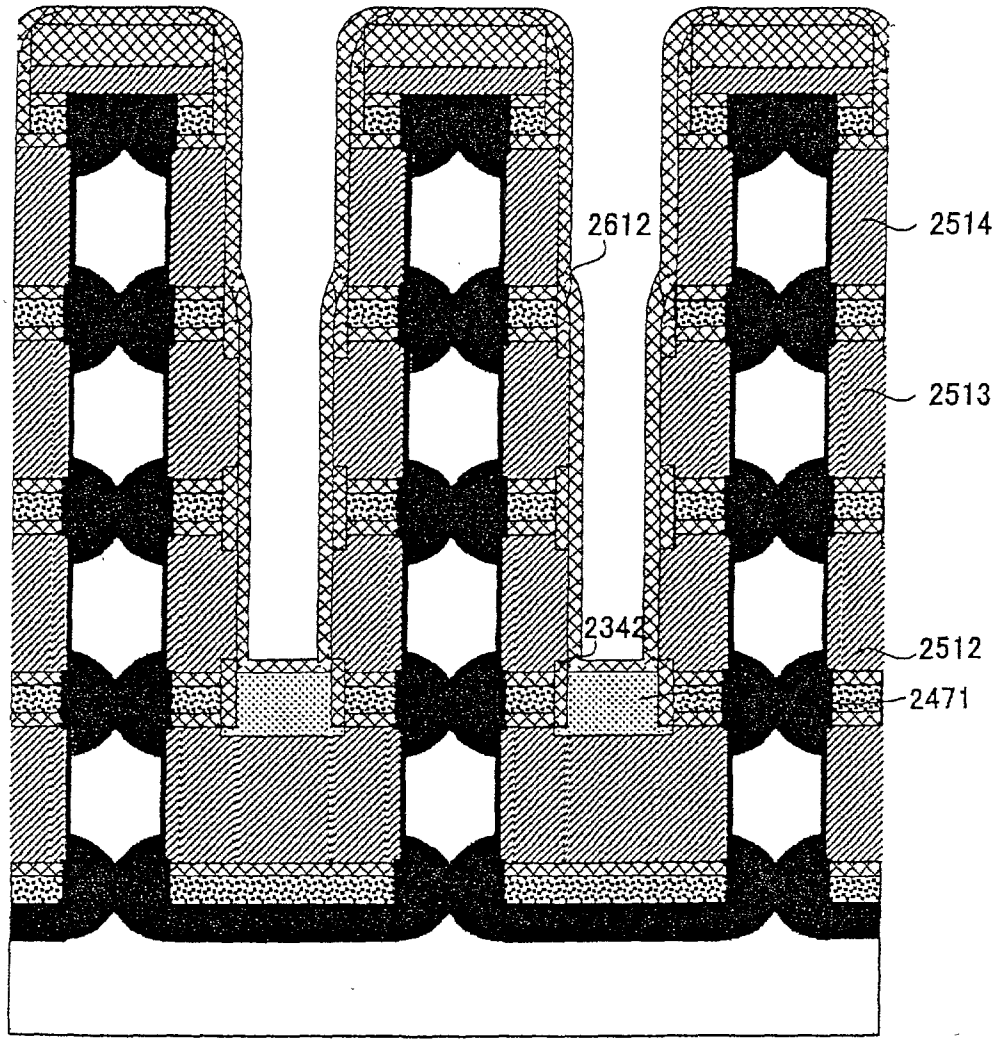


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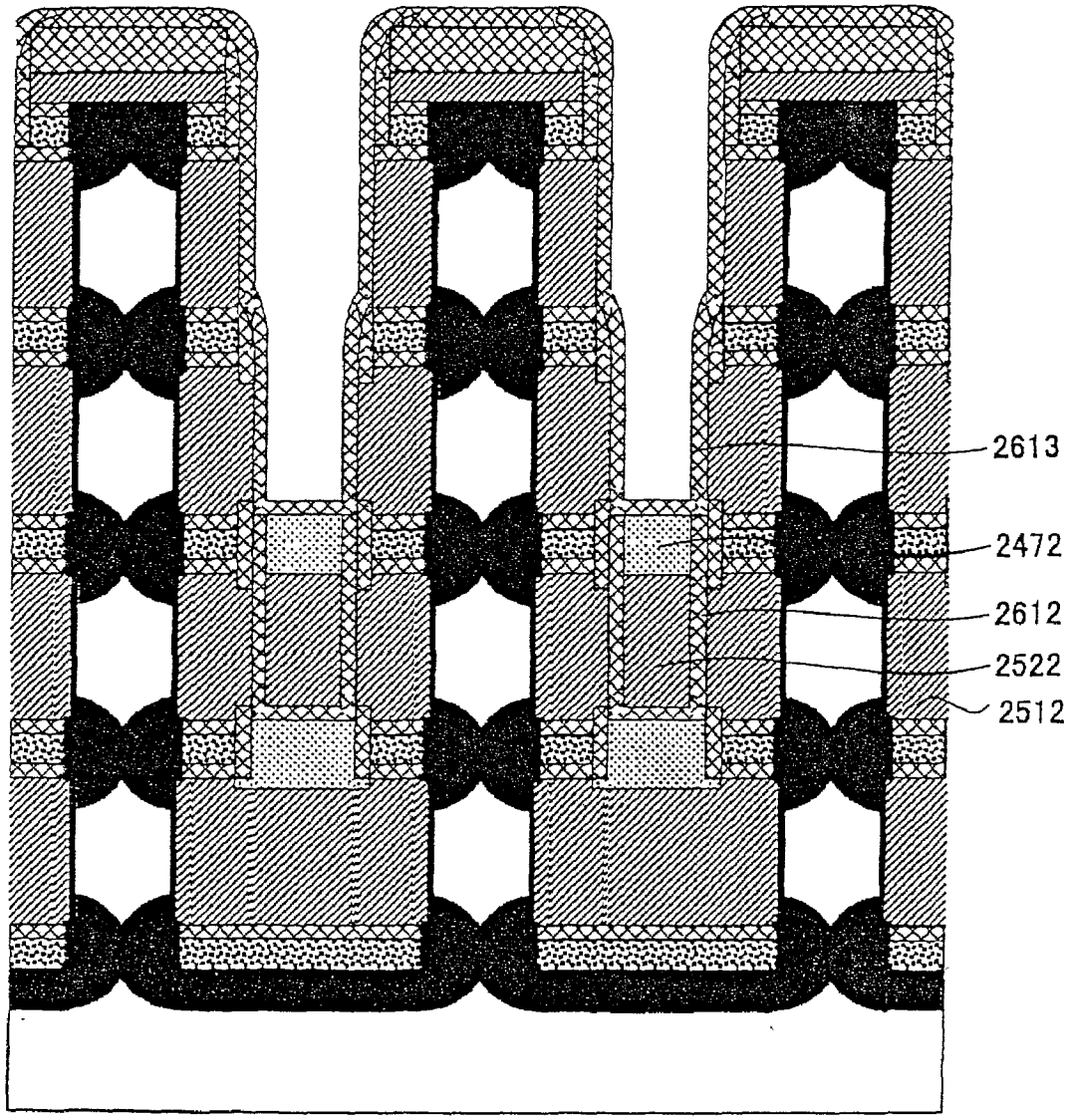


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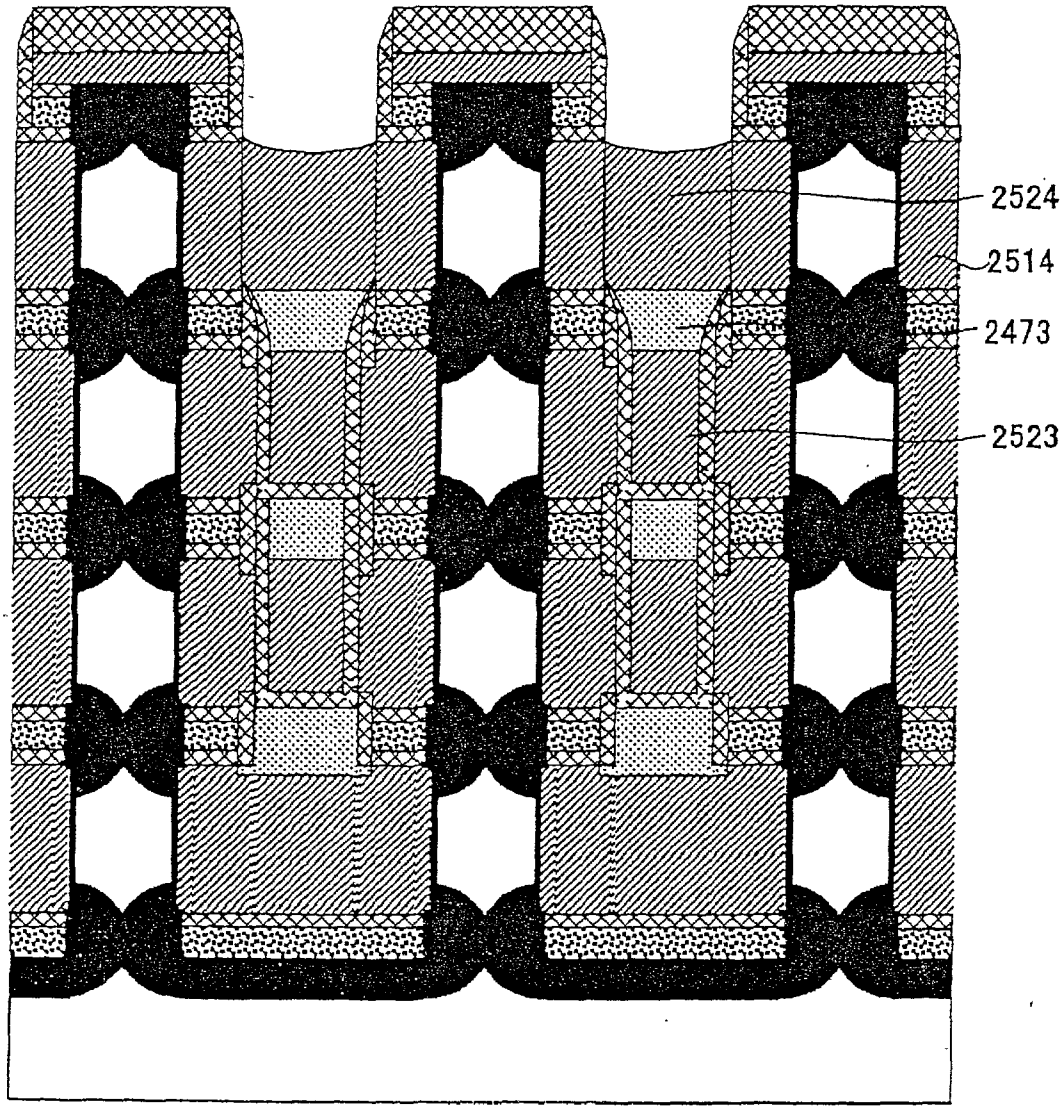


Fig. 334

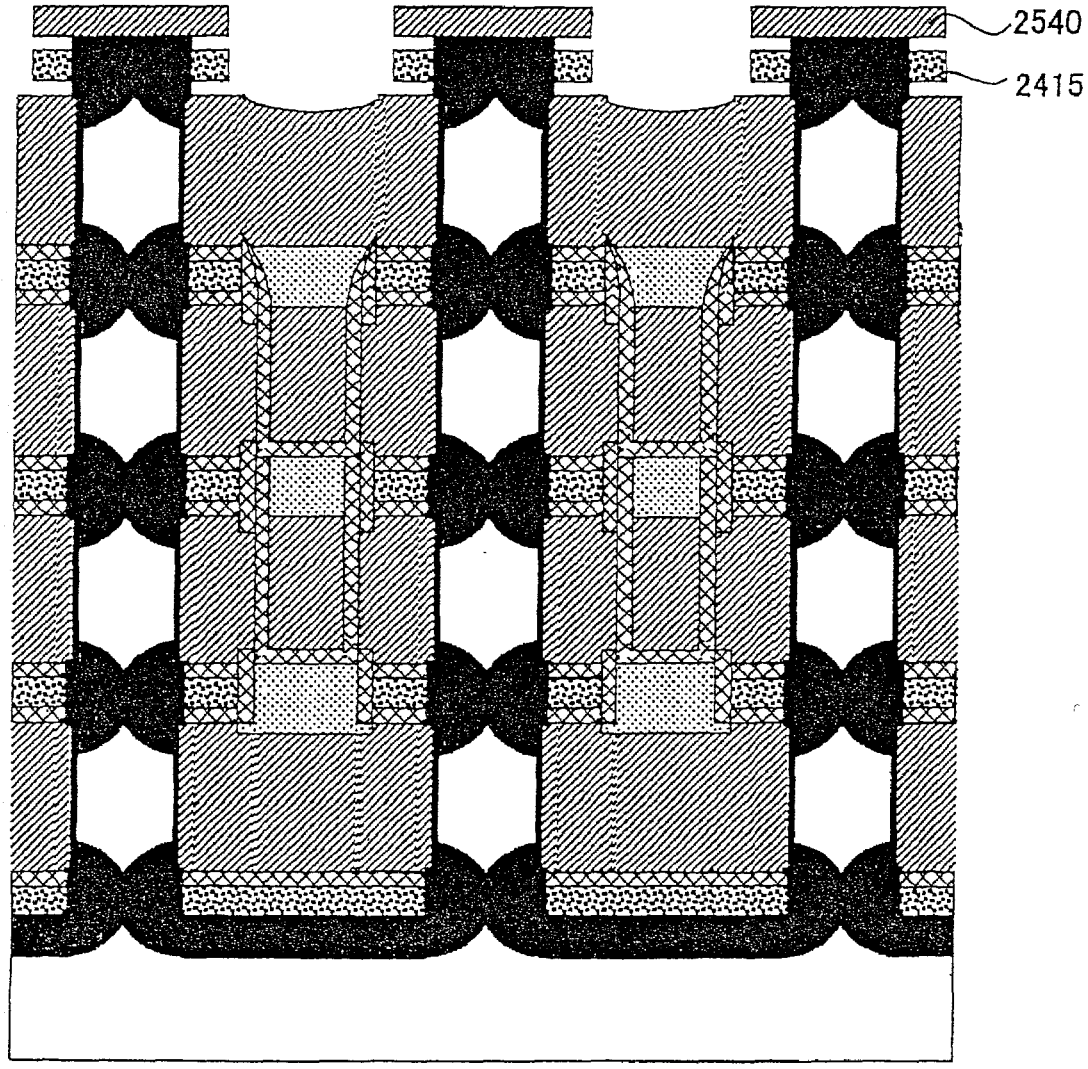


Fig. 335

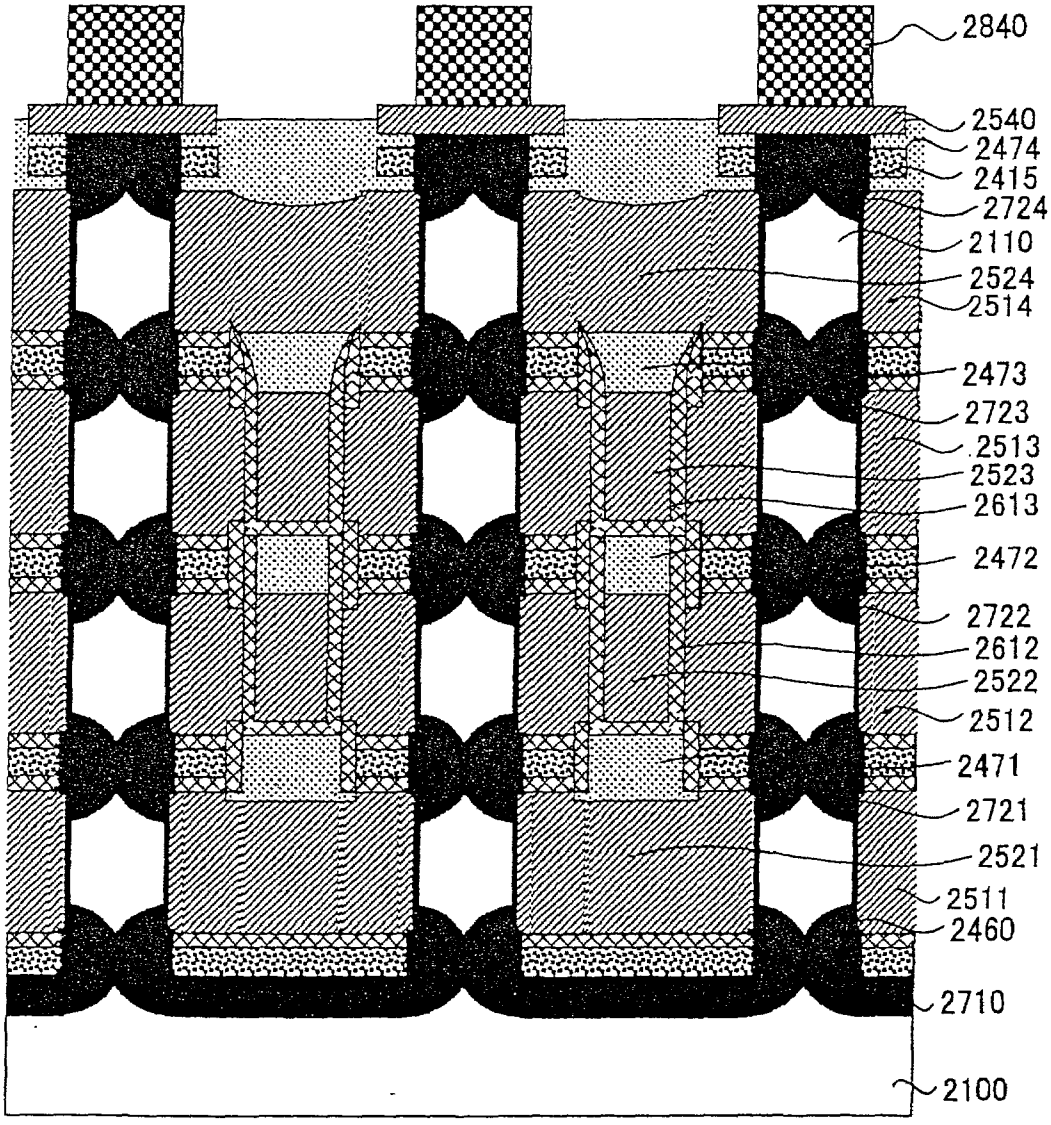

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Fig. 336

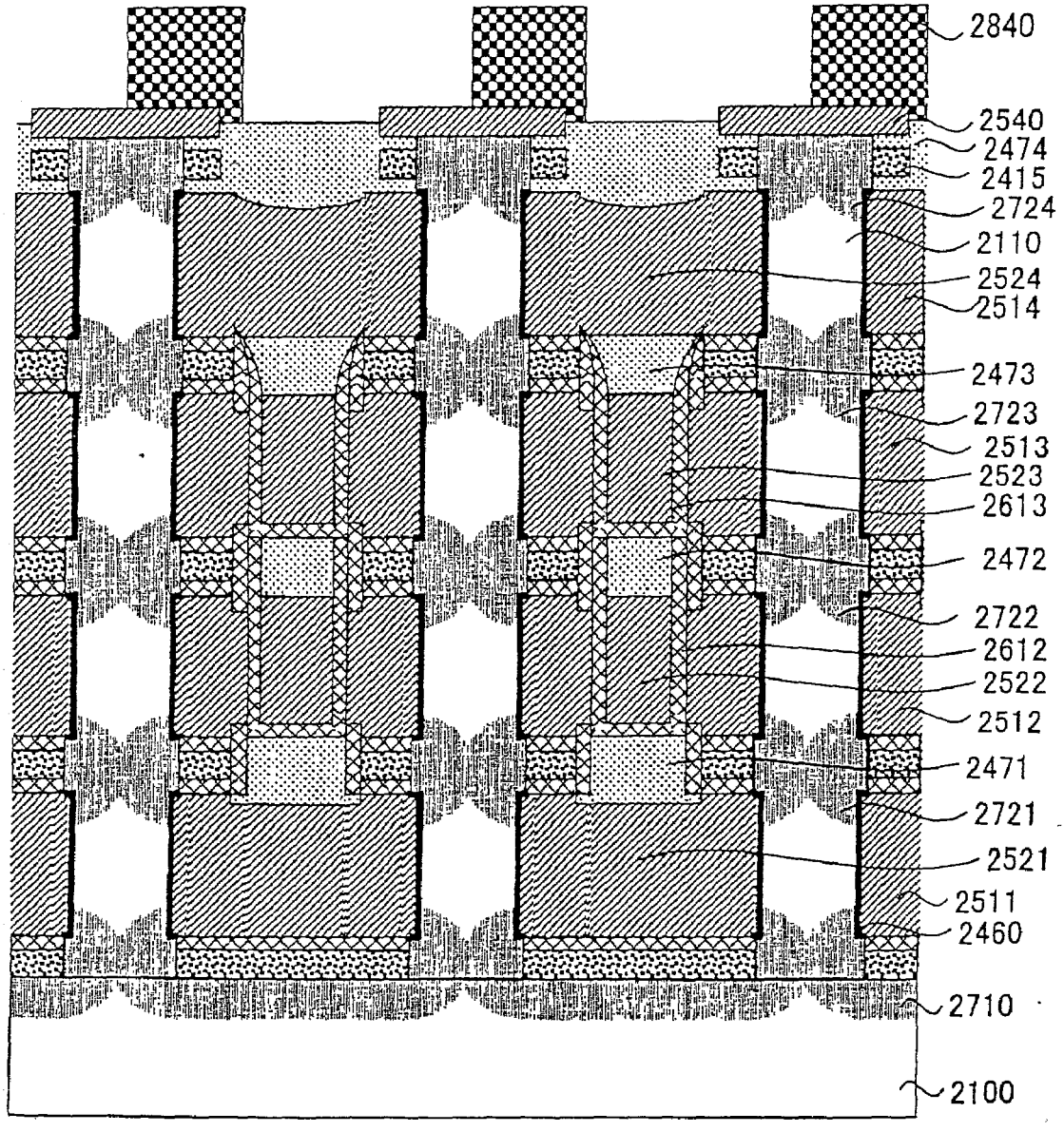

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Fig. 337

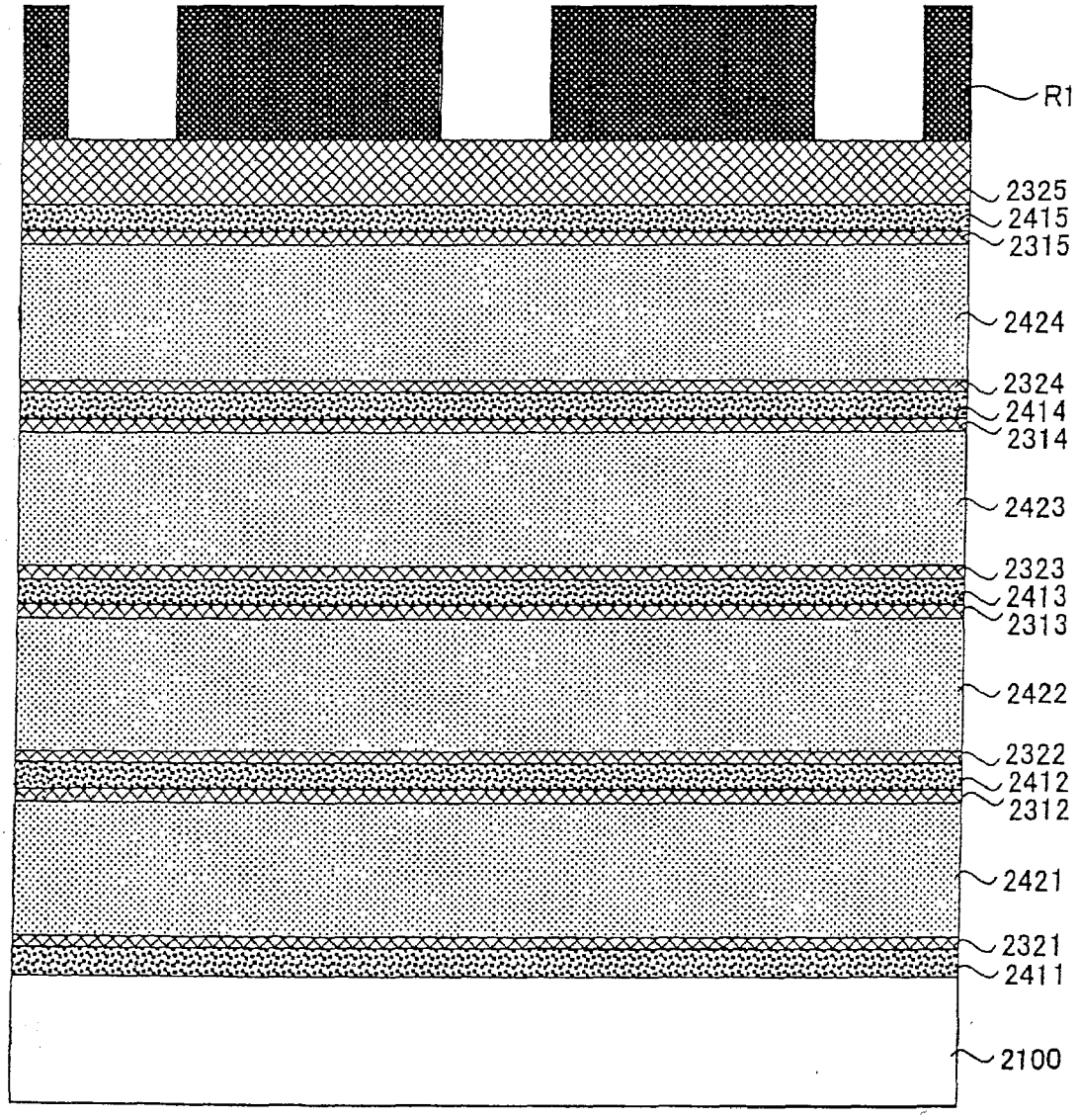

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Fig. 338

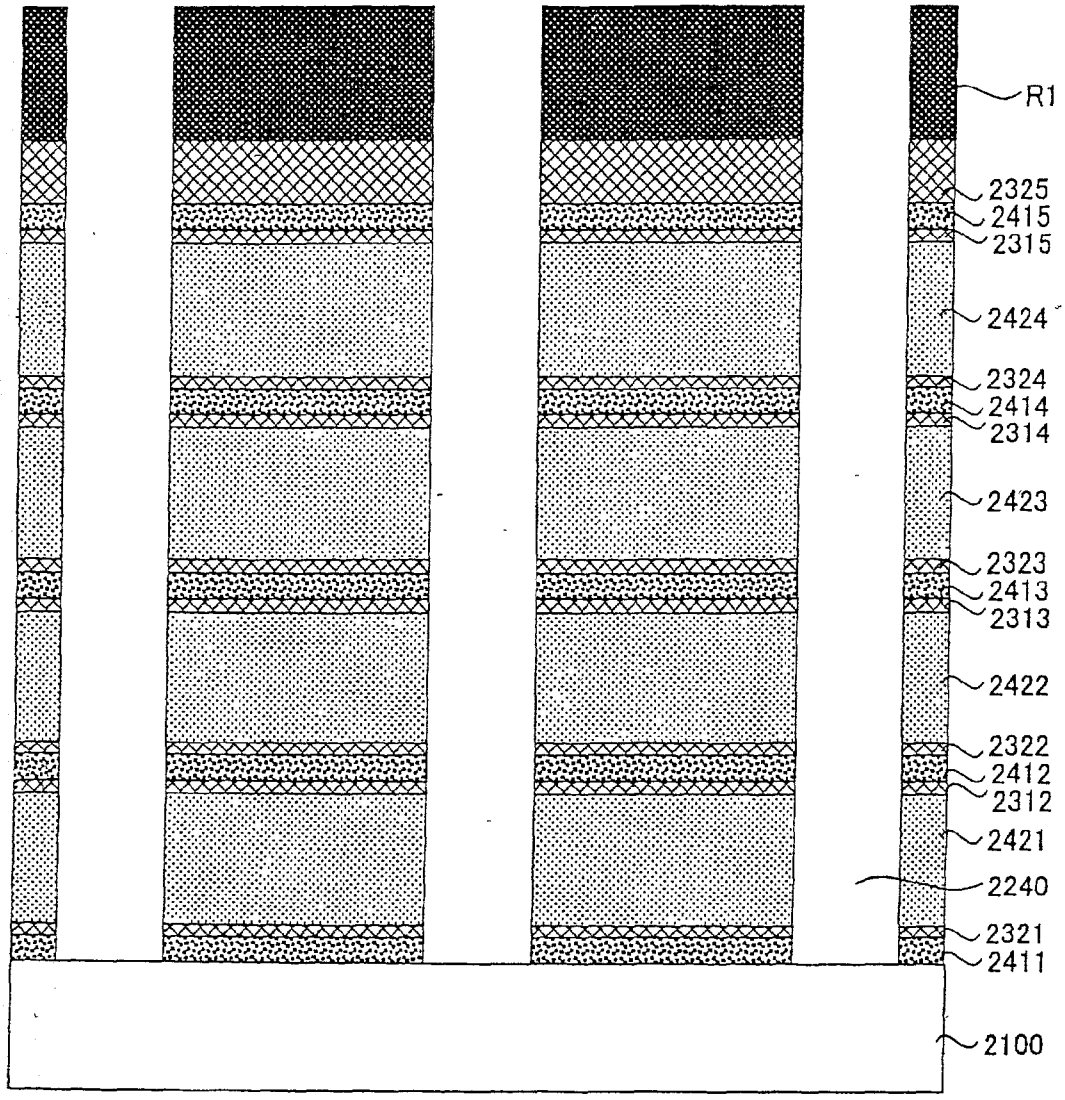

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Fig. 339

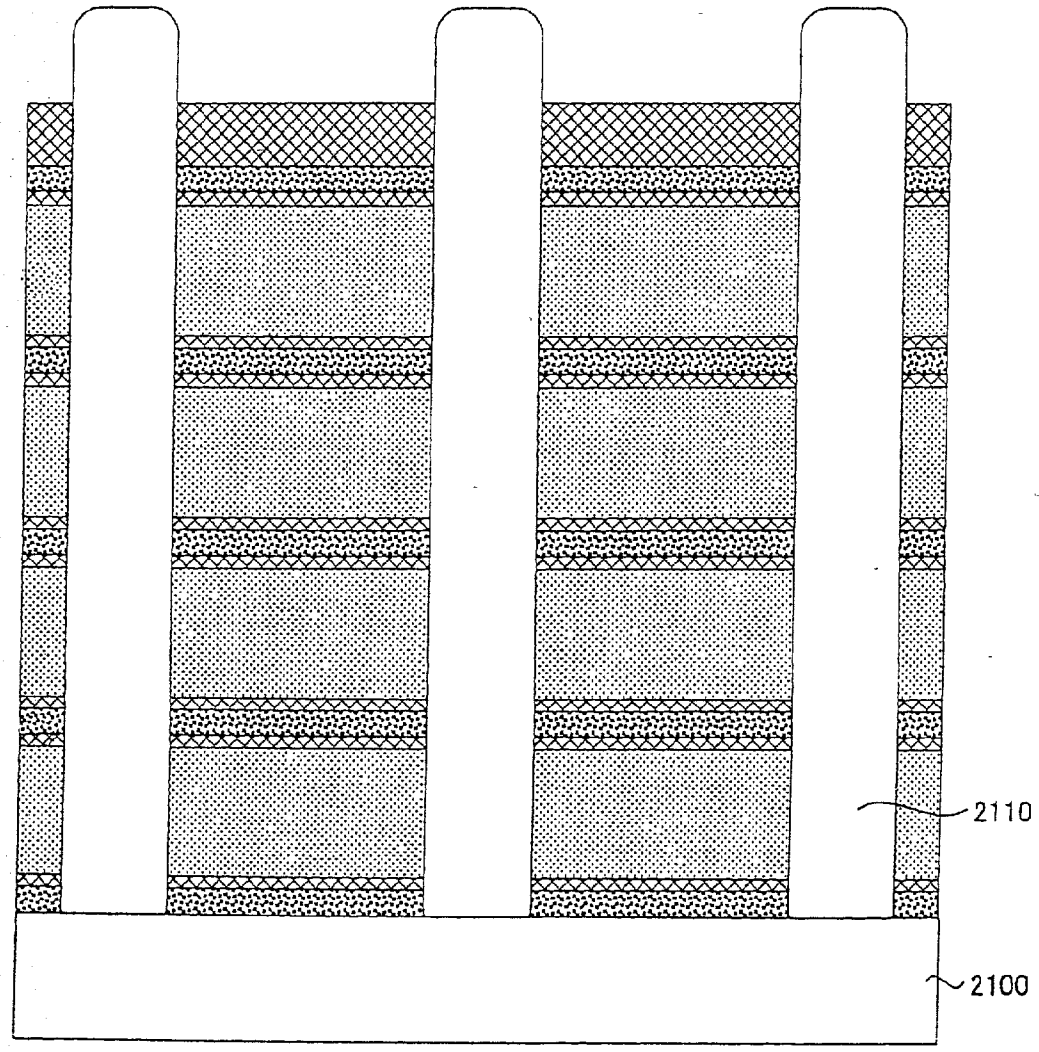


Fig. 340

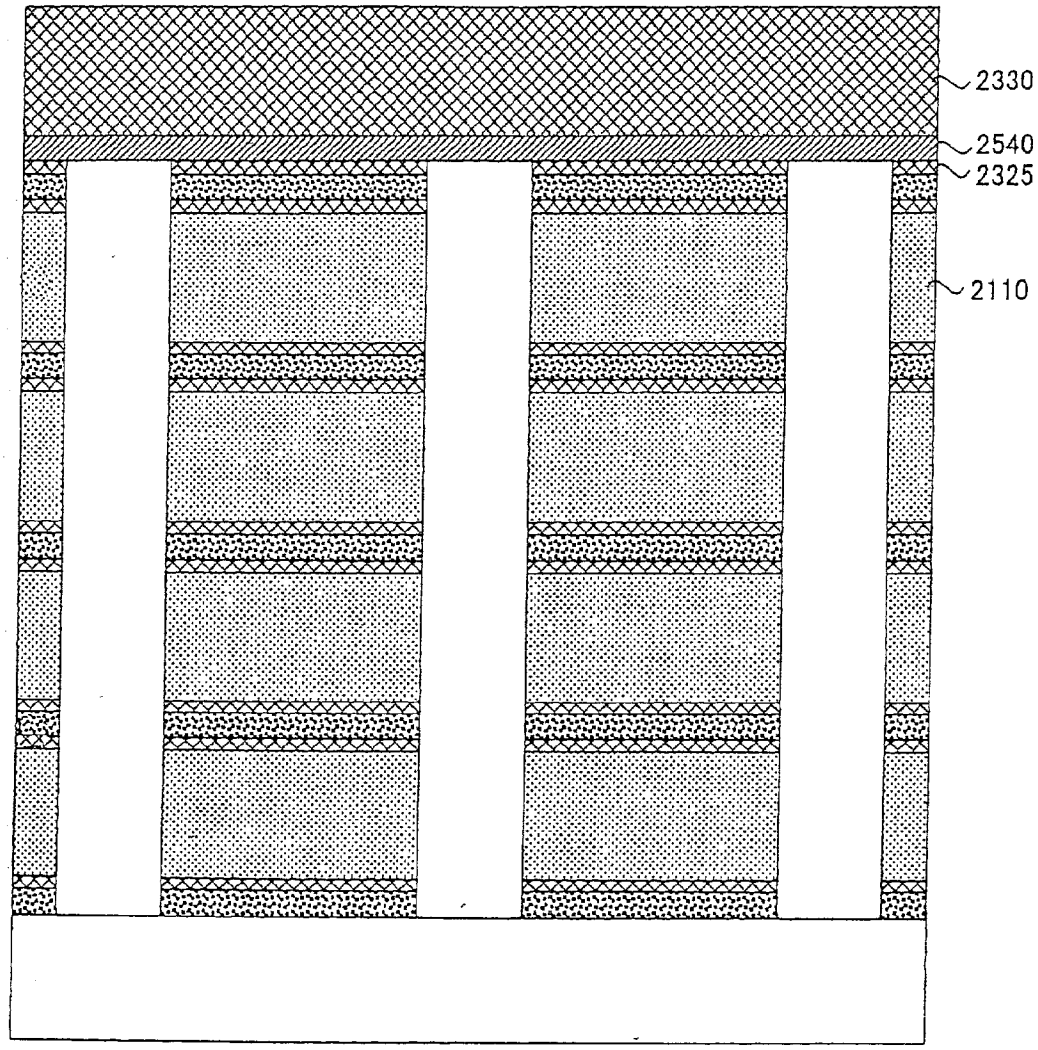


Fig. 341

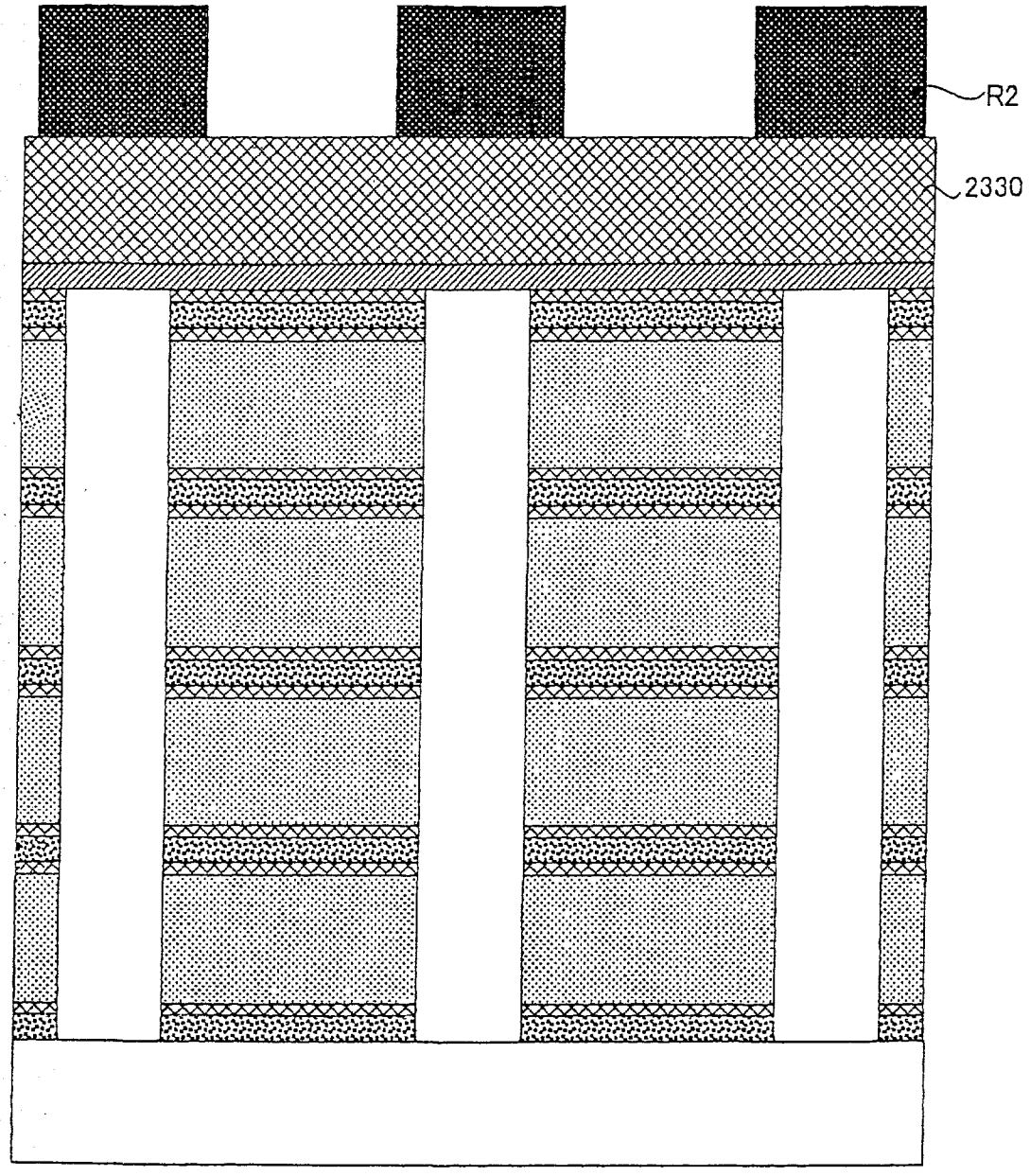


Fig. 342

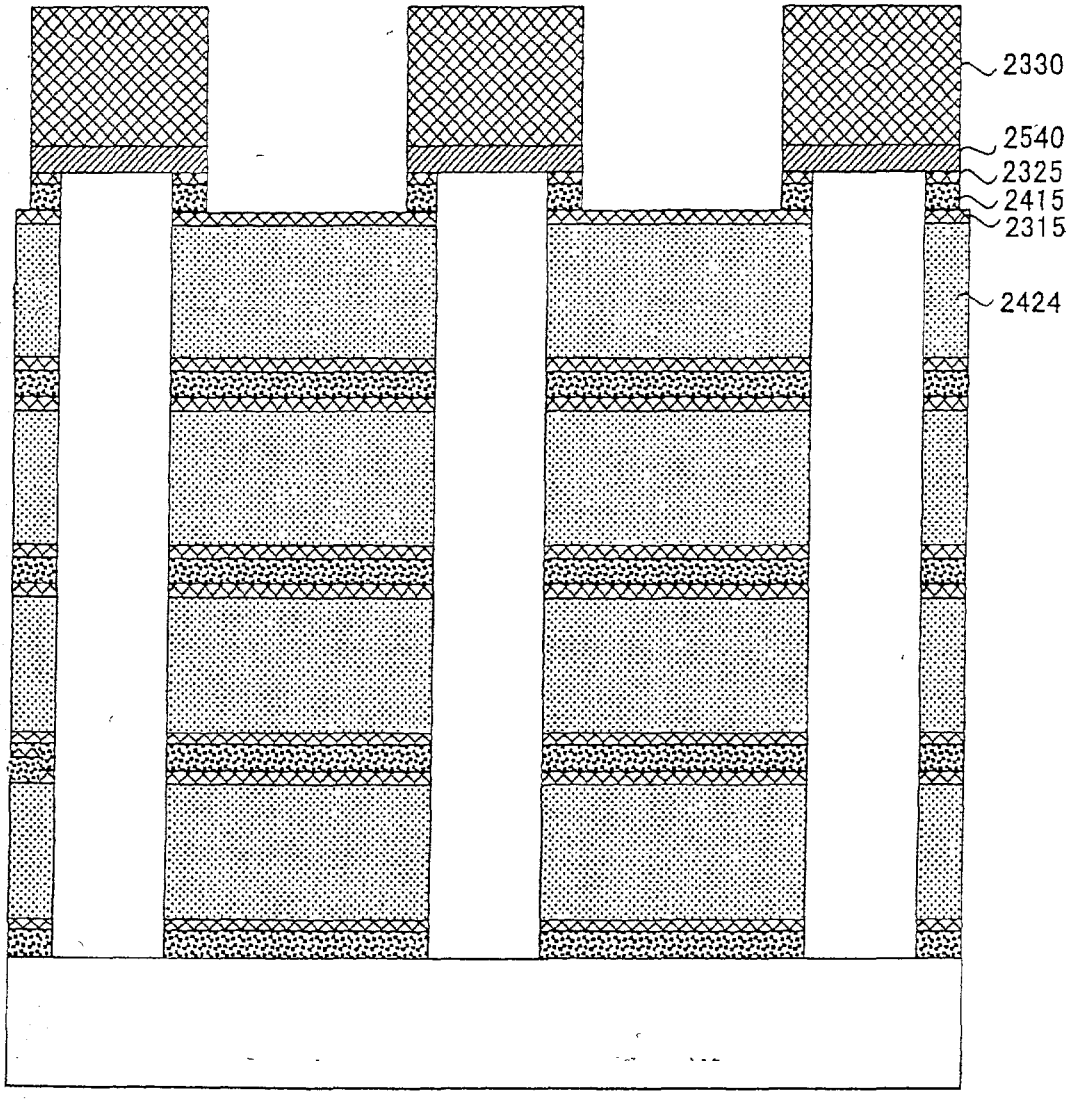


Fig. 343

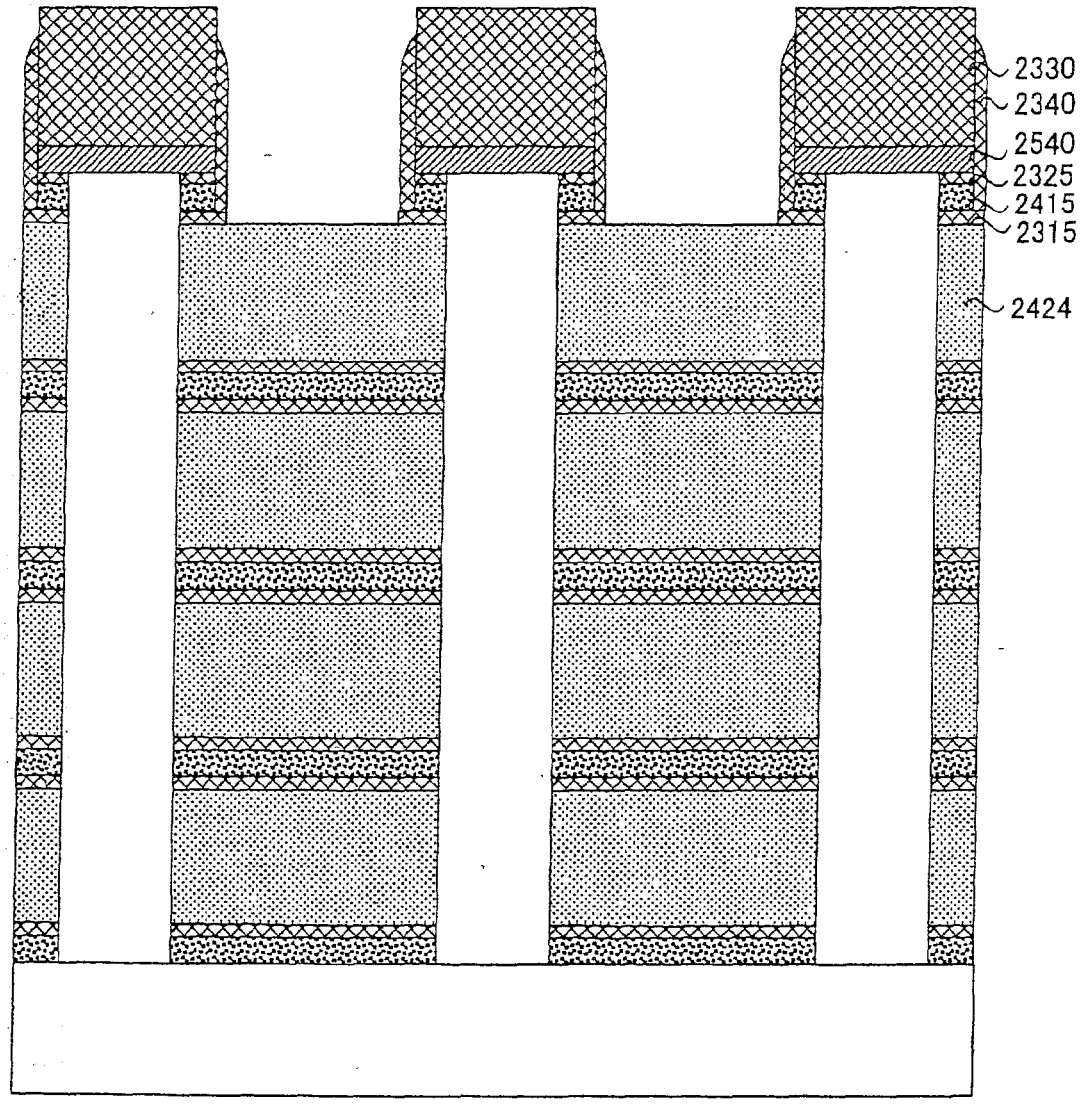


Fig. 344

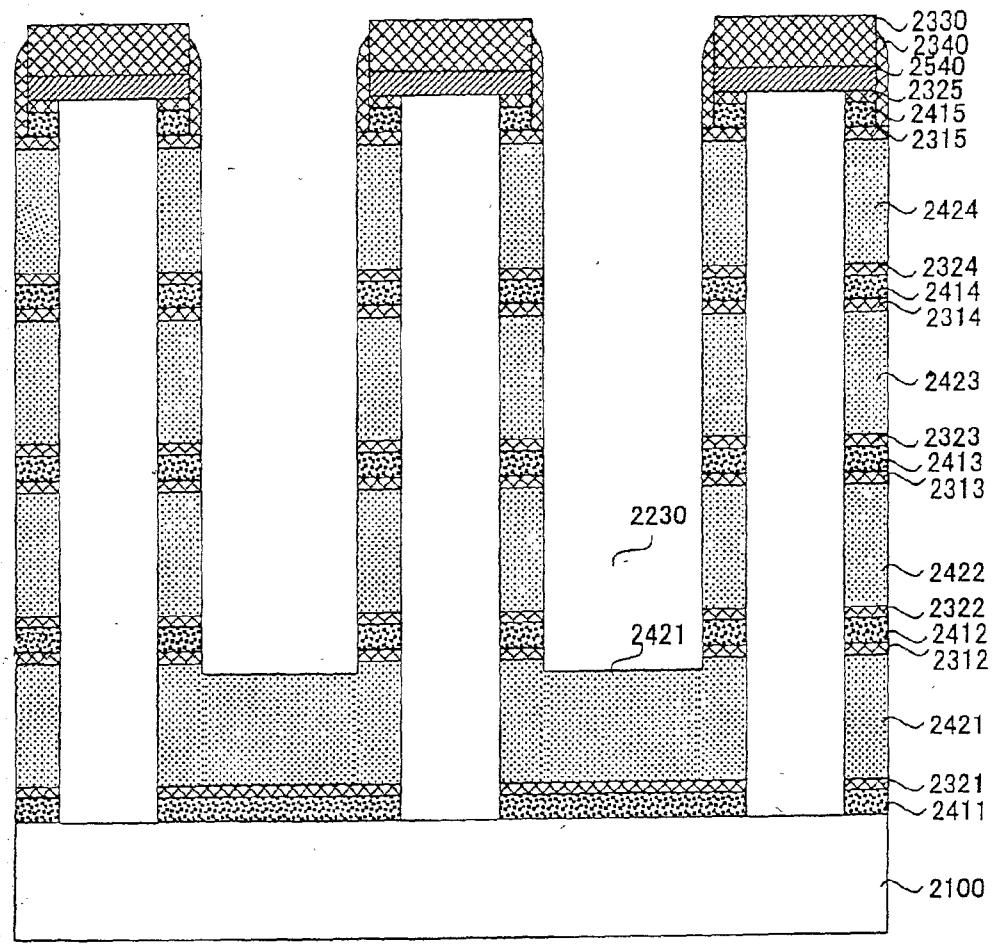

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Fig. 345

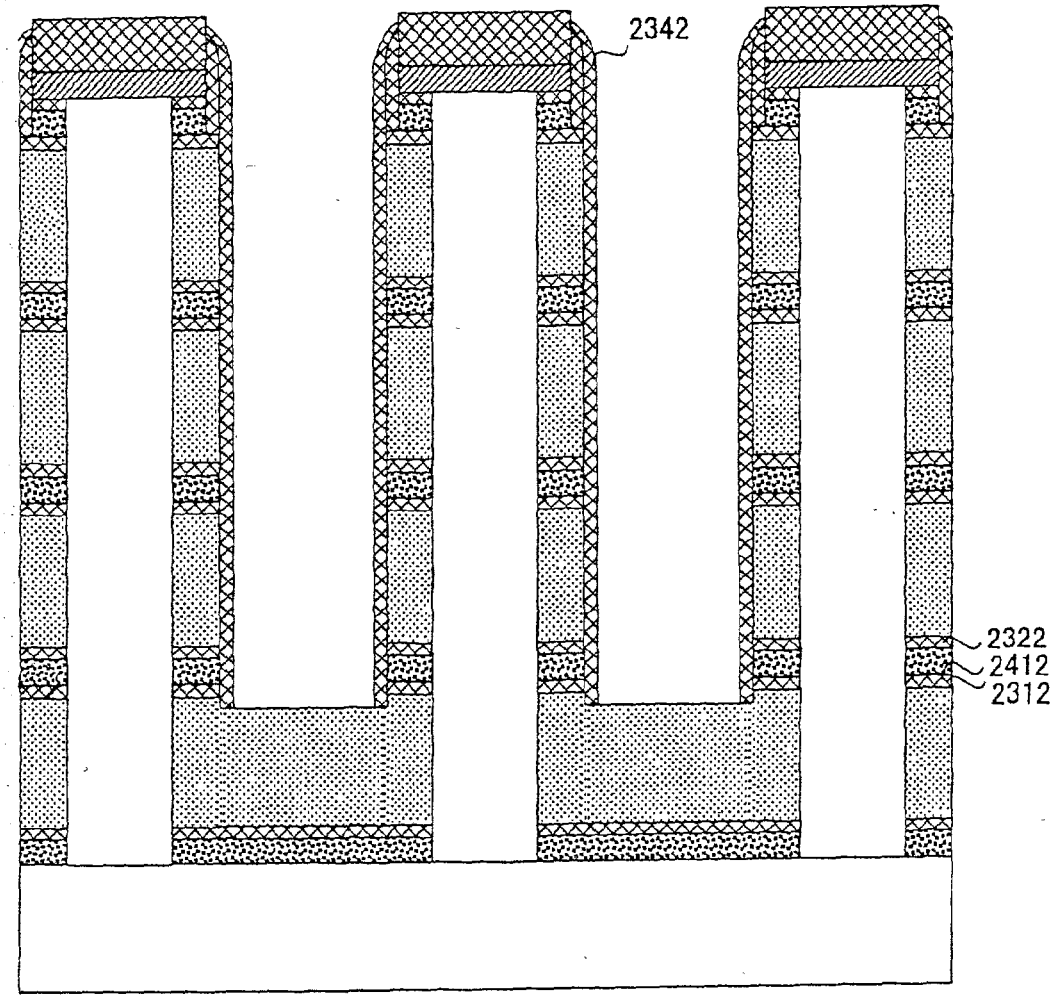


Fig. 346

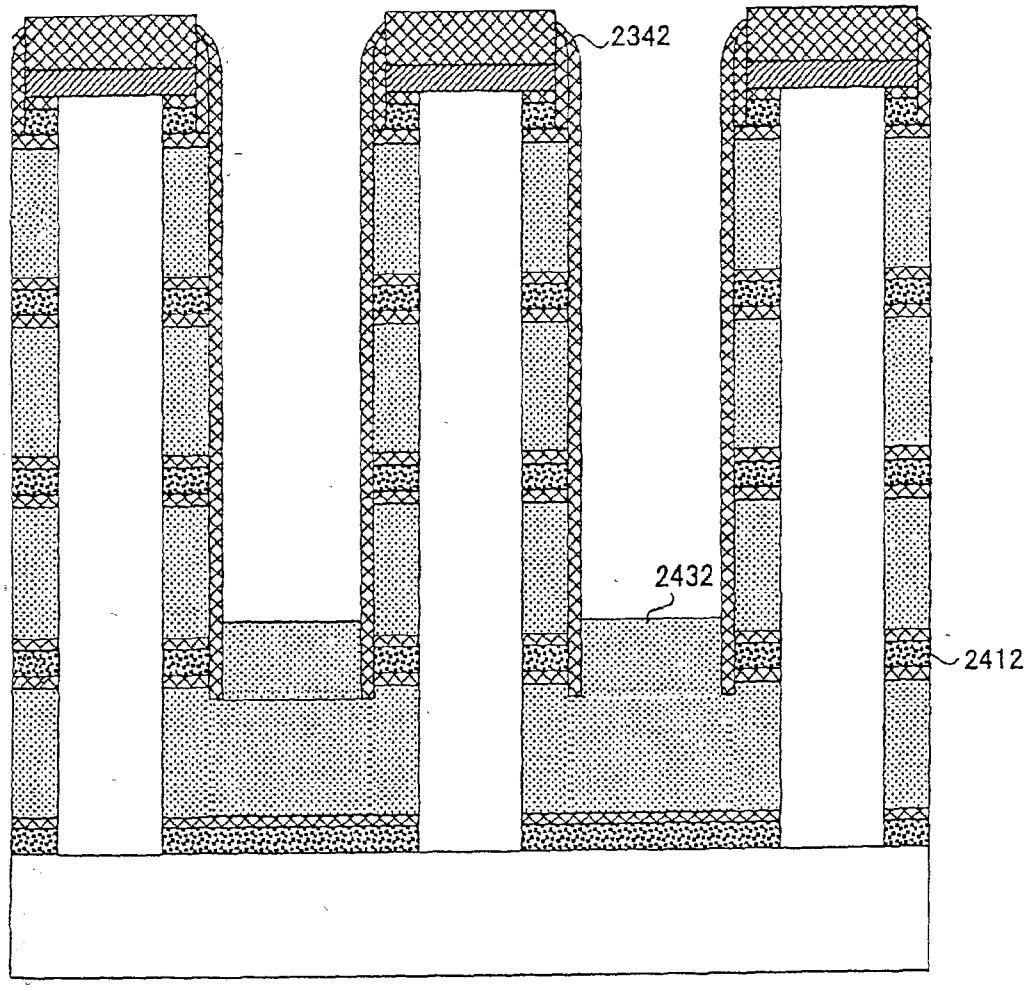


Fig. 347

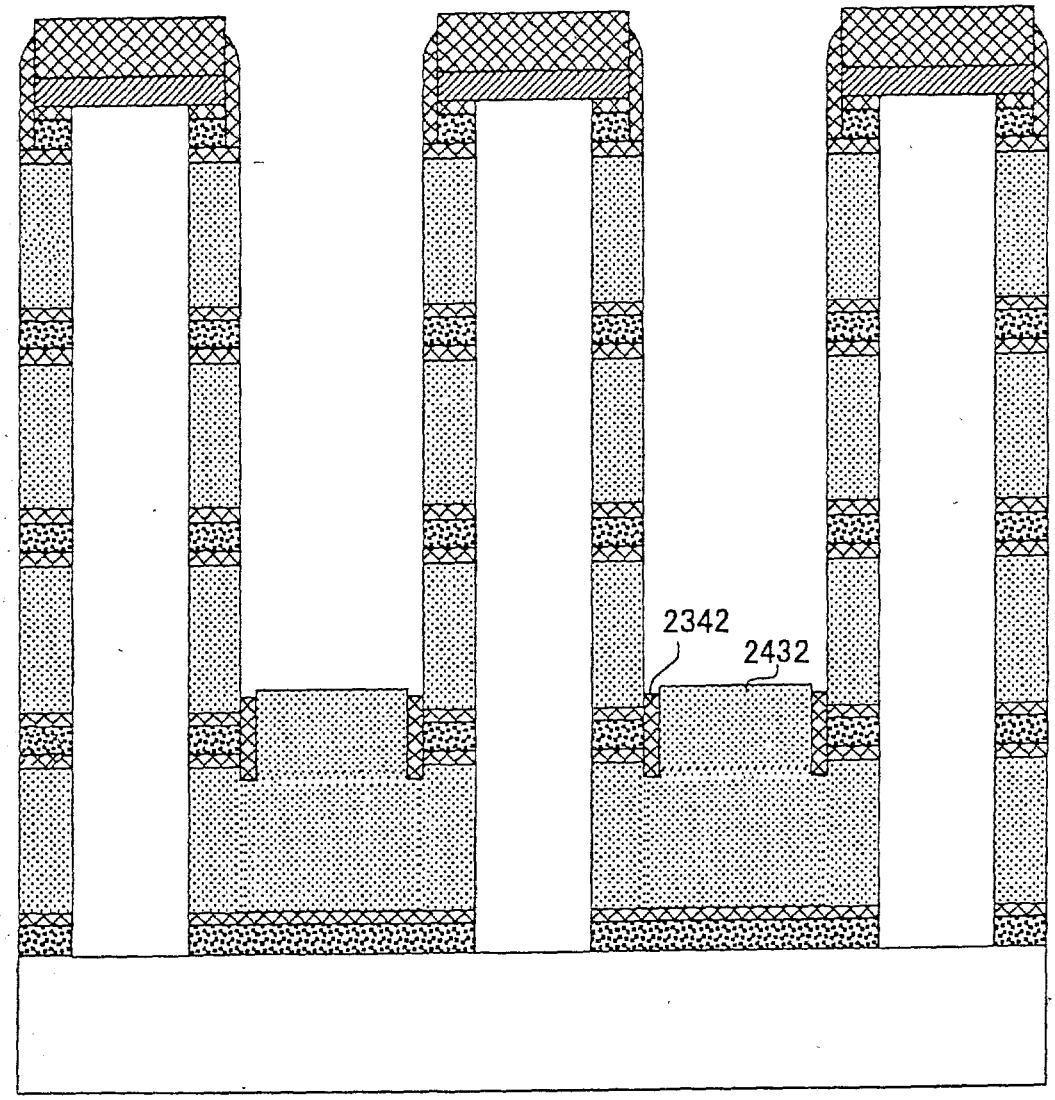


Fig. 348

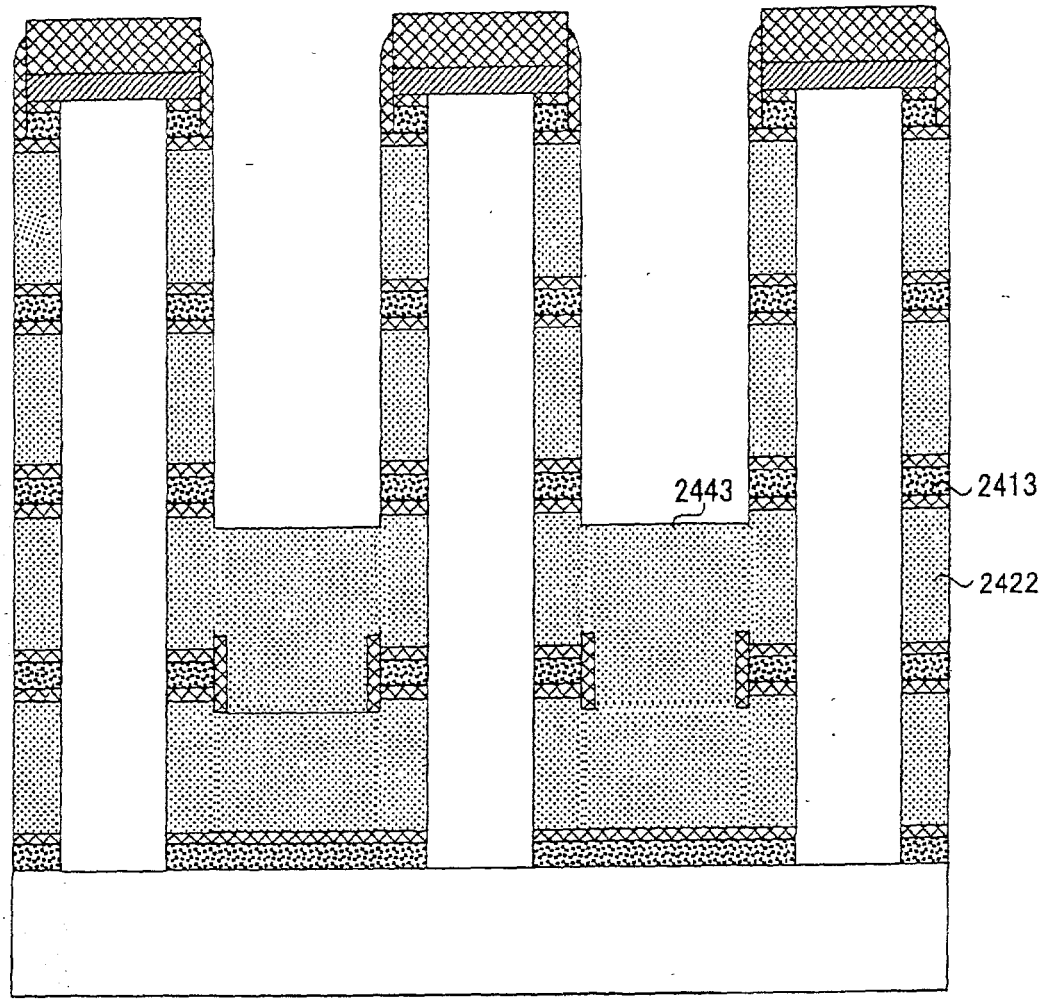


Fig. 349

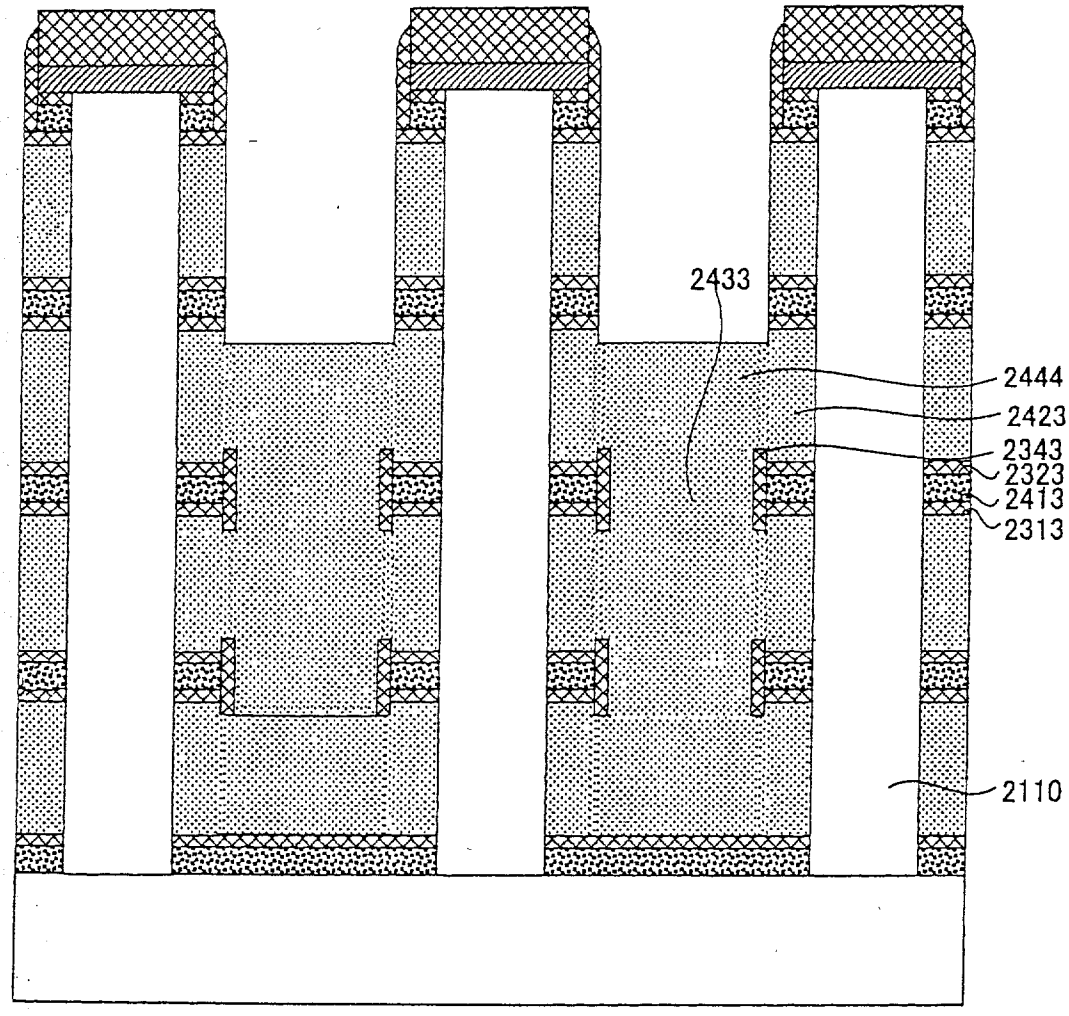


Fig. 350

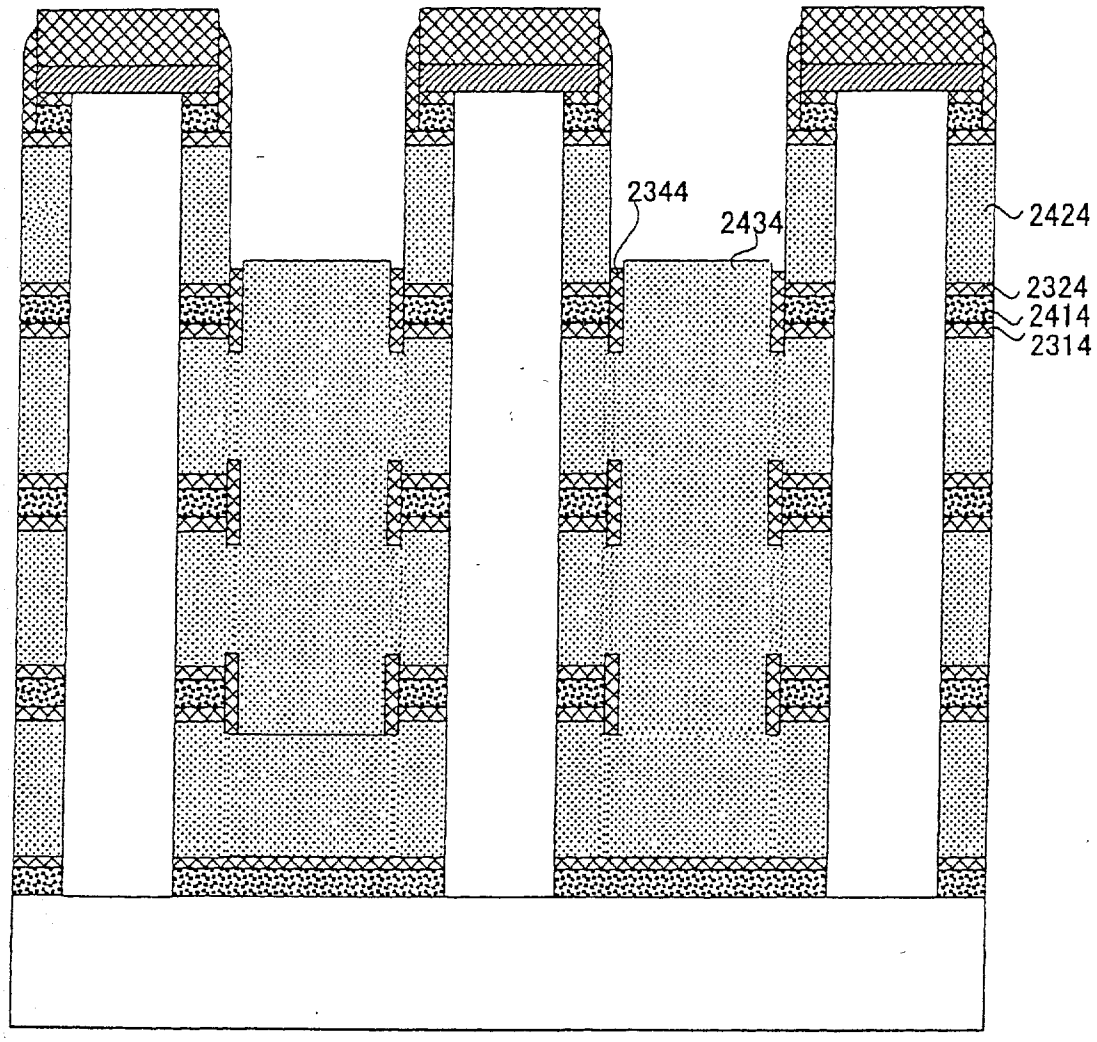


Fig. 351

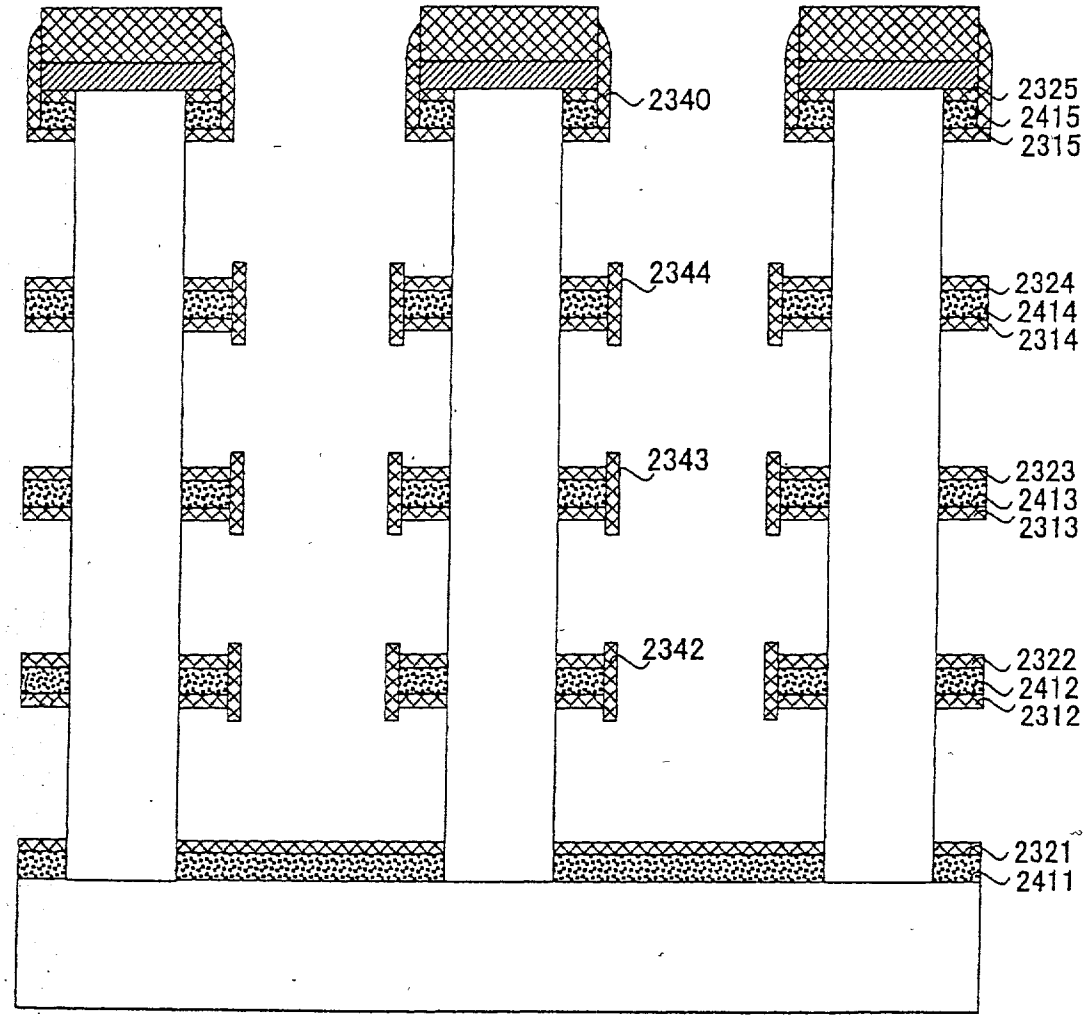

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Fig. 352

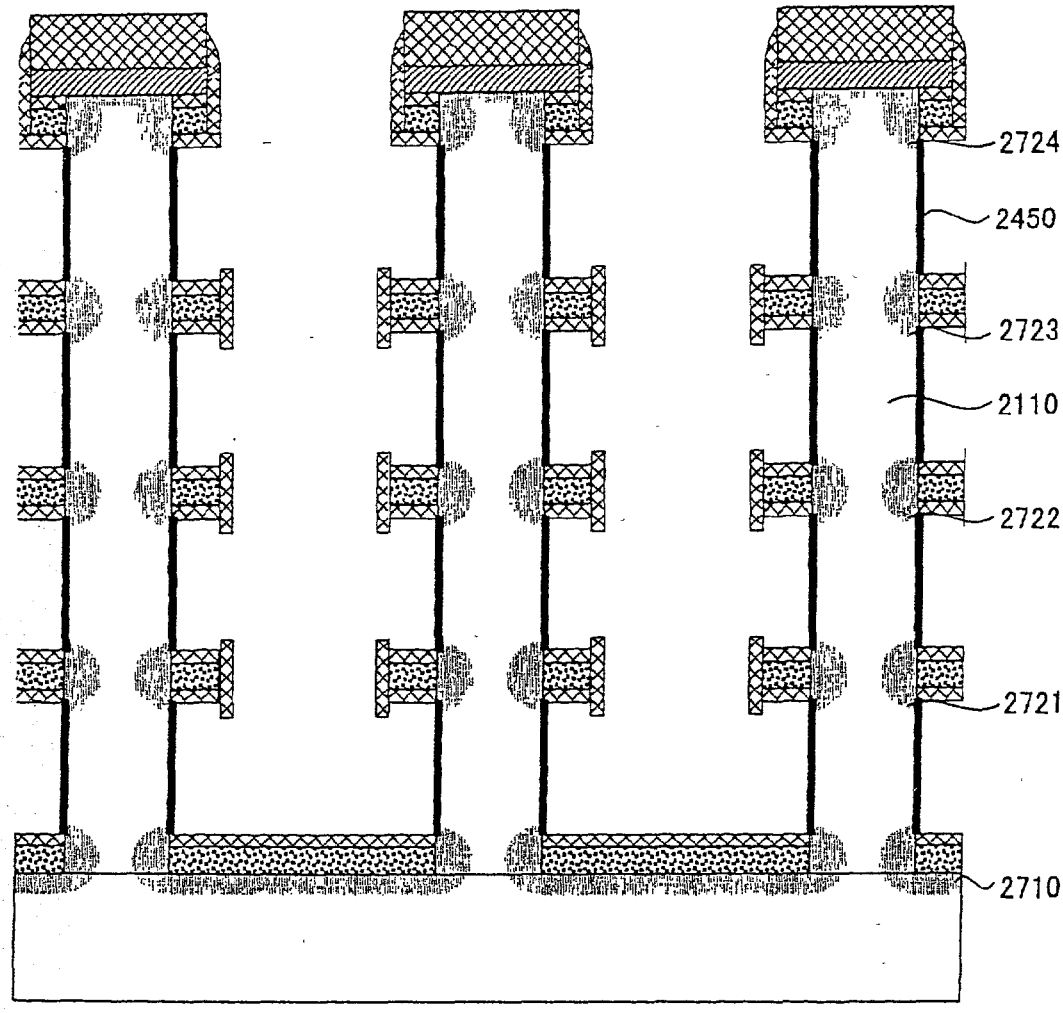


Fig. 353

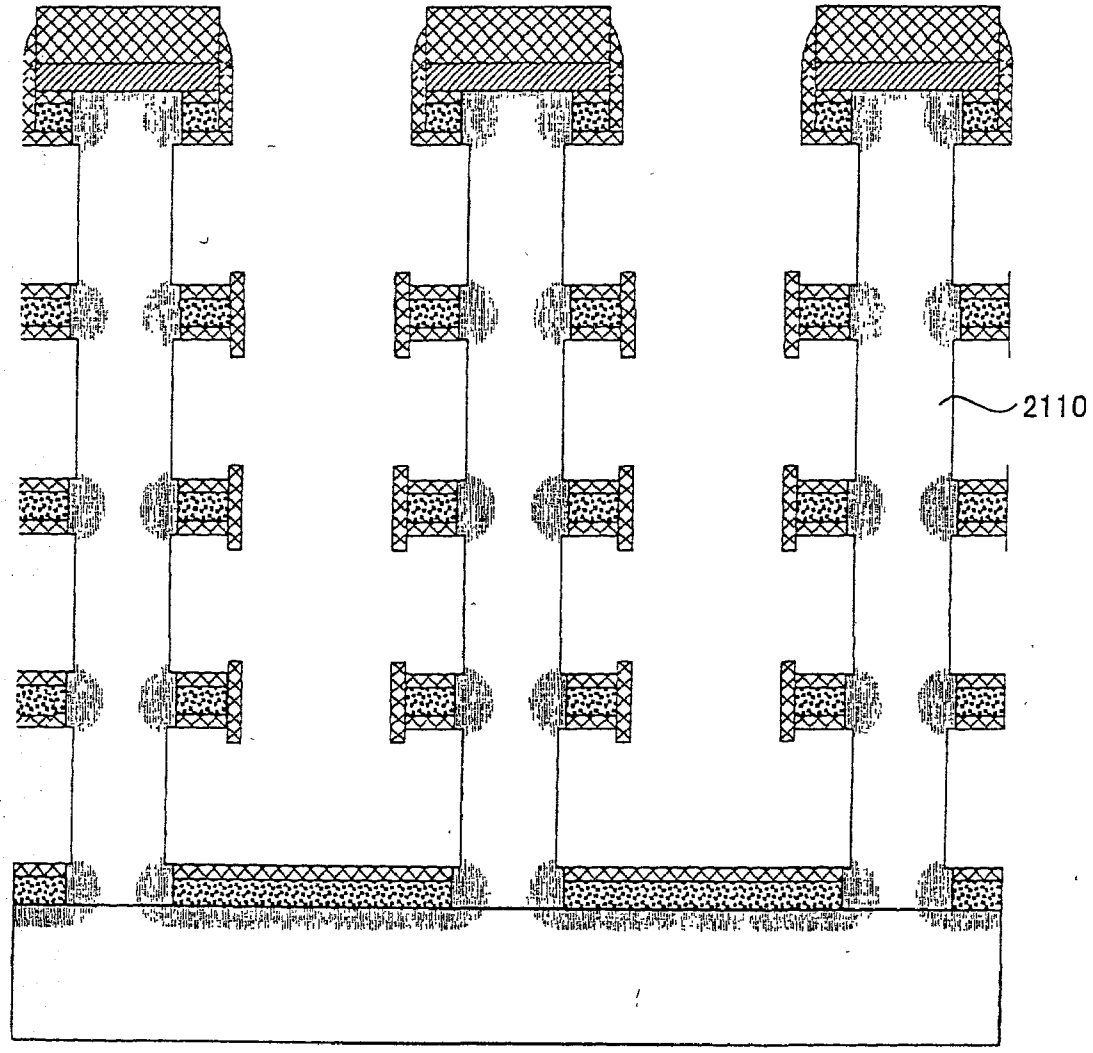


Fig. 354

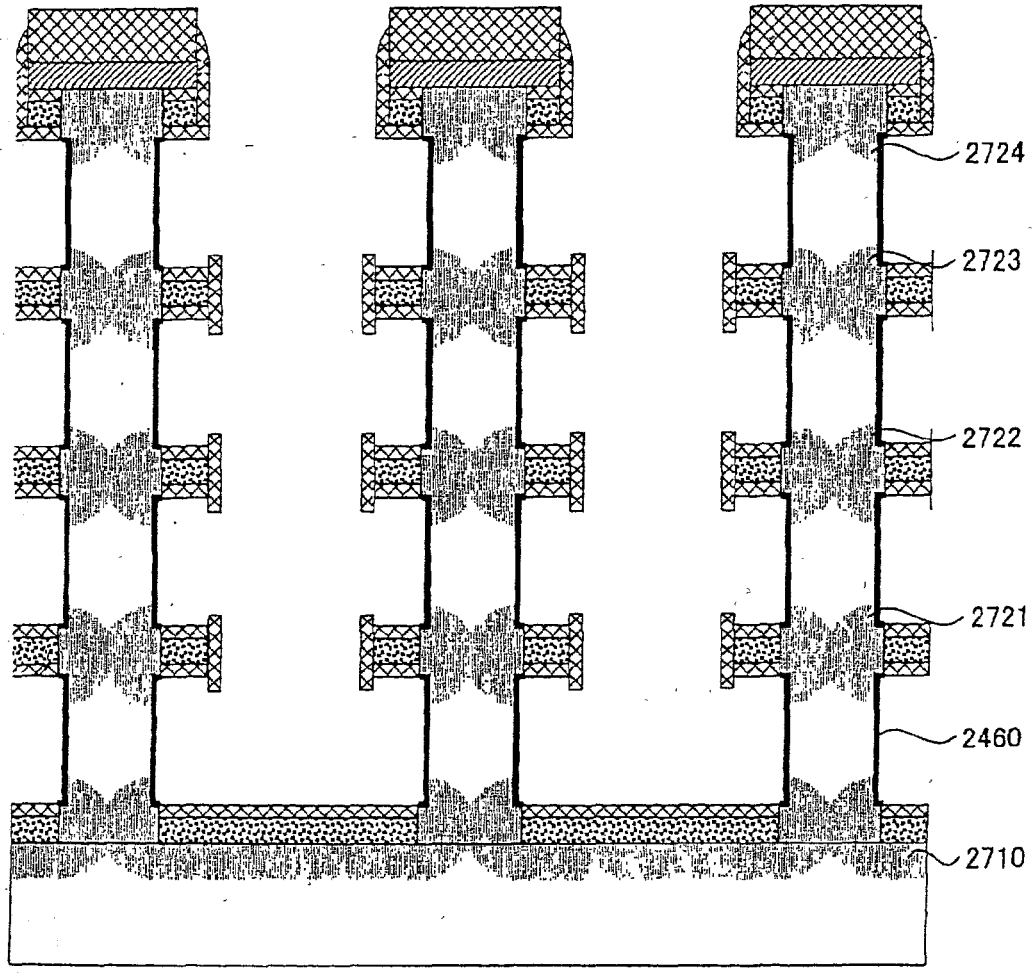


Fig. 355

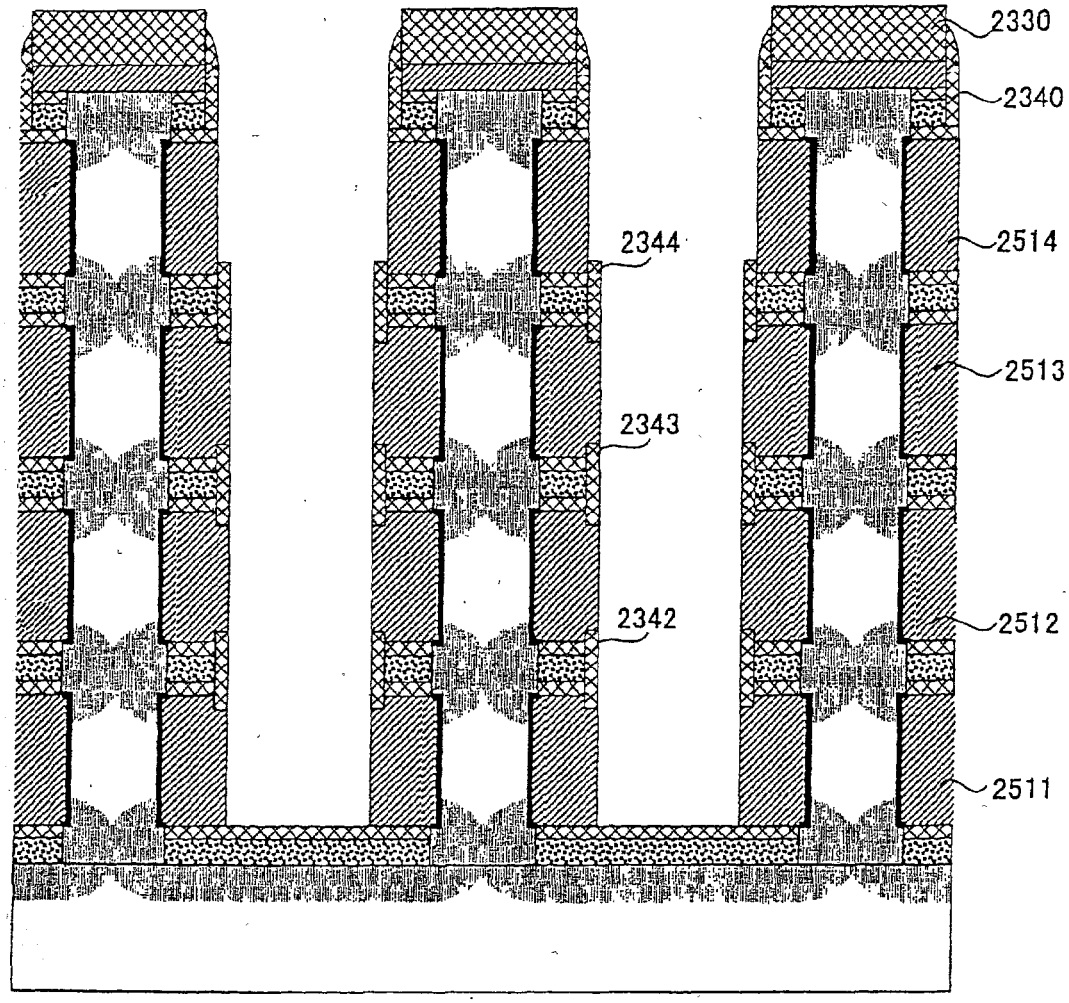


Fig. 356

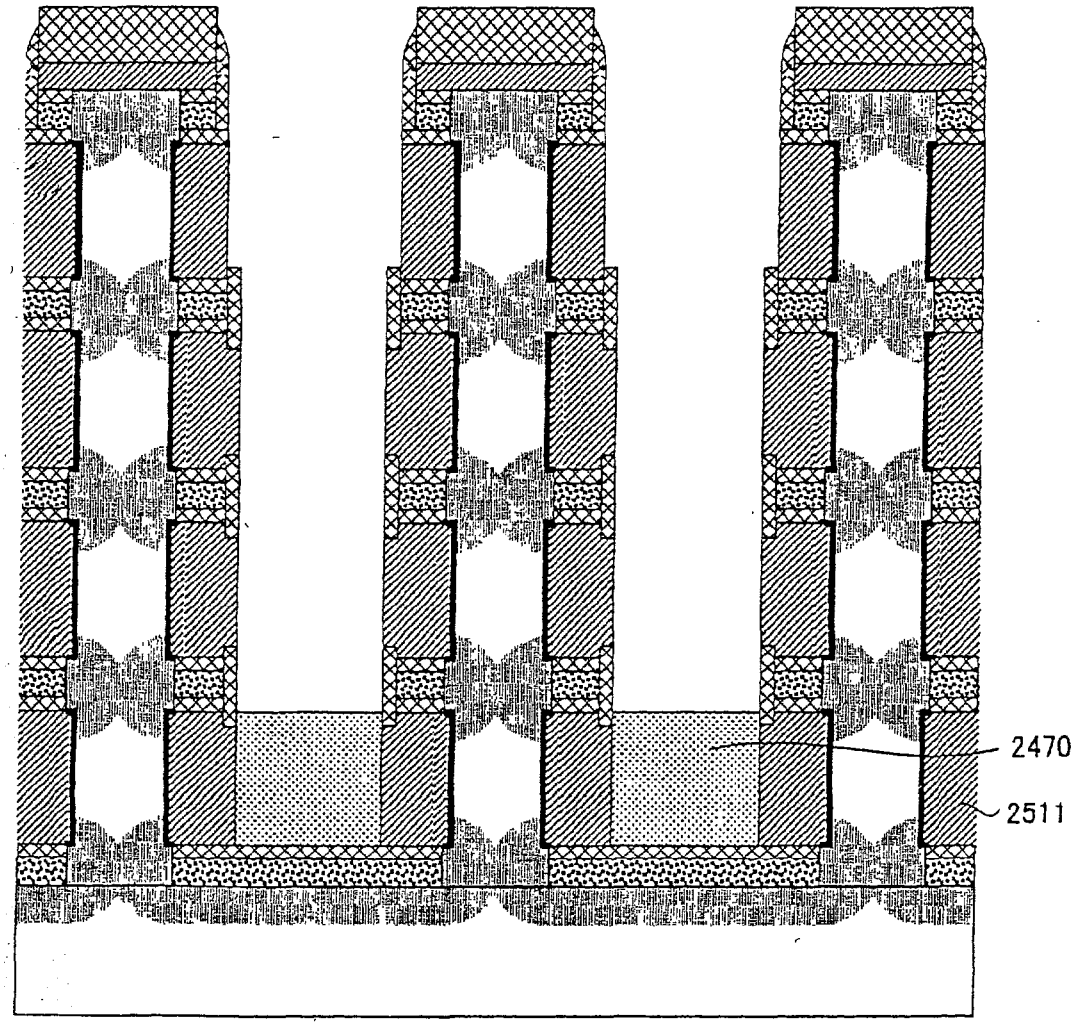


Fig. 357

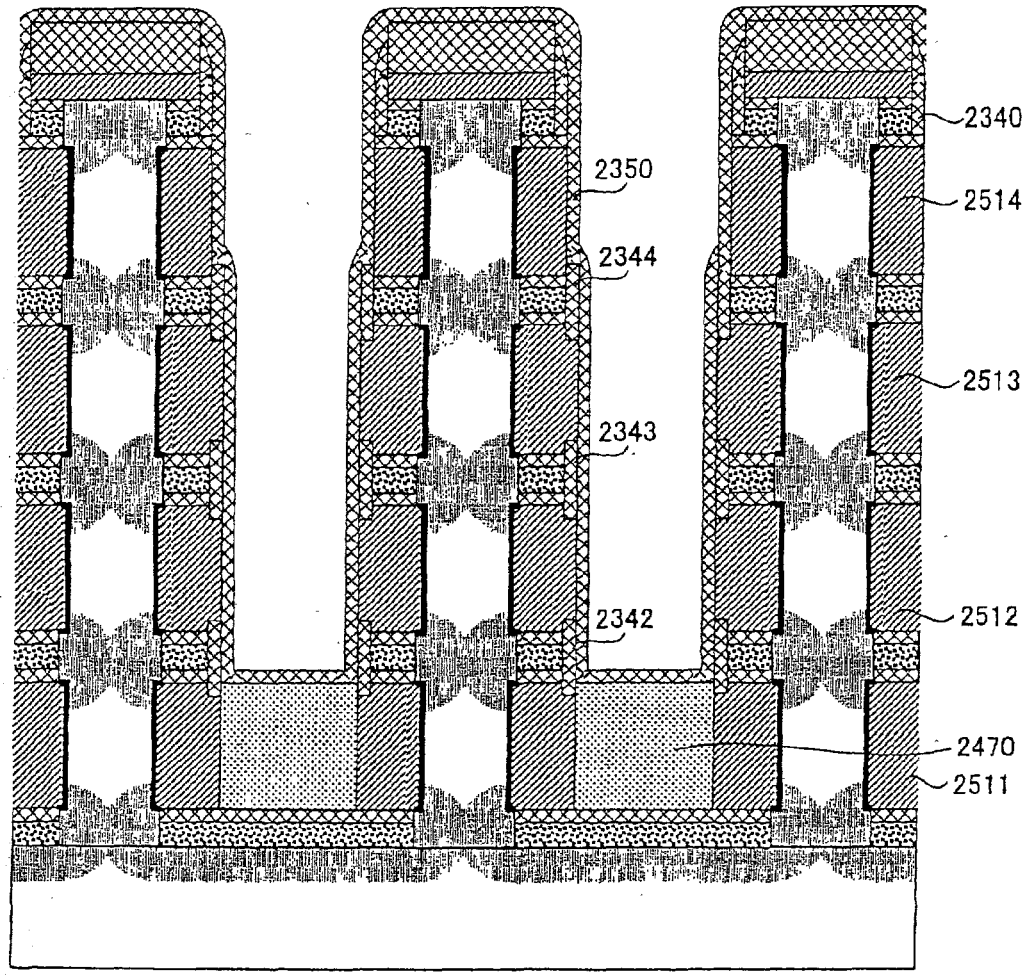


Fig. 358

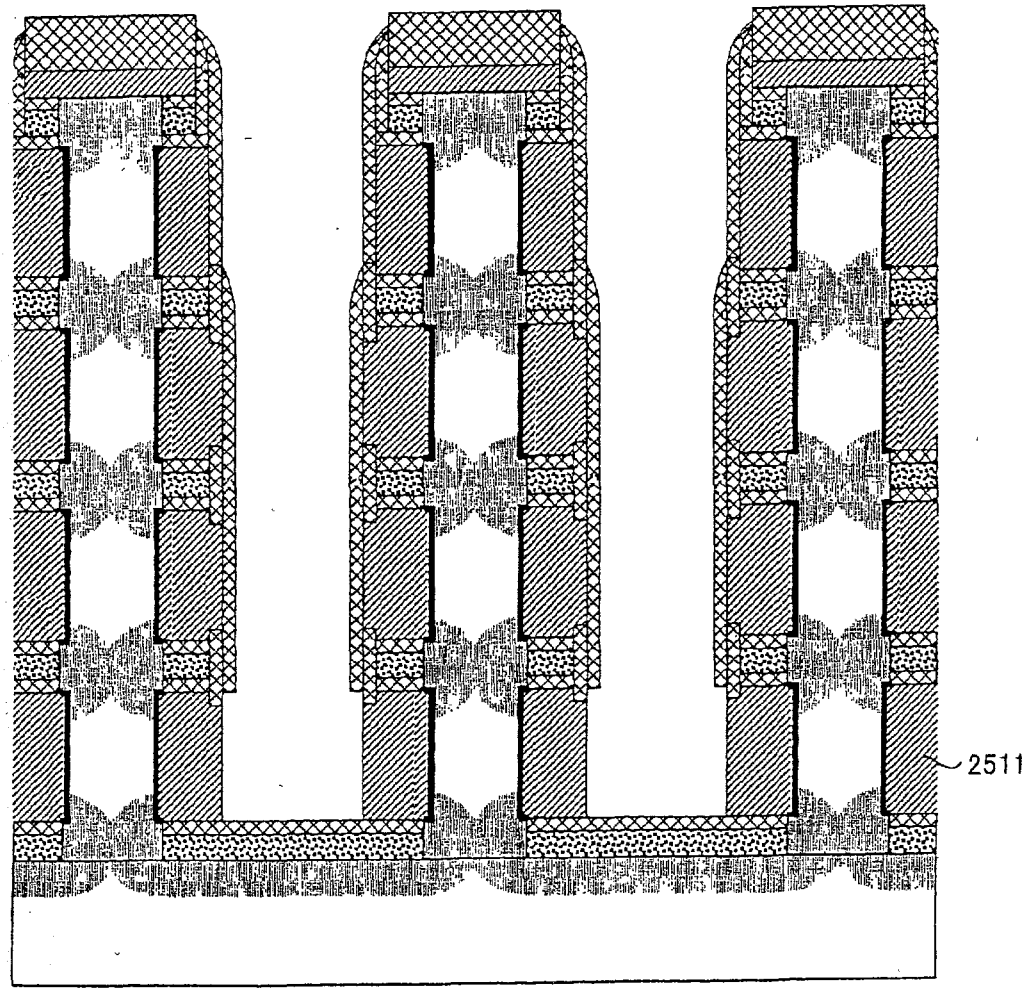


Fig. 359

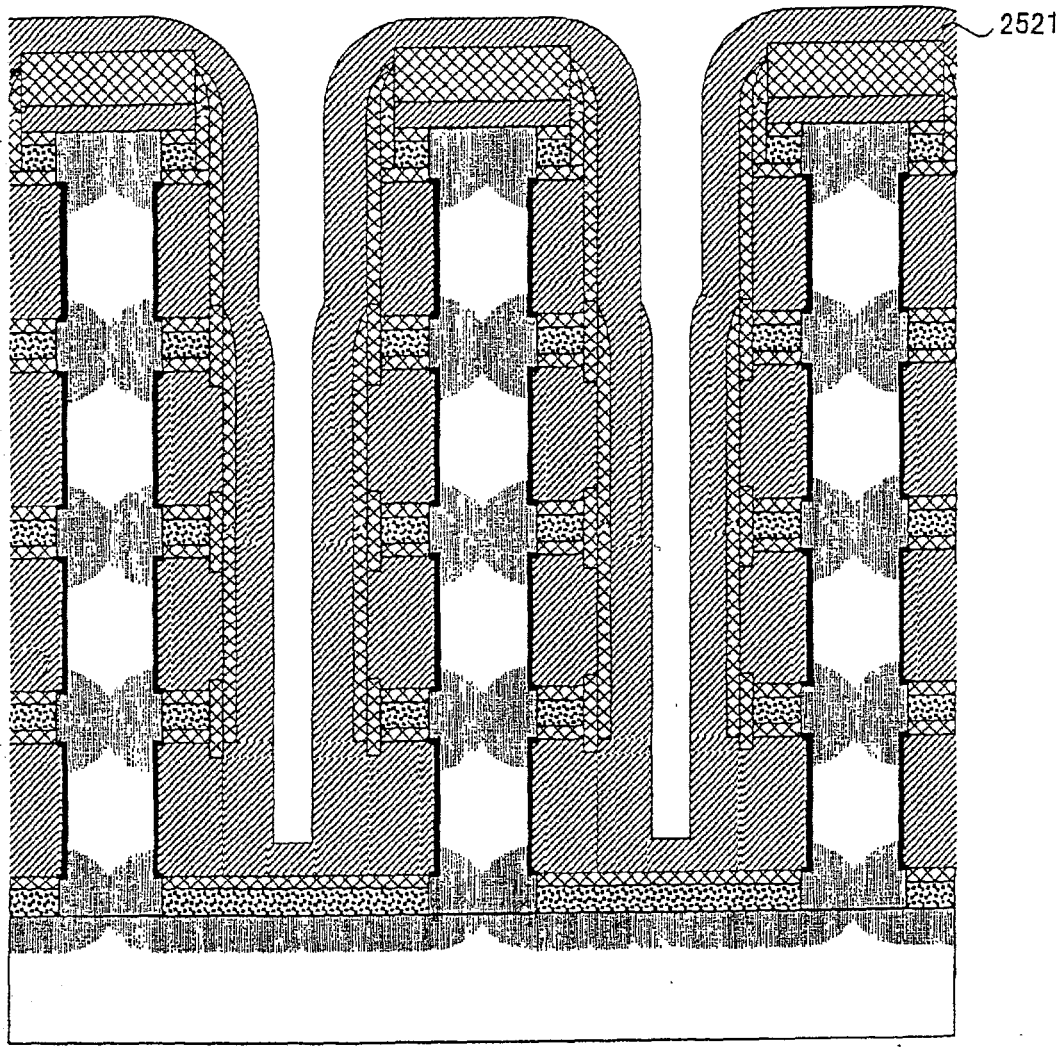


Fig. 360

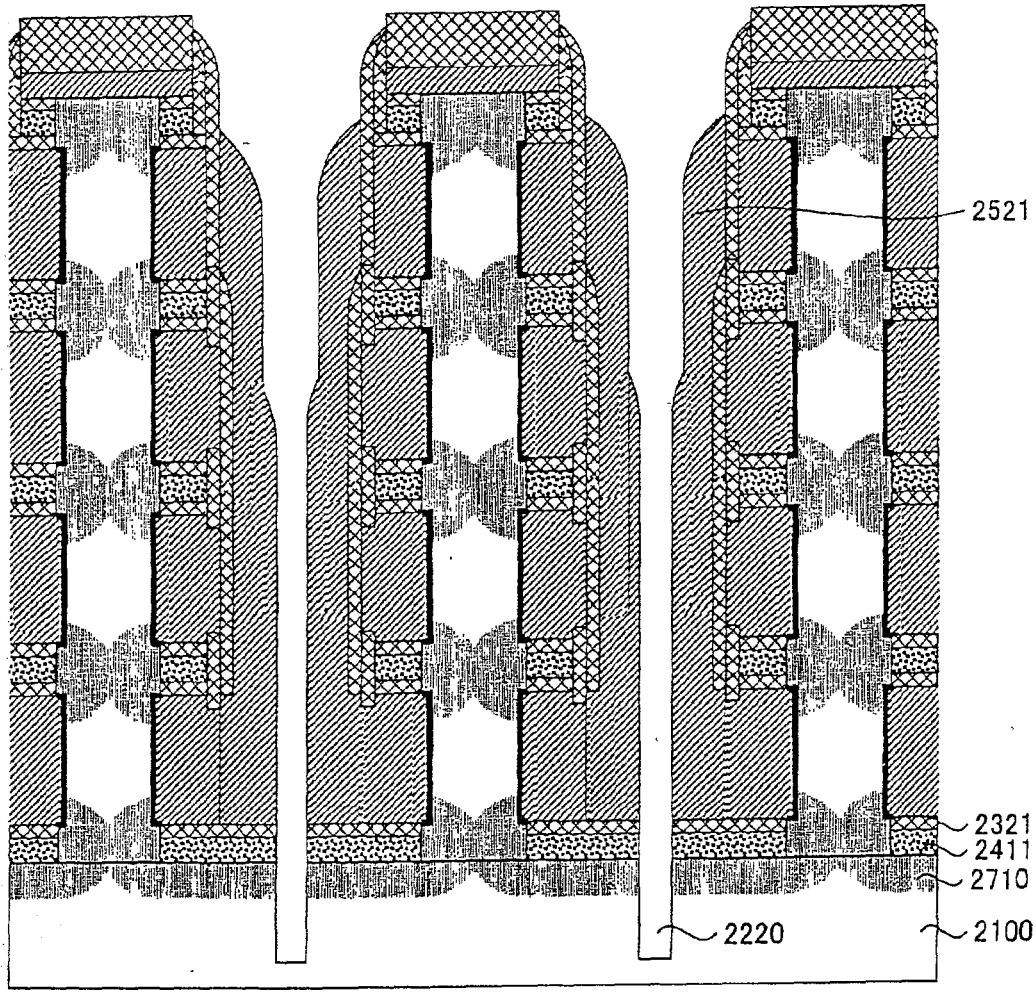


Fig. 361

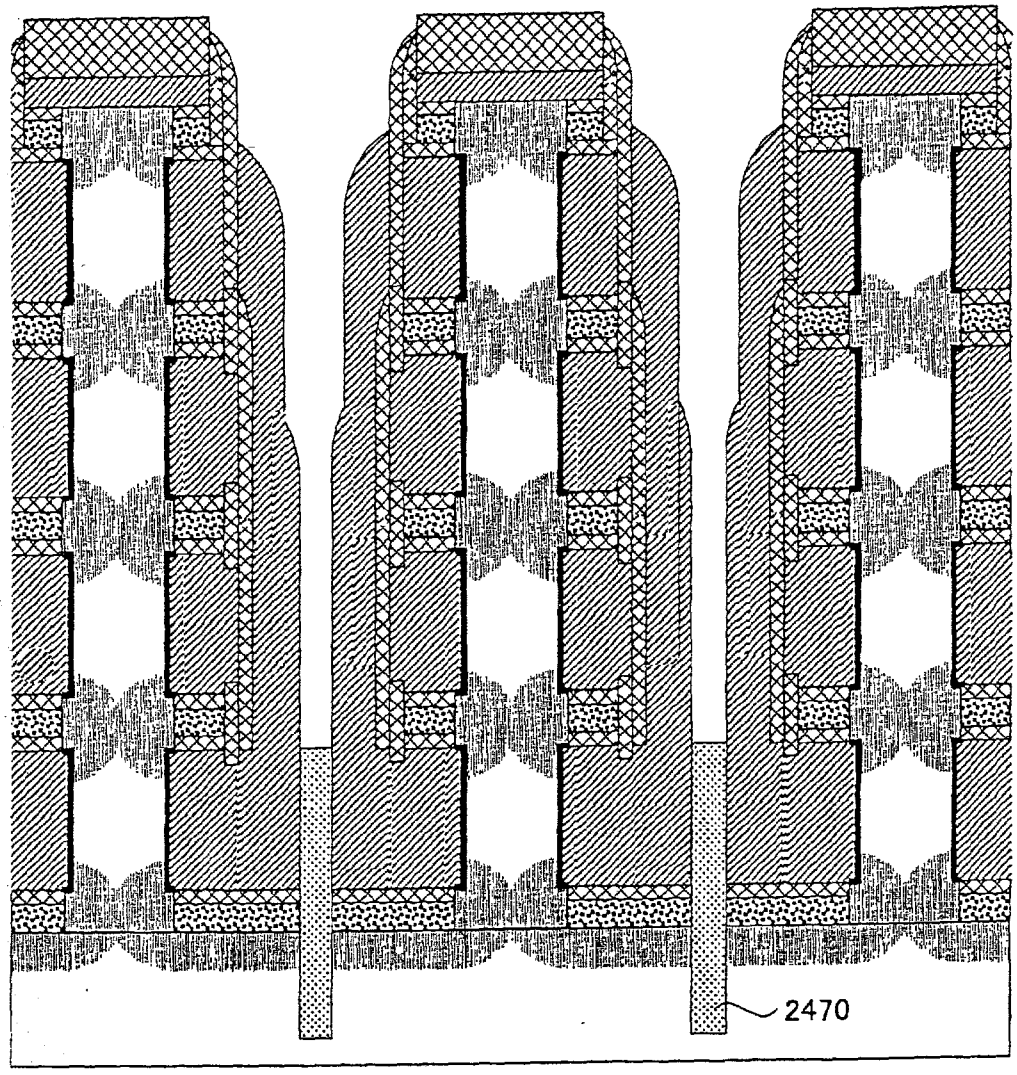


Fig. 362

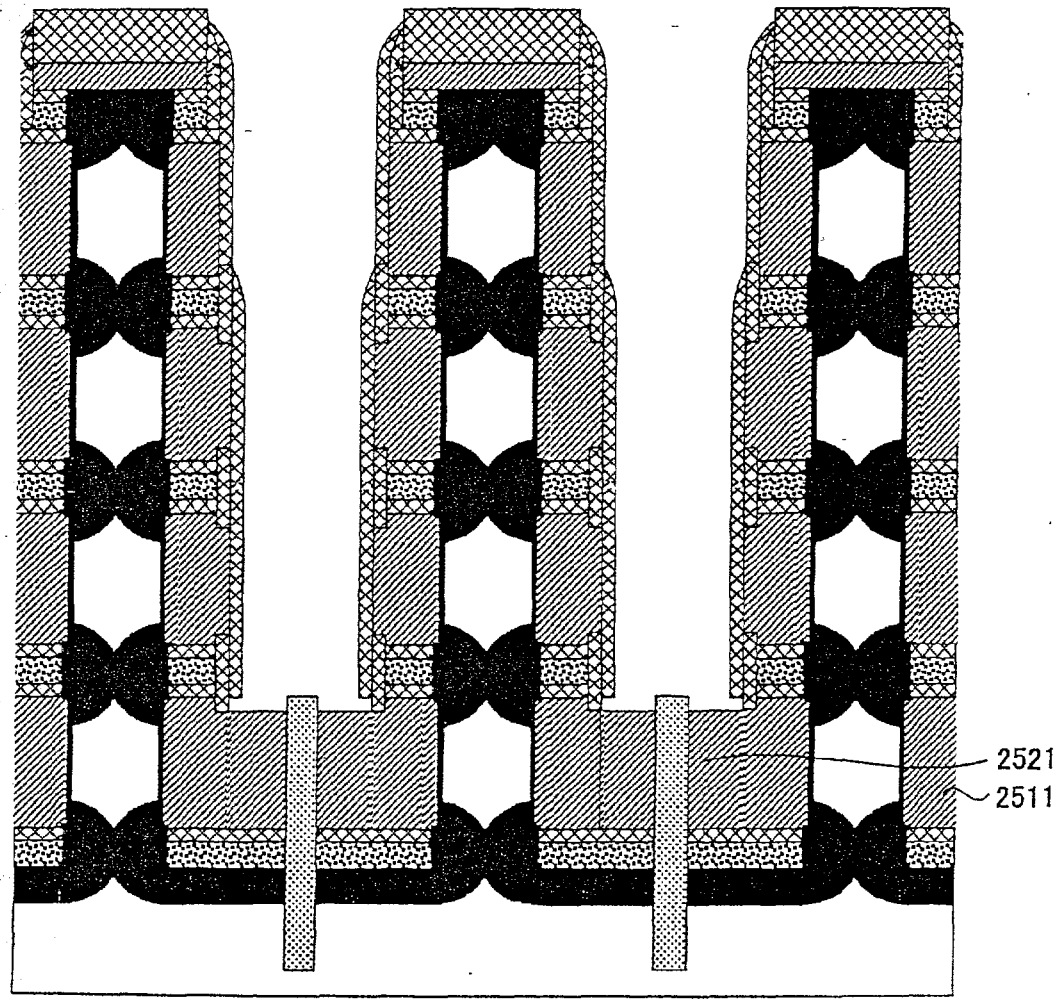


Fig. 363

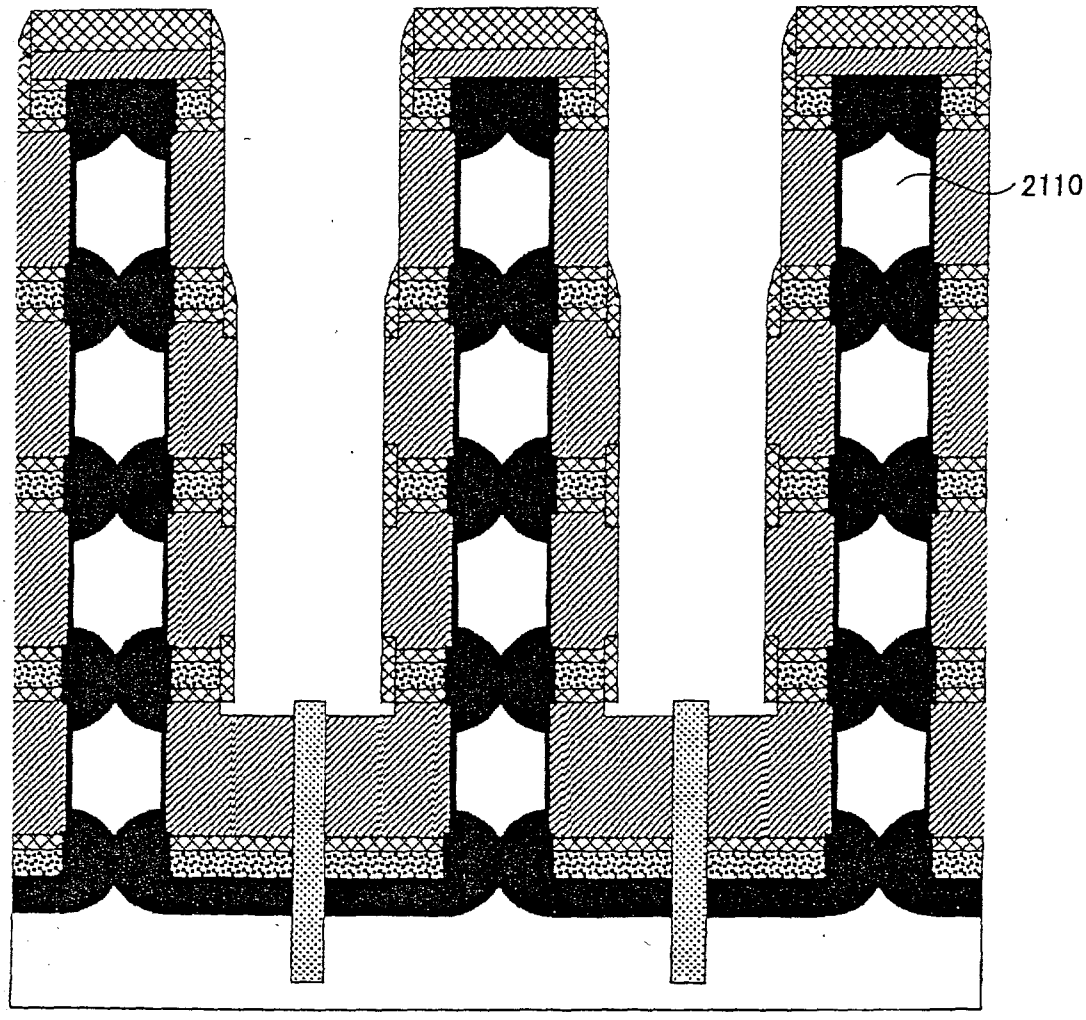


Fig. 364

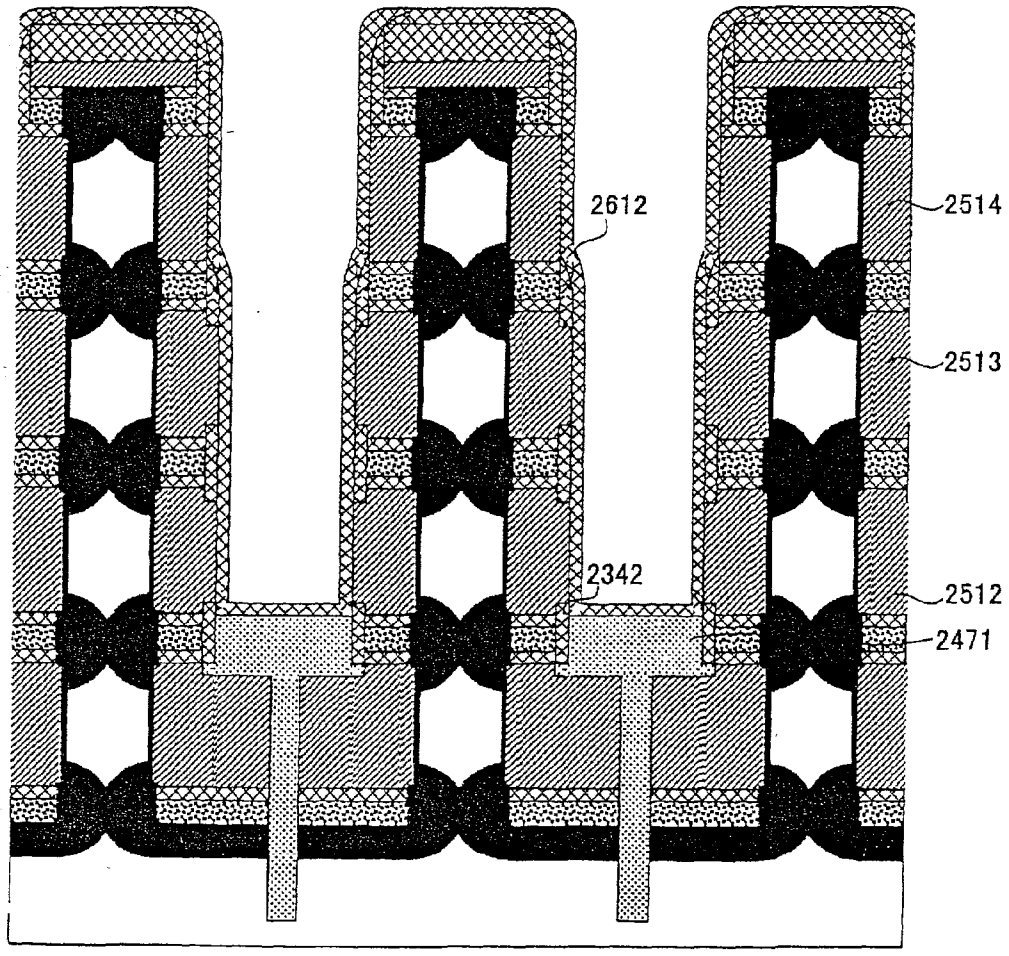


Fig. 365

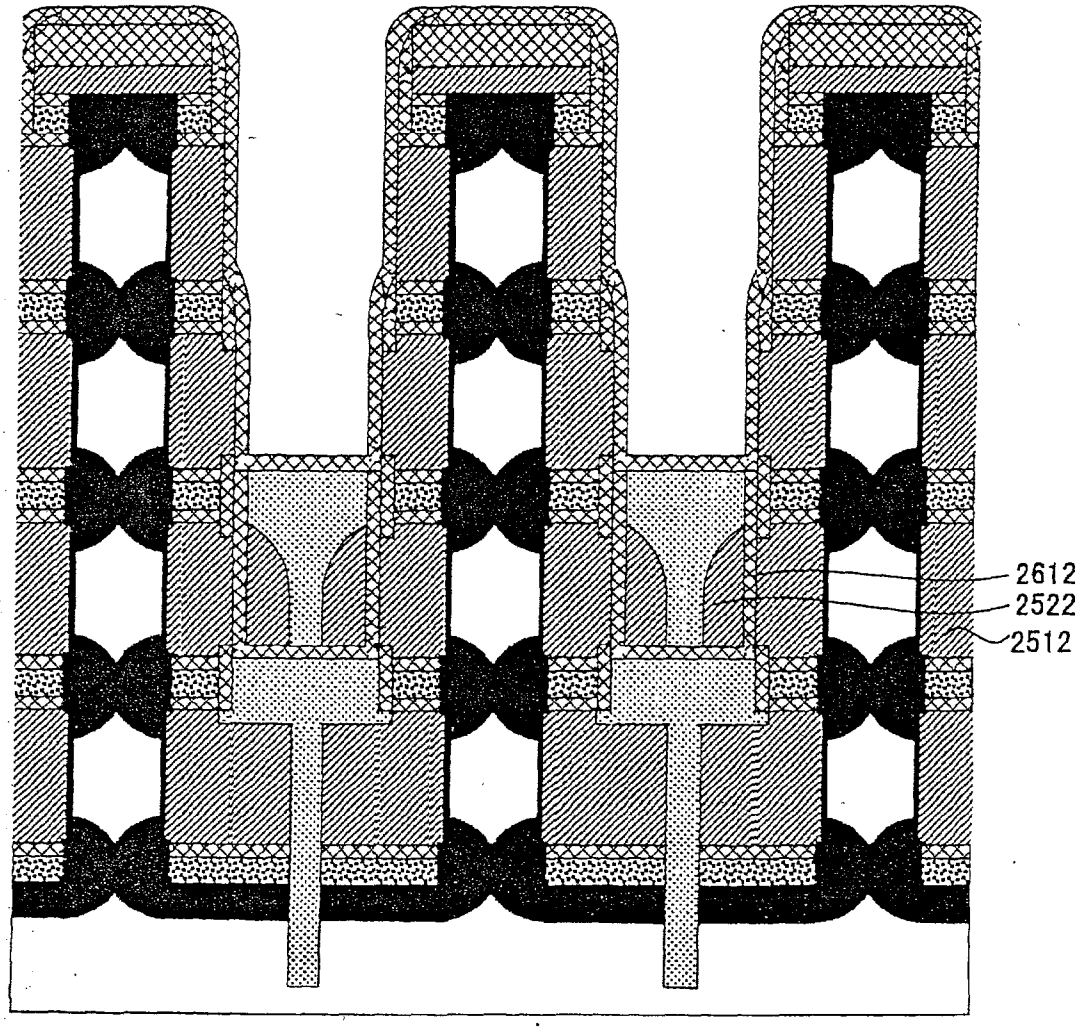


Fig. 366

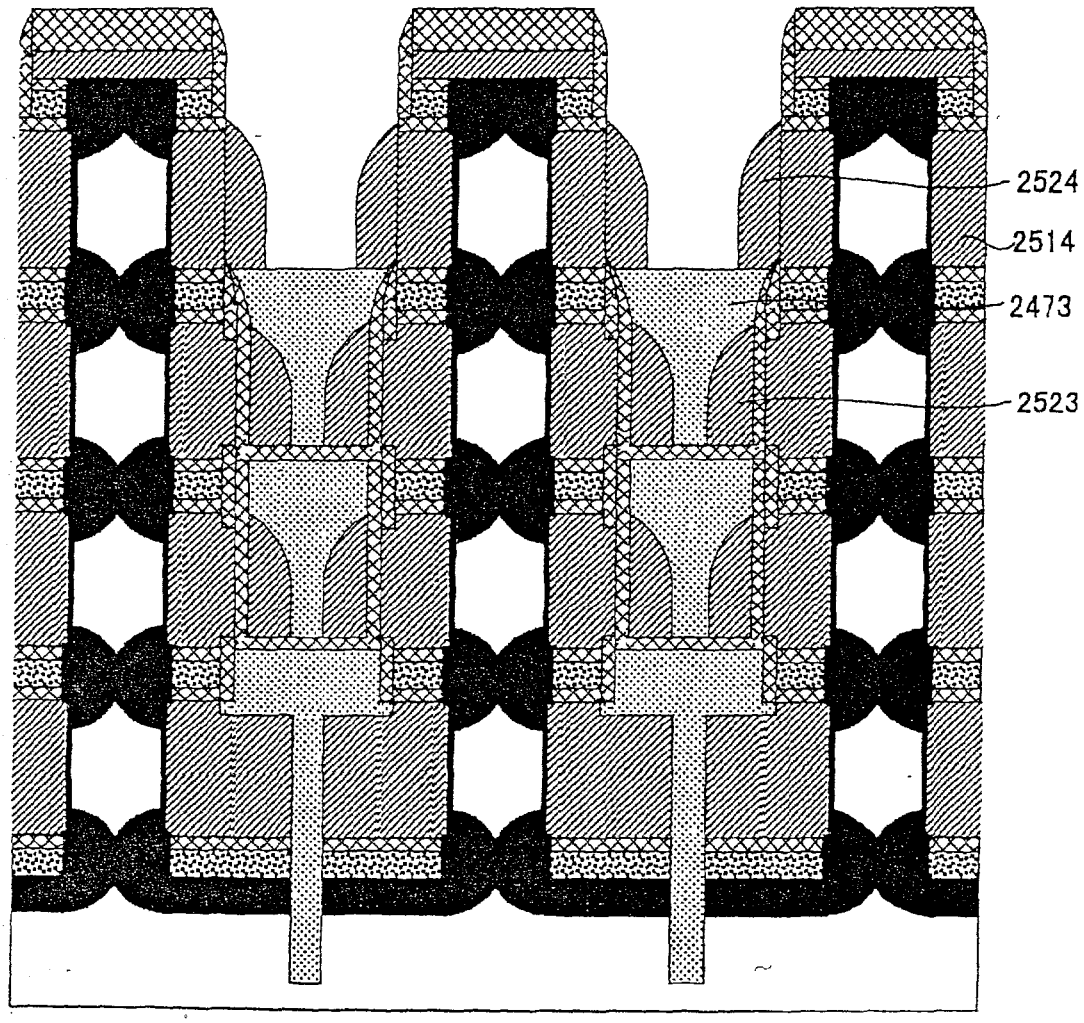


Fig. 367

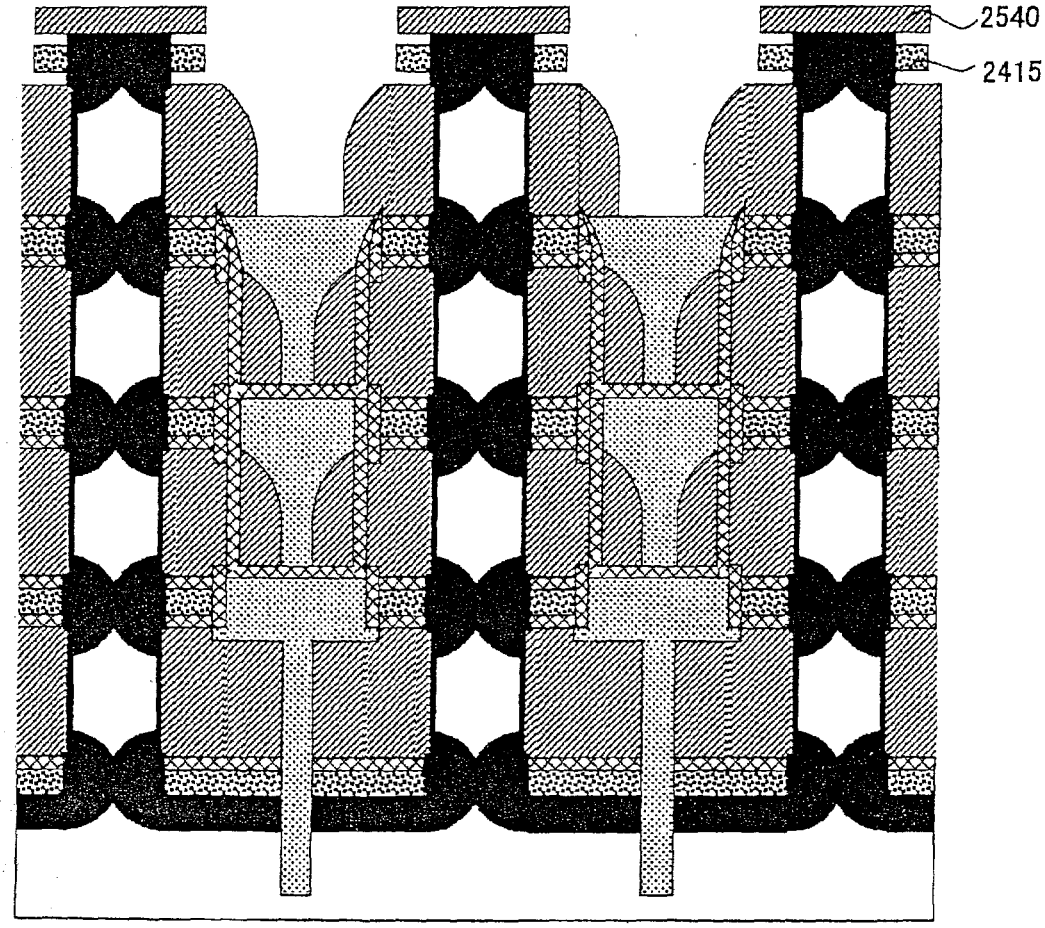


Fig. 368

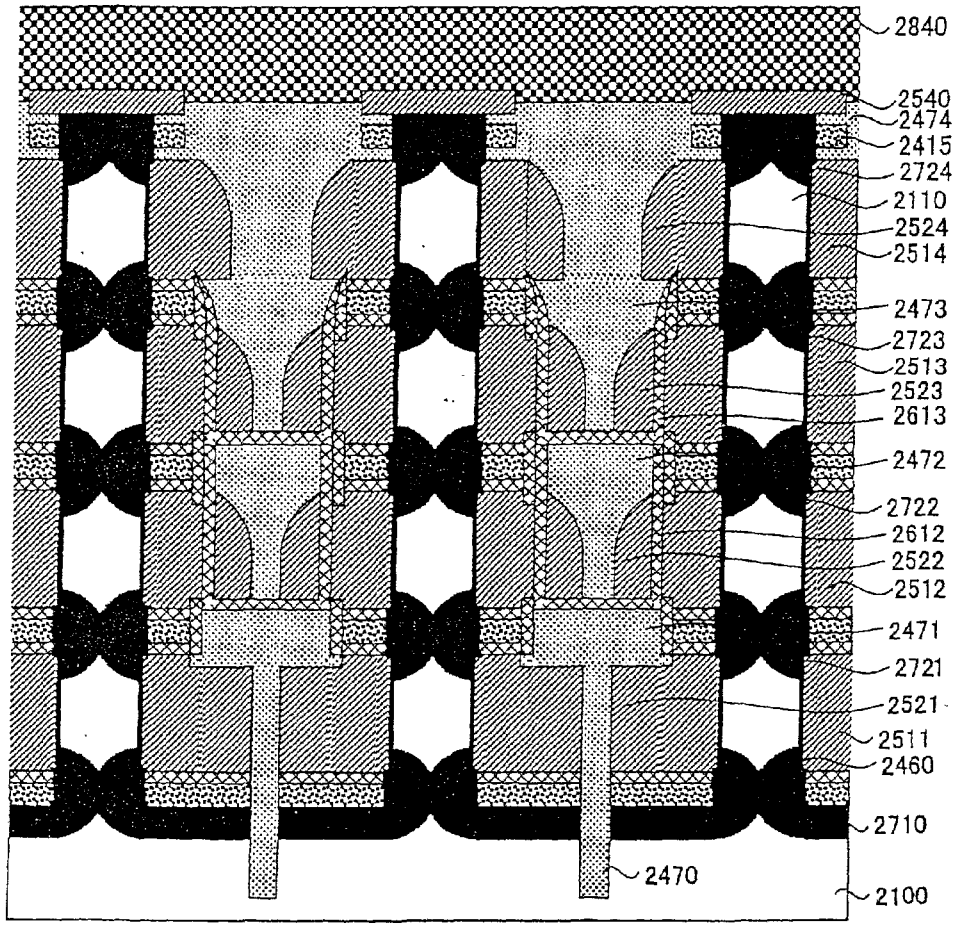

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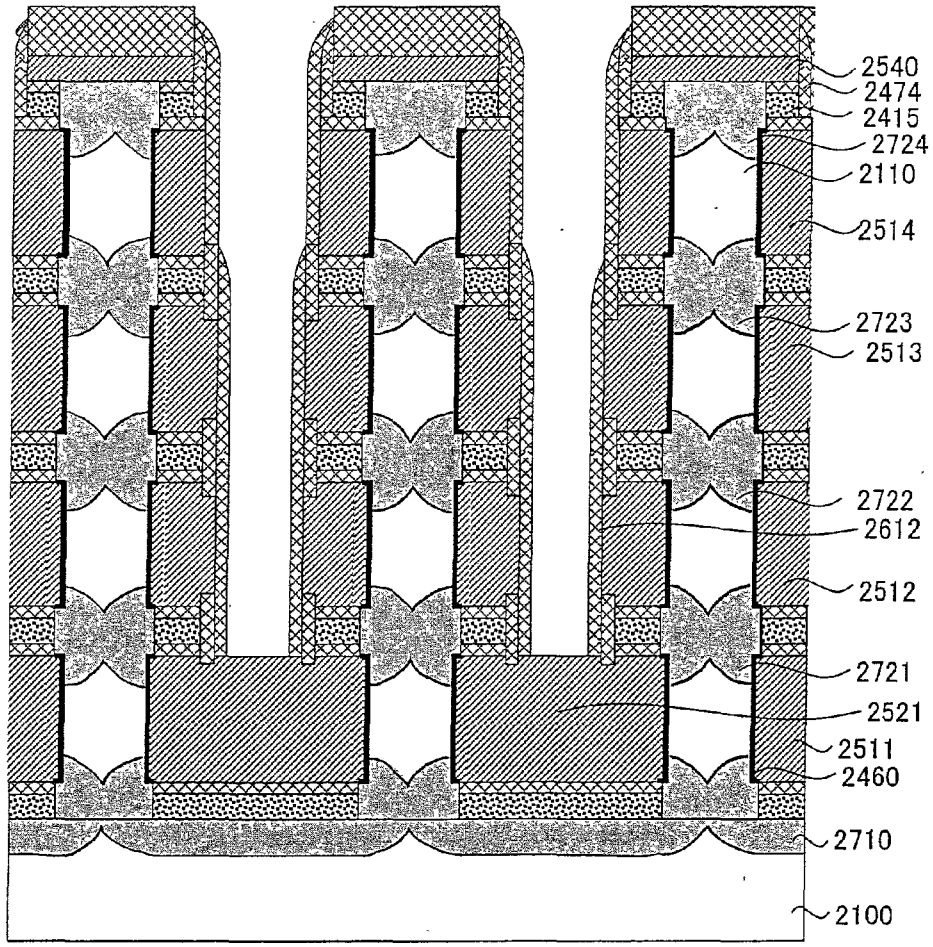

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Fig. 370

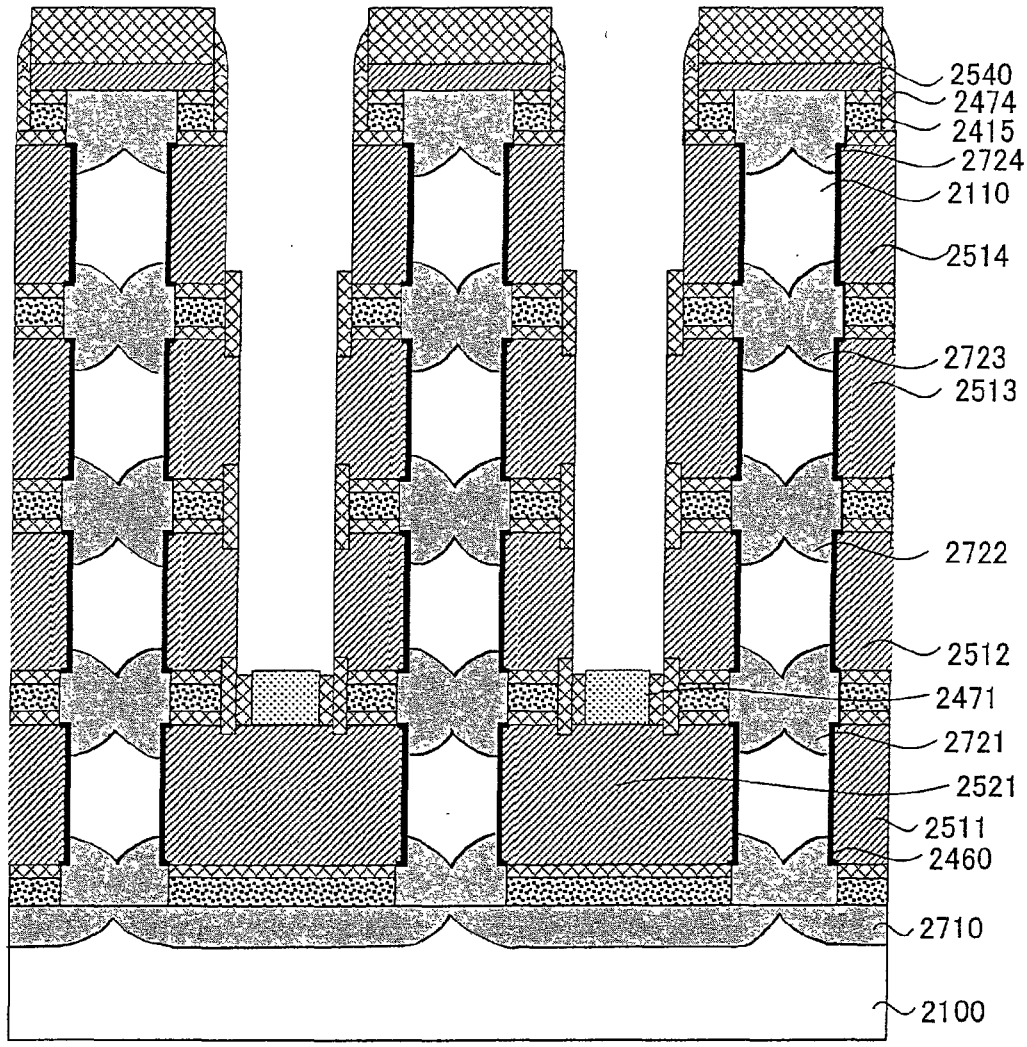

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Fig. 371

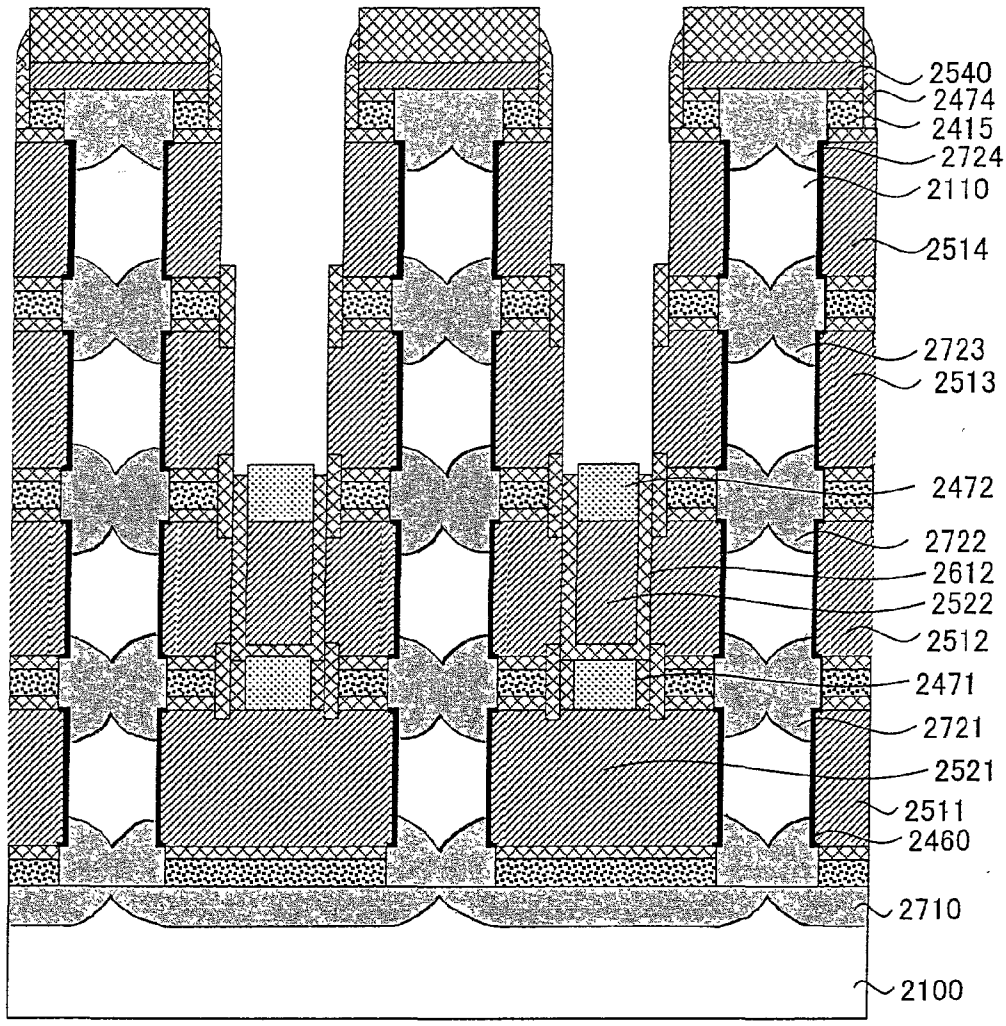

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Fig. 372

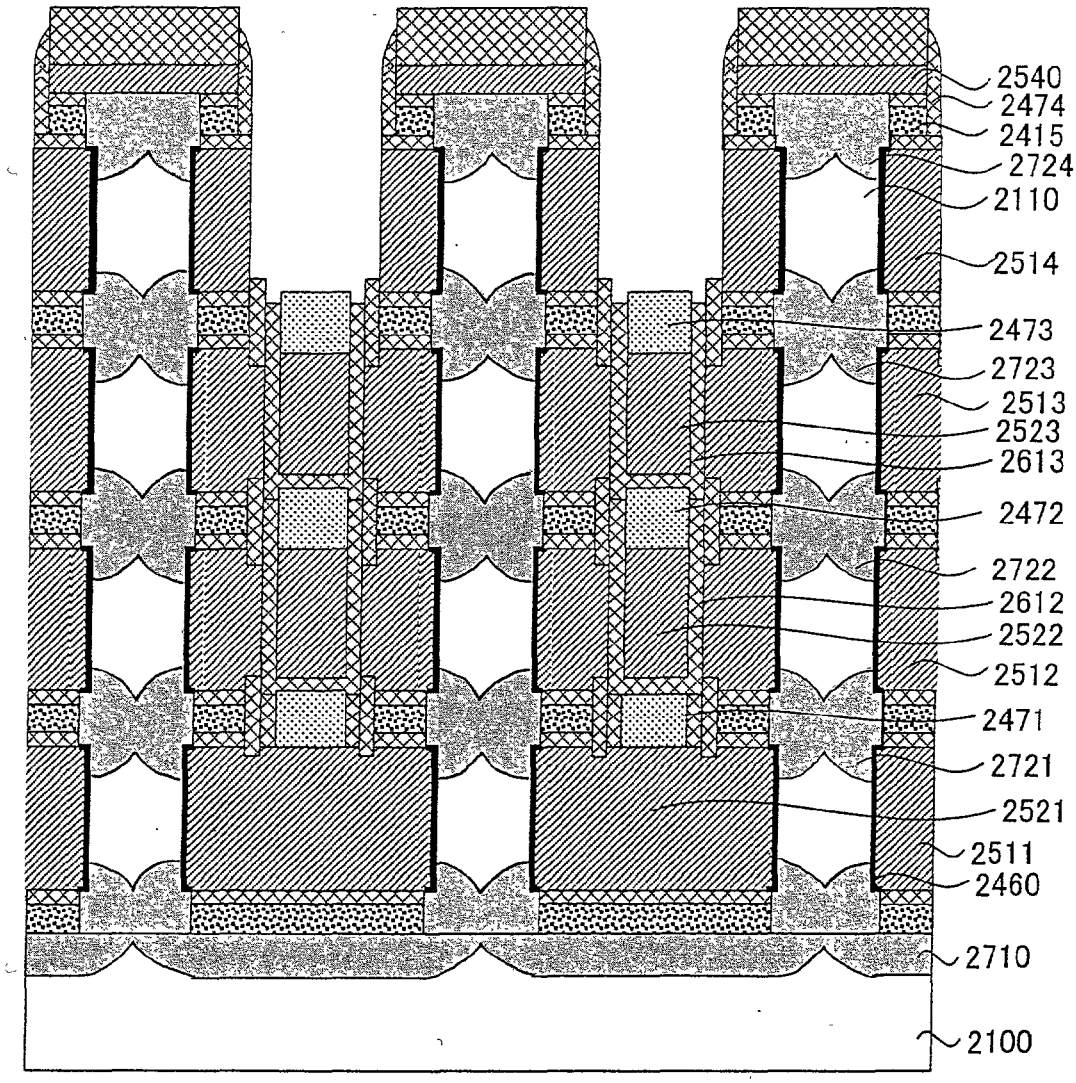

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Fig. 373

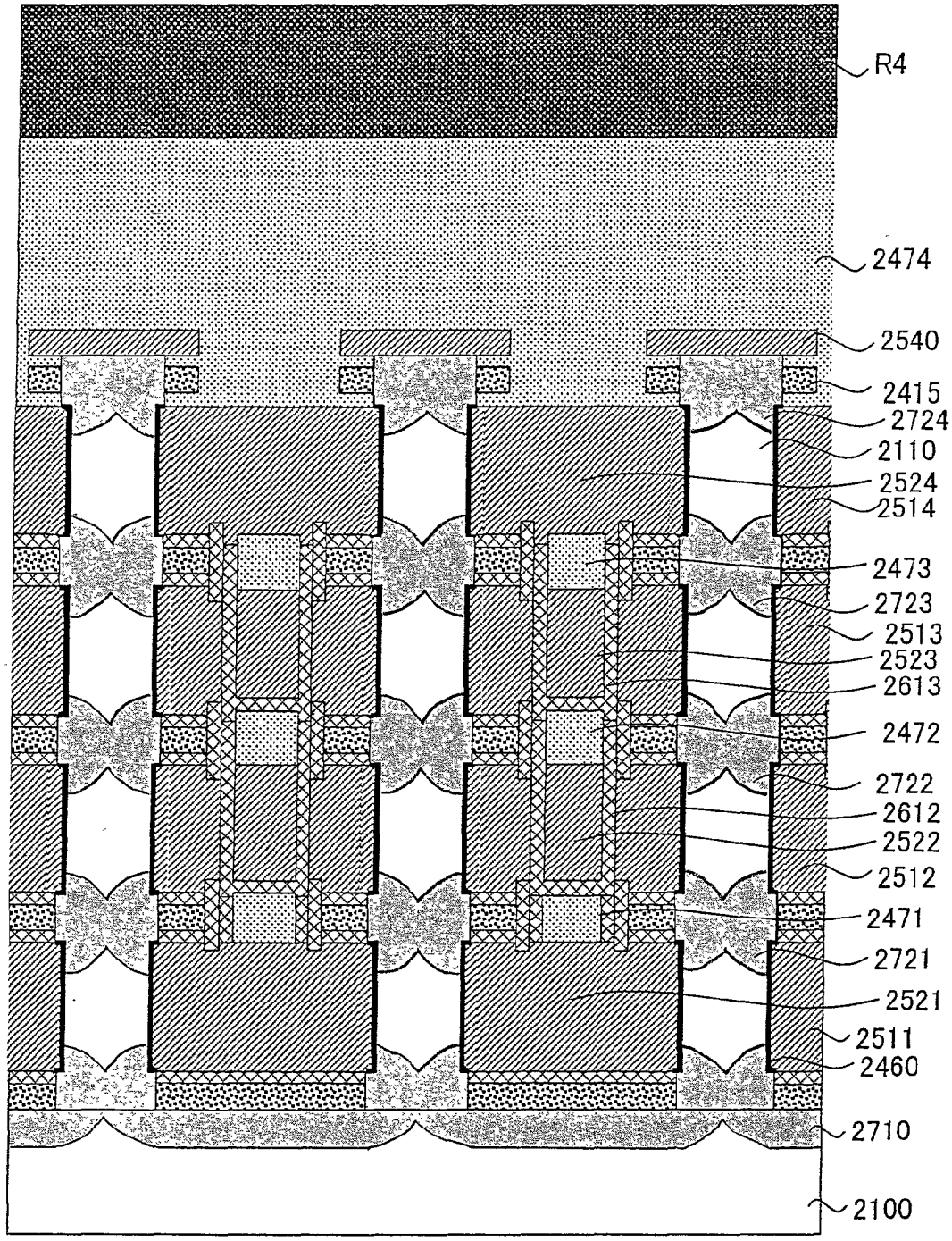

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Fig. 374

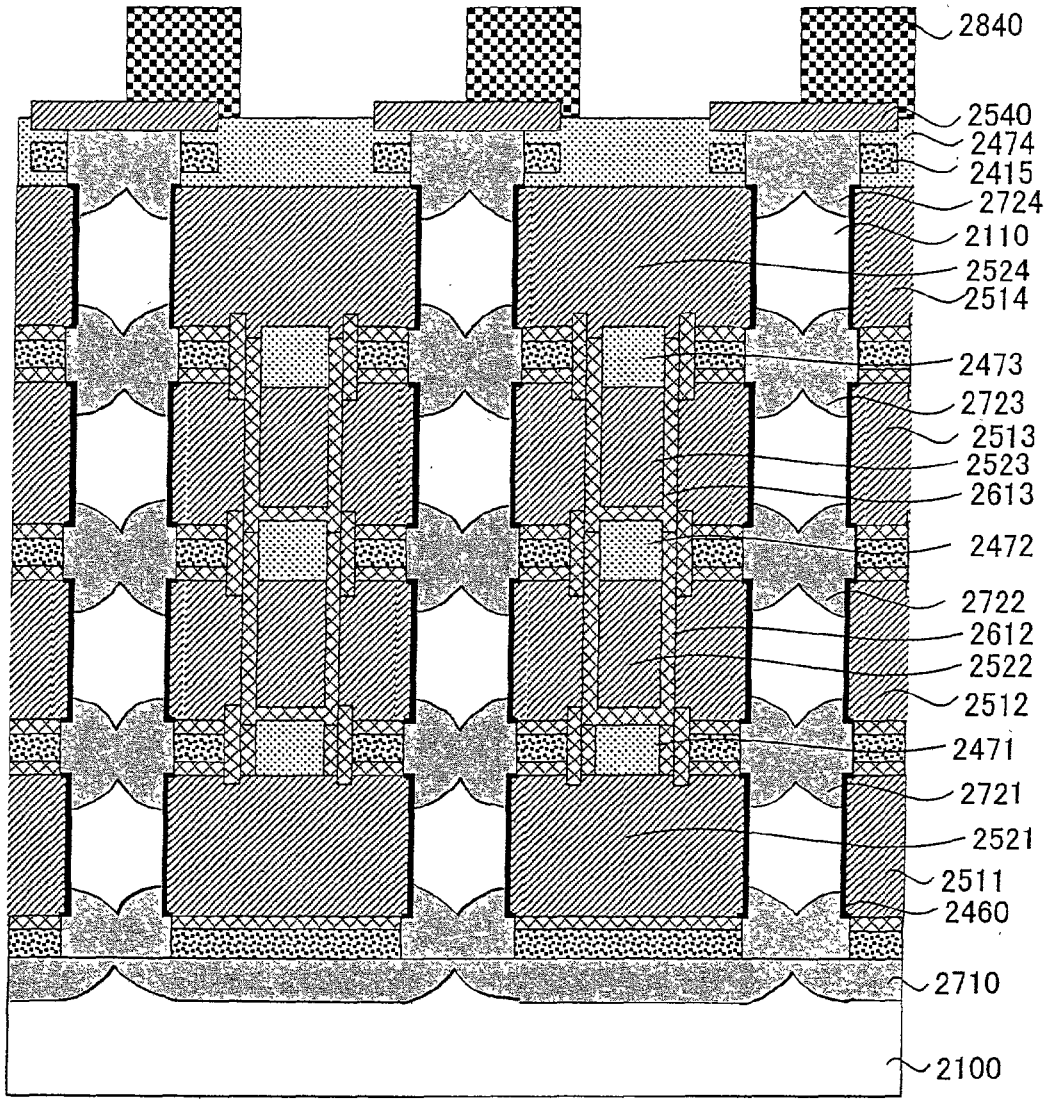

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Fig. 375

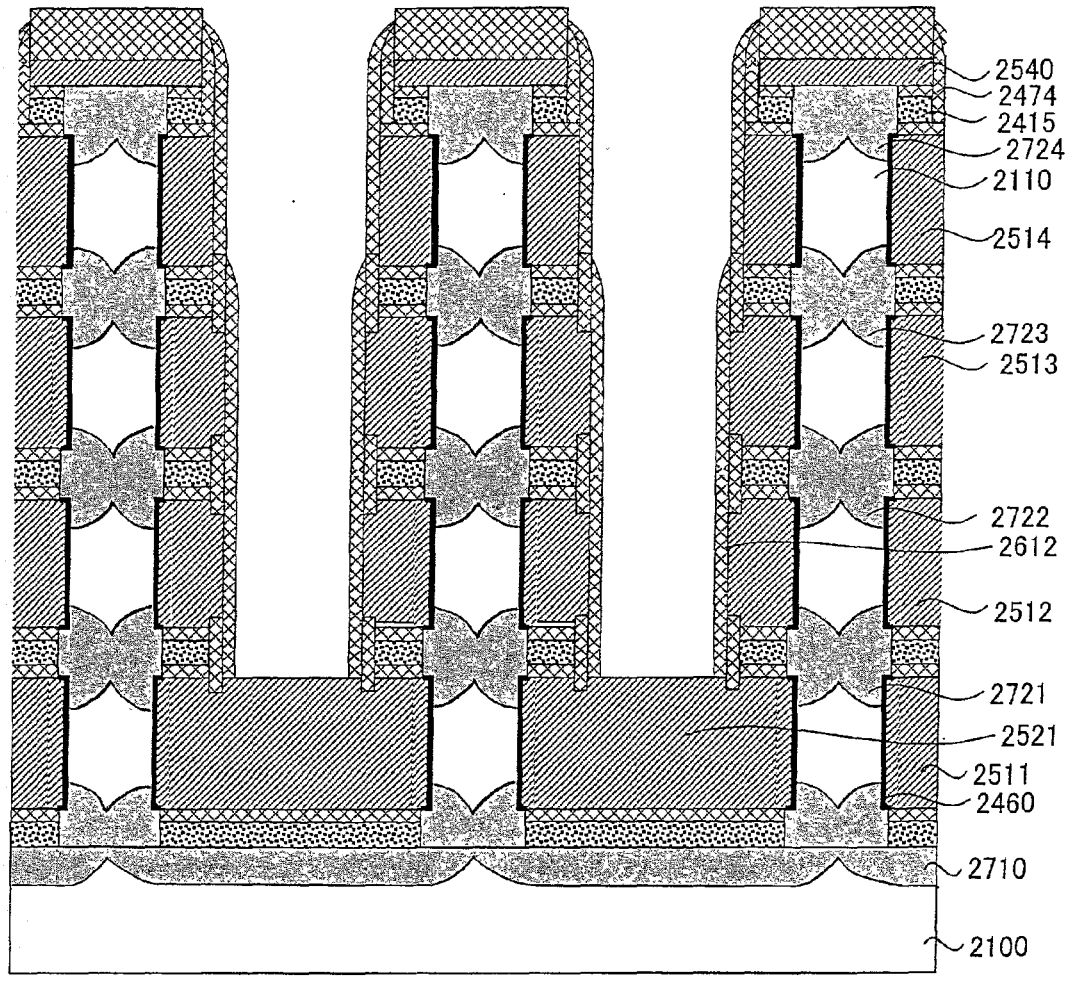

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Fig. 376

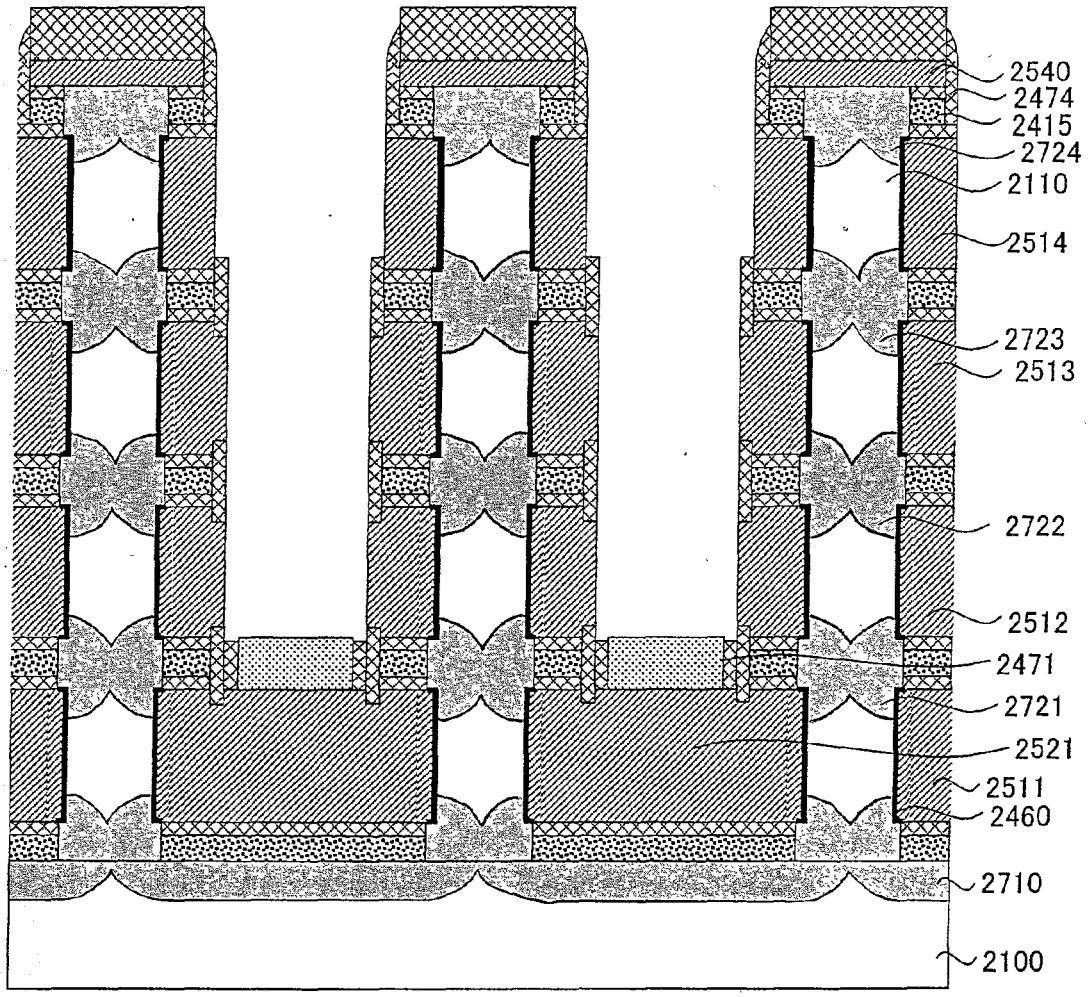

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Fig. 377

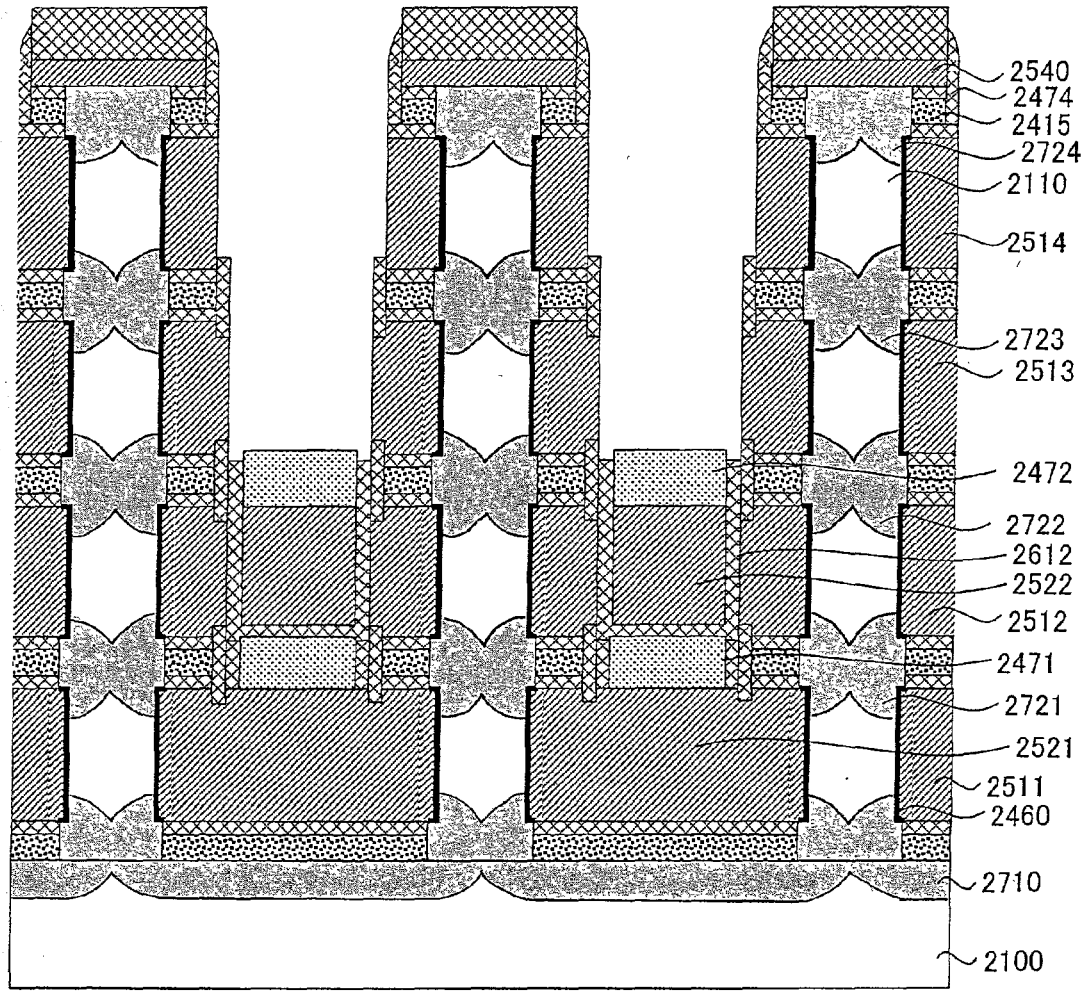

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Fig. 378

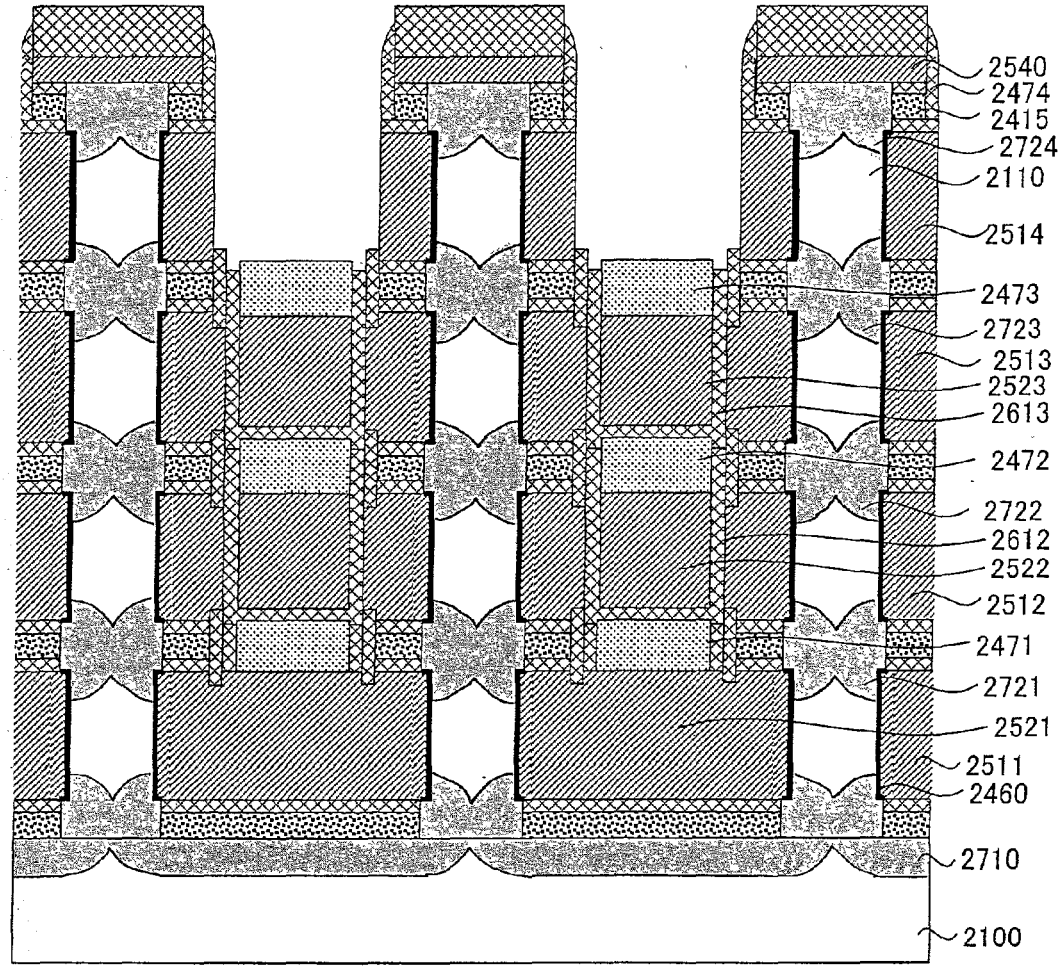

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Fig. 379

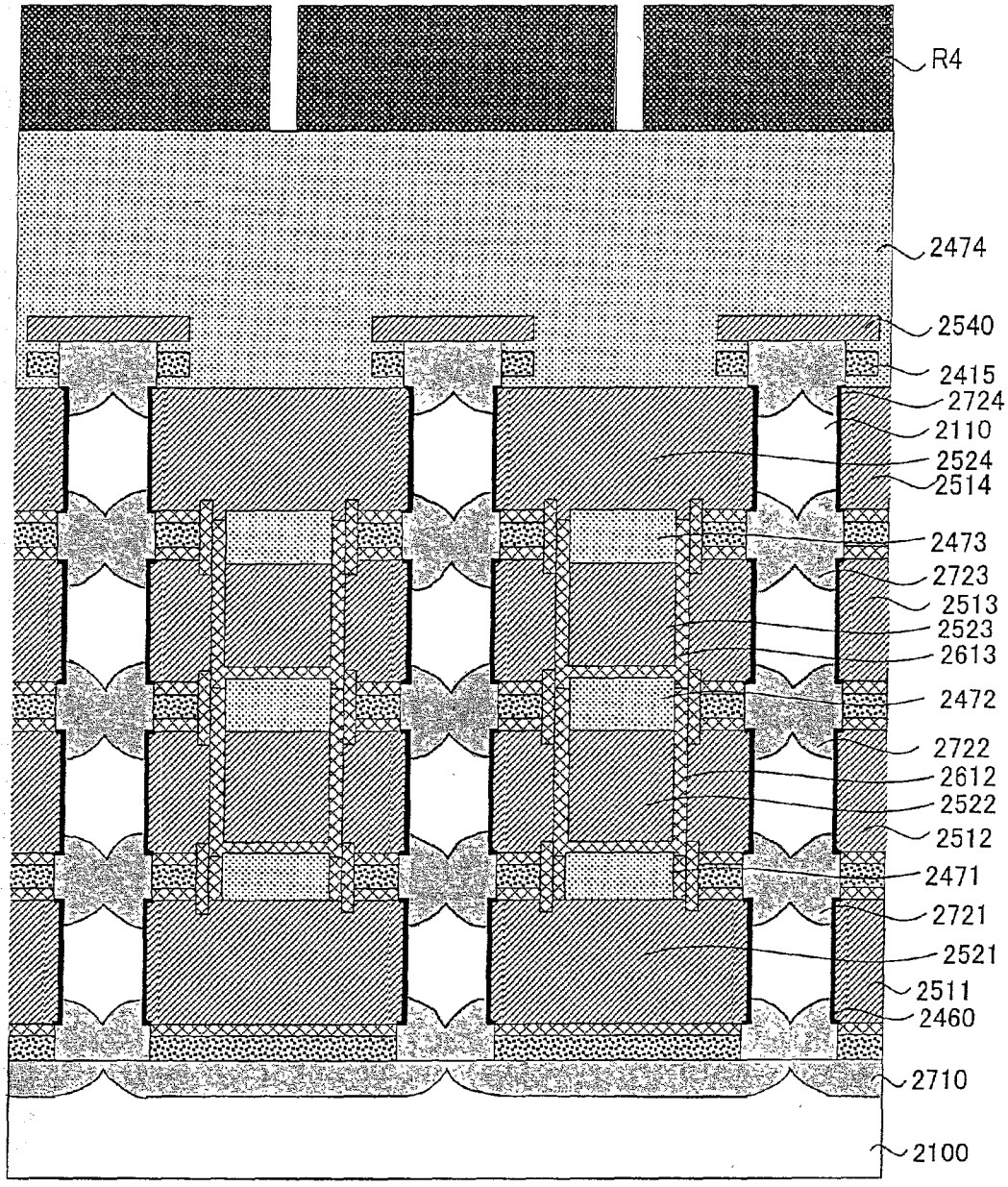

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Fig. 380

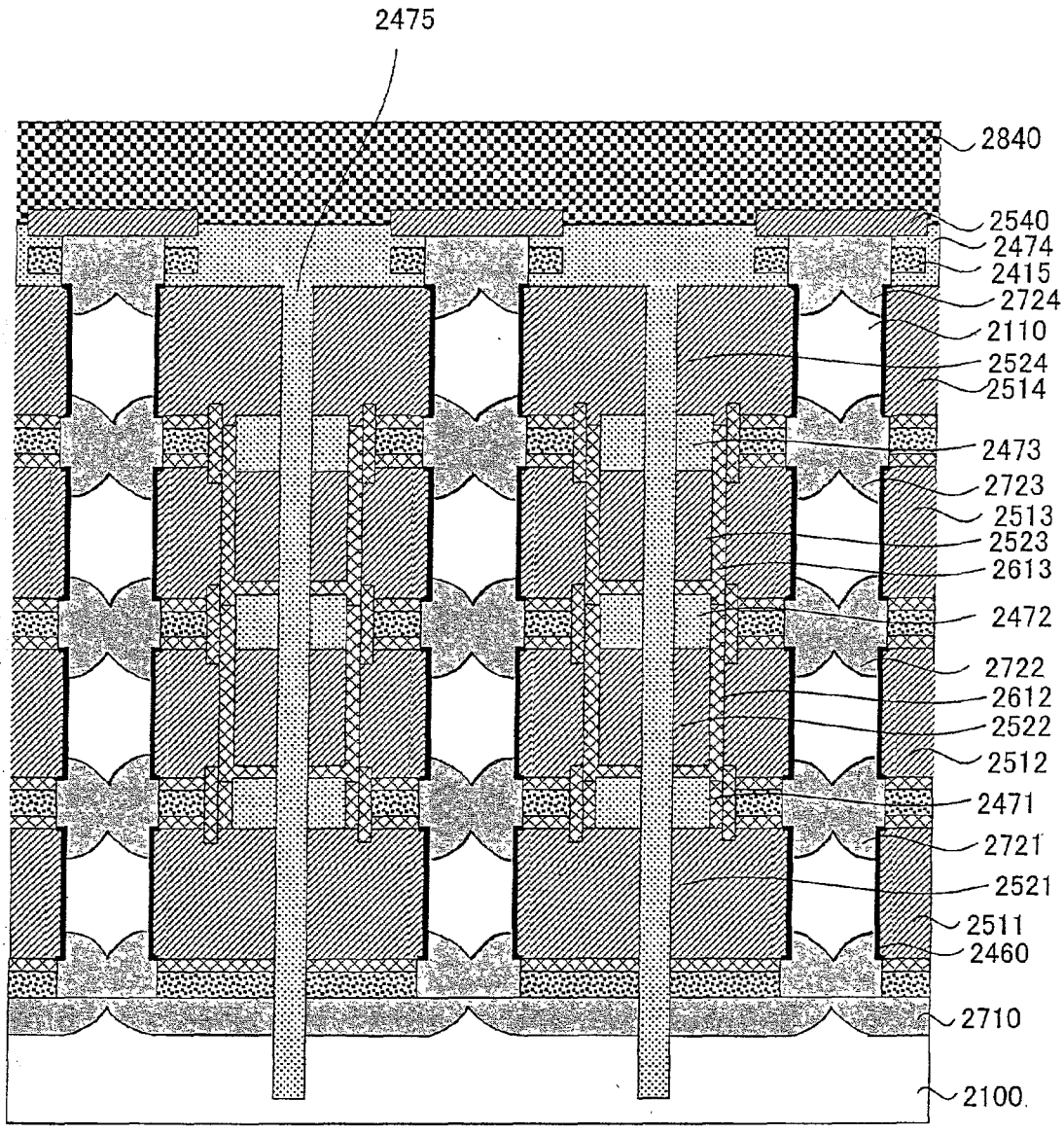

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Fig. 381

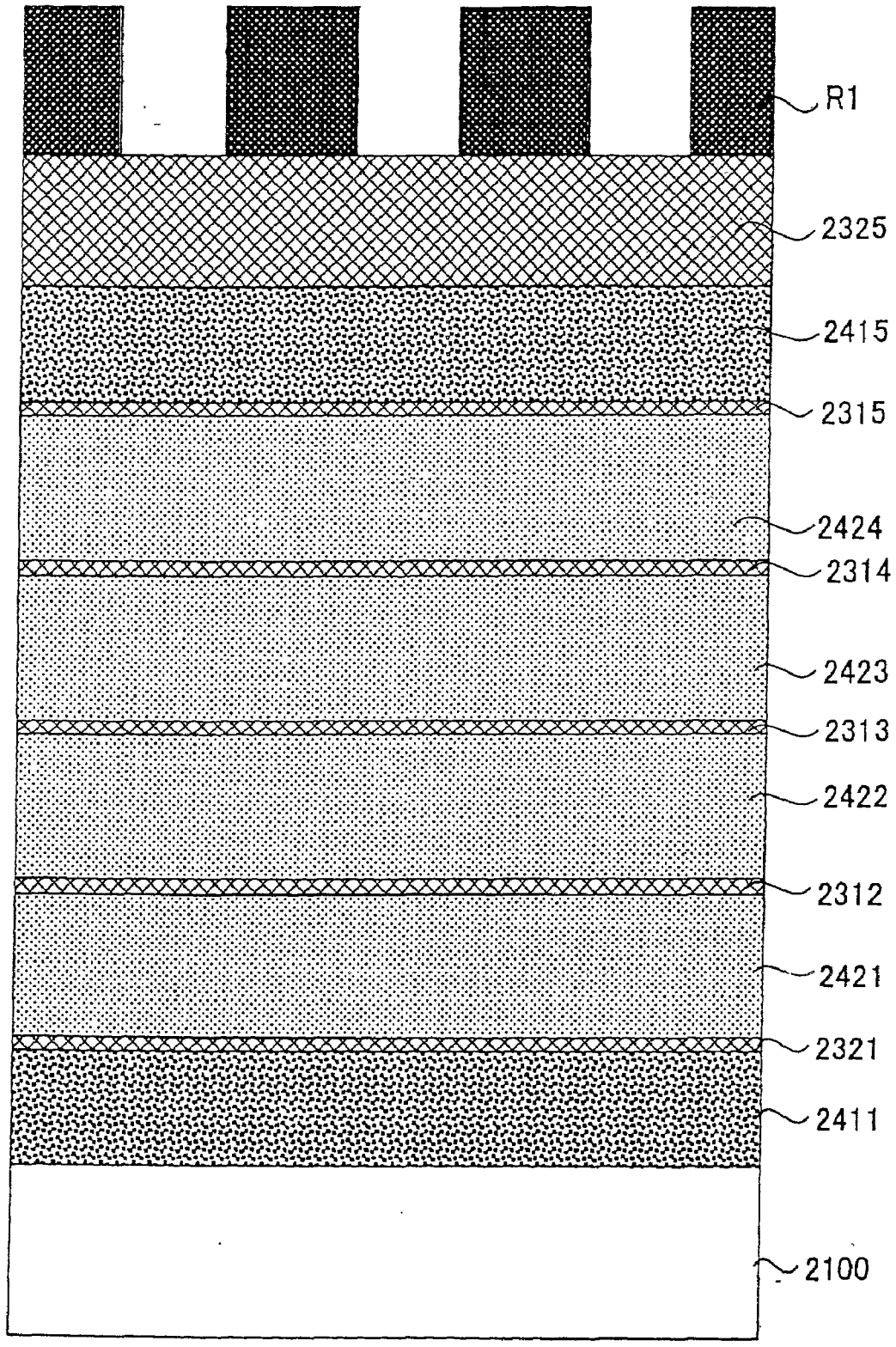

R1
2325
2415
2315
2424
2314
2423
2313
2422
2312
2421
2321
2411
2100

Fig. 382

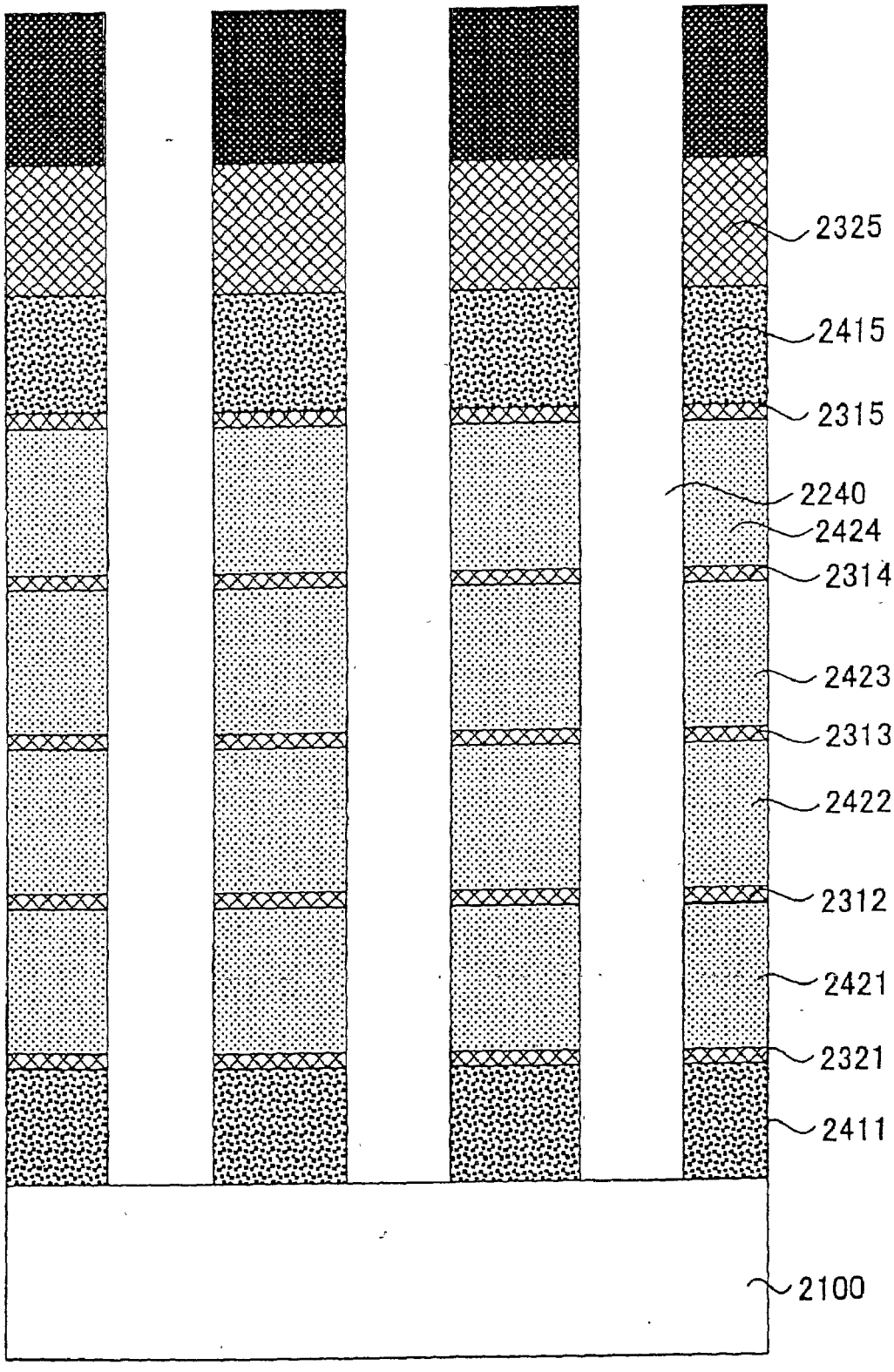

2325
2415
2315
2240
2424
2314
2423
2313
2422
2312
2421
2321
2411
2100

Fig. 383

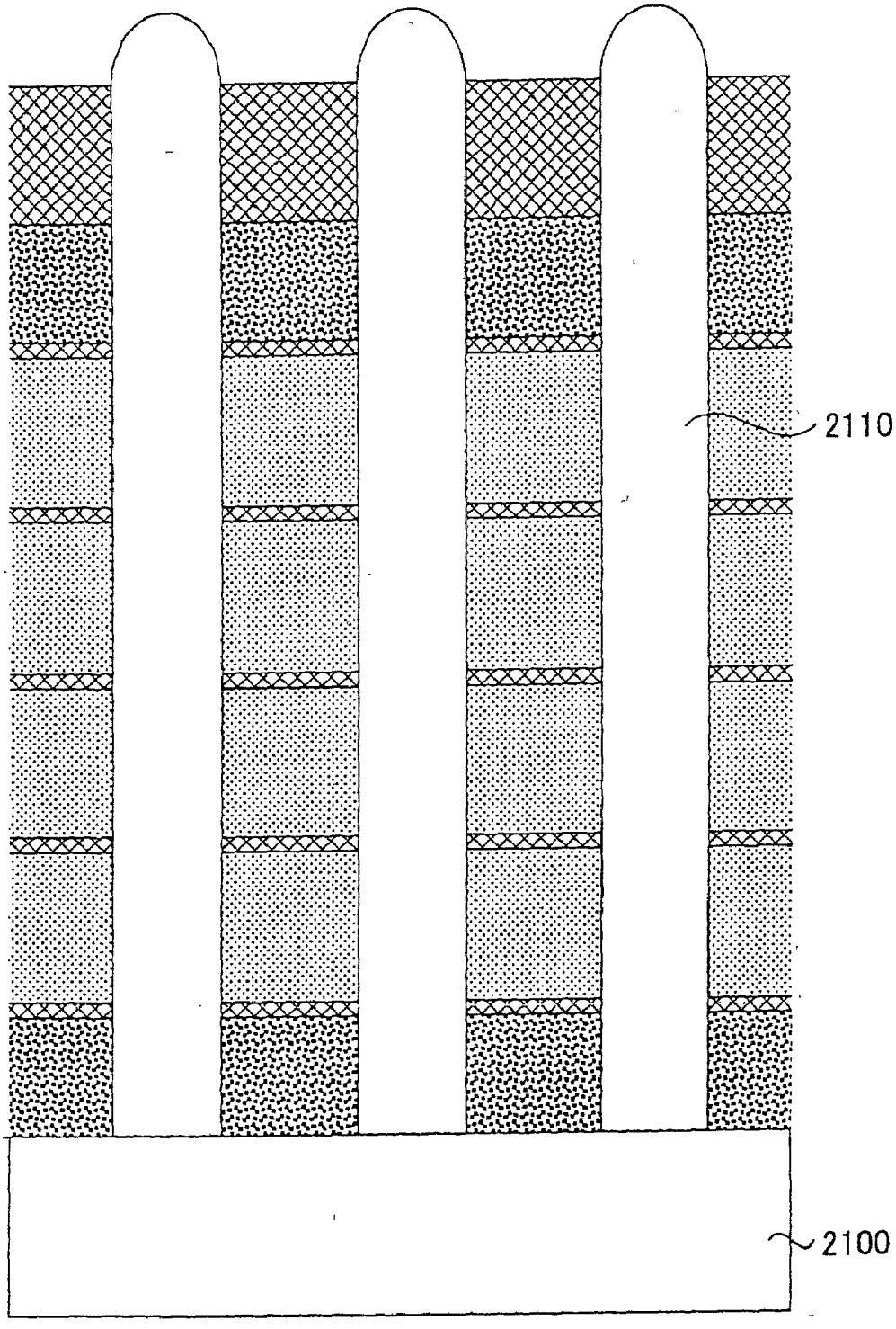


Fig. 384

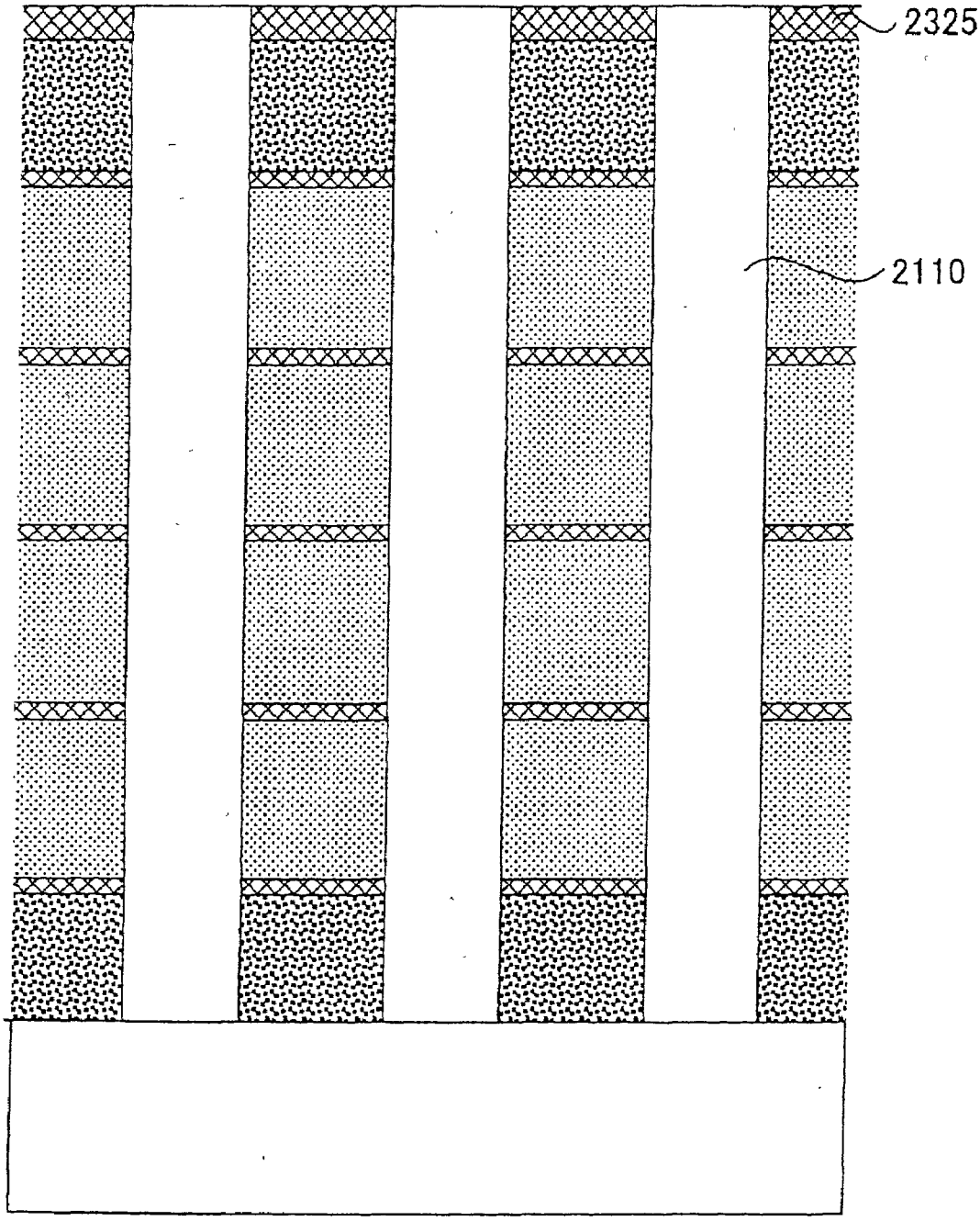


Fig. 385

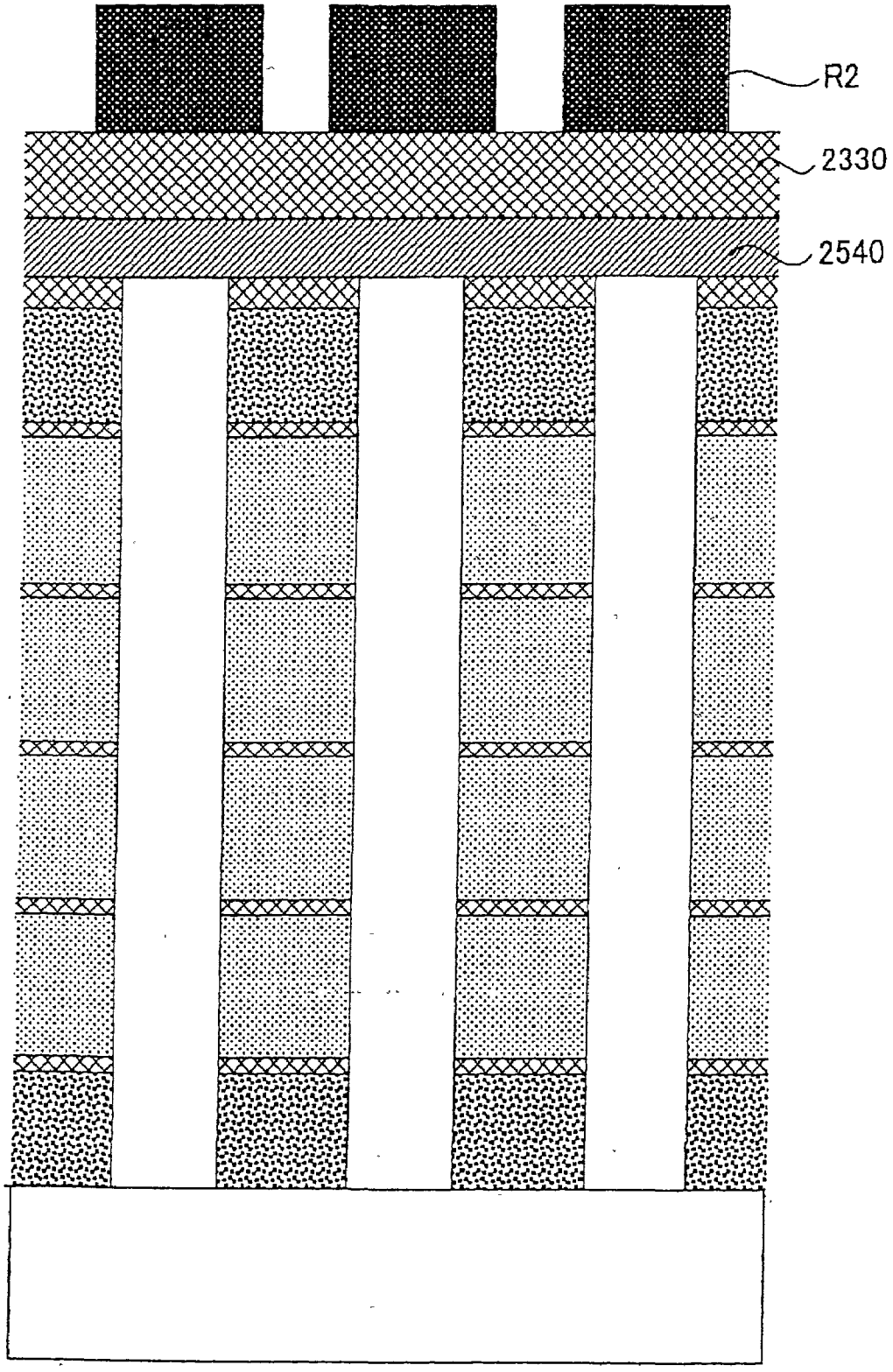


Fig. 386

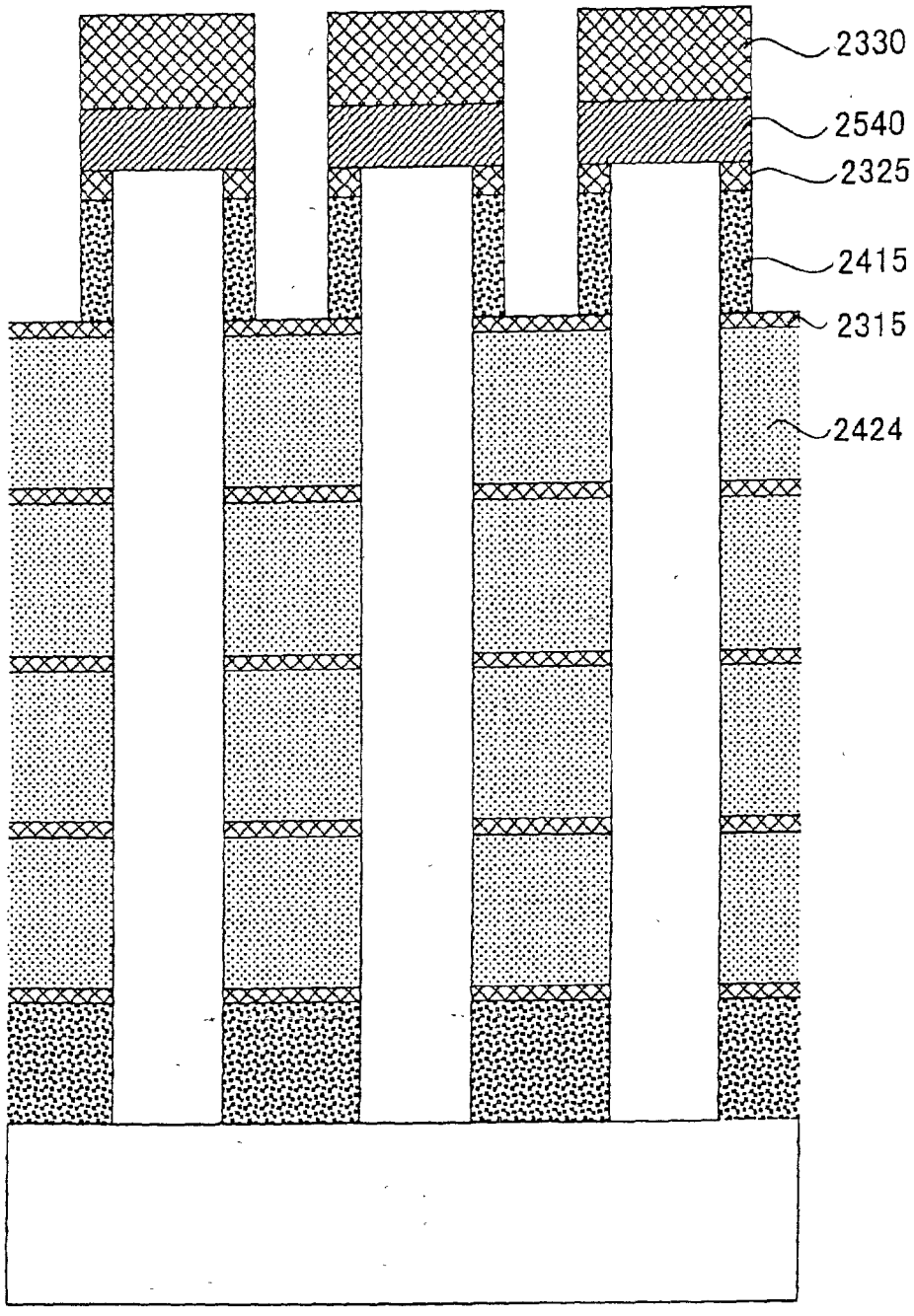


Fig. 387

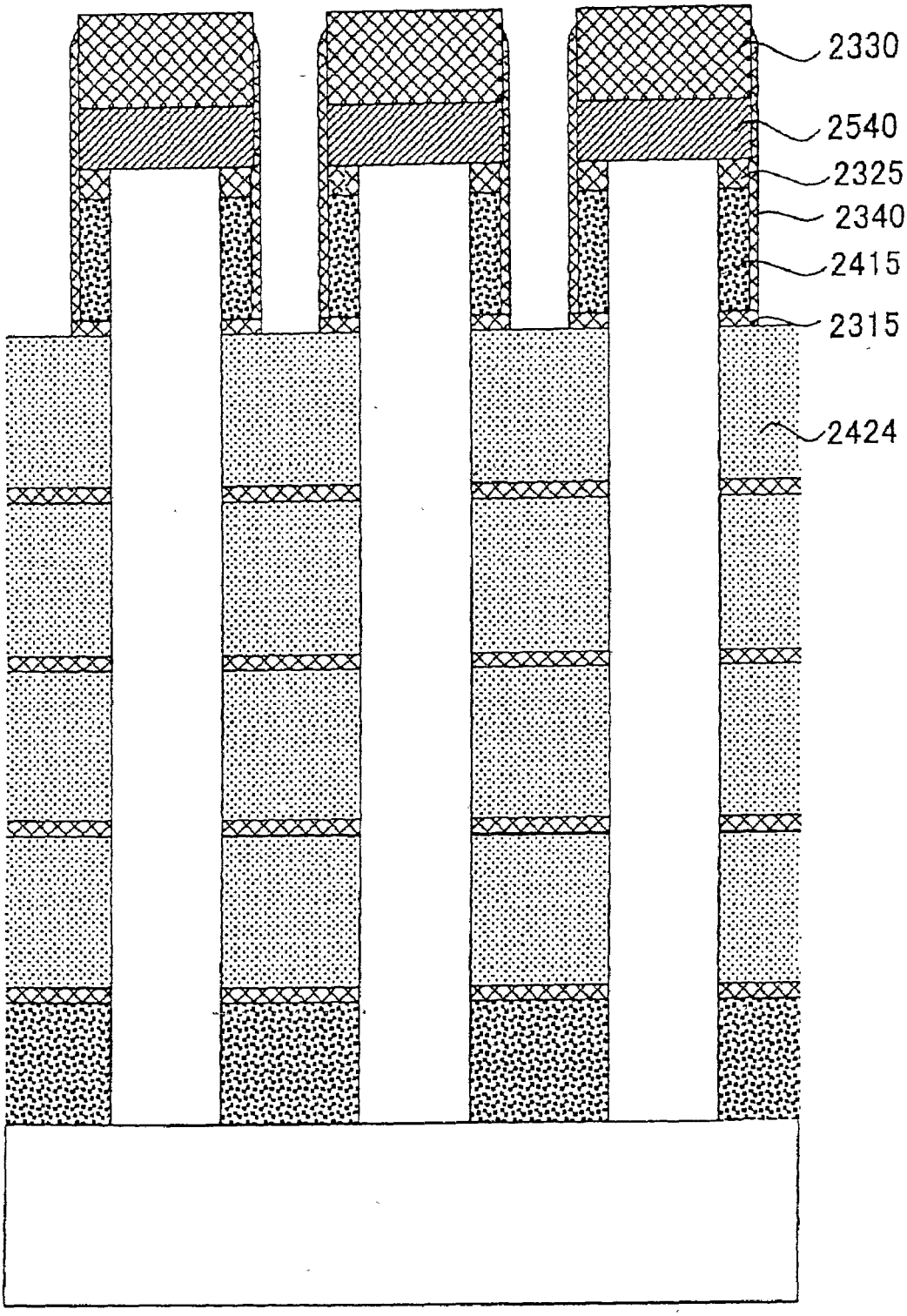


Fig. 388

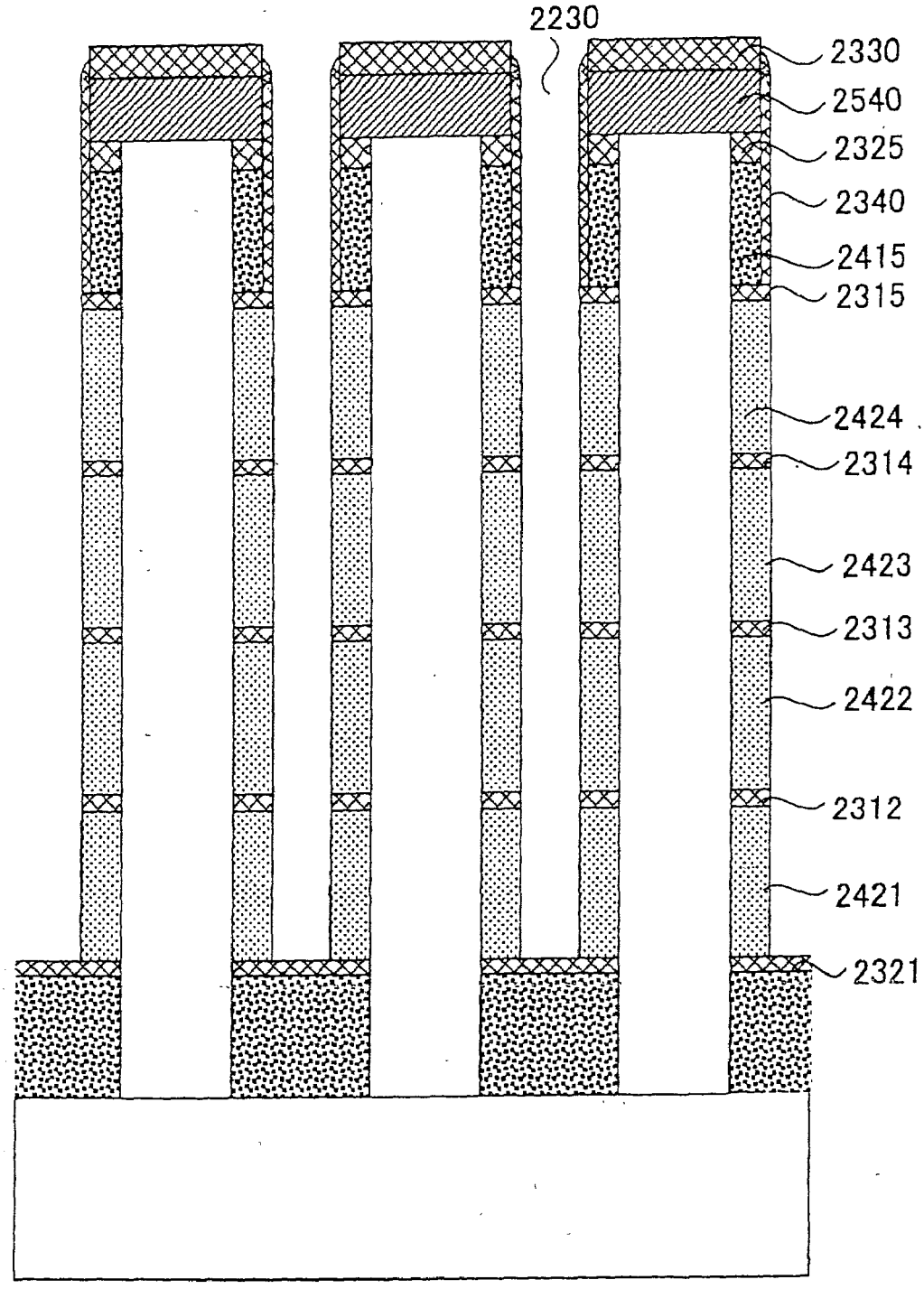

2230
2330
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2422
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2421
2321

Fig. 389

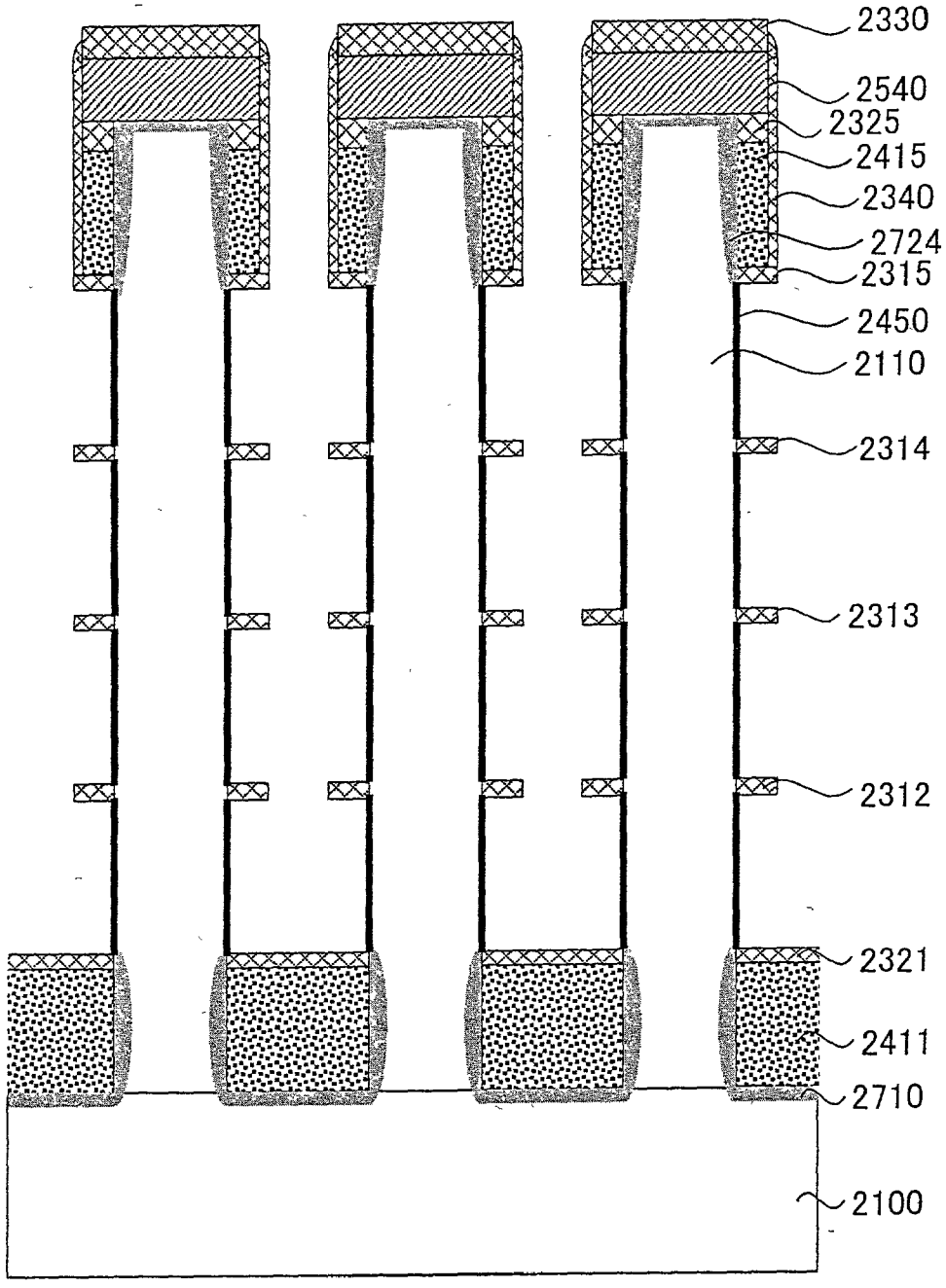

2330
2540
2325
2415
2340
2724
2315
2450
2110
2314
2313
2312
2321
2411
2710
2100

Fig. 390

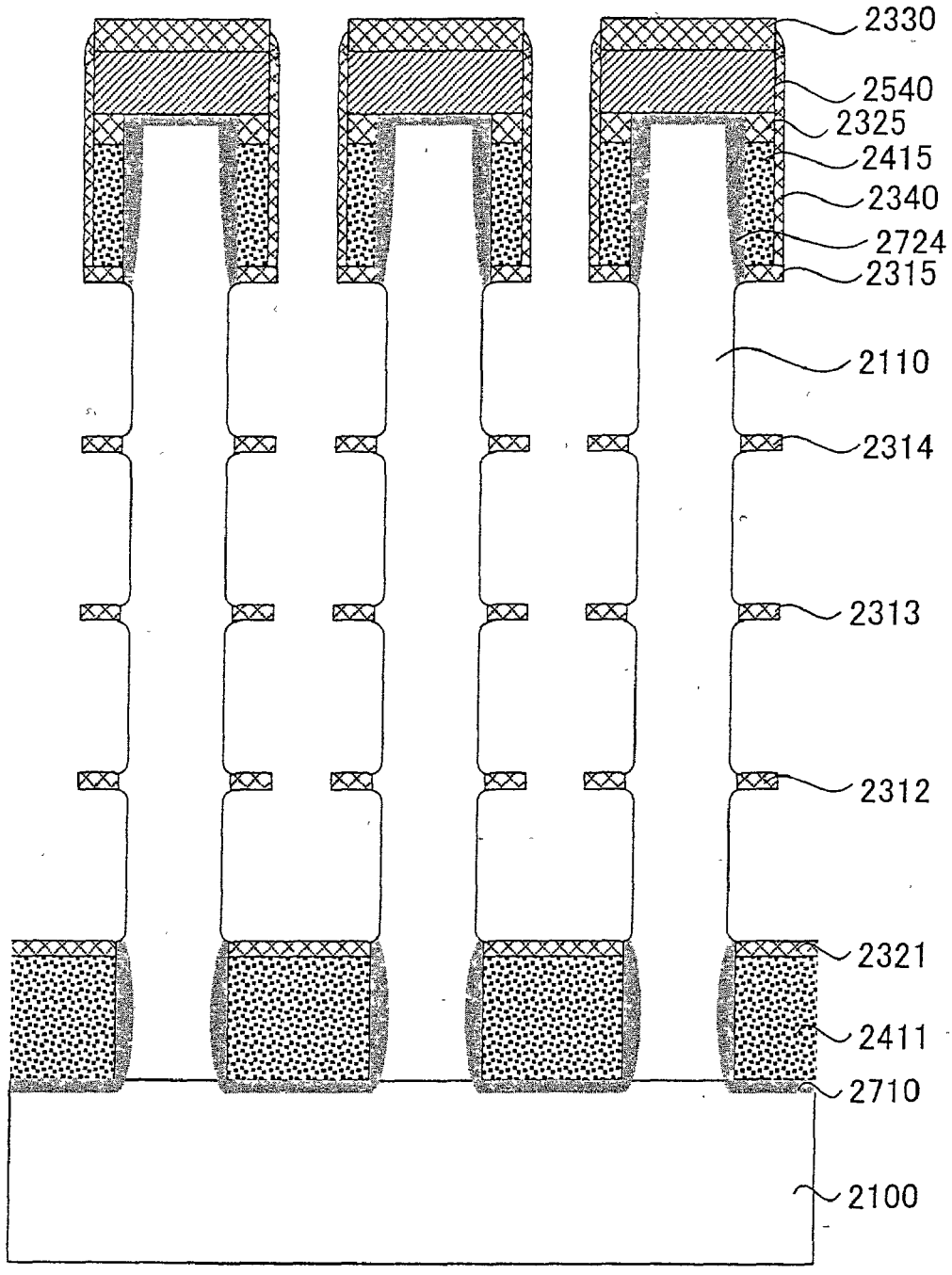

2330
2540
2325
2415
2340
2724
2315
2110
2314
2313
2312
2321
2411
2710
2100

Fig. 391

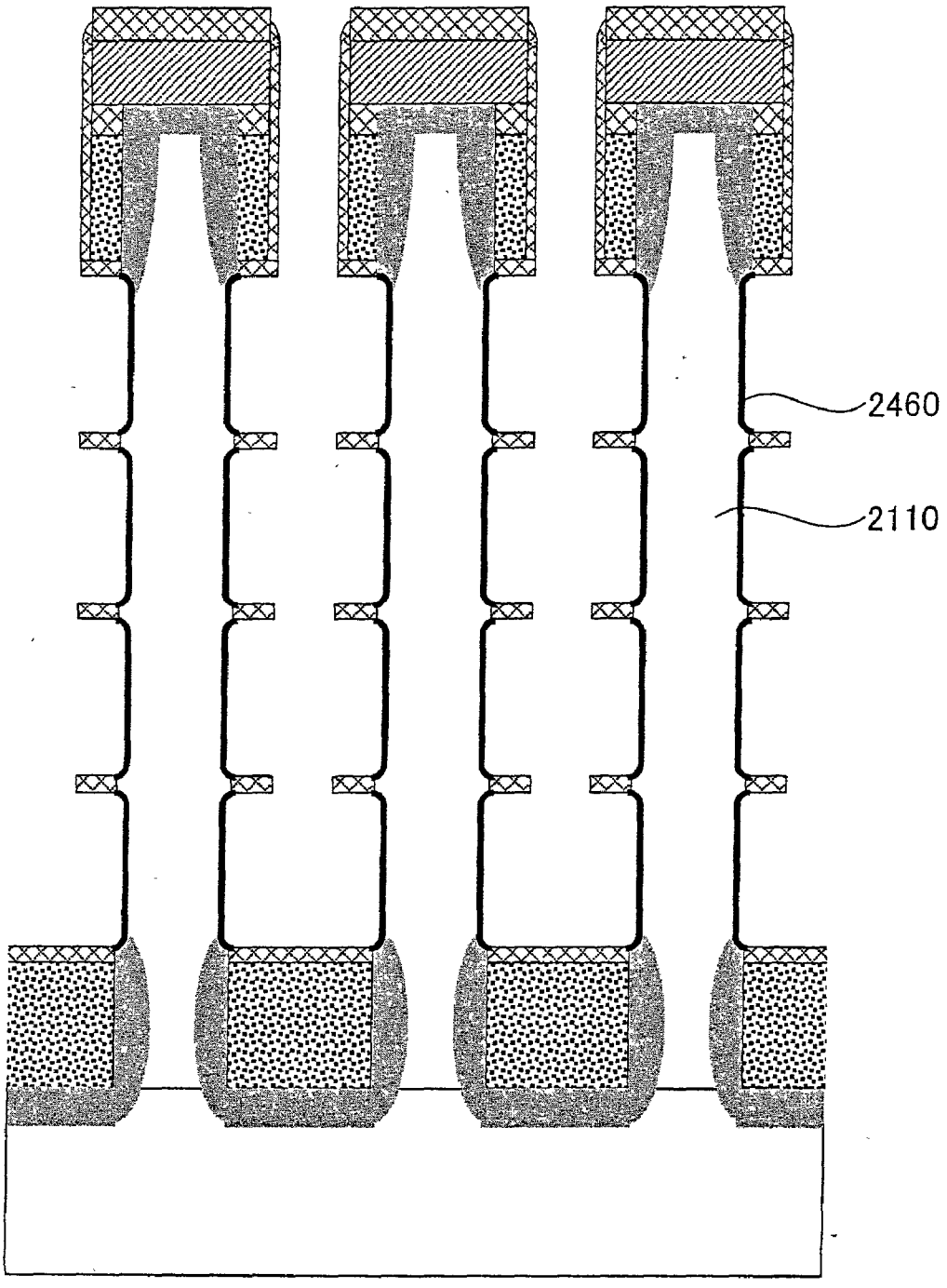


Fig. 392

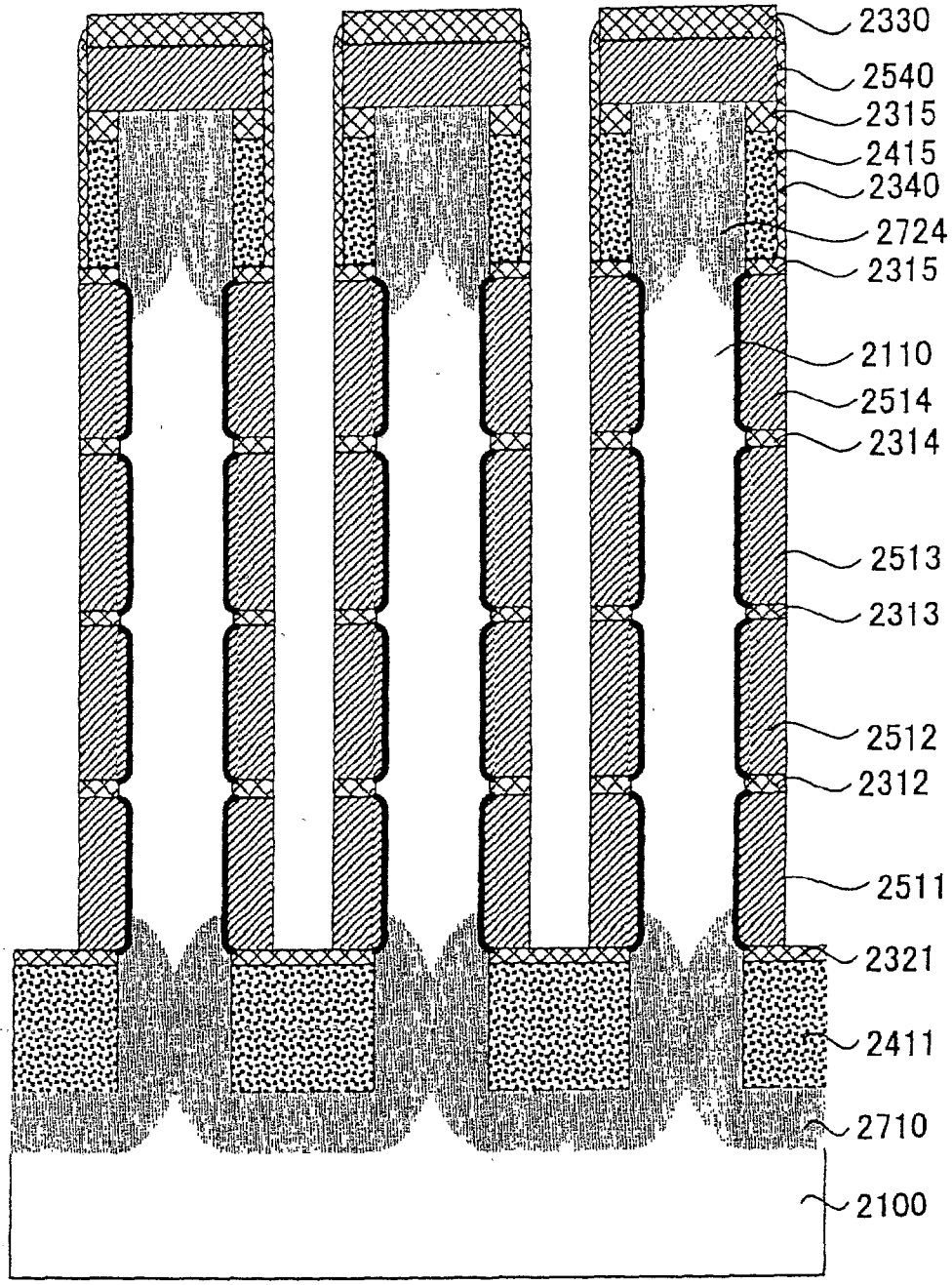

2330
2540
2315
2415
2340
2724
2315
2110
2514
2314
2513
2313
2512
2312
2511
2321
2411
2710
2100

Fig. 393

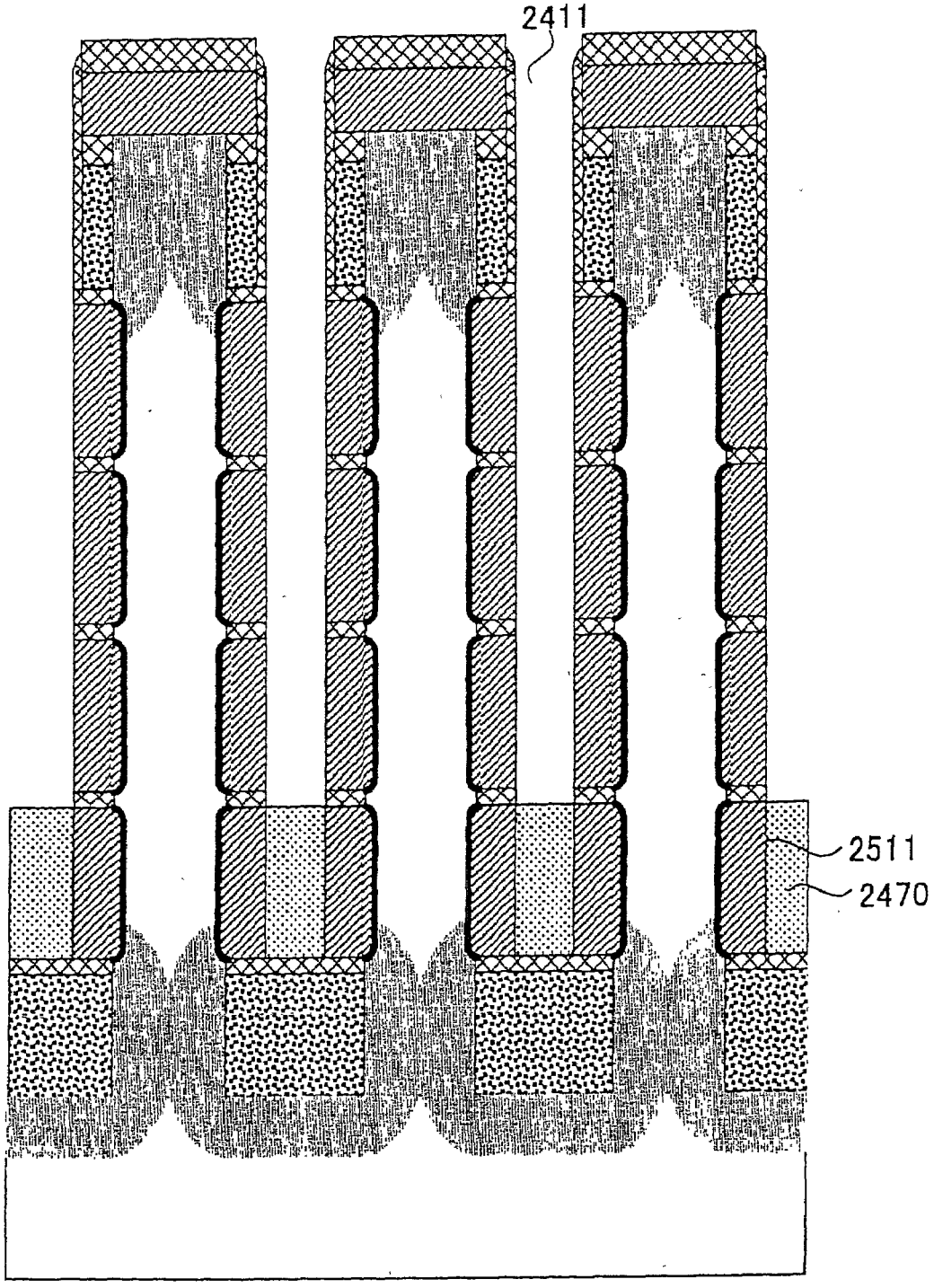


Fig. 394

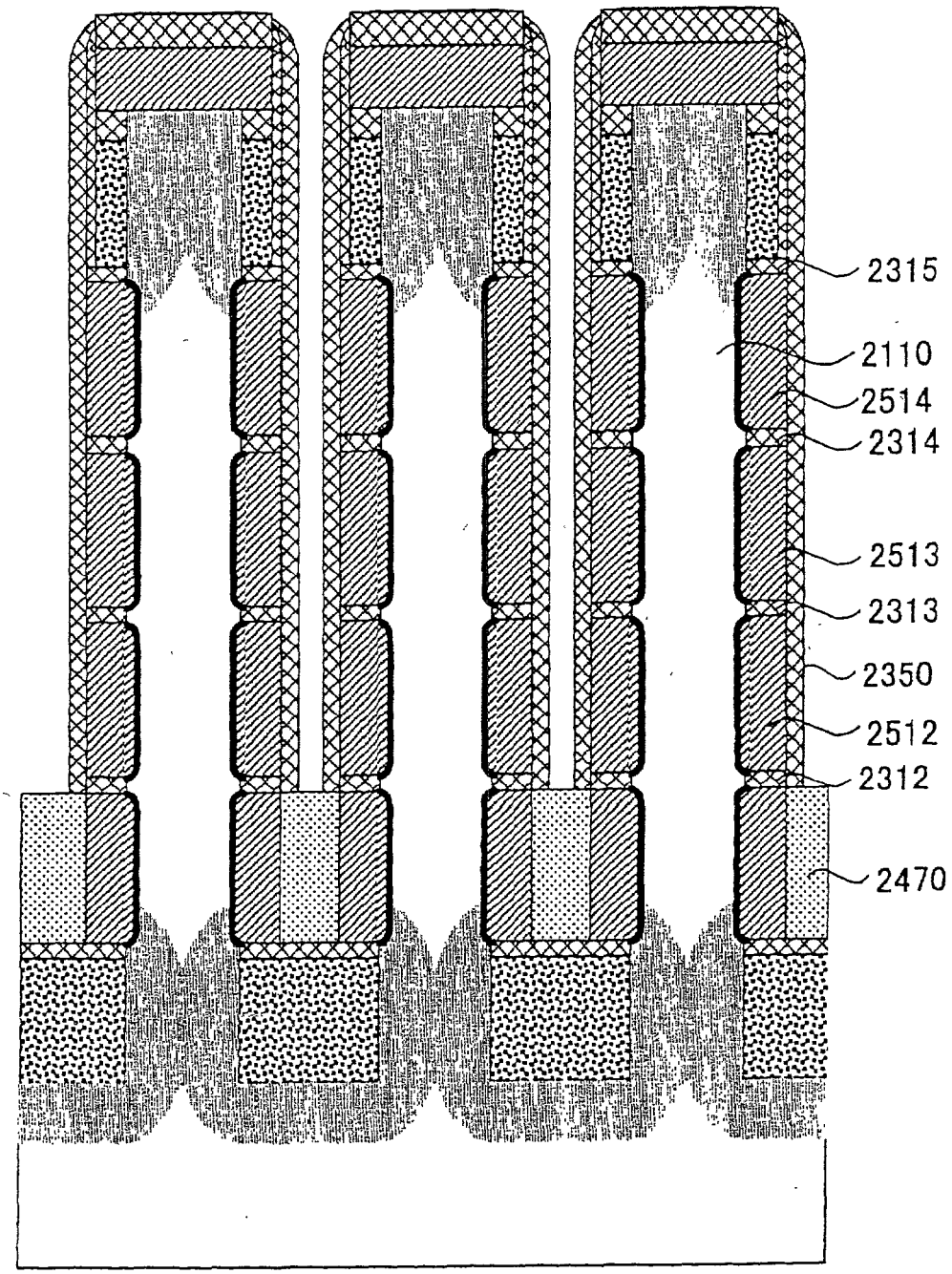


Fig. 395

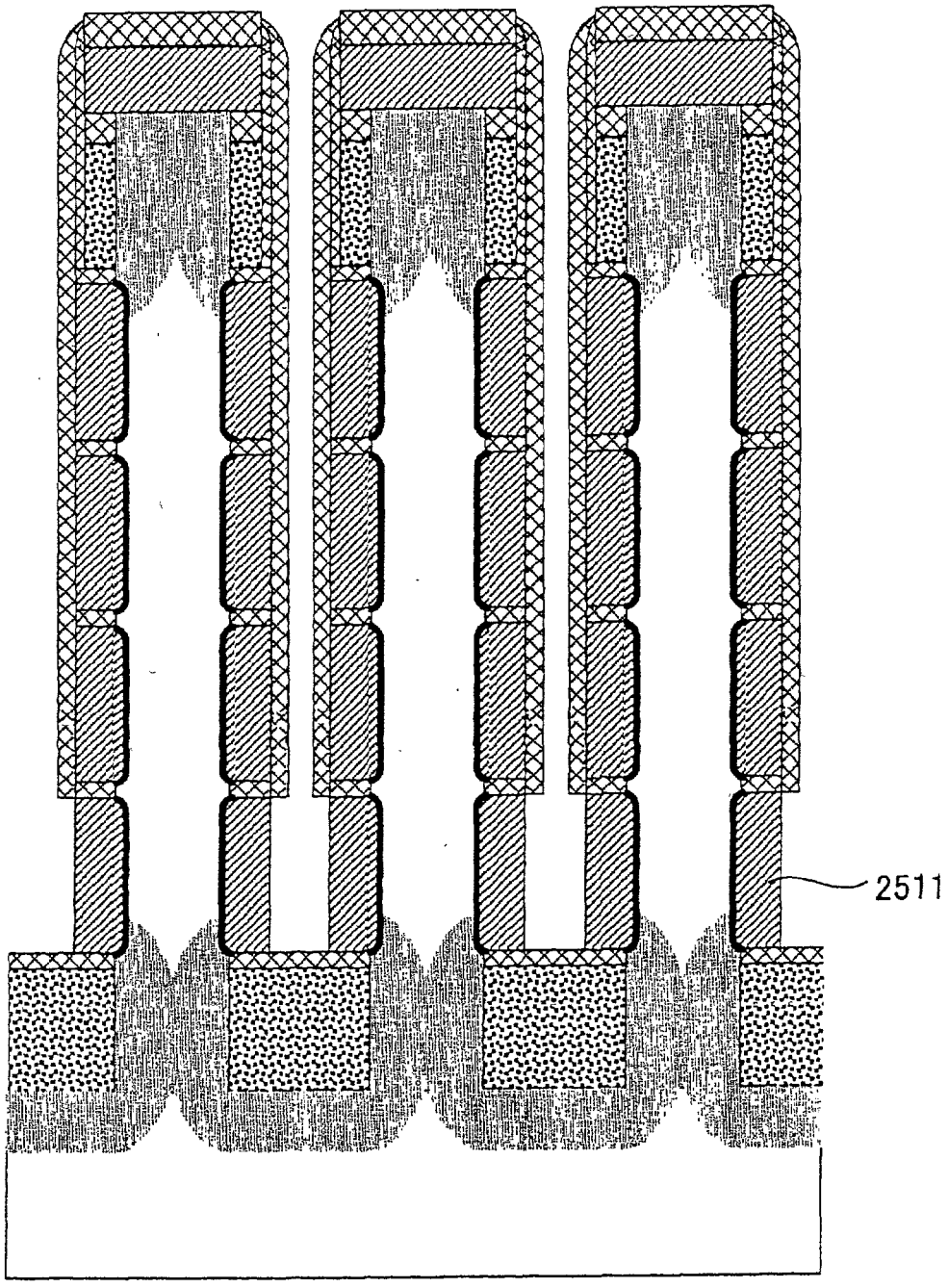


Fig. 396

