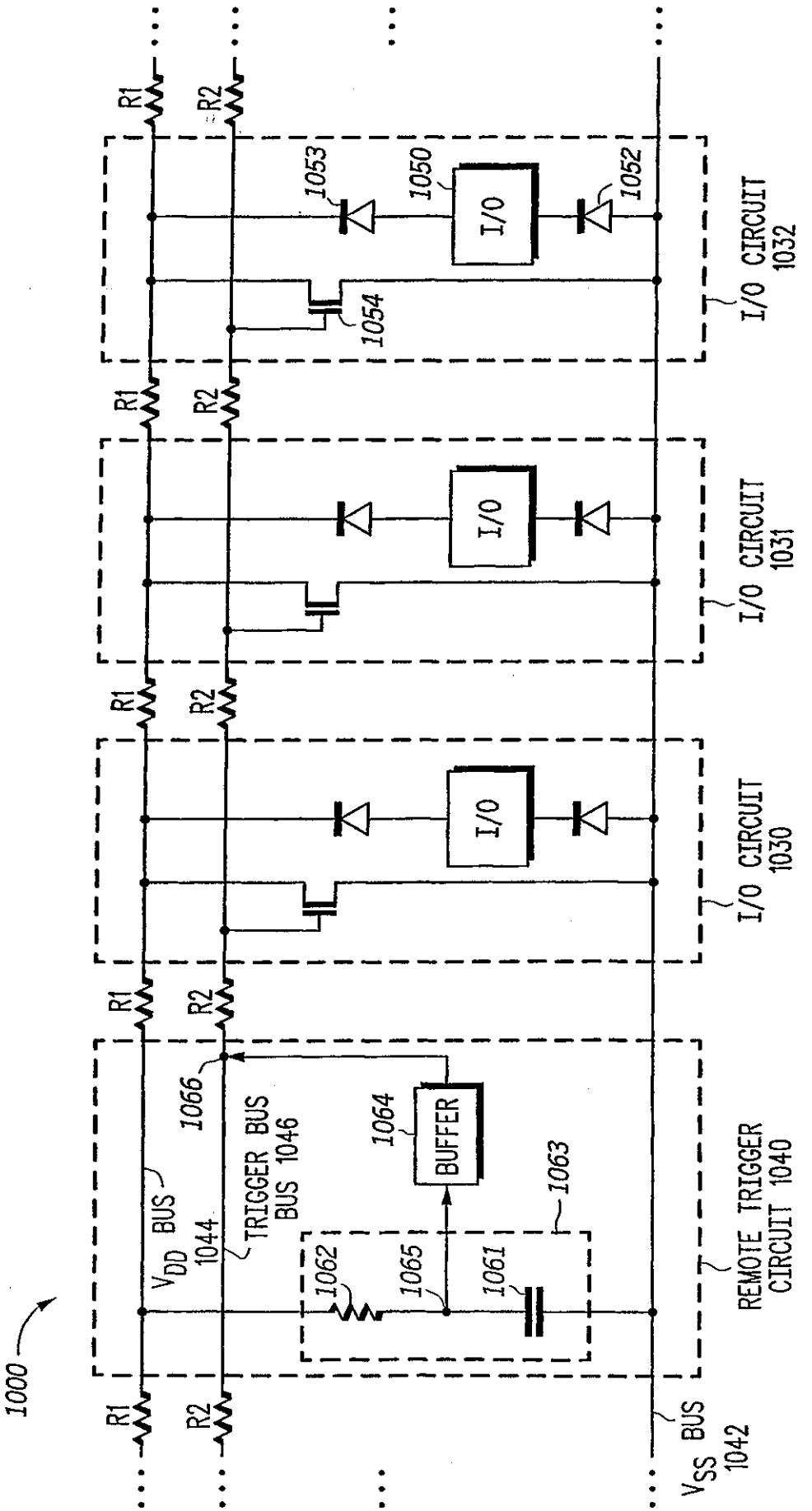


FIG. 1
-PRIOR ART-

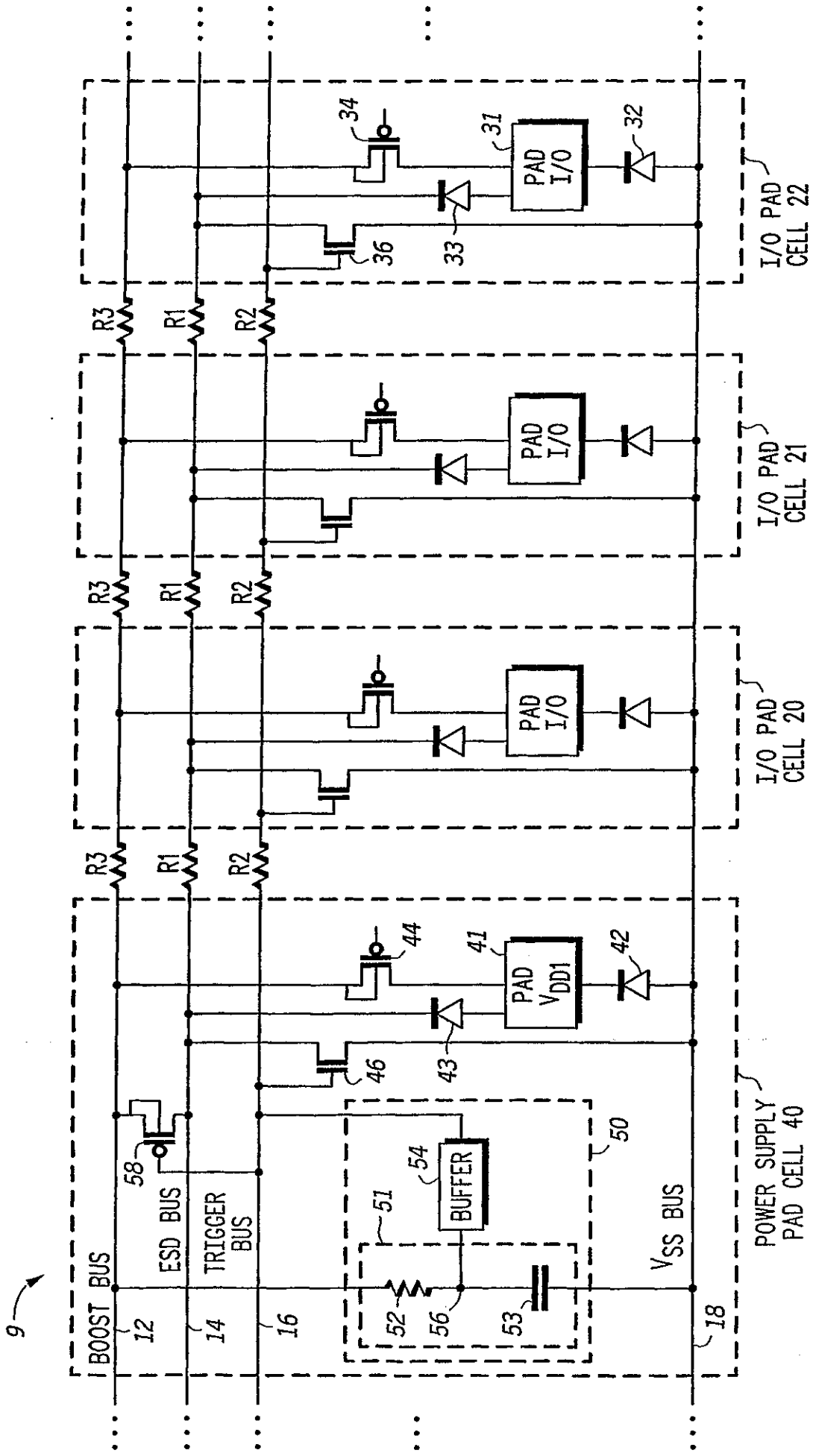

9
BOOST BUS
12
ESD BUS
14
TRIGGER BUS
16
58
54
BUFFER
51
52
56
53
50
46
43
44
41
PAD V_{DD1}
42
V_{SS} BUS
18
POWER SUPPLY PAD CELL 40
R3
R1
R2
36
33
34
31
PAD I/O
32
I/O PAD CELL 20
I/O PAD CELL 21
I/O PAD CELL 22

FIG.2

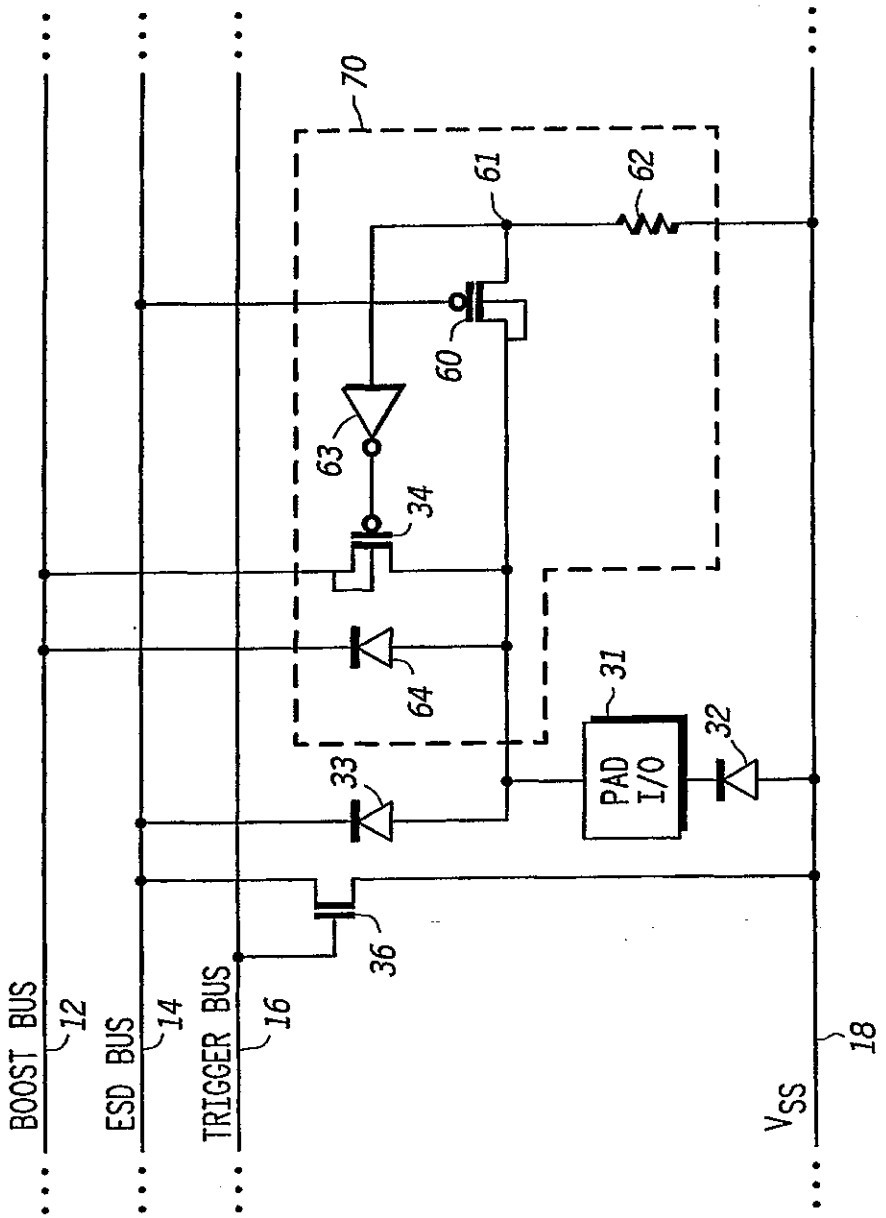

BOOST BUS
12
ESD BUS
14
TRIGGER BUS
16
70
61
62
60
63
34
64
31
32
33
36
PAD
I/O
V_{SS}
18

FIG.3

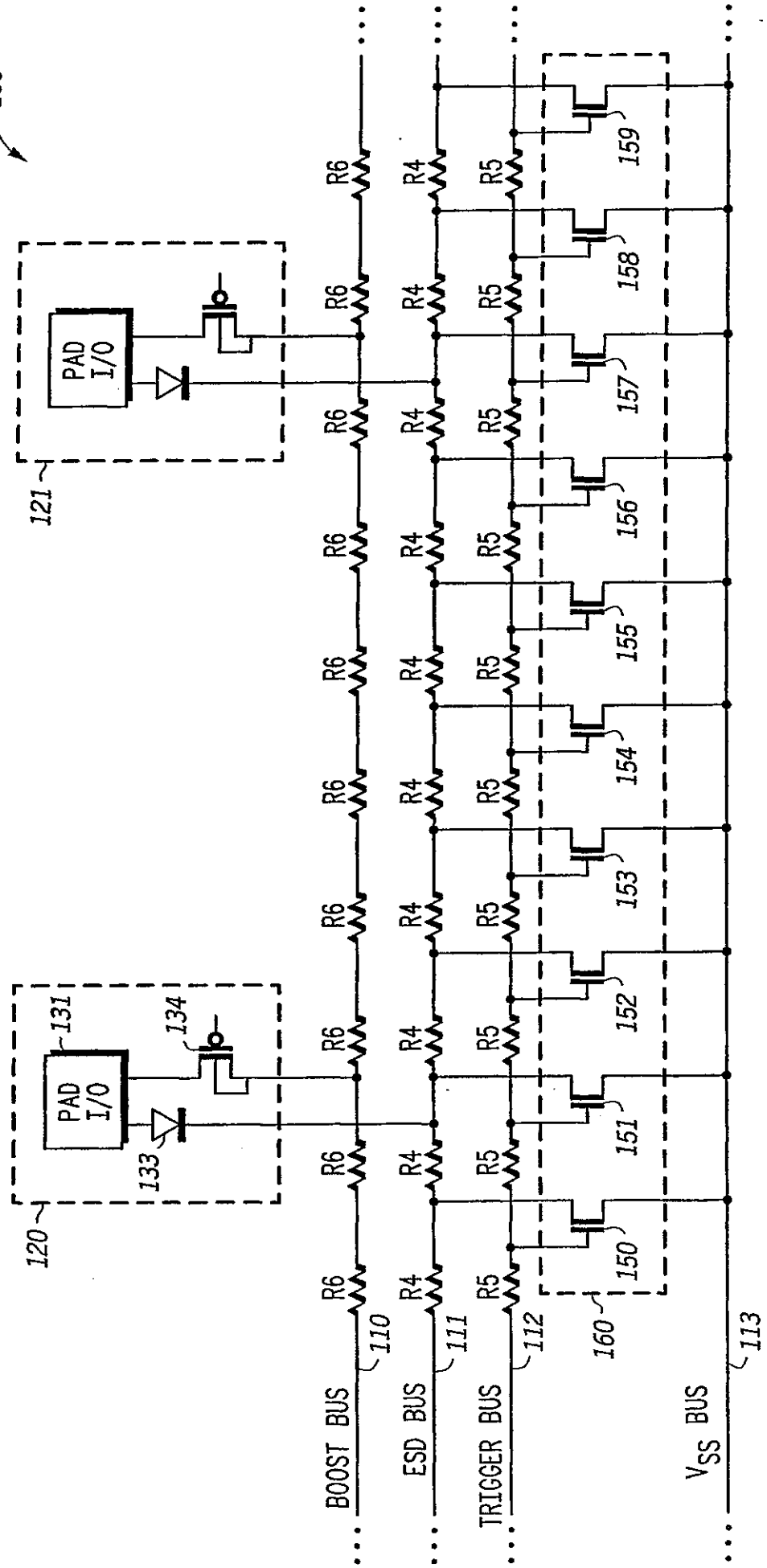

100
PAD I/O
121
120
131
134
133
R6
R4
R5
159
158
157
156
155
154
153
152
151
150
160
BOOST BUS
110
ESD BUS
111
TRIGGER BUS
112
V_{SS} BUS
113

FIG. 4

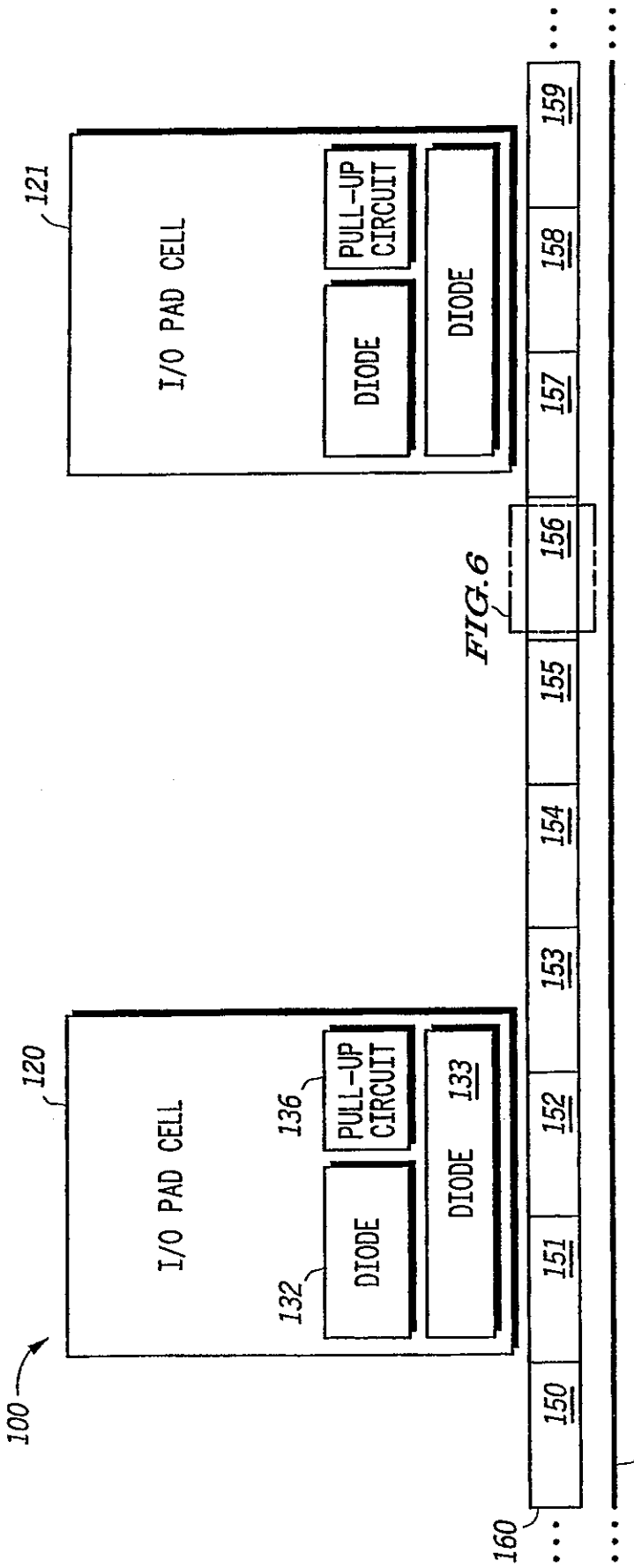

100
120
I/O PAD CELL
DIODE
132
PULL-UP CIRCUIT
136
DIODE 133
121
I/O PAD CELL
DIODE
DIODE
PULL-UP CIRCUIT
150
151
152
153
154
155
156
157
158
159
160
216

FIG.5

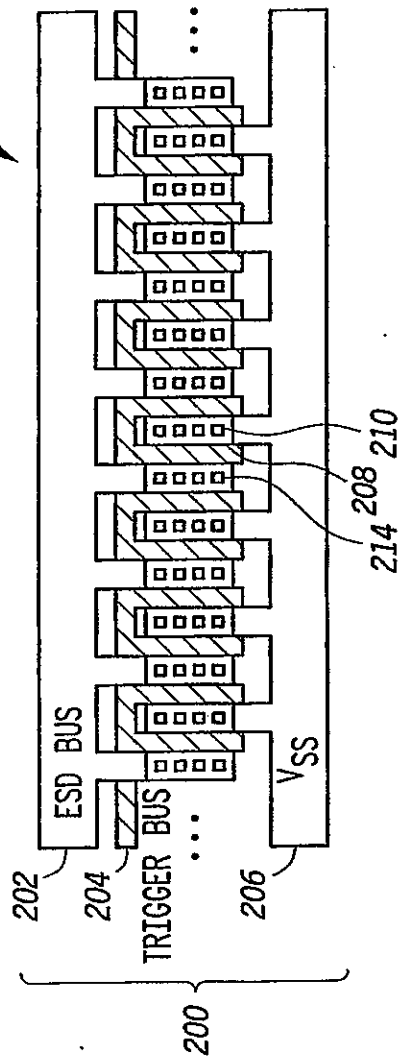

156
ESD BUS
TRIGGER BUS
V_{SS}
202
204
206
200
208
210
214

FIG.6