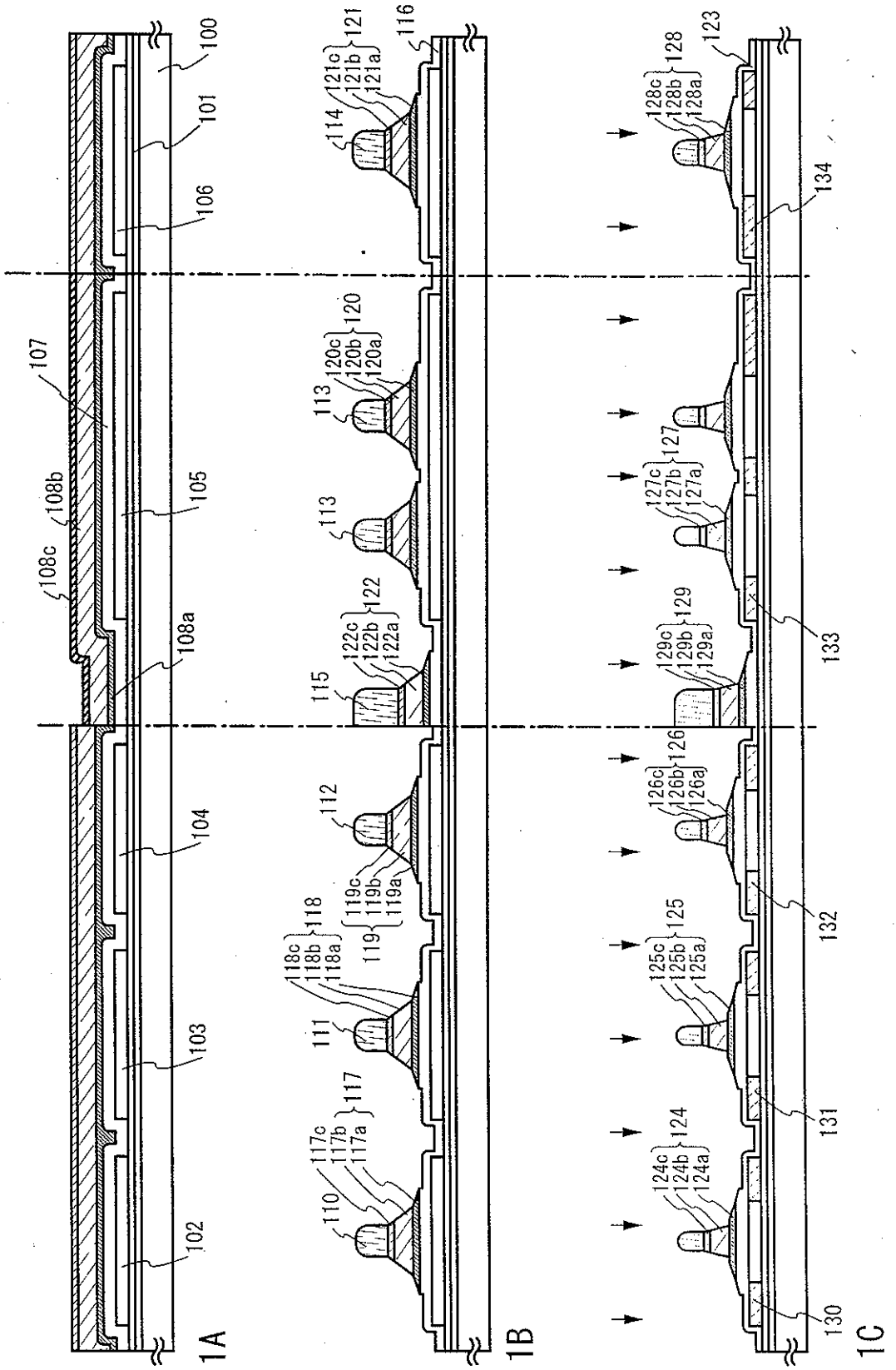


FIG. 1A FIG. 1B FIG. 1C

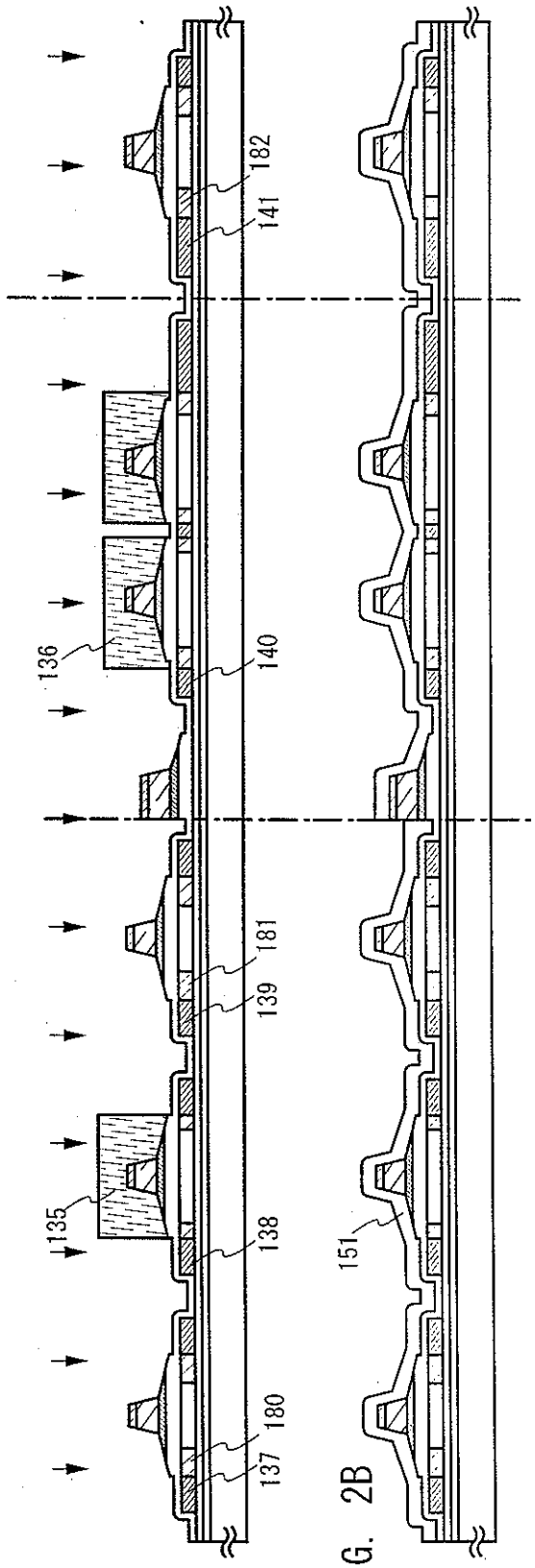


FIG. 2A

FIG. 2B

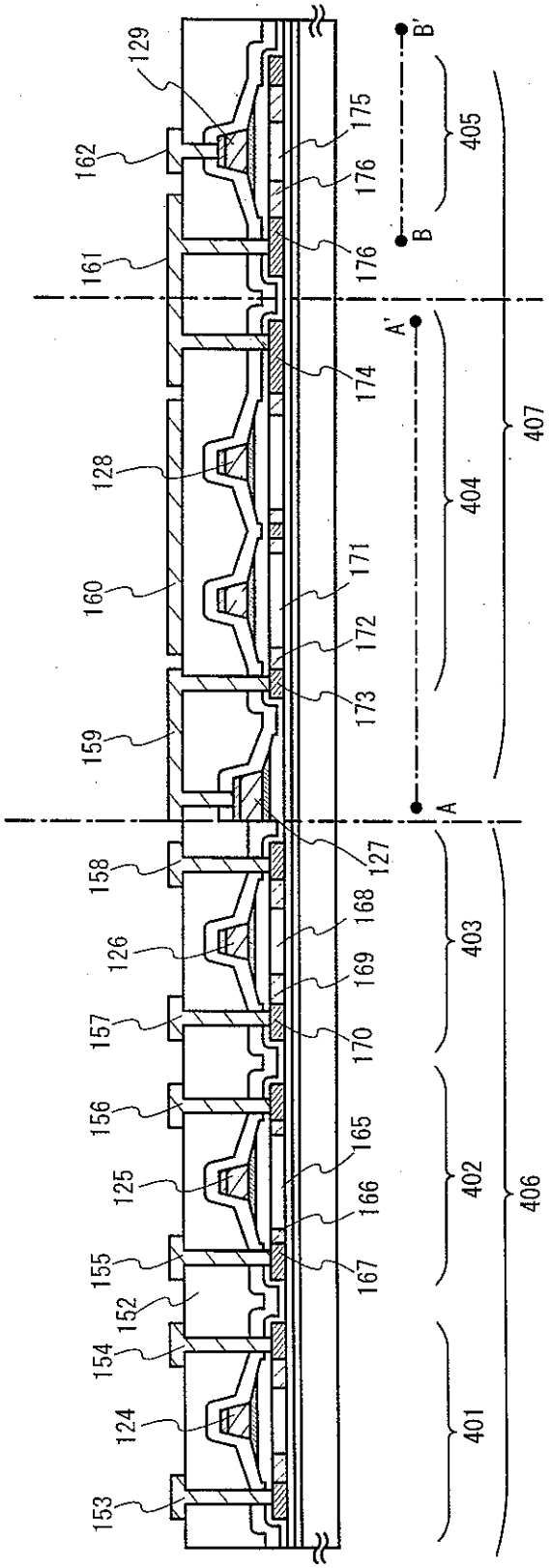

129
162
161
128
160
159
158
126
157
156
125
155
152
154
124
153
175
176
176
176
174
171
172
173
127
168
169
170
165
166
167
A
A'
B
B'
401
402
403
404
405
406
407

FIG. 3

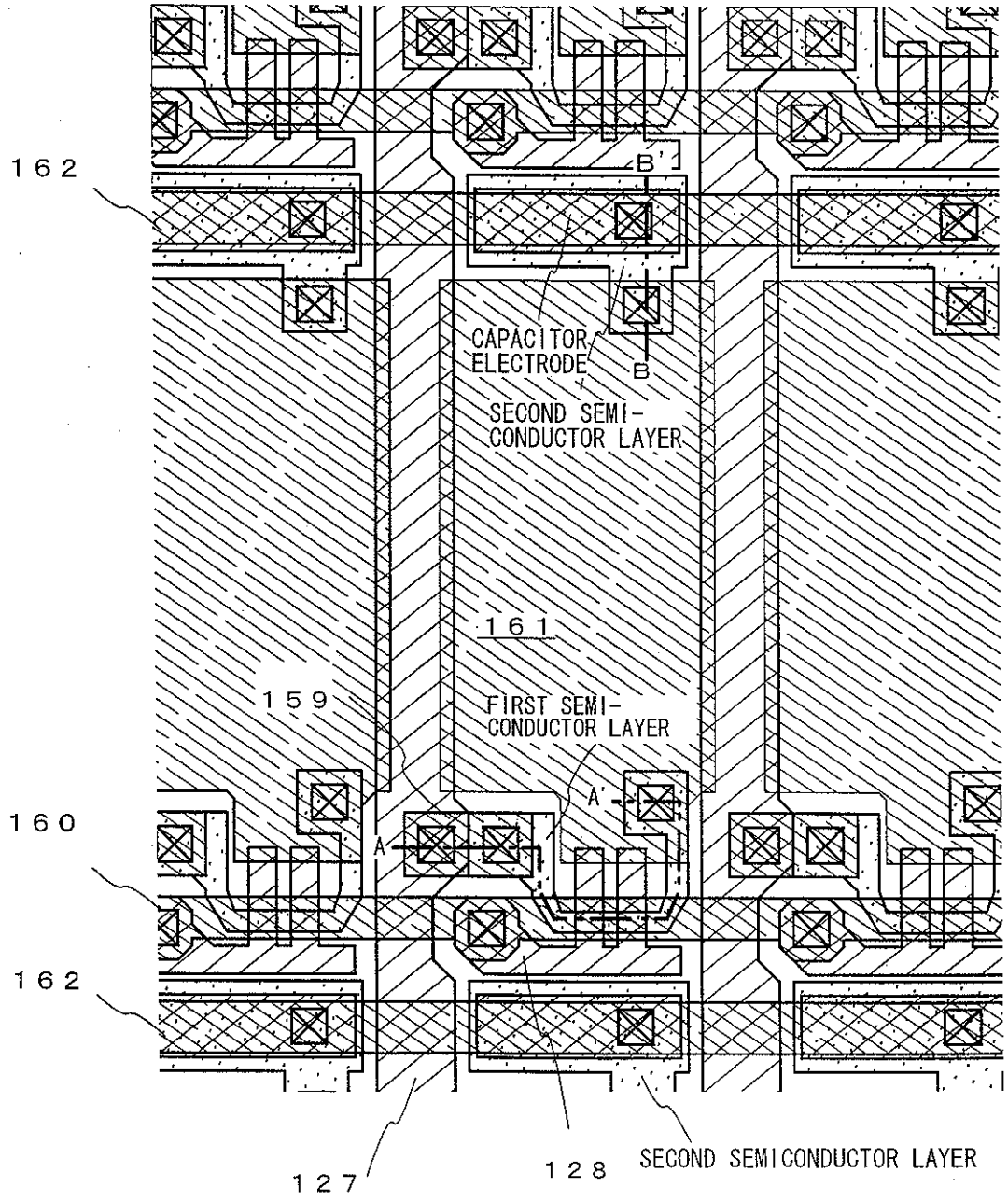

162
B'
CAPACITOR ELECTRODE
B
SECOND SEMI-CONDUCTOR LAYER
161
159
FIRST SEMI-CONDUCTOR LAYER
A'
160
A
162
127
128
SECOND SEMICONDUCTOR LAYER

FIG. 4

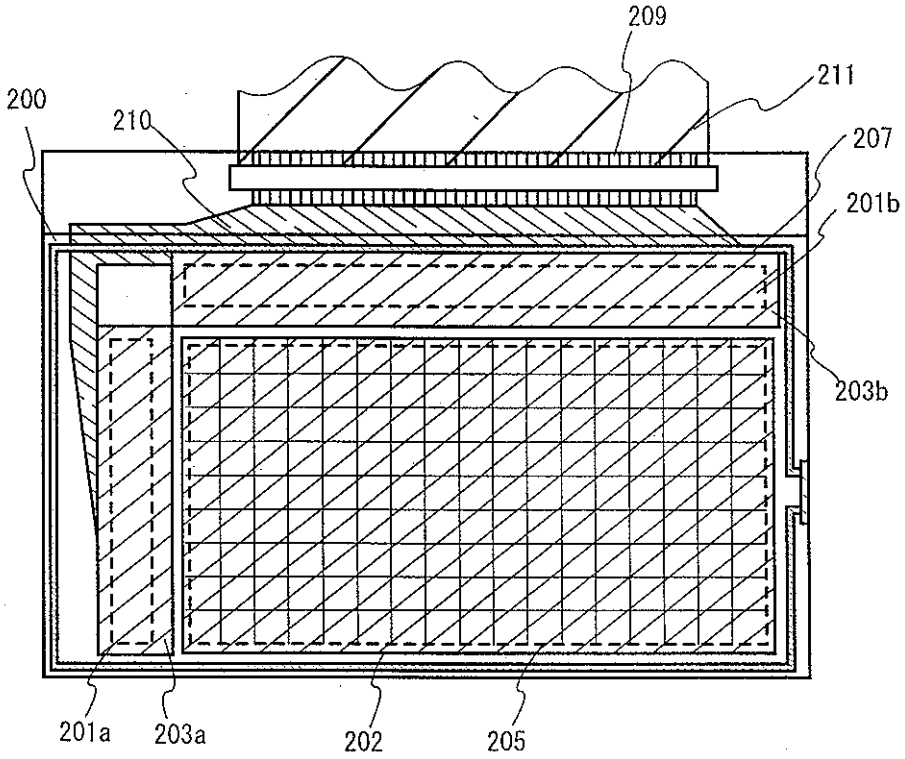


FIG. 5

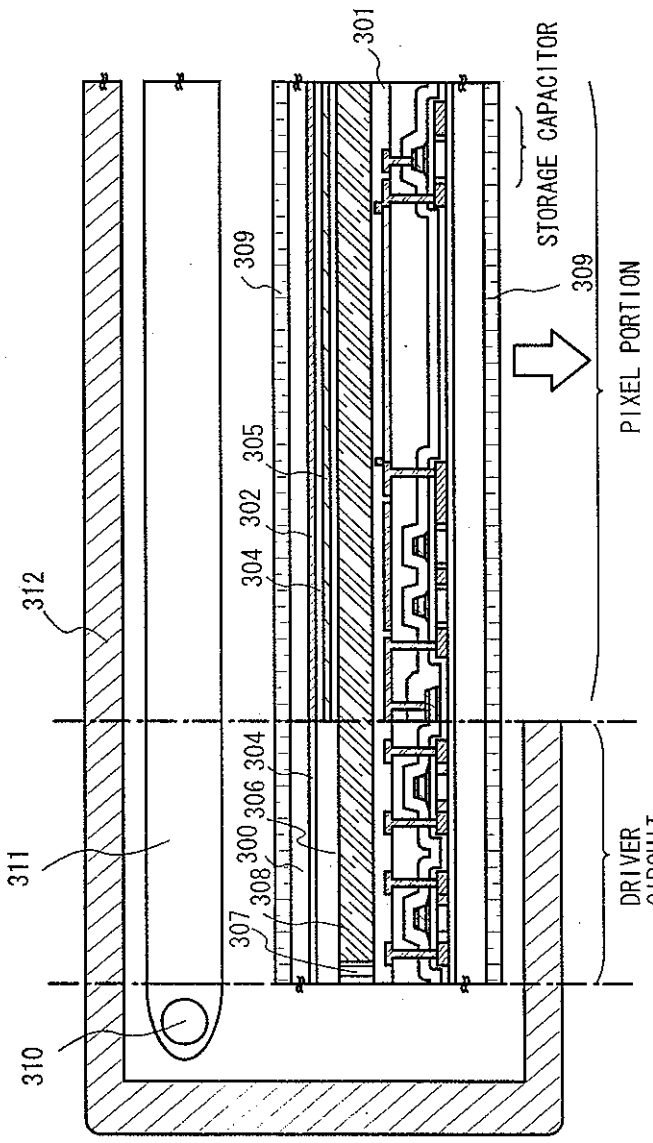

301
STORAGE CAPACITOR
309
309
PIXEL PORTION
305
302
304
312
304
306
300
311
308
307
DRIVER CIRCUIT
310

FIG. 6

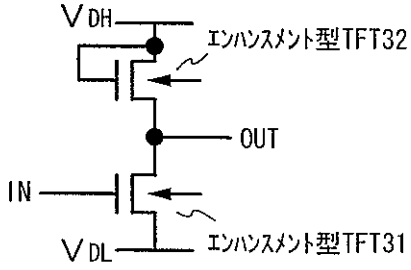


FIG. 7A

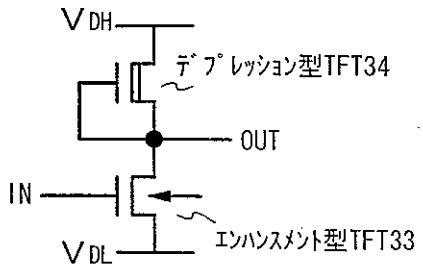


FIG. 7B

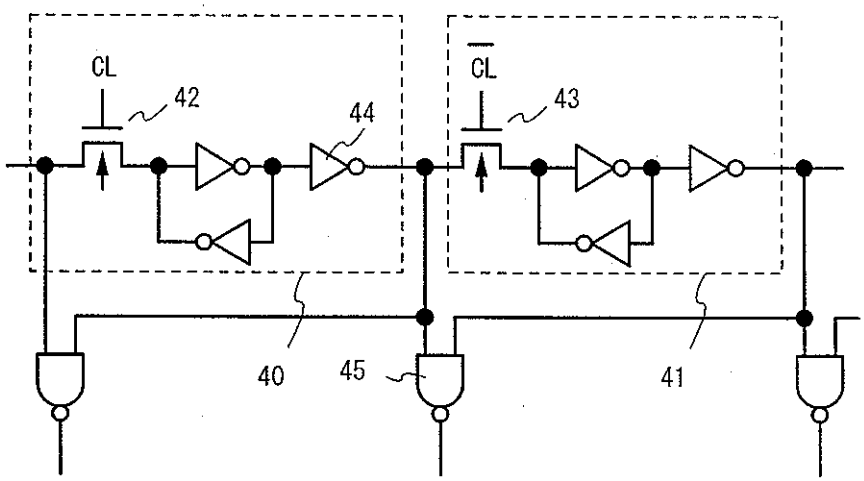


FIG. 8A

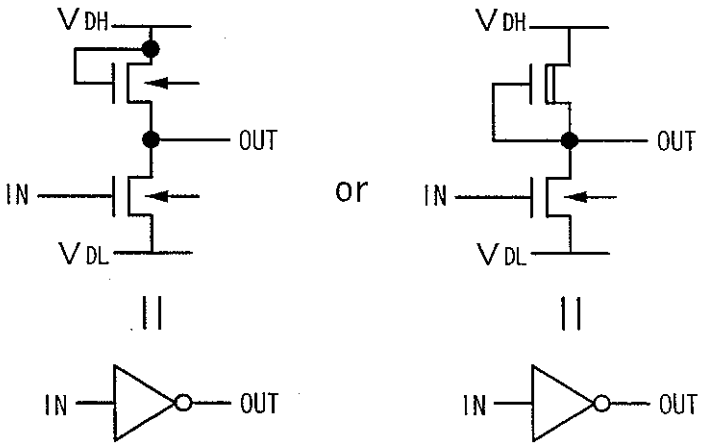


FIG. 8B

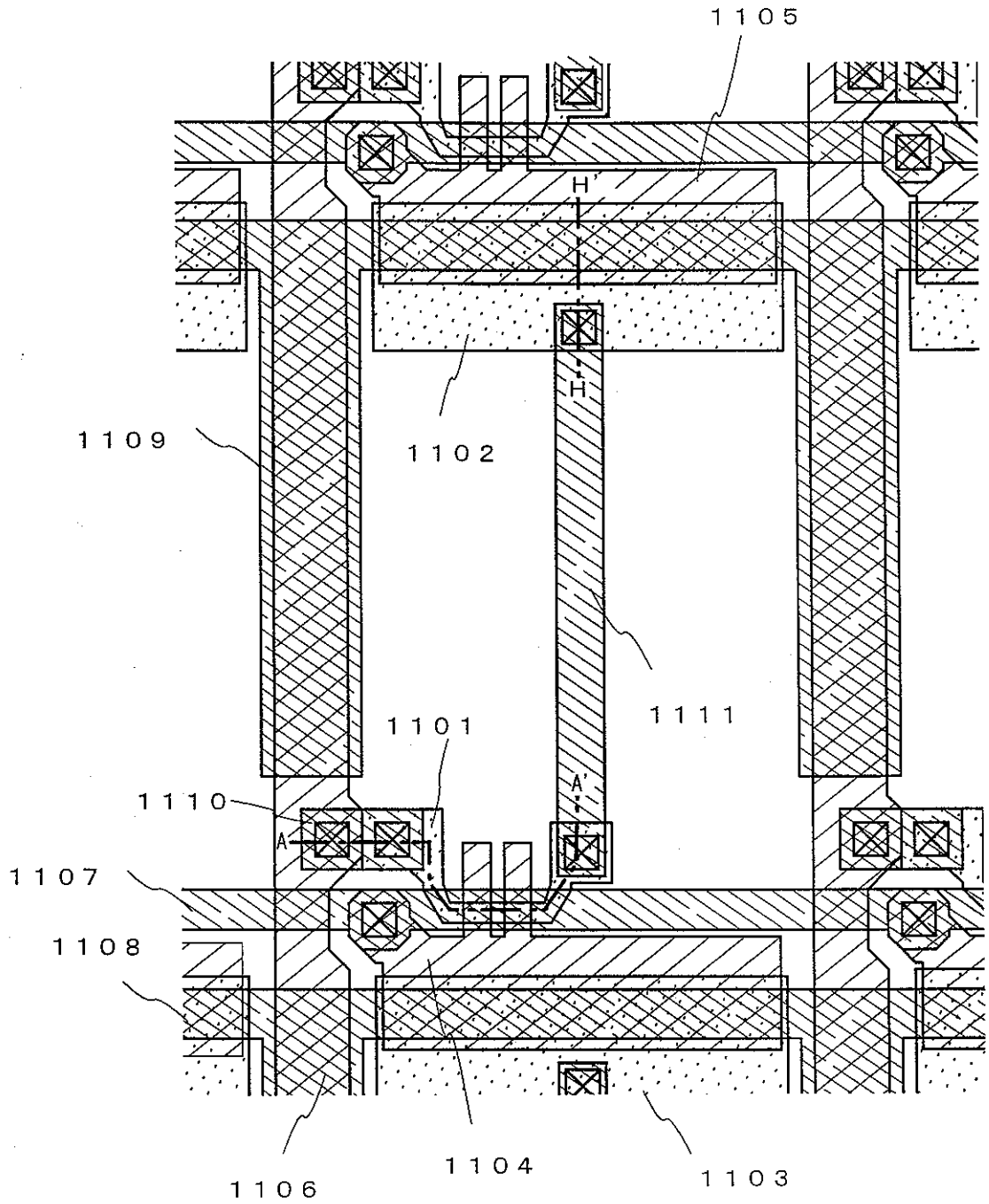


FIG. 9

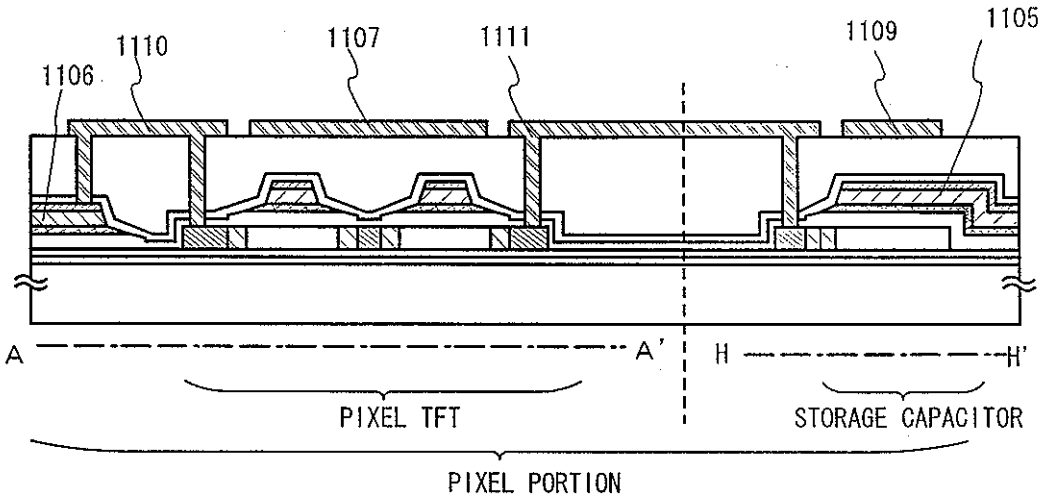

1106
1110
1107
1111
1109
1105
A
A'
H
H'
PIXEL TFT
STORAGE CAPACITOR
PIXEL PORTION

FIG. 10

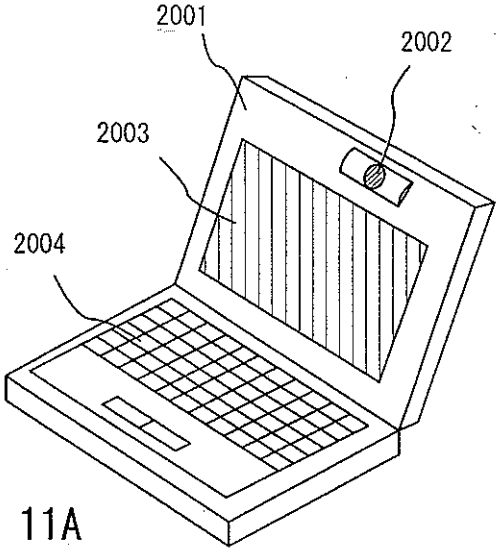


FIG. 11A

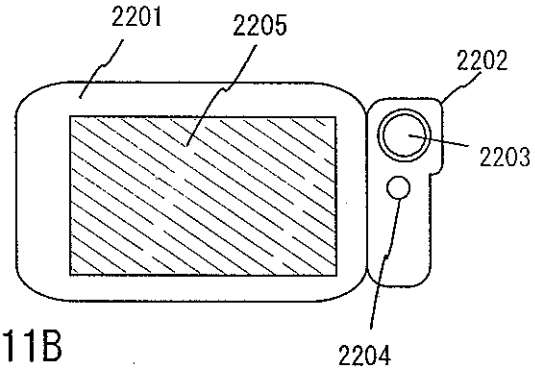


FIG. 11B

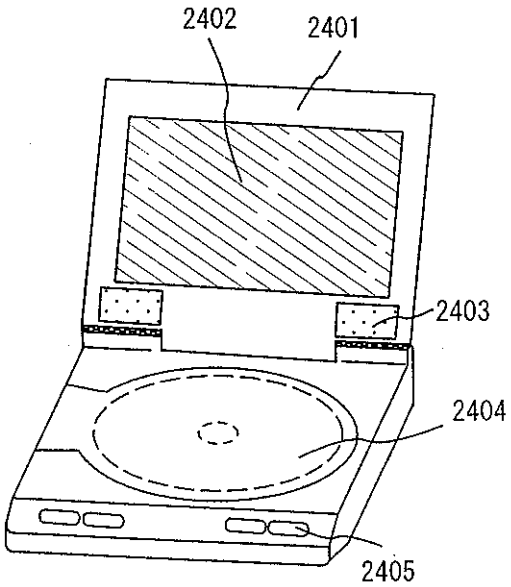


FIG. 11C

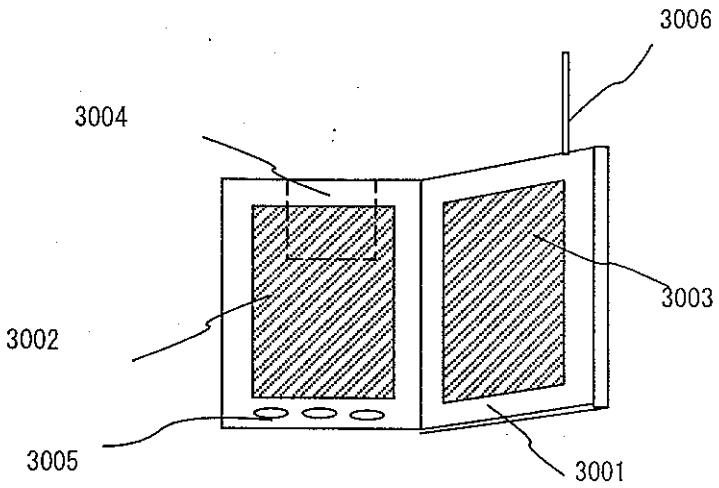


FIG. 12A

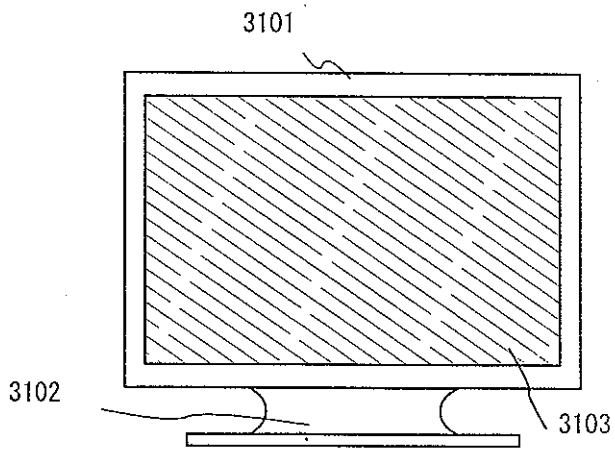


FIG. 12B

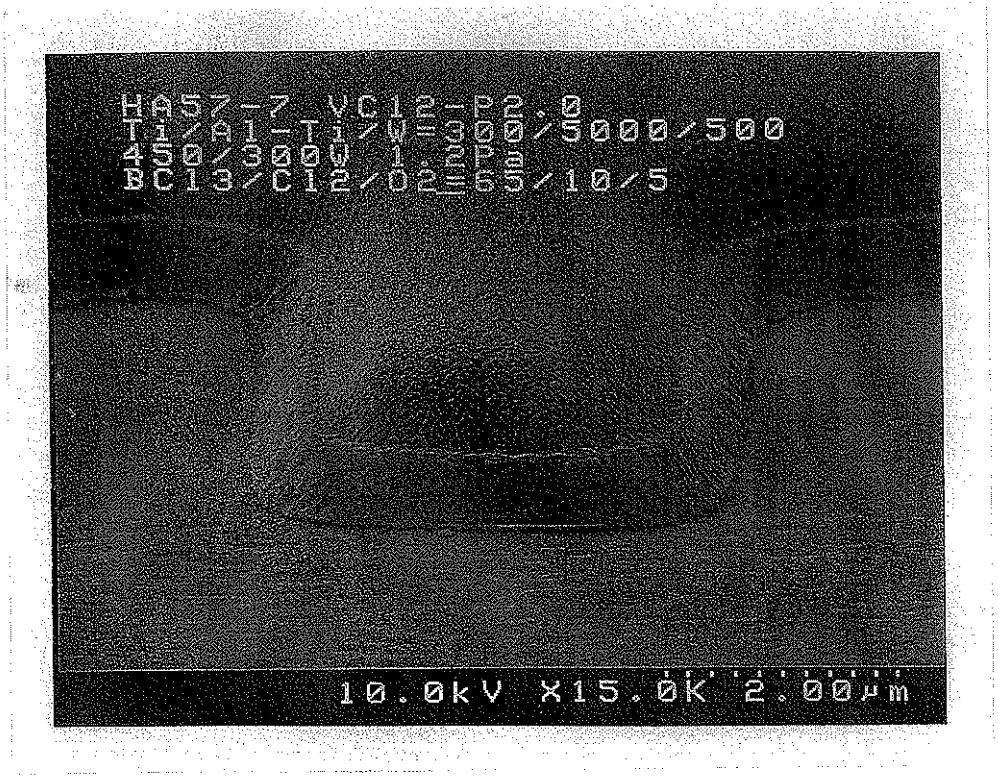

HA57-7 VC12-P2.0
Ti/Al-Ti/W=300/5000/500
450/300V 1.2Pa
BC13/C12/O2=65/10/5
10.0kV X15.0K 2.00µm

FIG. 13

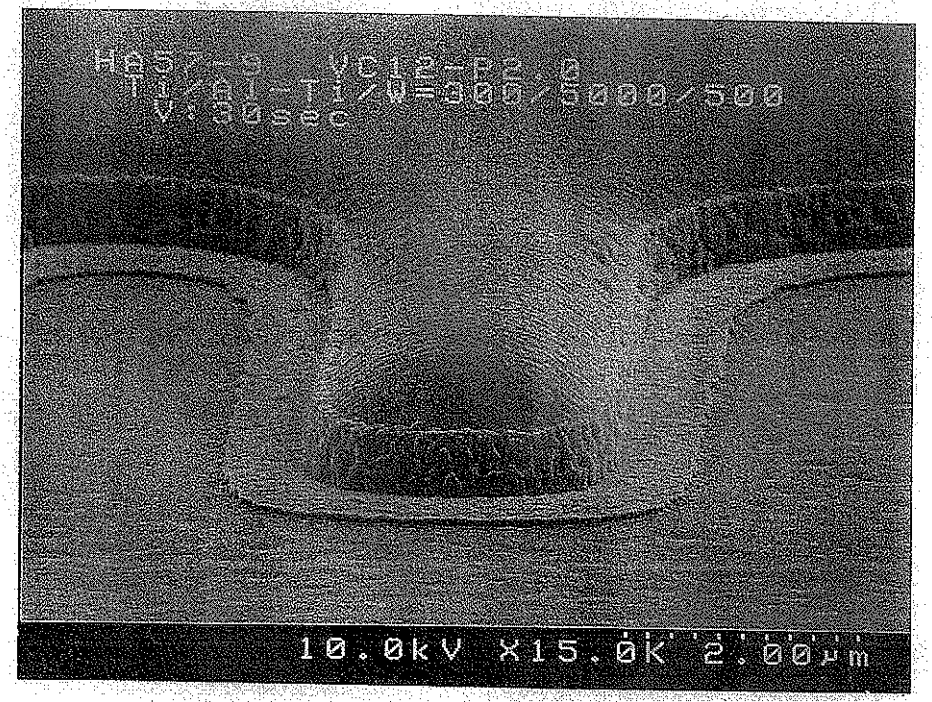


FIG. 14

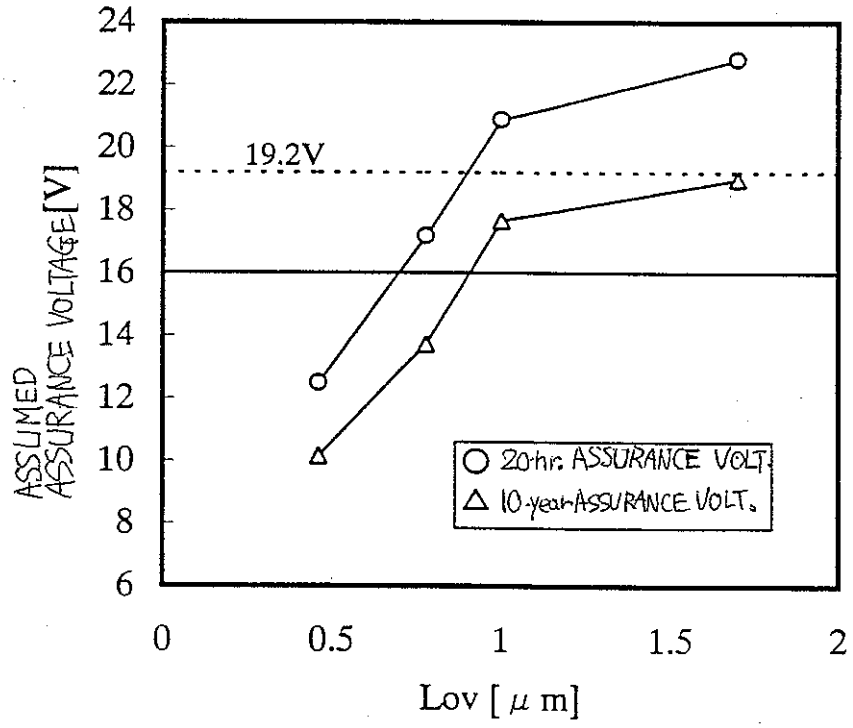

24
22
20
18
16
14
12
10
8
6
19.2V
ASSUMED ASSURANCE VOLTAGE[V]
20-hr. ASSURANCE VOLT.
10-year ASSURANCE VOLT.
0
0.5
1
1.5
2
Lov [μm]

FIG. 15

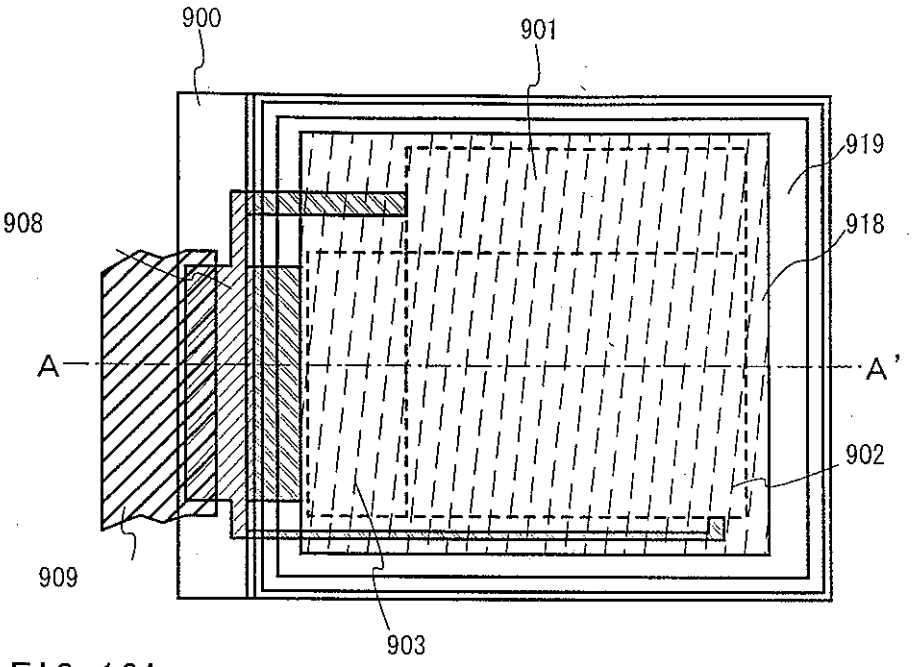


FIG. 16A

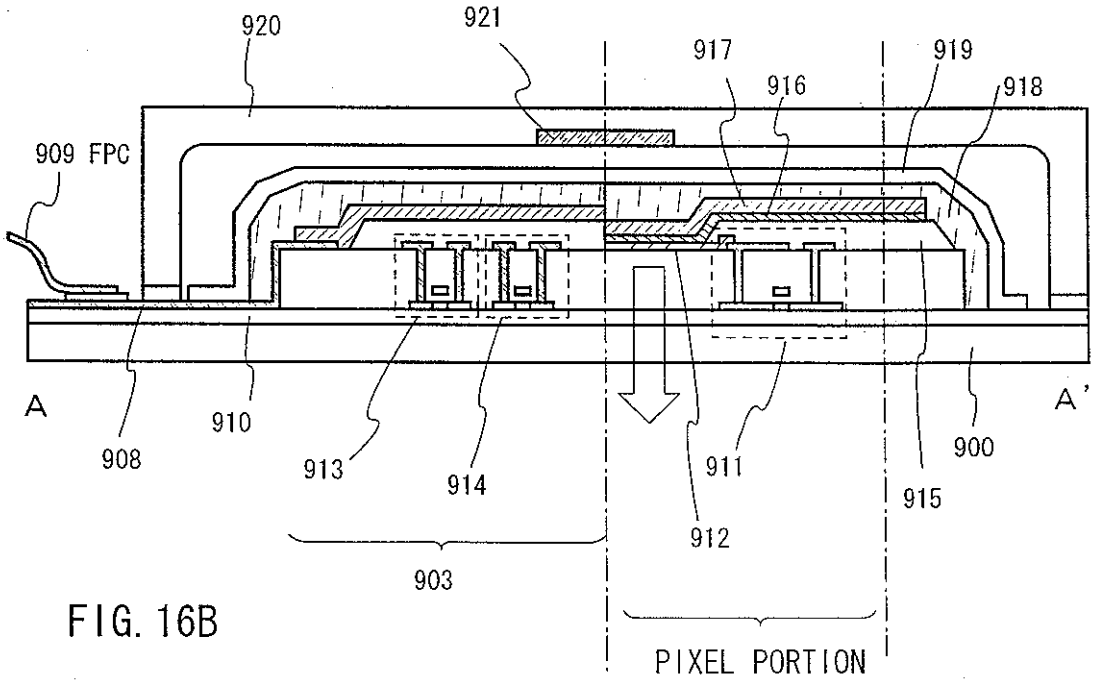


FIG. 16B

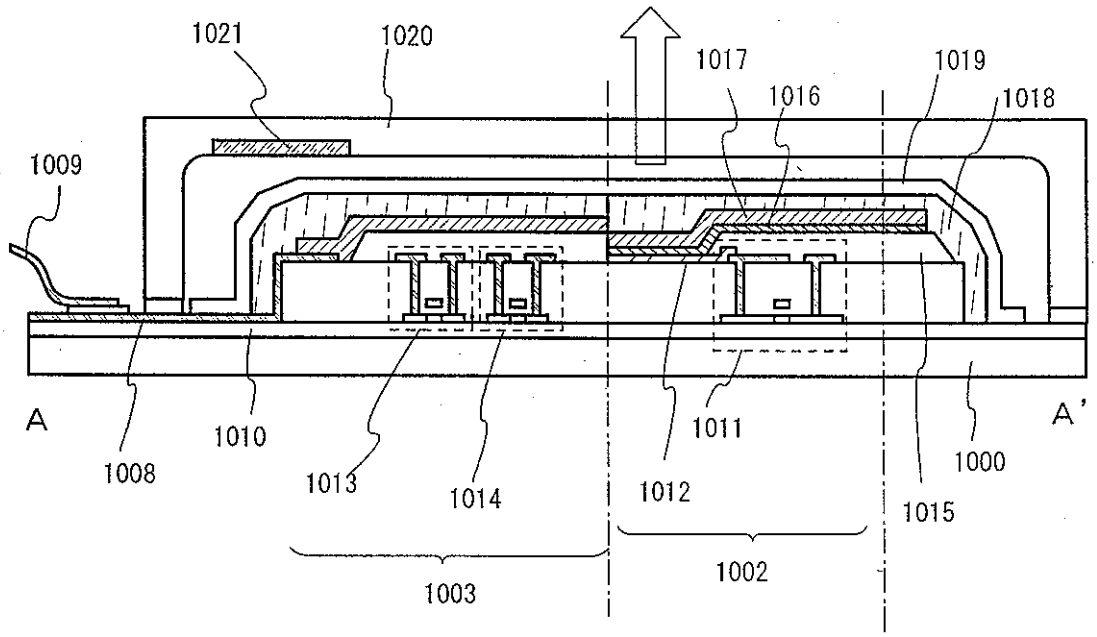

1021
1020
1017
1019
1016
1018
1009
A
A'
1008
1010
1013
1014
1011
1012
1000
1015
1003
1002

FIG. 17

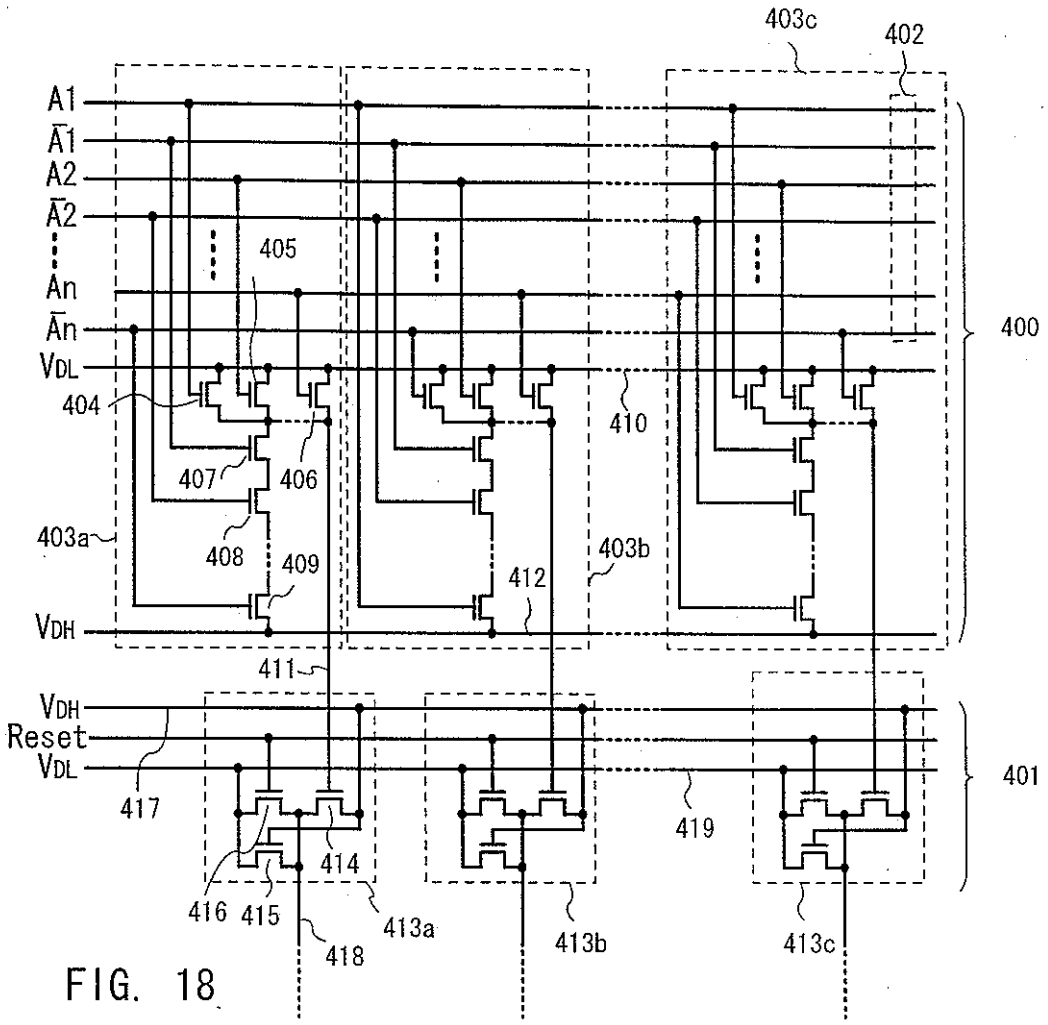

403c
402
A1
$\bar{A}1$
A2
$\bar{A}2$
An
$\bar{A}n$
V_{DL}
405
404
407
406
408
409
403a
410
403b
412
V_{DH}
411
V_{DH}
Reset
V_{DL}
417
419
414
416
415
418
413a
413b
413c
400
401

FIG. 18

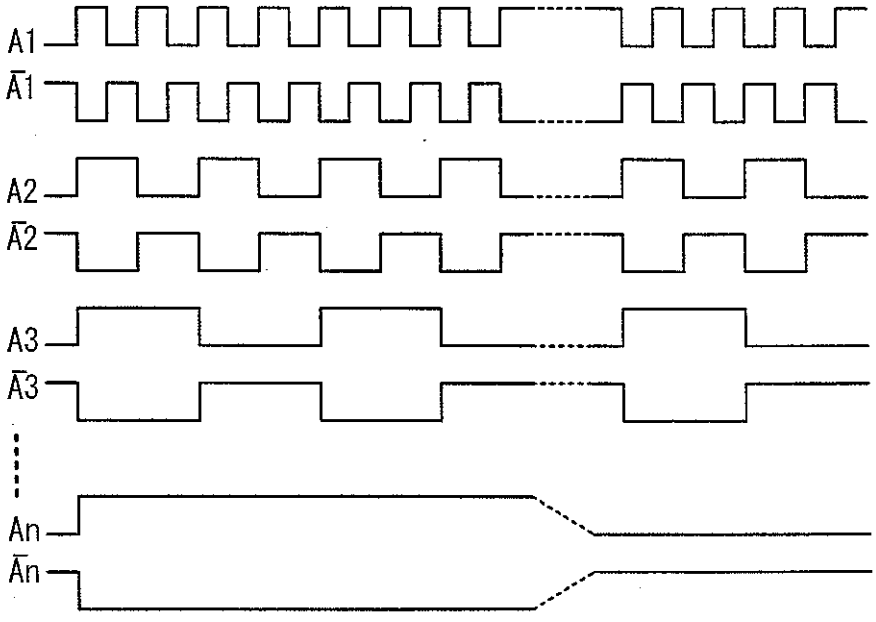

A1
$\bar{A}1$
A2
$\bar{A}2$
A3
$\bar{A}3$
An
$\bar{A}n$

FIG. 19

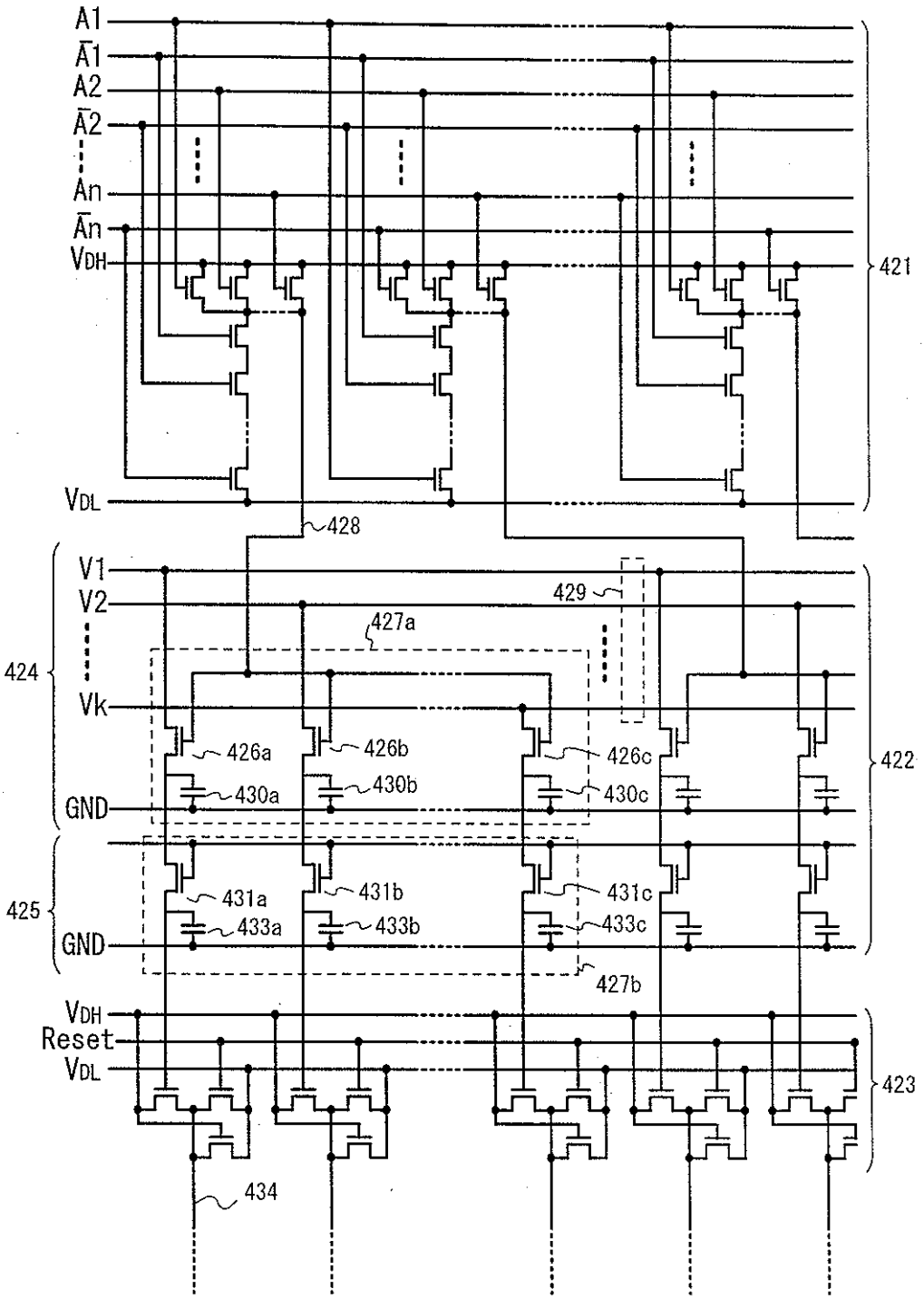

A1
$\bar{A}$1
A2
$\bar{A}$2
An
$\bar{A}$n
VDH
VDL
421
428
V1
V2
Vk
GND
424
429
427a
426a
426b
426c
430a
430b
430c
422
425
431a
431b
431c
433a
433b
433c
427b
VDH
Reset
VDL
423
434

FIG. 20