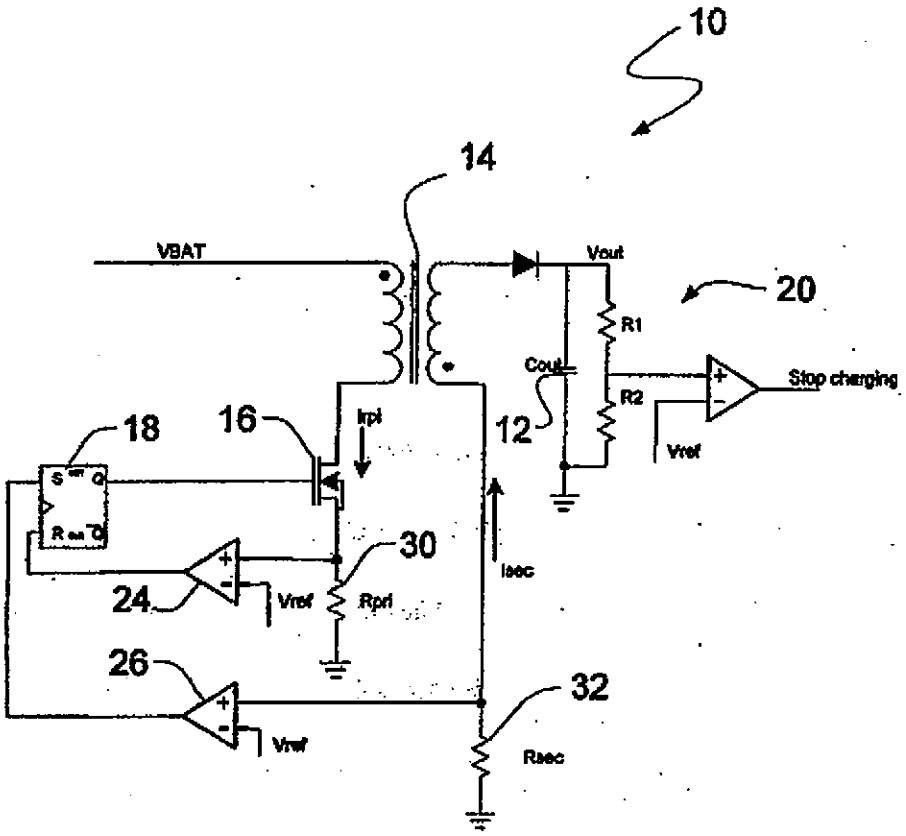

10
14
VBAT
Vout
20
R1
Cout
R2
Stop charging
Vref
18
16
Ipri
12
30
Isec
24
Vref
Rpri
26
32
Vref
Rsec

FIG. 1

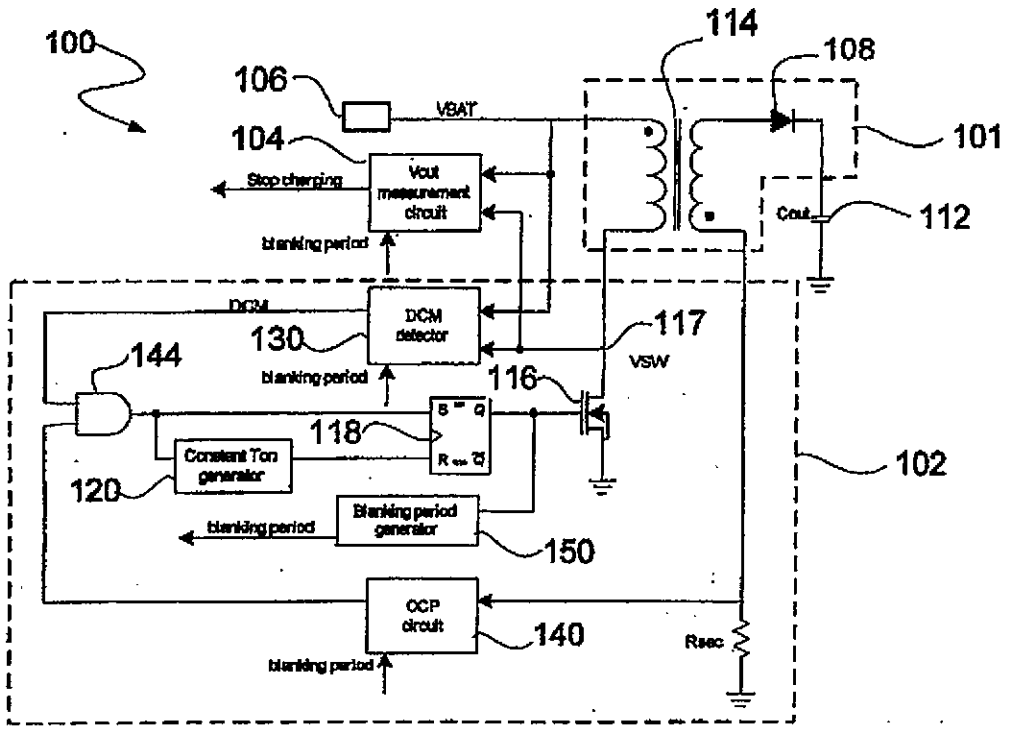

100
106
VBAT
104
Stop charging
Vout measurement circuit
blanking period
114
108
101
Cout
112
DCM
DCM detector
130
117
VSW
144
116
118
Constant Ton generator
120
blanking period
Blanking period generator
150
102
OCP circuit
140
Rsec
blanking period

FIG. 2A

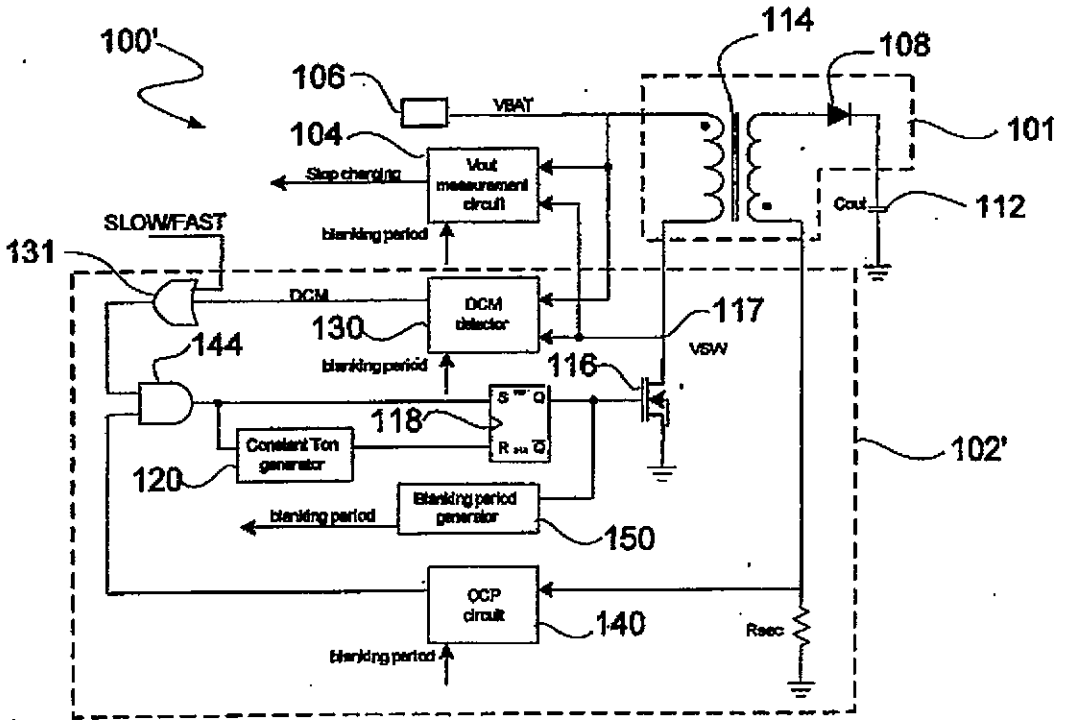

100'
106
VBAT
104
Stop charging
Vout measurement circuit
blanking period
114
108
101
Cout
112
SLOW/FAST
131
DCM
DCM detector
130
117
VSW
144
116
118
Constant Ton generator
120
blanking period
Blanking period generator
150
102'
OCP circuit
140
Rsec
blanking period

FIG. 2B

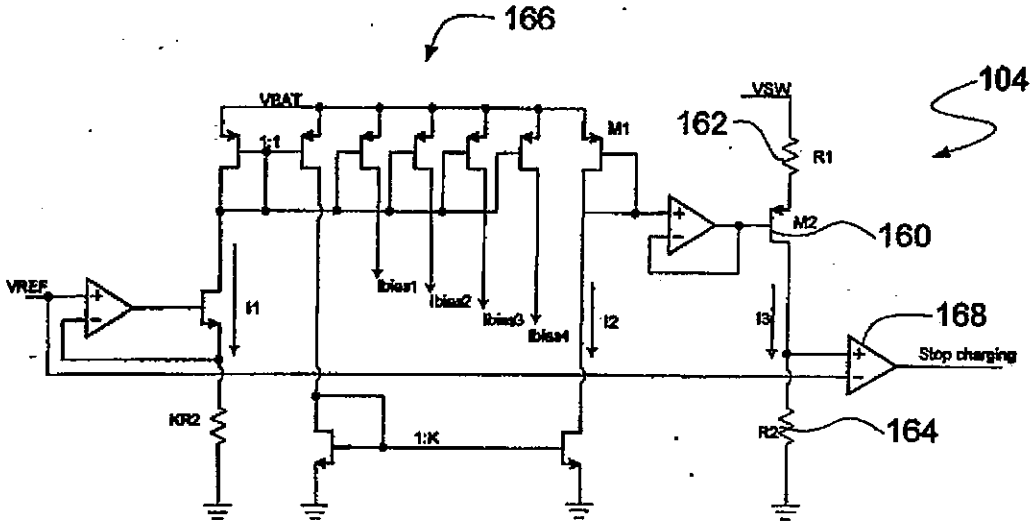

166
104
VBAT
1:1
M1
VSW
162
R1
M2
160
VREF
I1
Ibias1
Ibias2
Ibias3
Ibias4
I2
I3
168
Stop charging
KR2
1:K
R2
164

FIG. 3

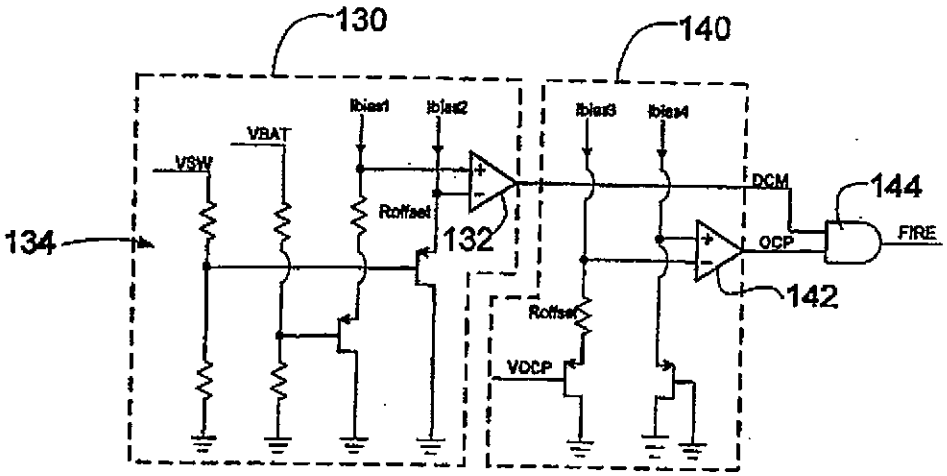

130
140
Ibias1
Ibias2
Ibias3
Ibias4
VBAT
VSW
Roffset
132
134
DCM
144
OCP
FIRE
142
Roffset
VOCP

FIG. 4

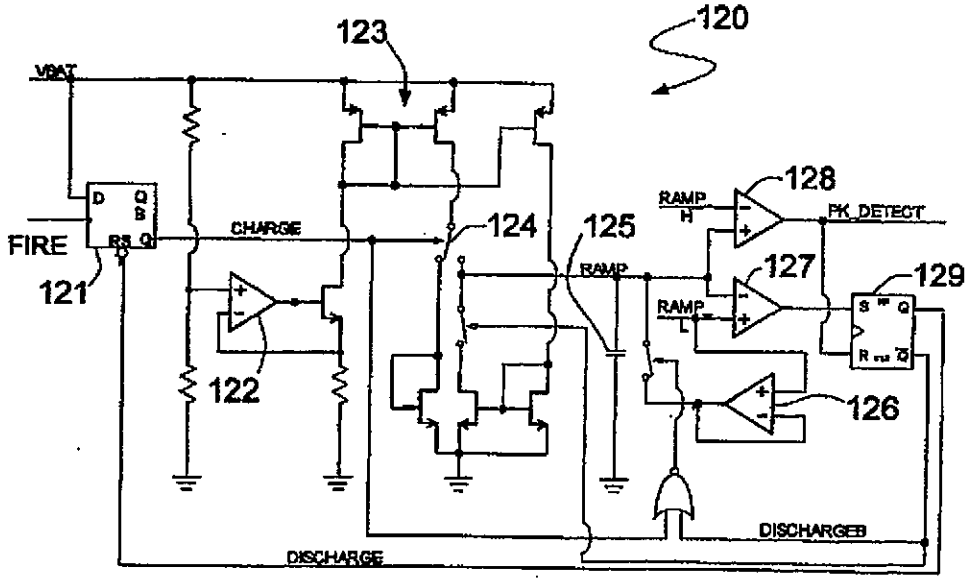

123
120
VBAT
128
RAMP
H
PK_DETECT
D
Q
FIRE
CHARGE
124
125
127
129
RAMP
RAMP
L
121
122
126
DISCHARGEB
DISCHARGE

FIG. 5

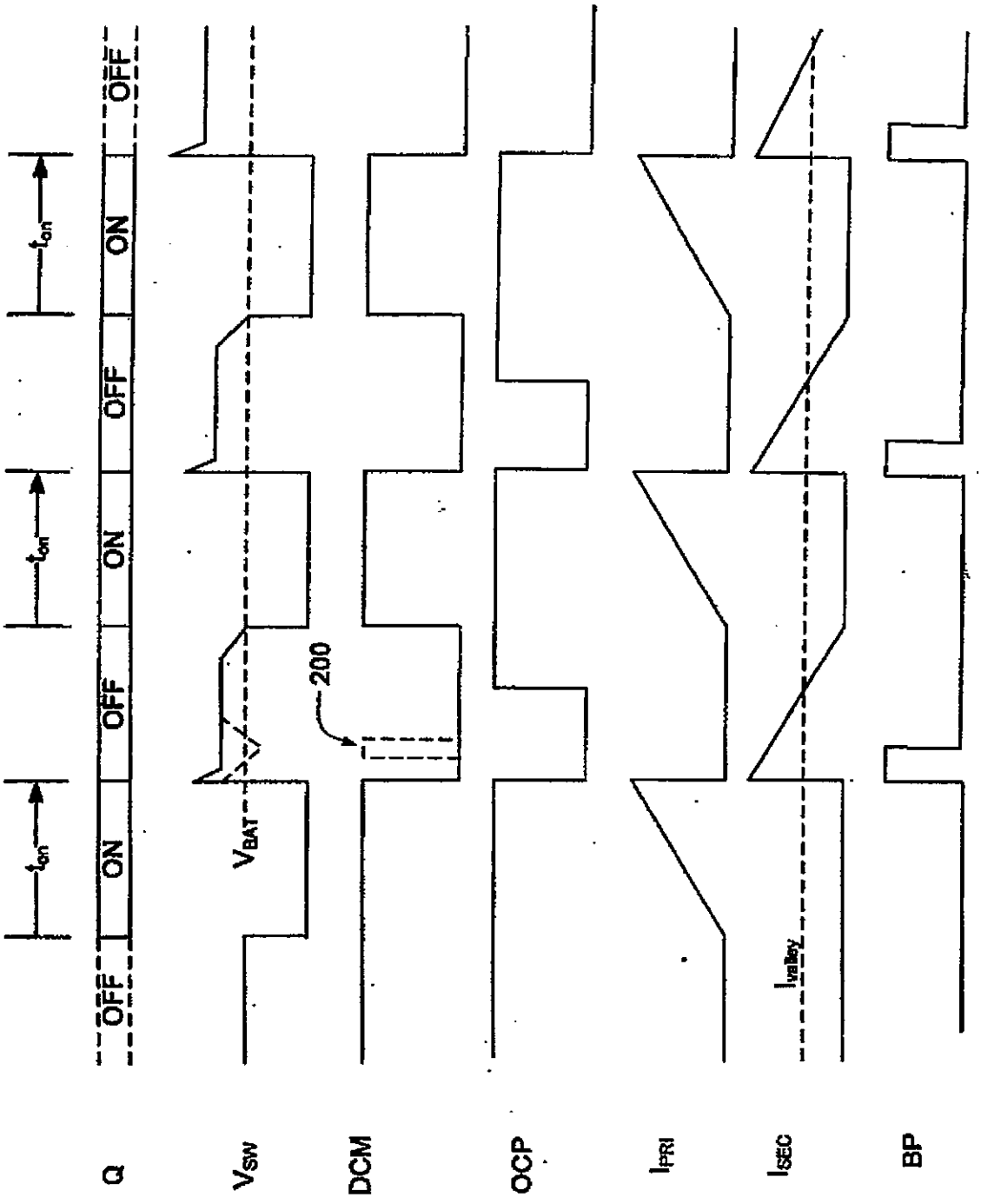


FIG. 6

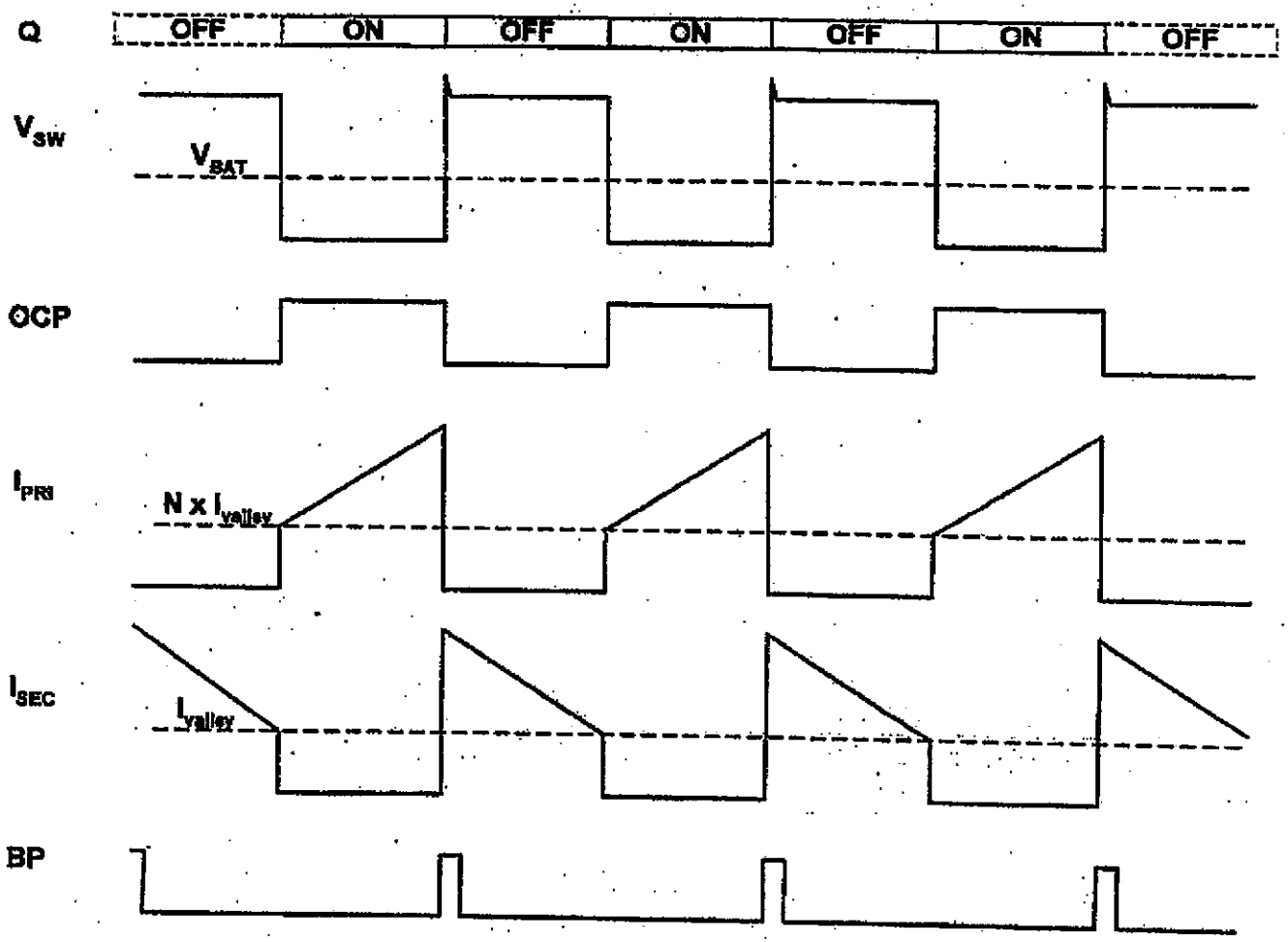


Figure 7 - Continuous Current Operation