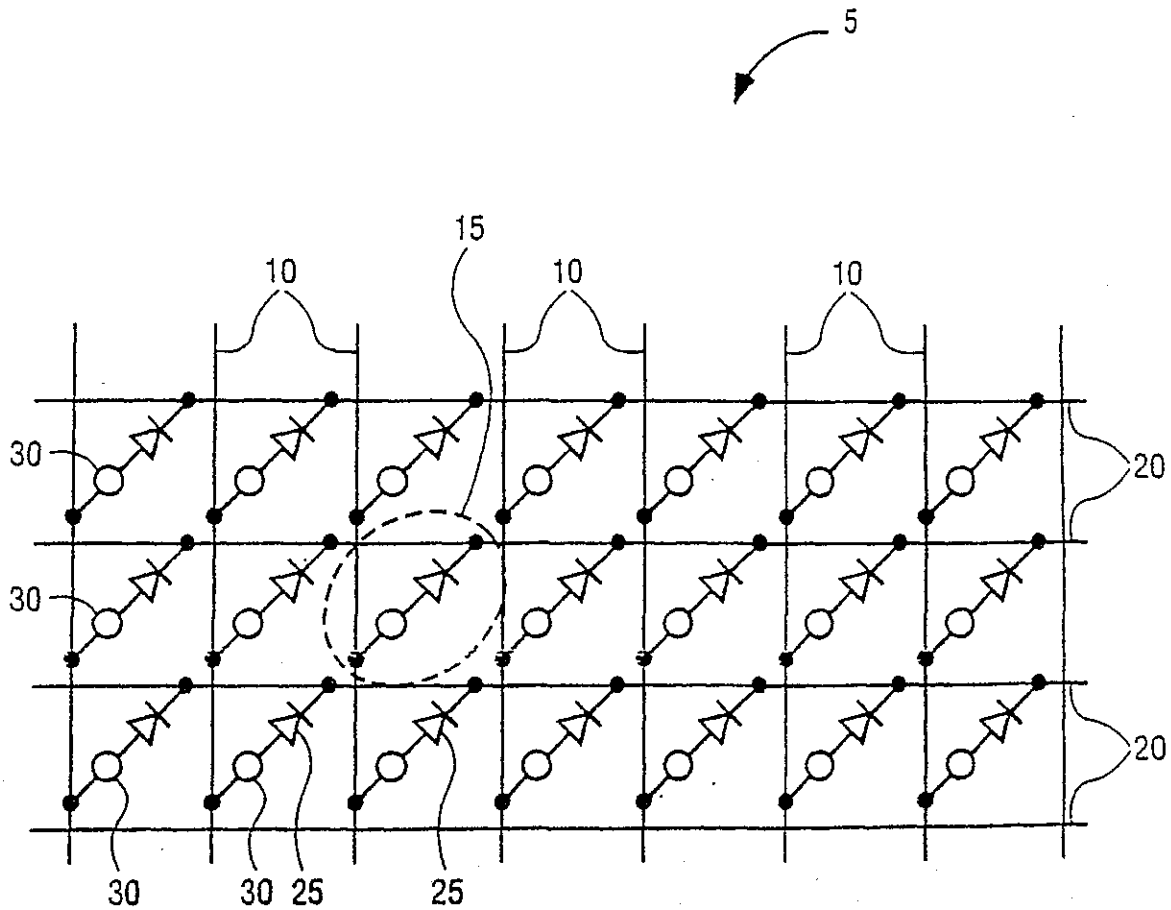


FIG. 1

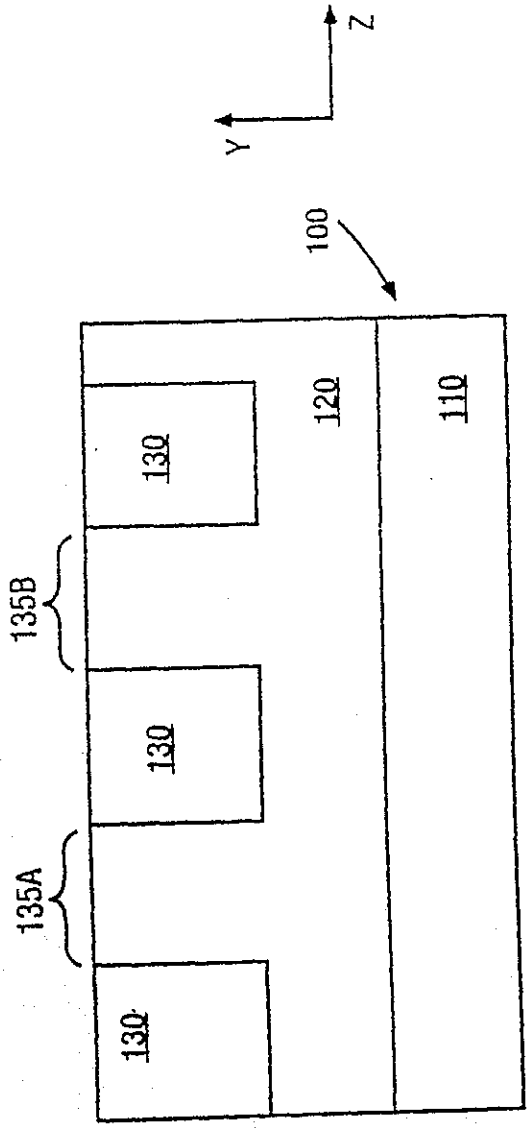


FIG. 2

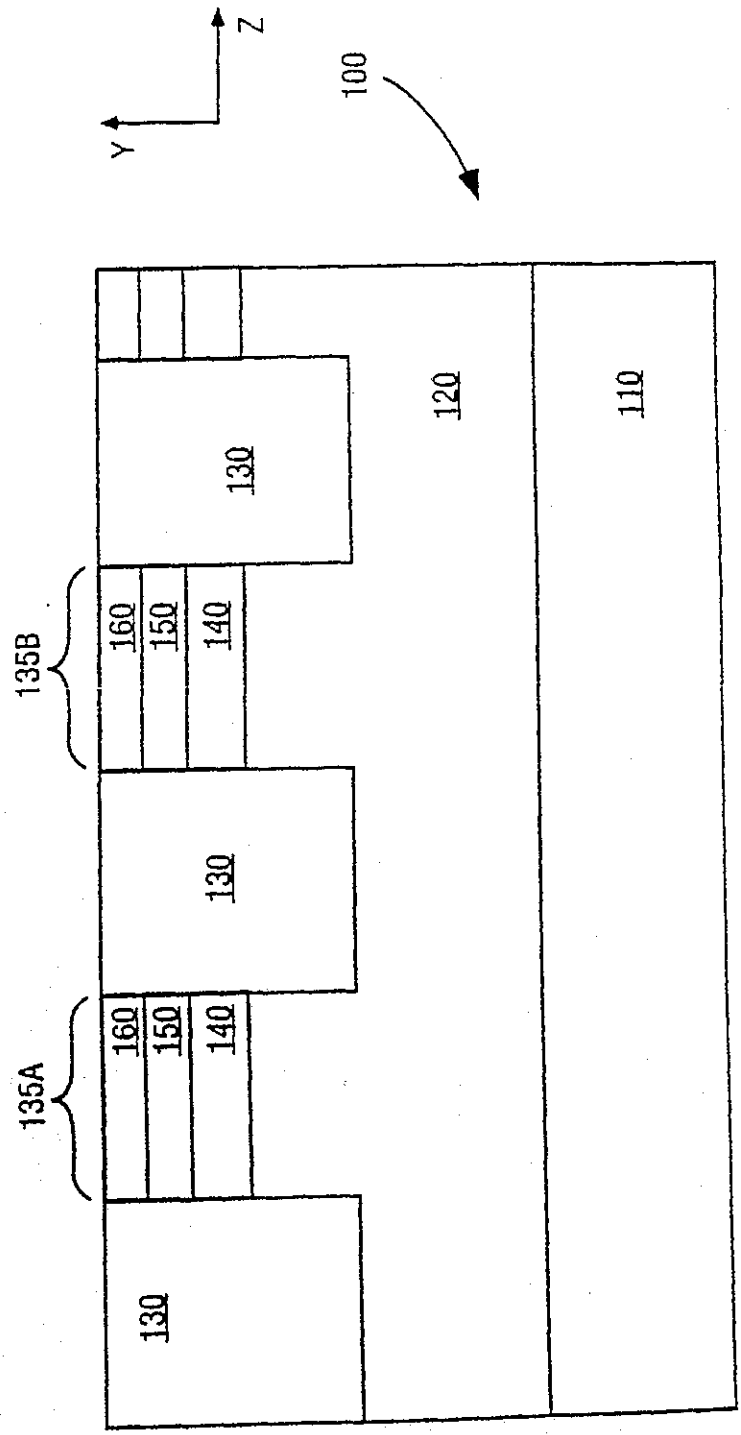


FIG. 3

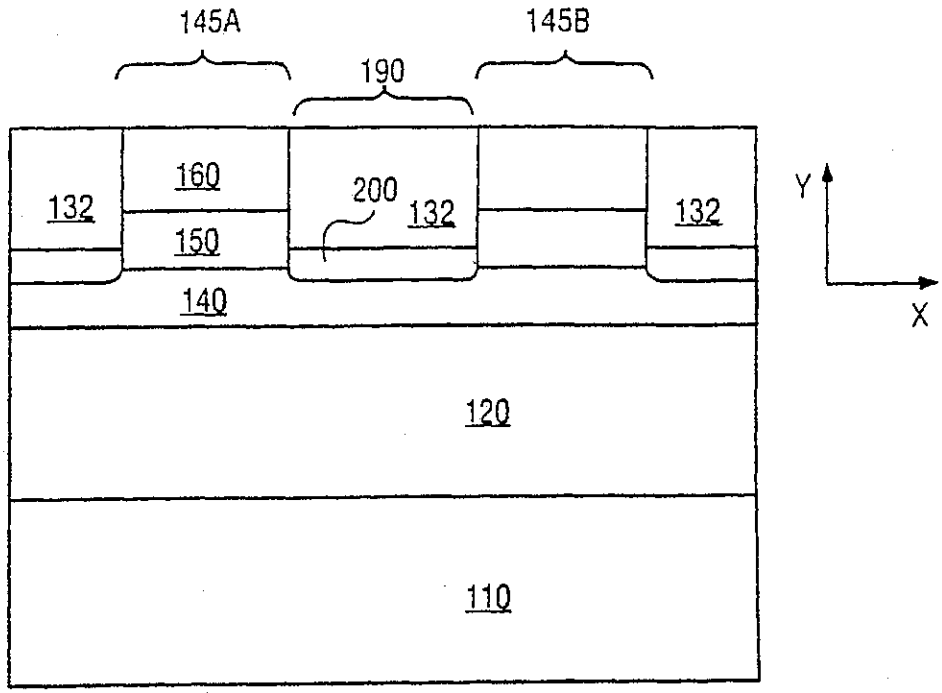

145A
145B
190
160
200
132
132
132
150
140
120
110
Y
X

FIG. 4

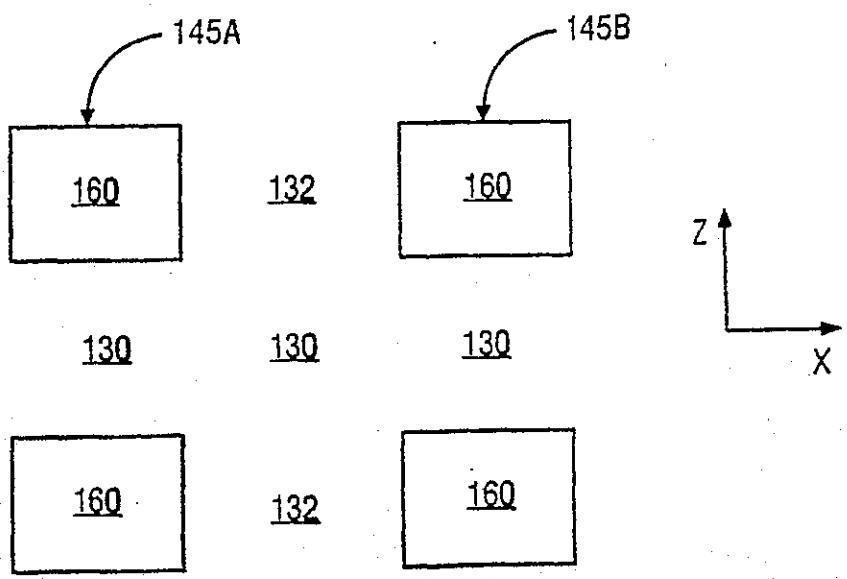

145A
145B
160
132
160
130
130
130
160
132
160
Z
X

FIG. 5

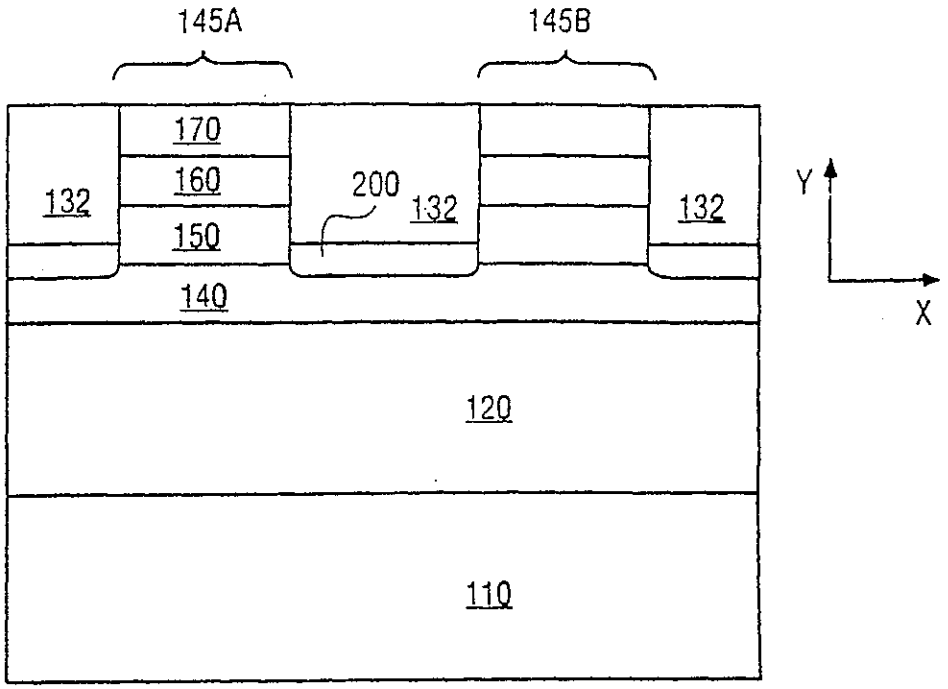

145A
145B
170
160
150
132
200
132
132
140
120
110
Y
X

FIG. 6

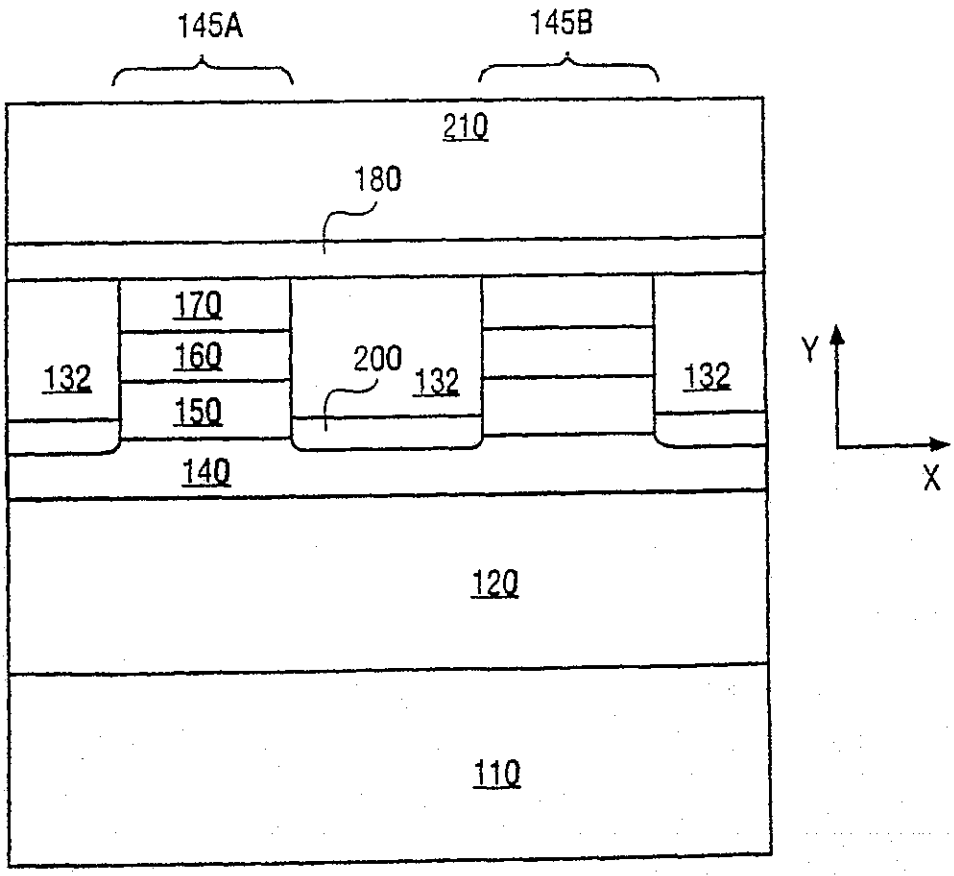

145A
145B
210
180
170
160
150
132
200
132
132
140
120
110
Y
X

FIG. 7

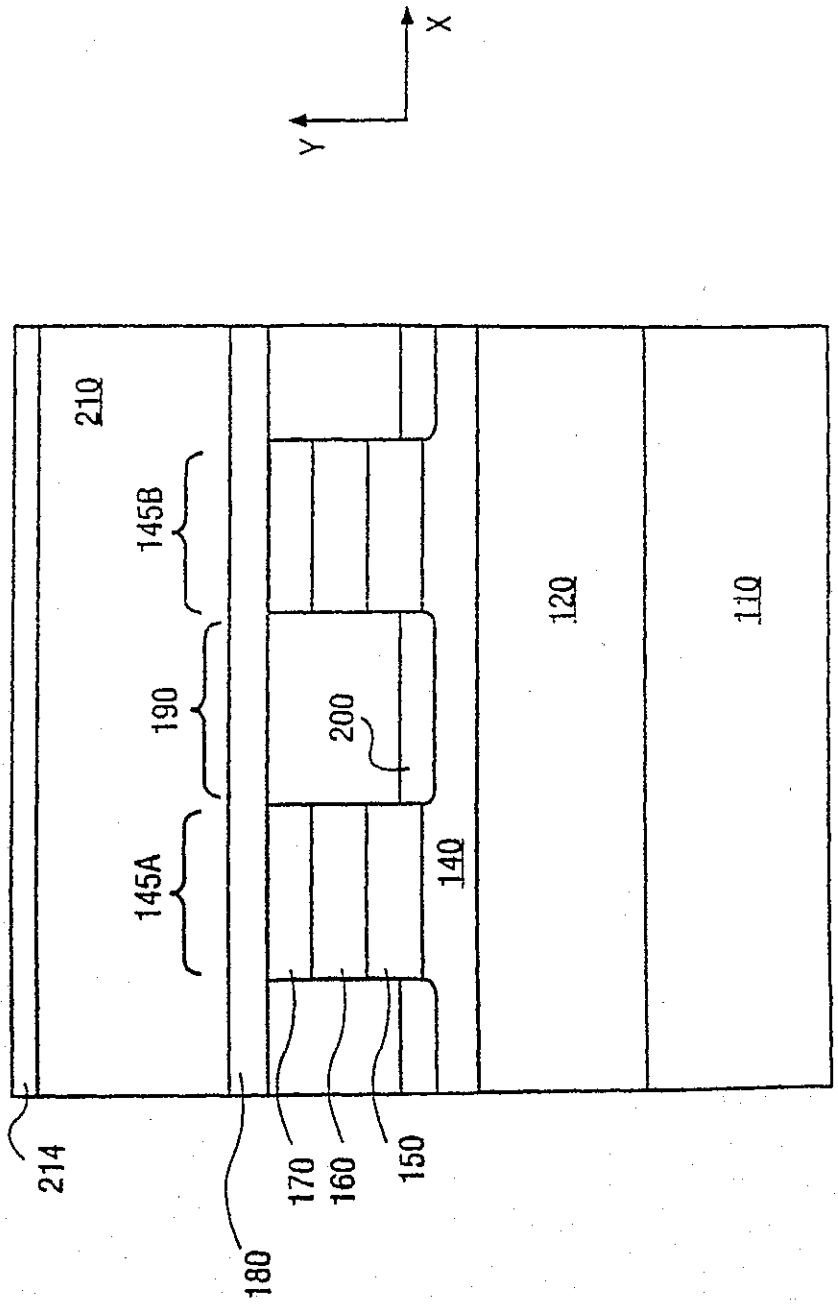


FIG. 8

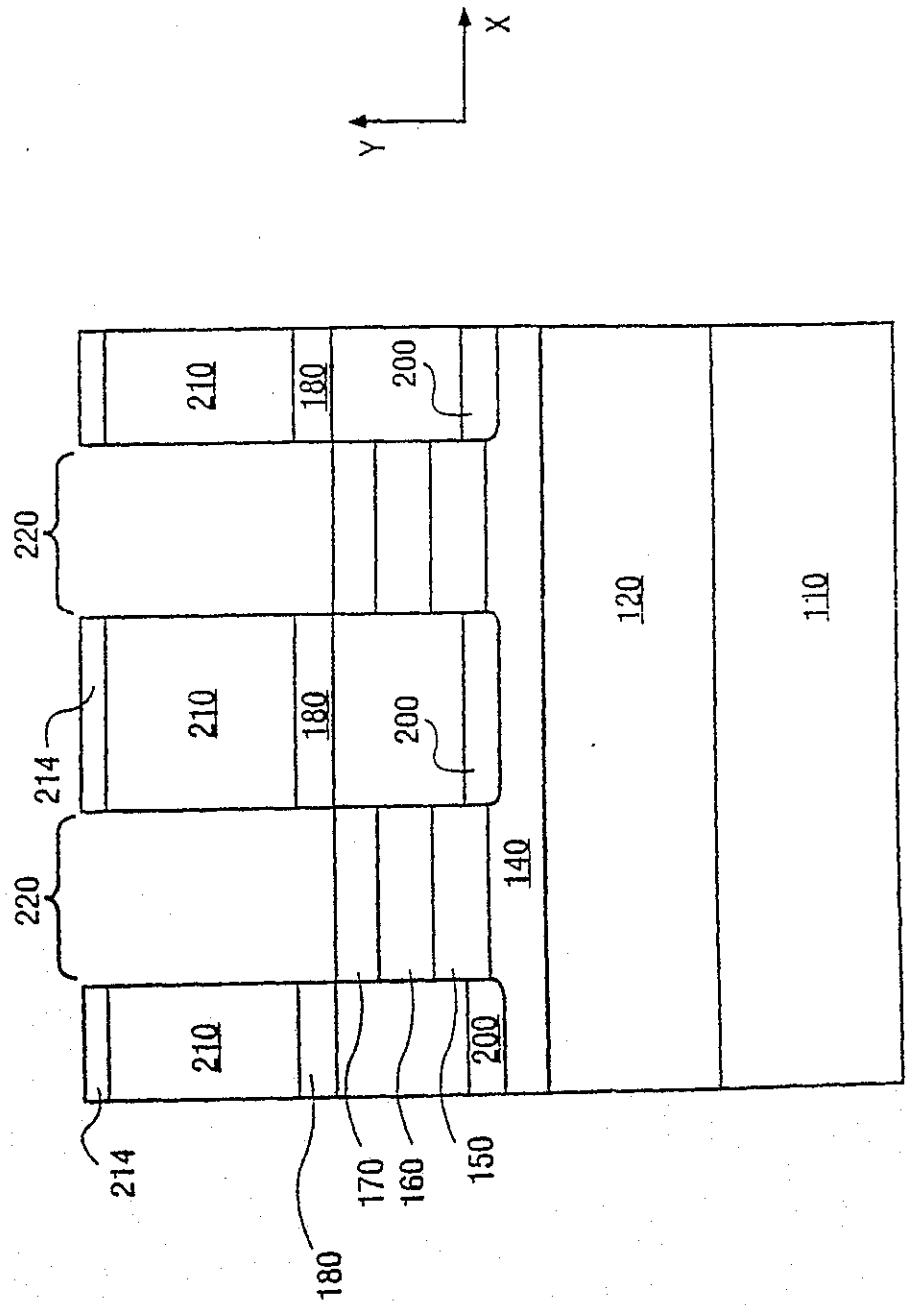


FIG. 9

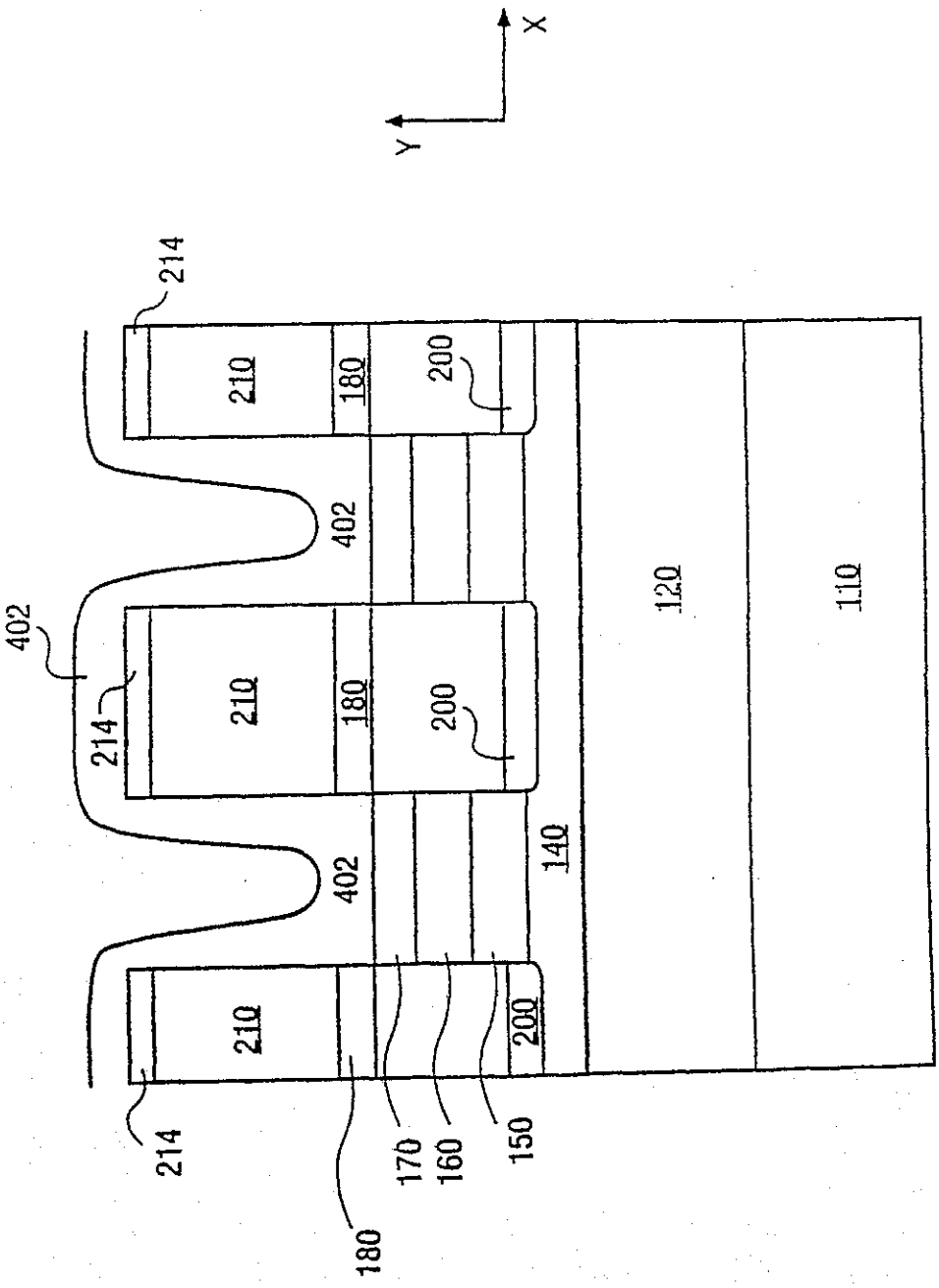

X
Y
214
210
180
200
402
402
214
210
180
200
120
110
140
402
210
200
214
180
170
160
150

FIG. 10

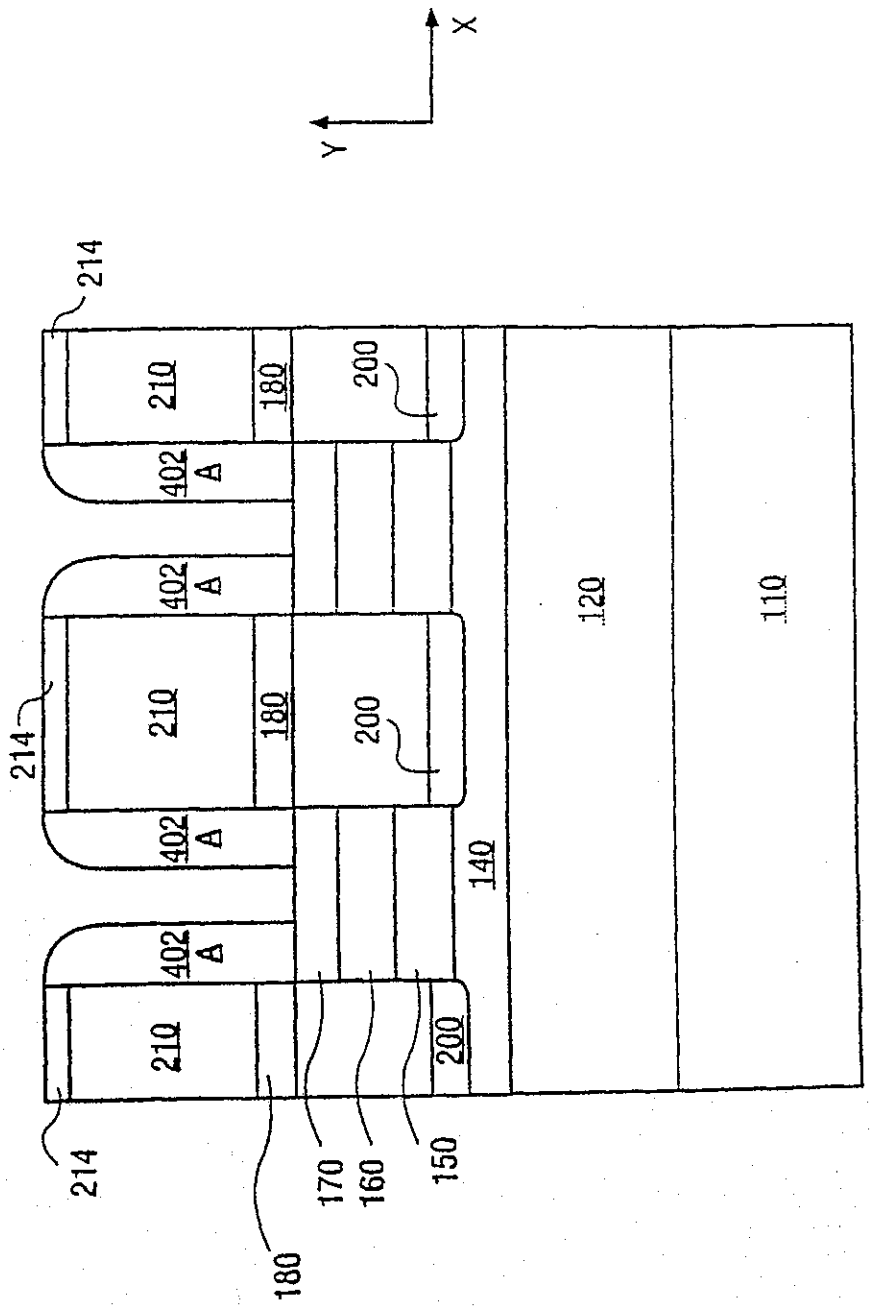


FIG. 11

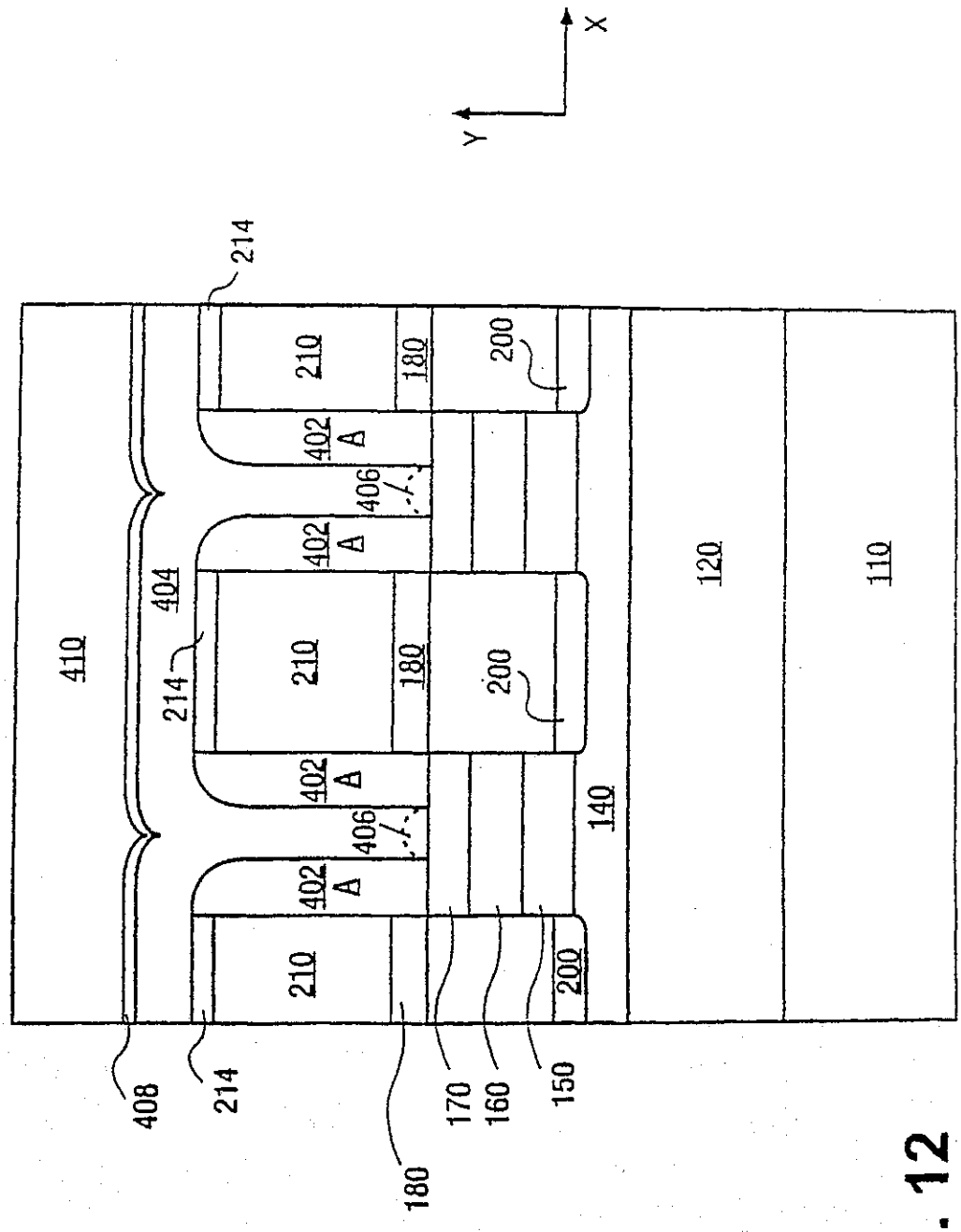

X
Y
214
210
180
200
402
A
406
404
410
214
210
180
200
120
110
402
A
406
140
402
A
210
200
408
214
180
170
160
150

FIG. 12

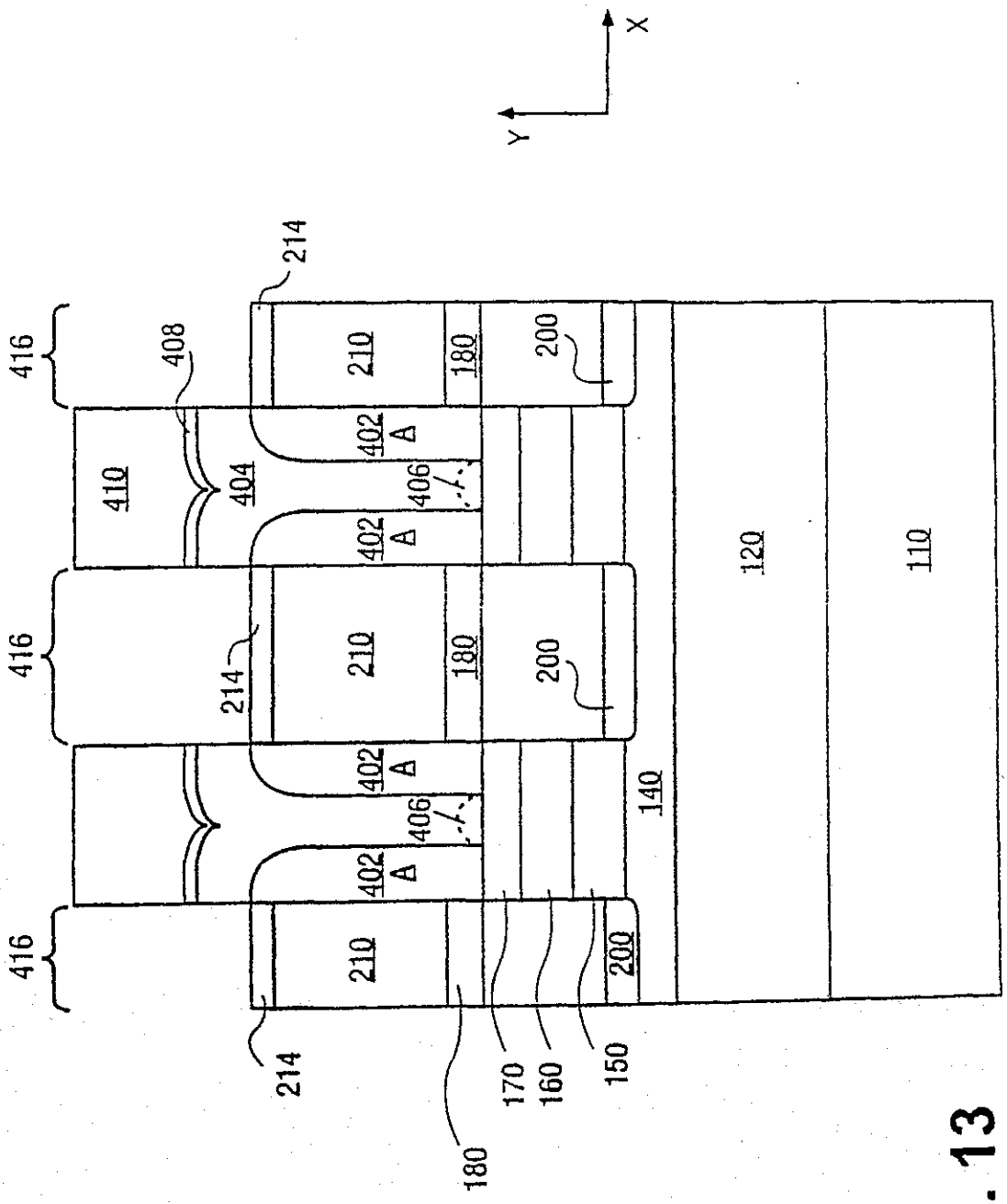

X
Y
214
416
408
410
404
210
180
200
402
A
406
120
110
140
170
160
150

FIG. 13

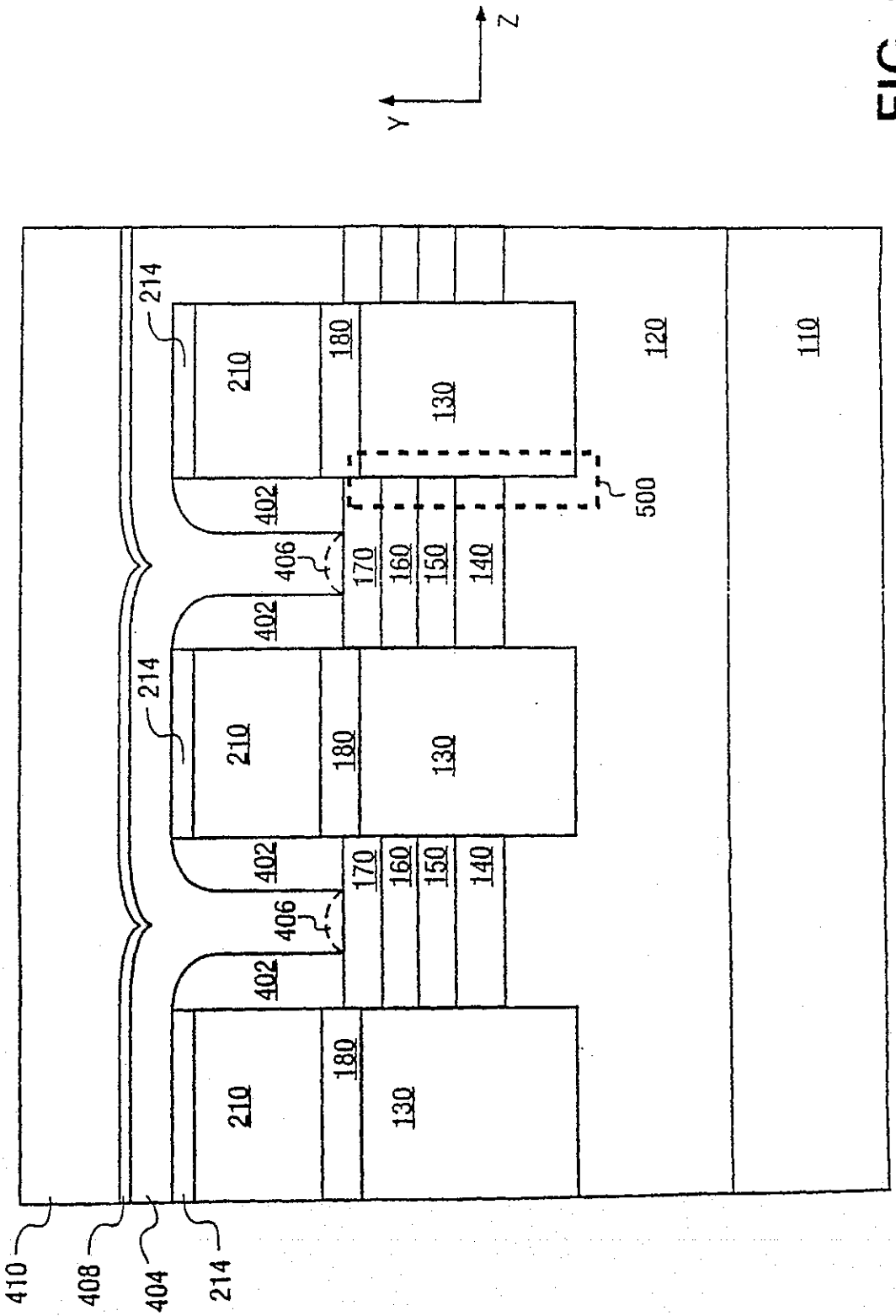

Z
Y
214
210
180
130
120
110
500
402
406
170
160
150
140
410
408
404
214

FIG. 14

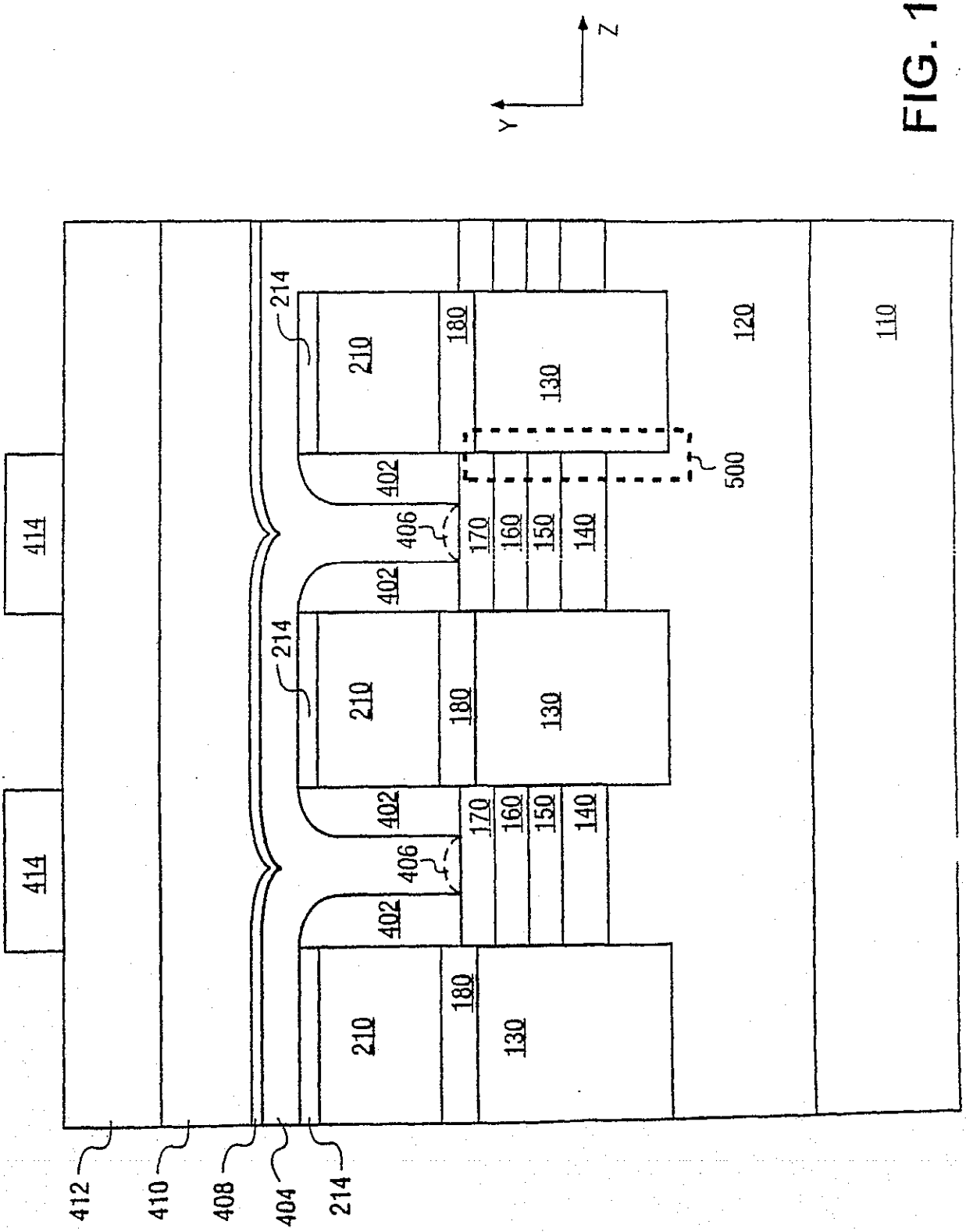

Z
Y
414
414
214
214
210
210
210
180
180
180
130
130
130
120
110
500
402
402
402
406
406
170
160
150
140
170
160
150
140
412
410
408
404
214

FIG. 15

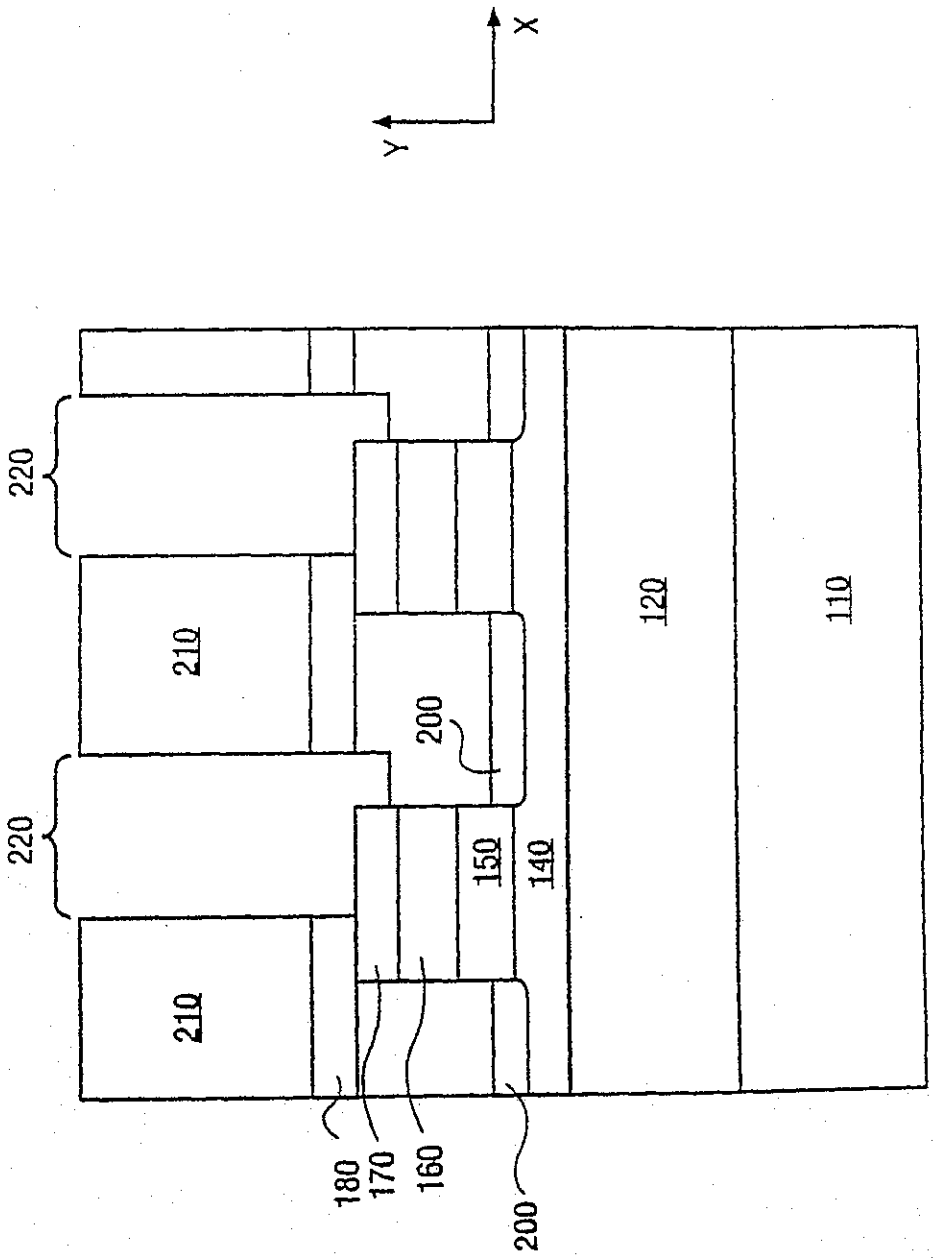


FIG. 16

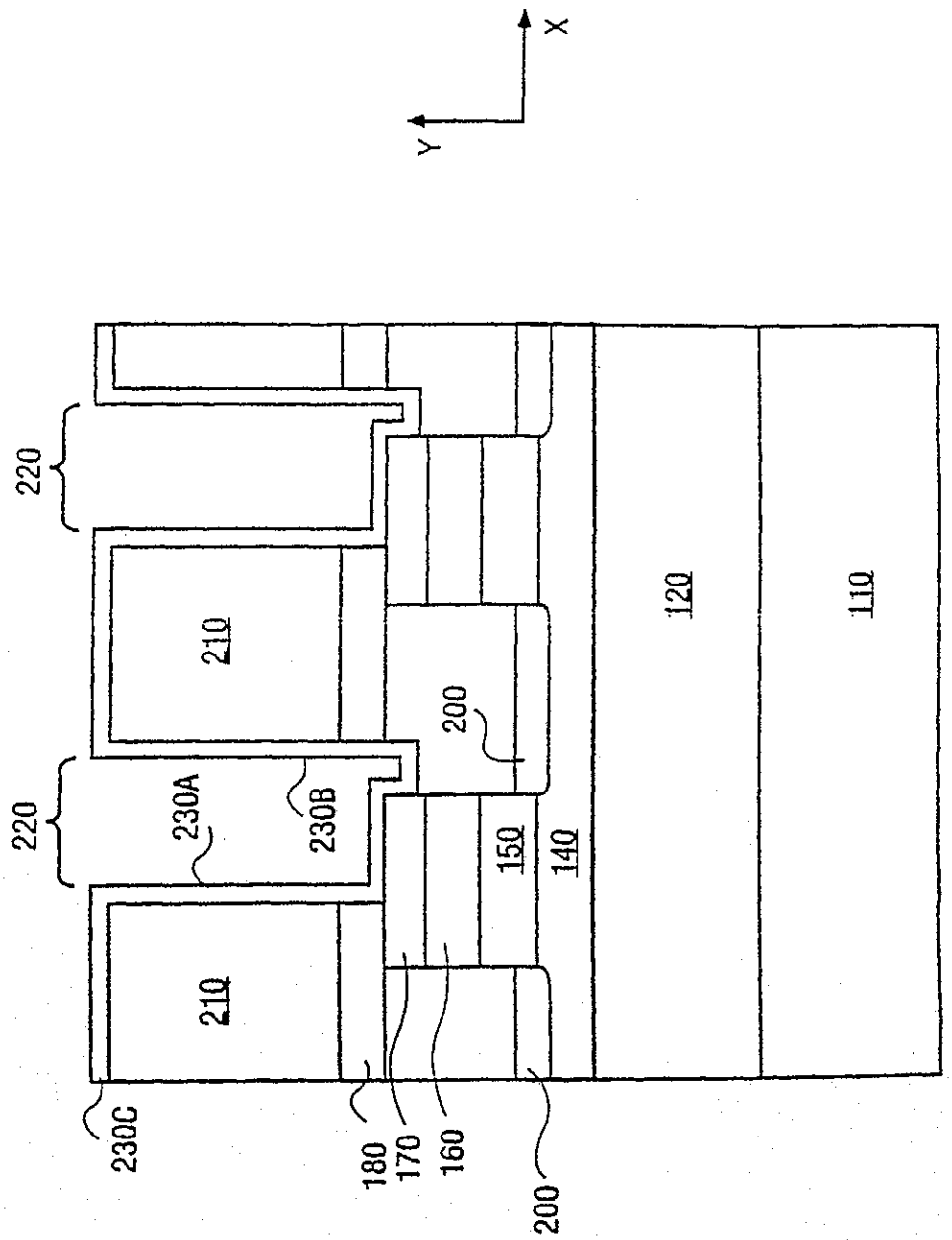

X
Y
220
210
200
120
110
220
230A
230B
150
140
210
230C
180
170
160
200

FIG. 17

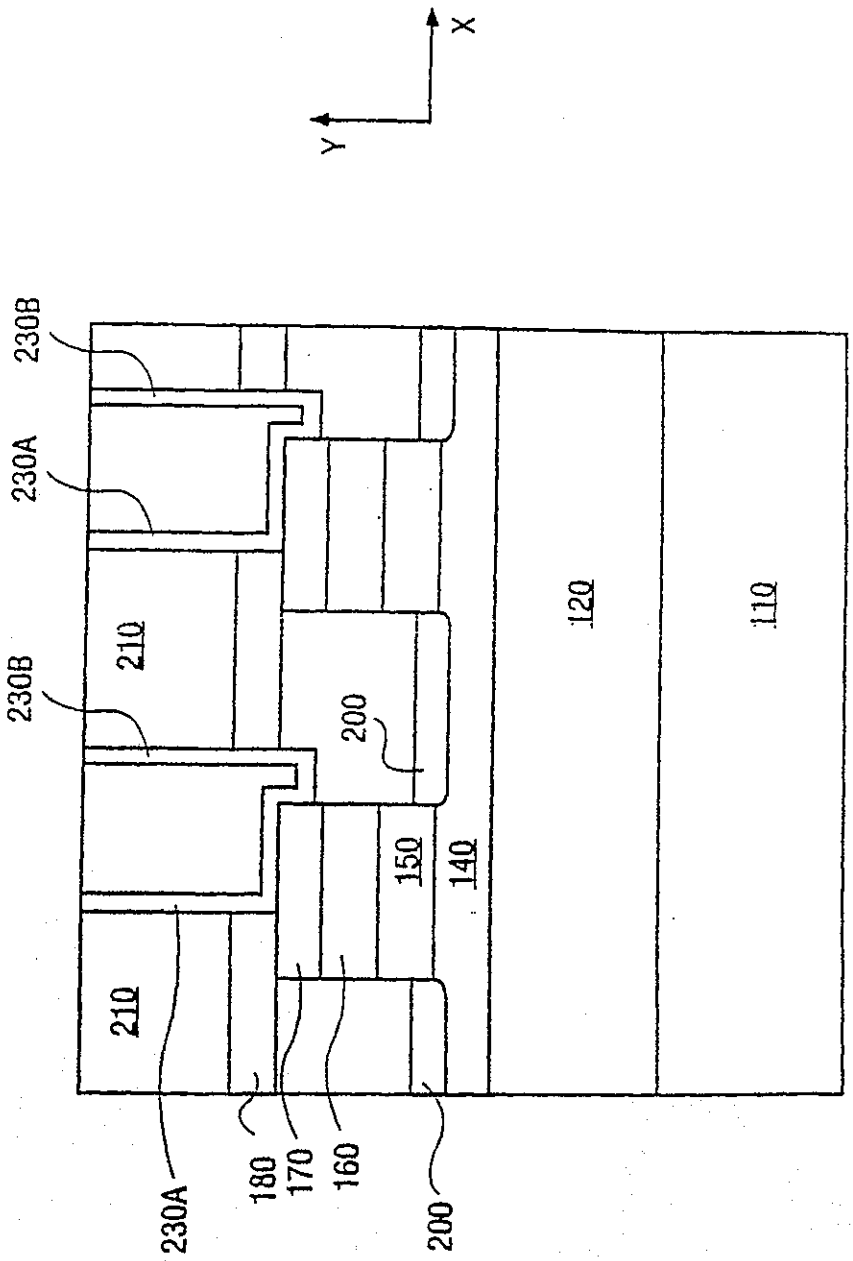

X
Y
230B
230A
210
230B
200
150
140
120
110
210
230A
180
170
160
200

FIG. 18

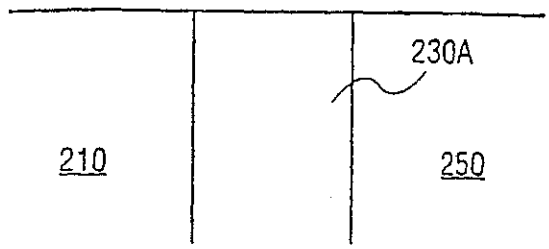


FIG. 19A

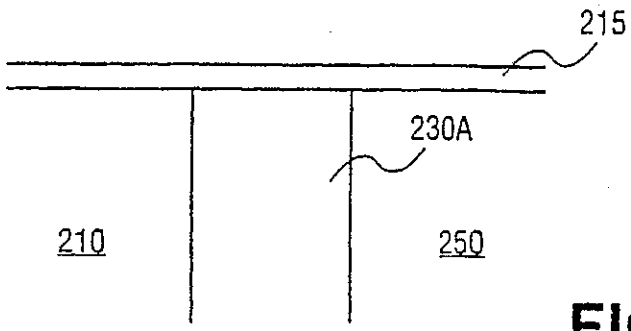


FIG. 19B

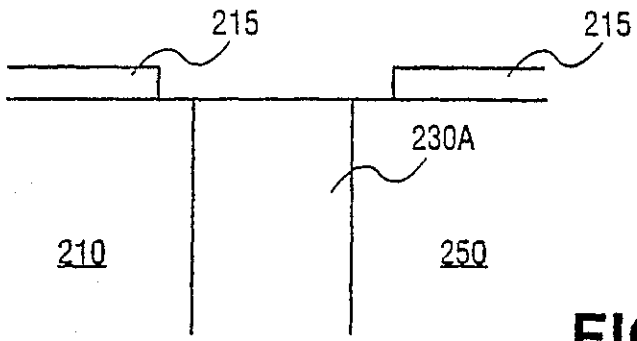


FIG. 19C

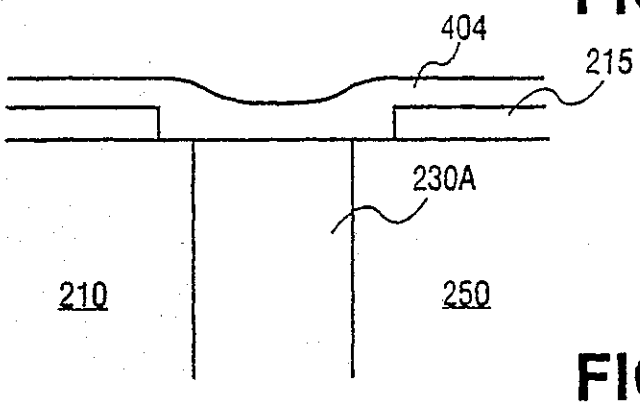


FIG. 19D

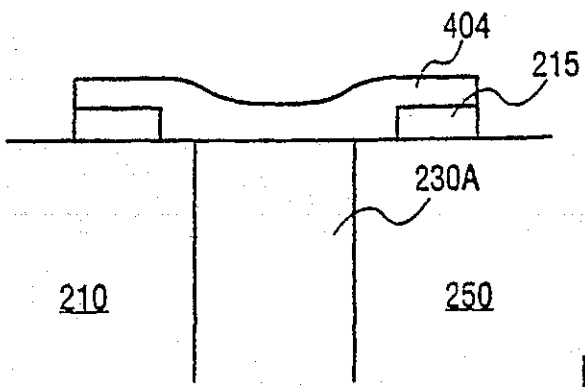


FIG. 19E

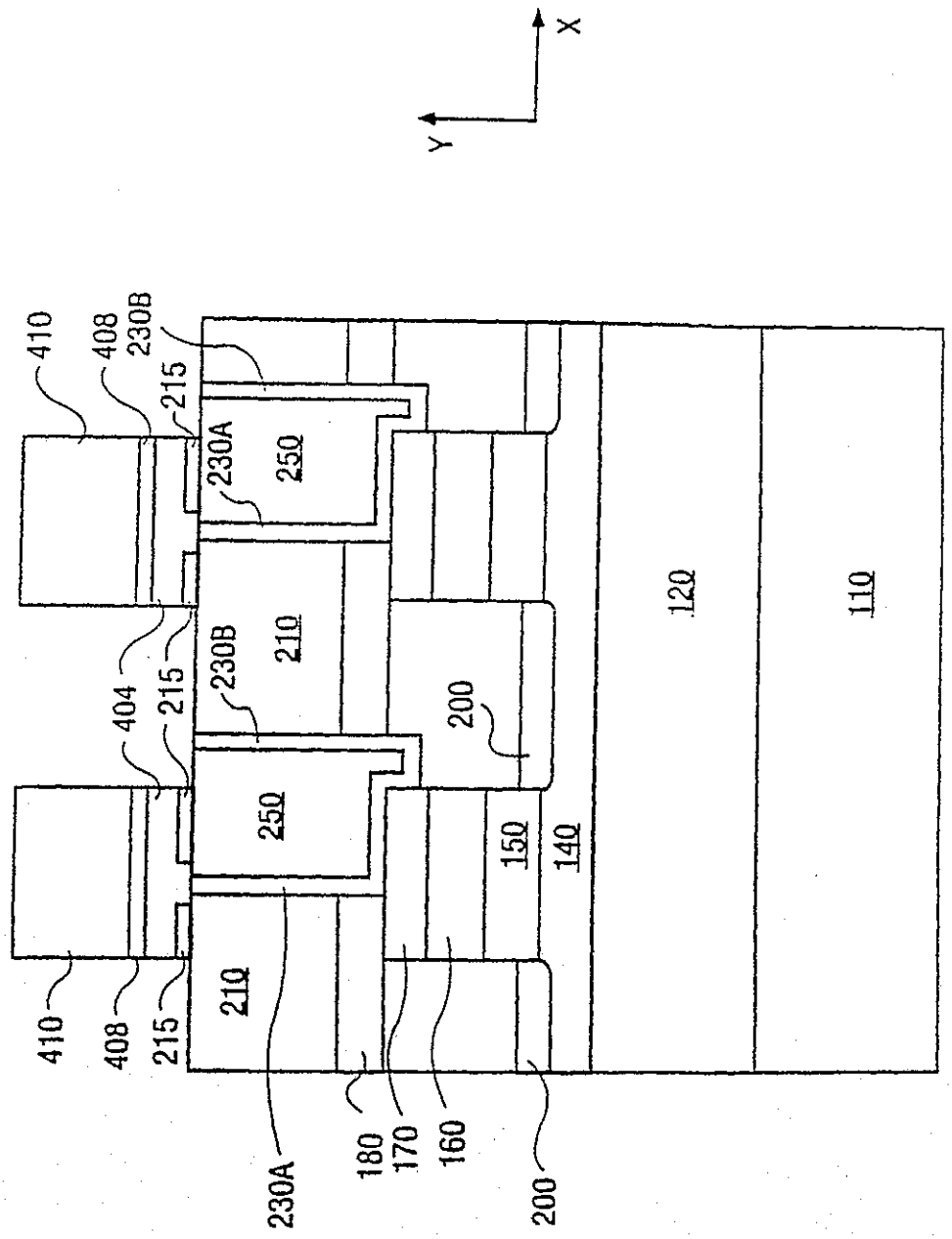

X
Y
410
408
230B
215
230A
250
210
404
215
230B
200
250
150
140
120
110
410
408
215
210
230A
180
170
160
200

FIG. 20

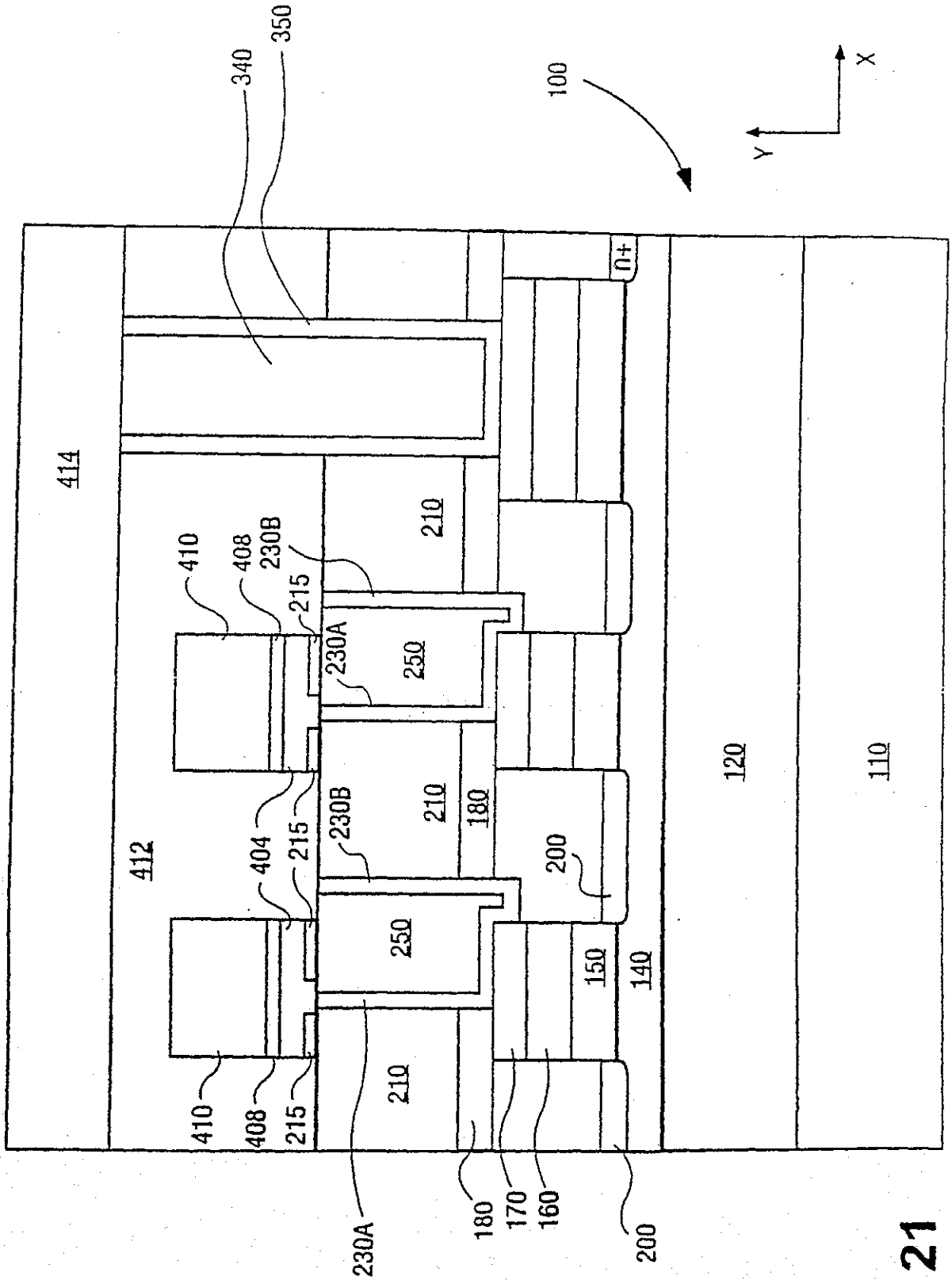

340
350
100
X
Y
414
410
408
230B
215
210
230A
250
404
412
180
200
120
110
140
150
170
160
n+

FIG. 21

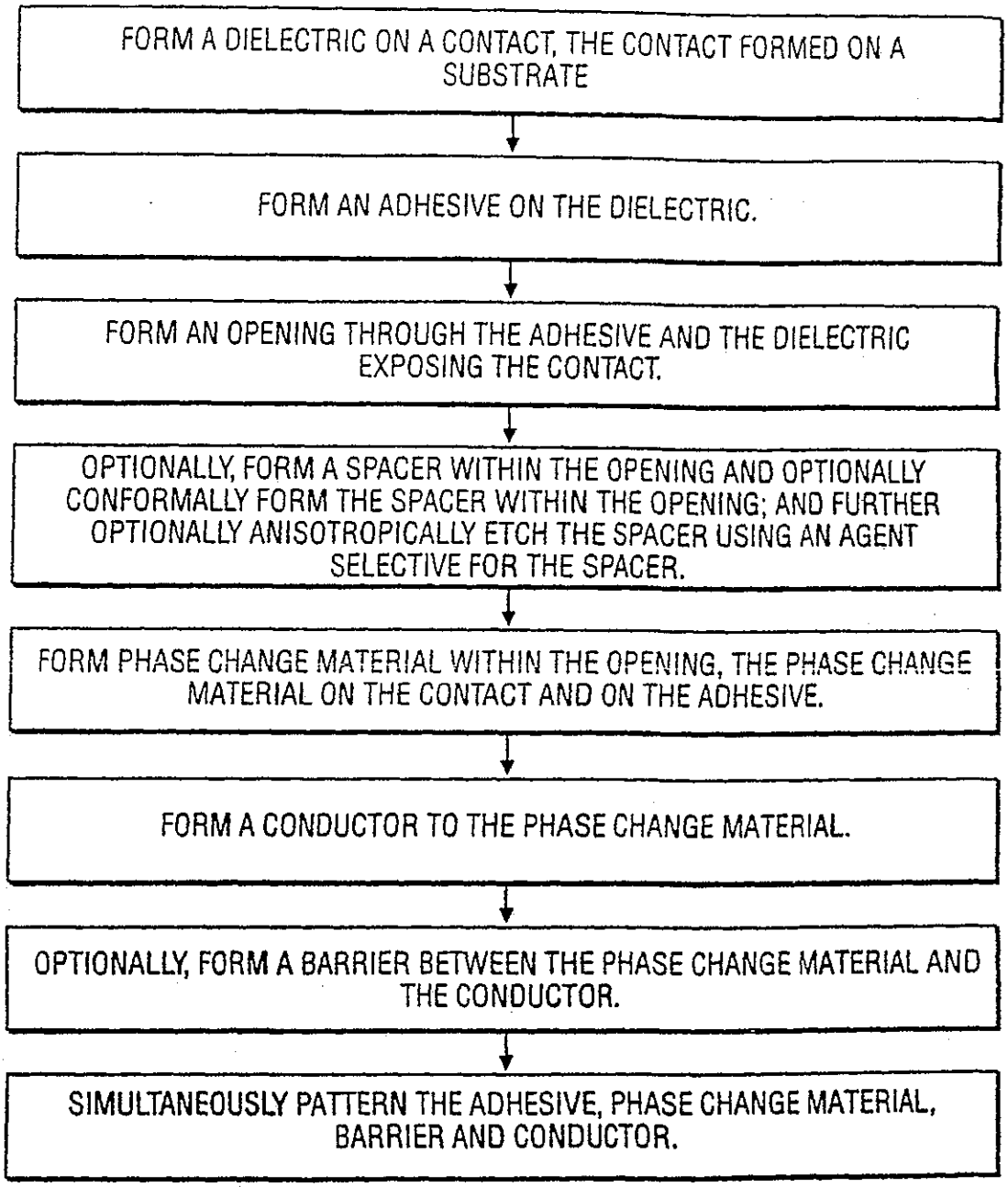

FORM A DIELECTRIC ON A CONTACT, THE CONTACT FORMED ON A SUBSTRATE
FORM AN ADHESIVE ON THE DIELECTRIC.
FORM AN OPENING THROUGH THE ADHESIVE AND THE DIELECTRIC EXPOSING THE CONTACT.
OPTIONALLY, FORM A SPACER WITHIN THE OPENING AND OPTIONALLY CONFORMALLY FORM THE SPACER WITHIN THE OPENING; AND FURTHER OPTIONALLY ANISOTROPICALLY ETCH THE SPACER USING AN AGENT SELECTIVE FOR THE SPACER.
FORM PHASE CHANGE MATERIAL WITHIN THE OPENING, THE PHASE CHANGE MATERIAL ON THE CONTACT AND ON THE ADHESIVE.
FORM A CONDUCTOR TO THE PHASE CHANGE MATERIAL.
OPTIONALLY, FORM A BARRIER BETWEEN THE PHASE CHANGE MATERIAL AND THE CONDUCTOR.
SIMULTANEOUSLY PATTERN THE ADHESIVE, PHASE CHANGE MATERIAL, BARRIER AND CONDUCTOR.

FIG. 22

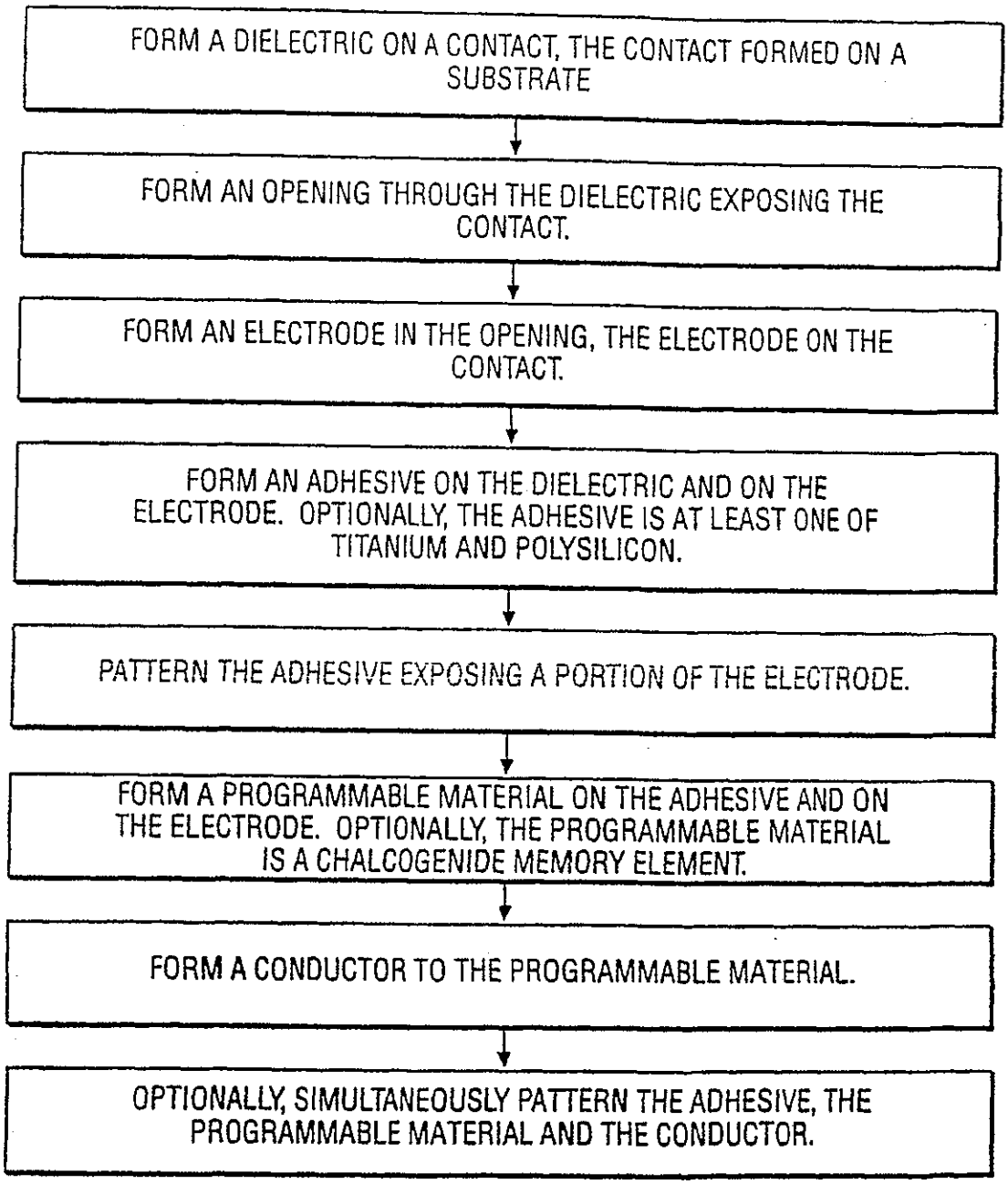

FORM A DIELECTRIC ON A CONTACT, THE CONTACT FORMED ON A SUBSTRATE
FORM AN OPENING THROUGH THE DIELECTRIC EXPOSING THE CONTACT.
FORM AN ELECTRODE IN THE OPENING, THE ELECTRODE ON THE CONTACT.
FORM AN ADHESIVE ON THE DIELECTRIC AND ON THE ELECTRODE. OPTIONALLY, THE ADHESIVE IS AT LEAST ONE OF TITANIUM AND POLYSILICON.
PATTERN THE ADHESIVE EXPOSING A PORTION OF THE ELECTRODE.
FORM A PROGRAMMABLE MATERIAL ON THE ADHESIVE AND ON THE ELECTRODE. OPTIONALLY, THE PROGRAMMABLE MATERIAL IS A CHALCOGENIDE MEMORY ELEMENT.
FORM A CONDUCTOR TO THE PROGRAMMABLE MATERIAL.
OPTIONALLY, SIMULTANEOUSLY PATTERN THE ADHESIVE, THE PROGRAMMABLE MATERIAL AND THE CONDUCTOR.

FIG. 23

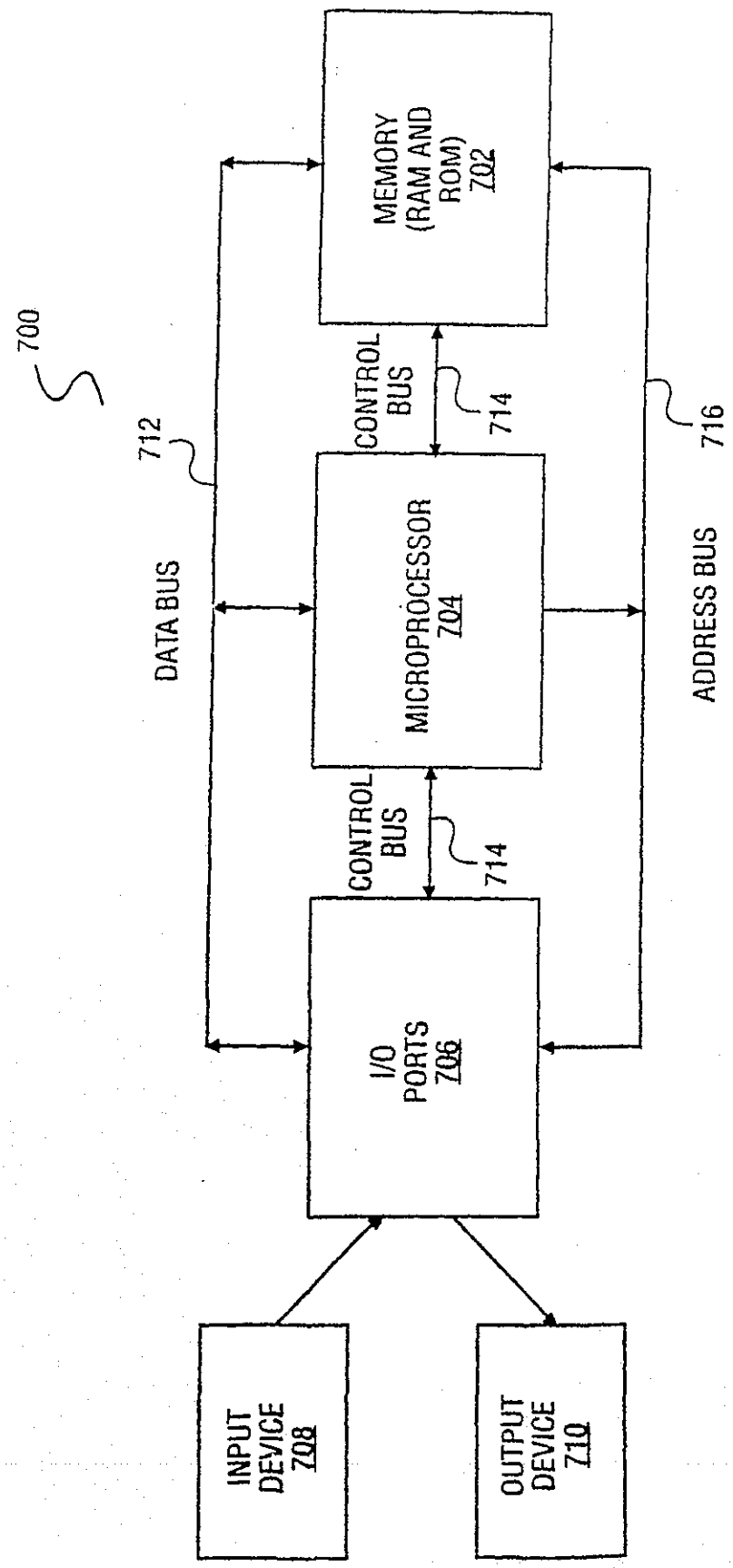

700
MEMORY (RAM AND ROM) 702
CONTROL BUS
714
712
716
DATA BUS
MICROPROCESSOR 704
ADDRESS BUS
CONTROL BUS
714
I/O PORTS 706
INPUT DEVICE 708
OUTPUT DEVICE 710

FIG. 24