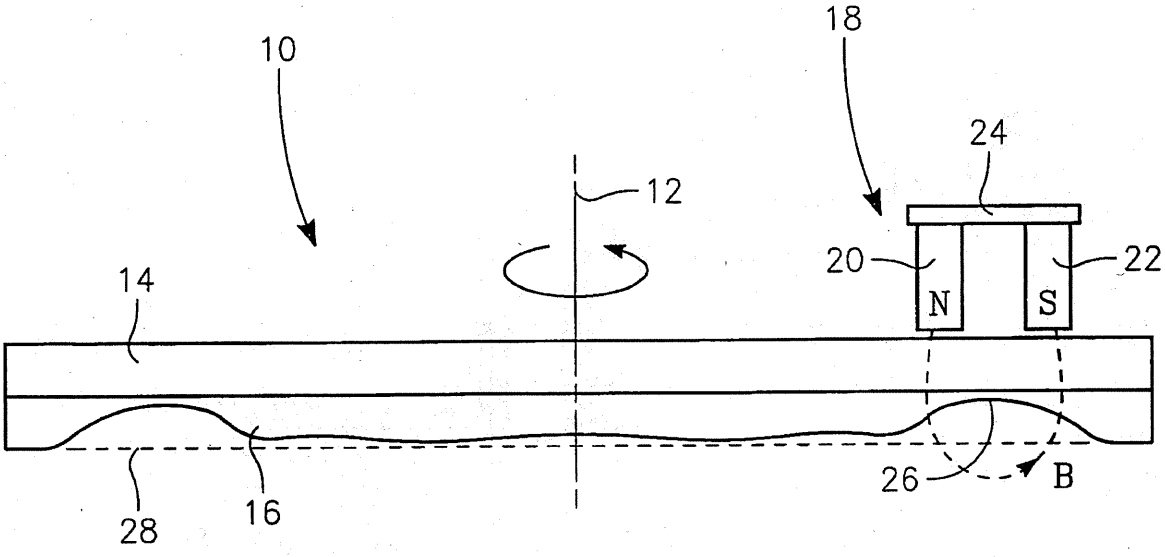


FIG. 1

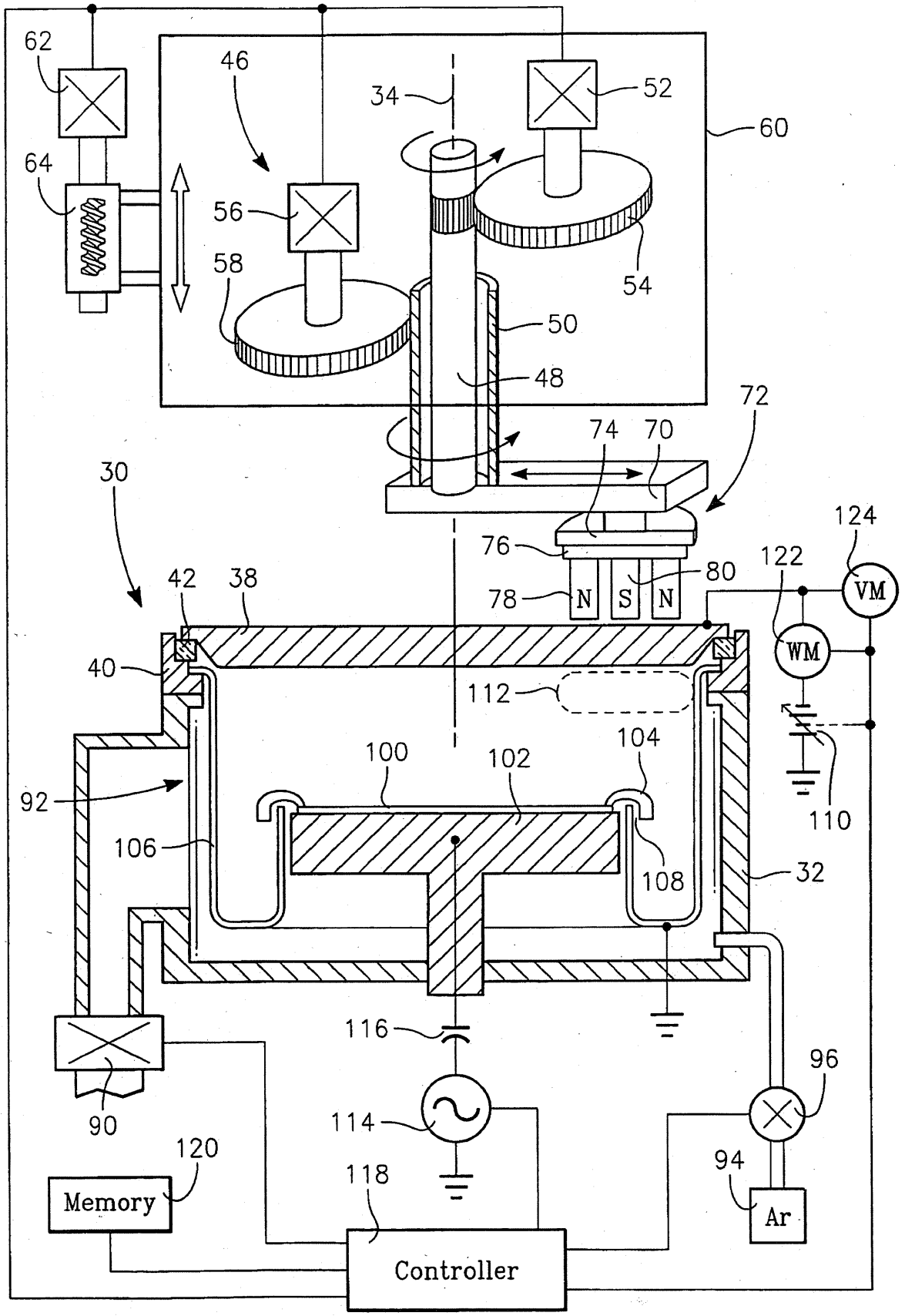

62
46
34
52
60
64
56
58
54
50
48
72
74
70
30
124
76
122
VM
42
38
78
N
S
N
80
WM
40
112
104
100
102
92
110
106
108
32
116
96
90
114
120
94
Memory
118
Ar
Controller

FIG. 2

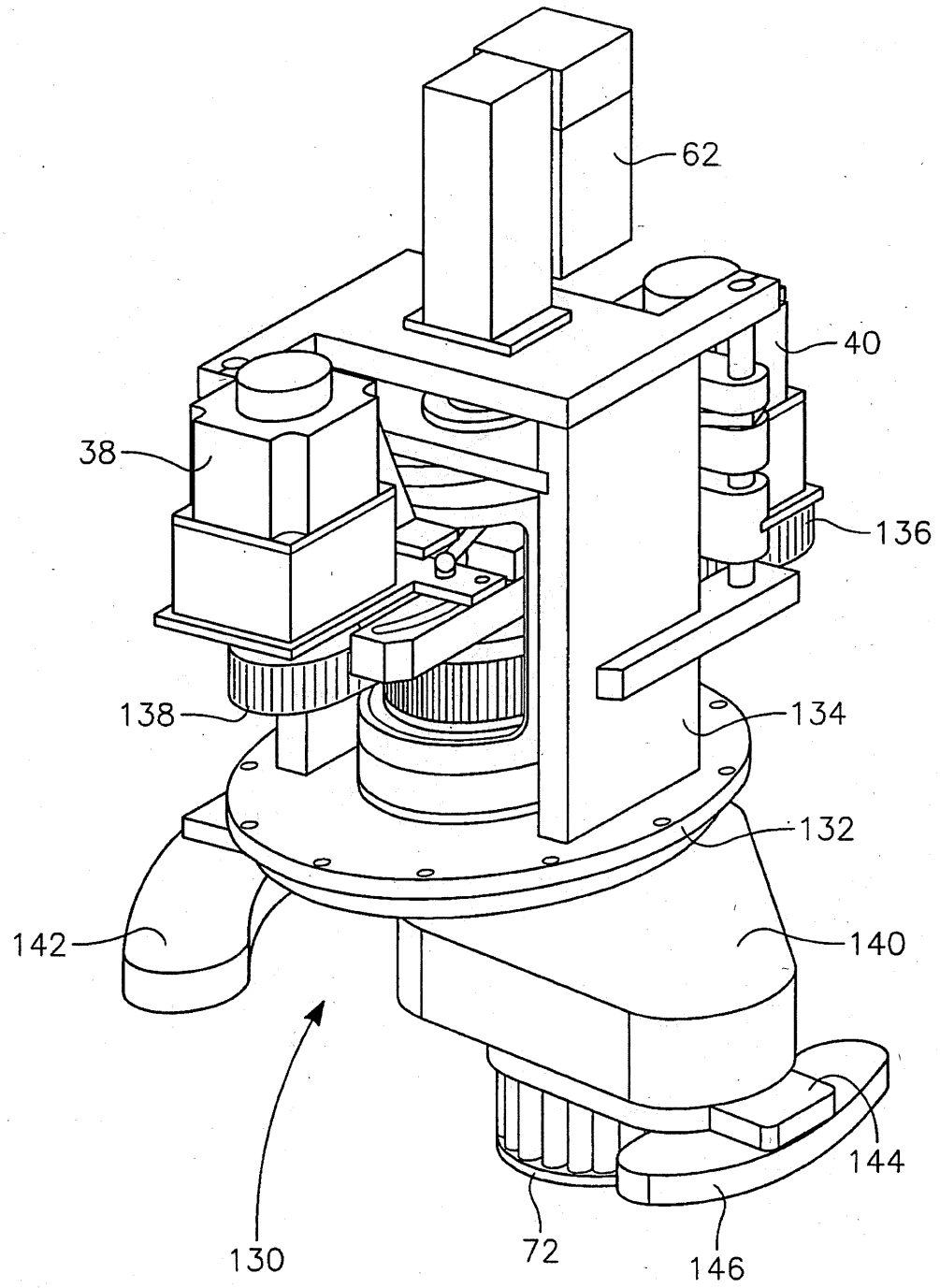


FIG. 3

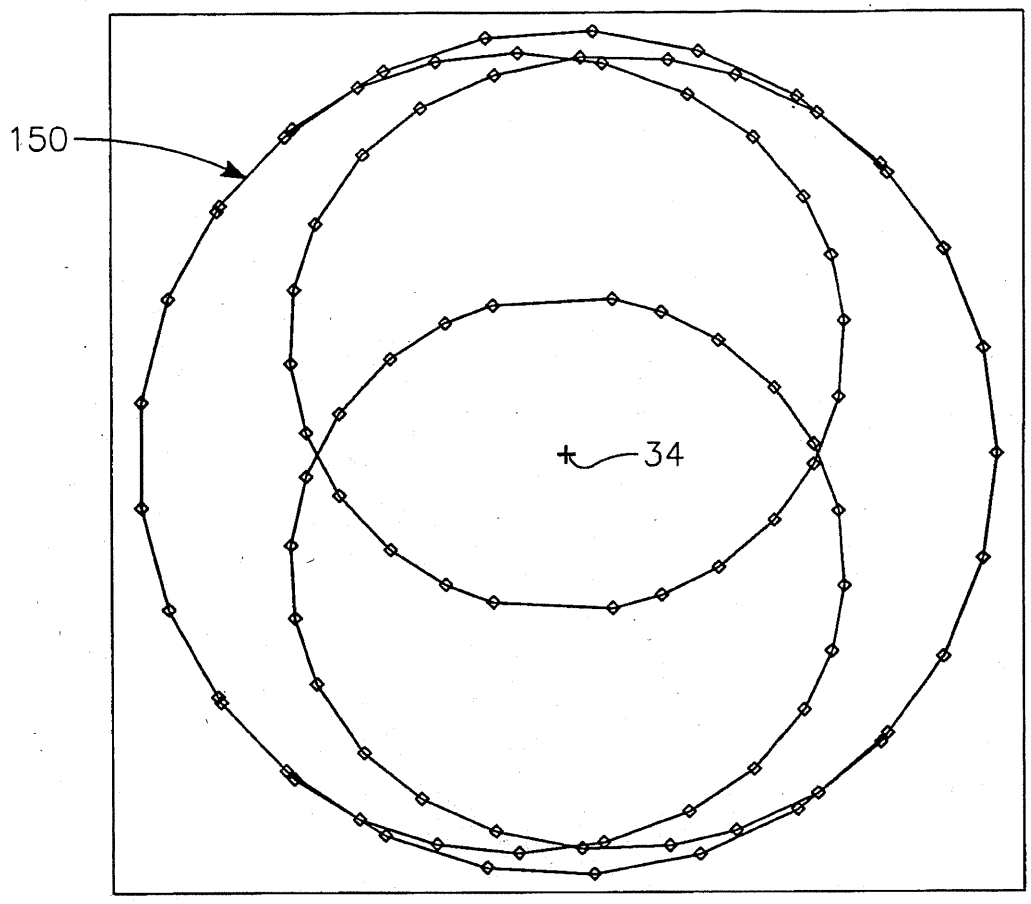

150
34

FIG. 4

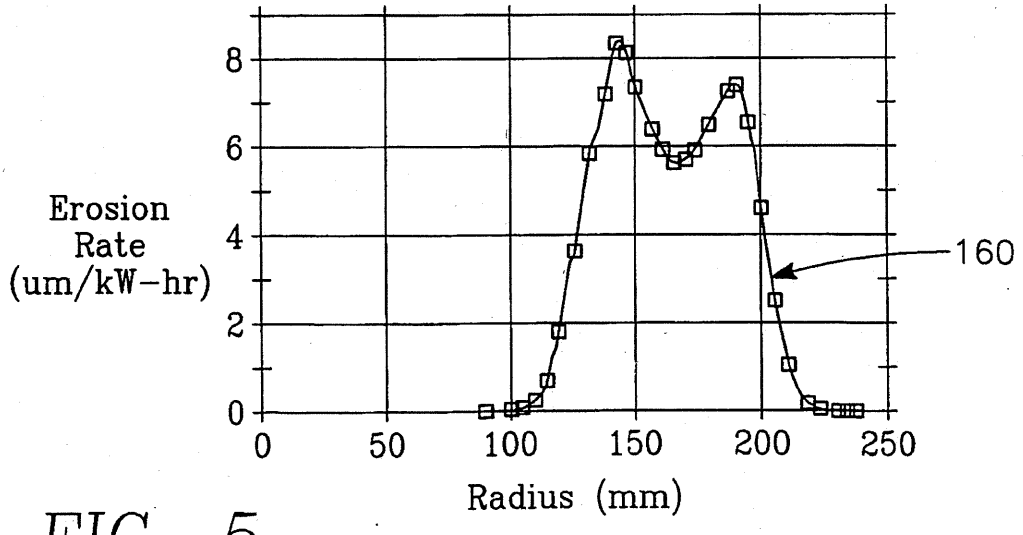

Erosion Rate (um/kW-hr)
0
2
4
6
8
0
50
100
150
200
250
Radius (mm)
160

FIG. 5

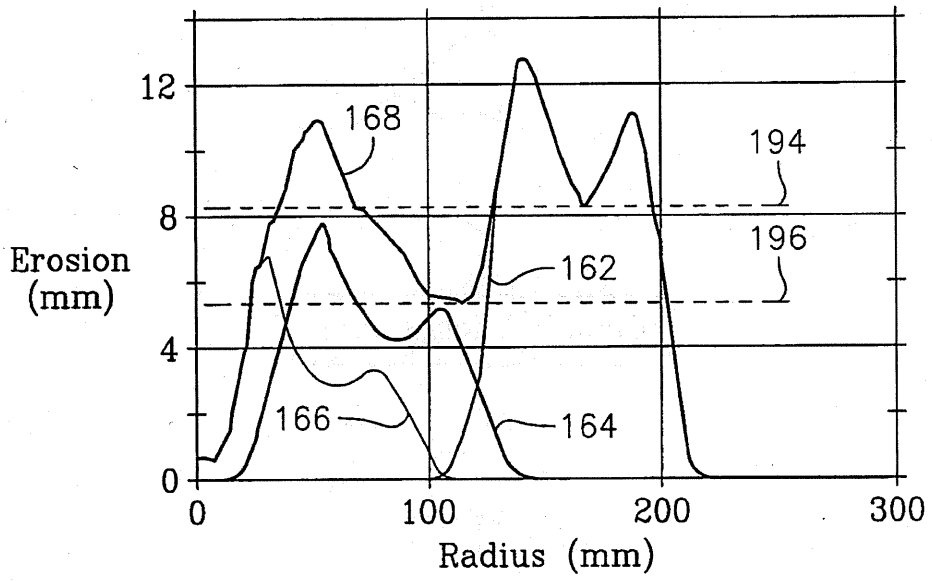

12
8
4
0
Erosion
(mm)
168
194
196
162
166
164
0
100
200
300
Radius (mm)

FIG. 6

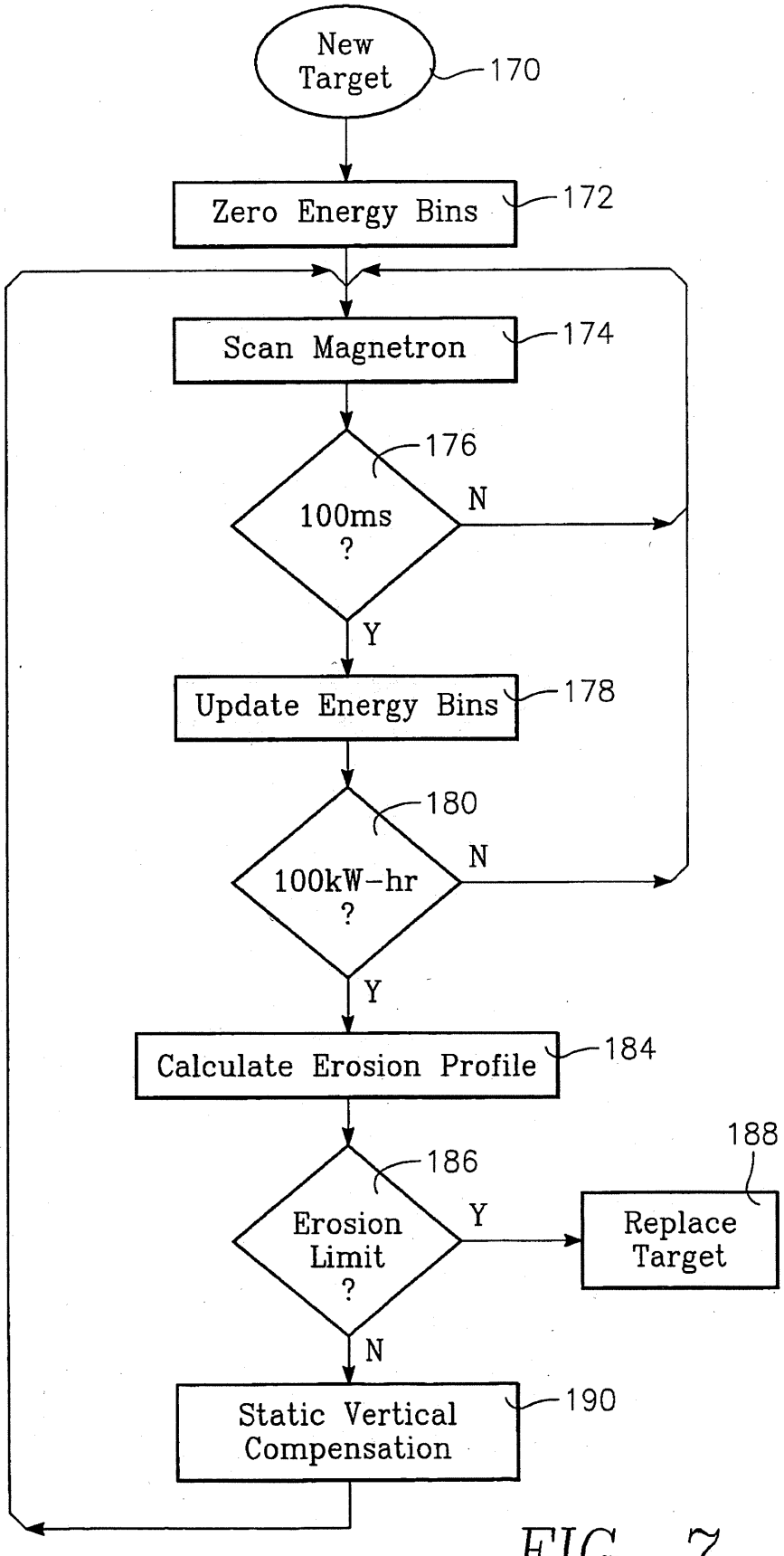

New Target
170
Zero Energy Bins
172
Scan Magnetron
174
176
100ms ?
N
Y
Update Energy Bins
178
180
100kW-hr ?
N
Y
Calculate Erosion Profile
184
188
186
Erosion Limit ?
Y
Replace Target
N
Static Vertical Compensation
190

FIG. 7

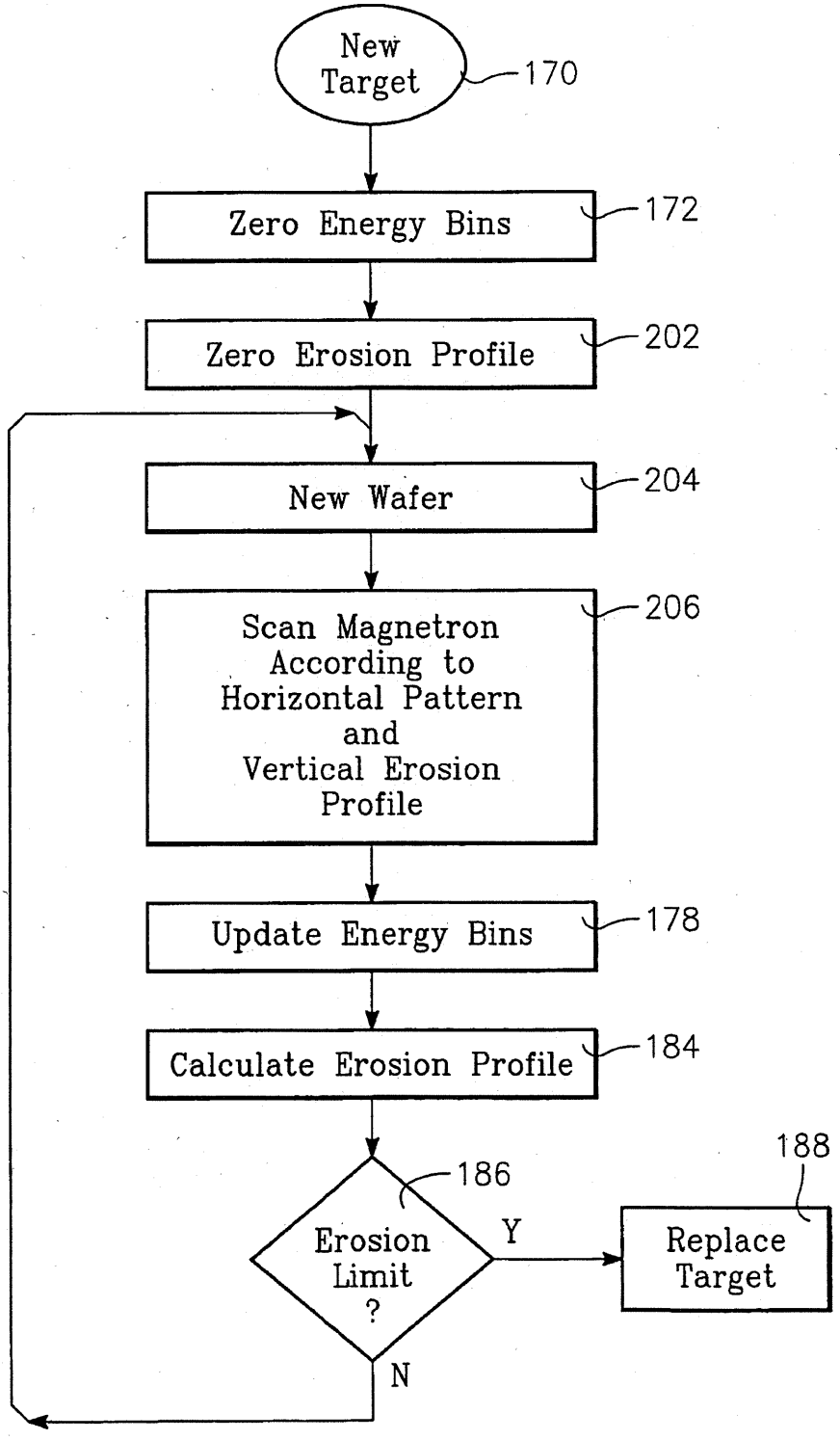

New Target
170
Zero Energy Bins
172
Zero Erosion Profile
202
New Wafer
204
Scan Magnetron According to Horizontal Pattern and Vertical Erosion Profile
206
Update Energy Bins
178
Calculate Erosion Profile
184
Erosion Limit ?
186
Y
N
Replace Target
188

FIG. 8