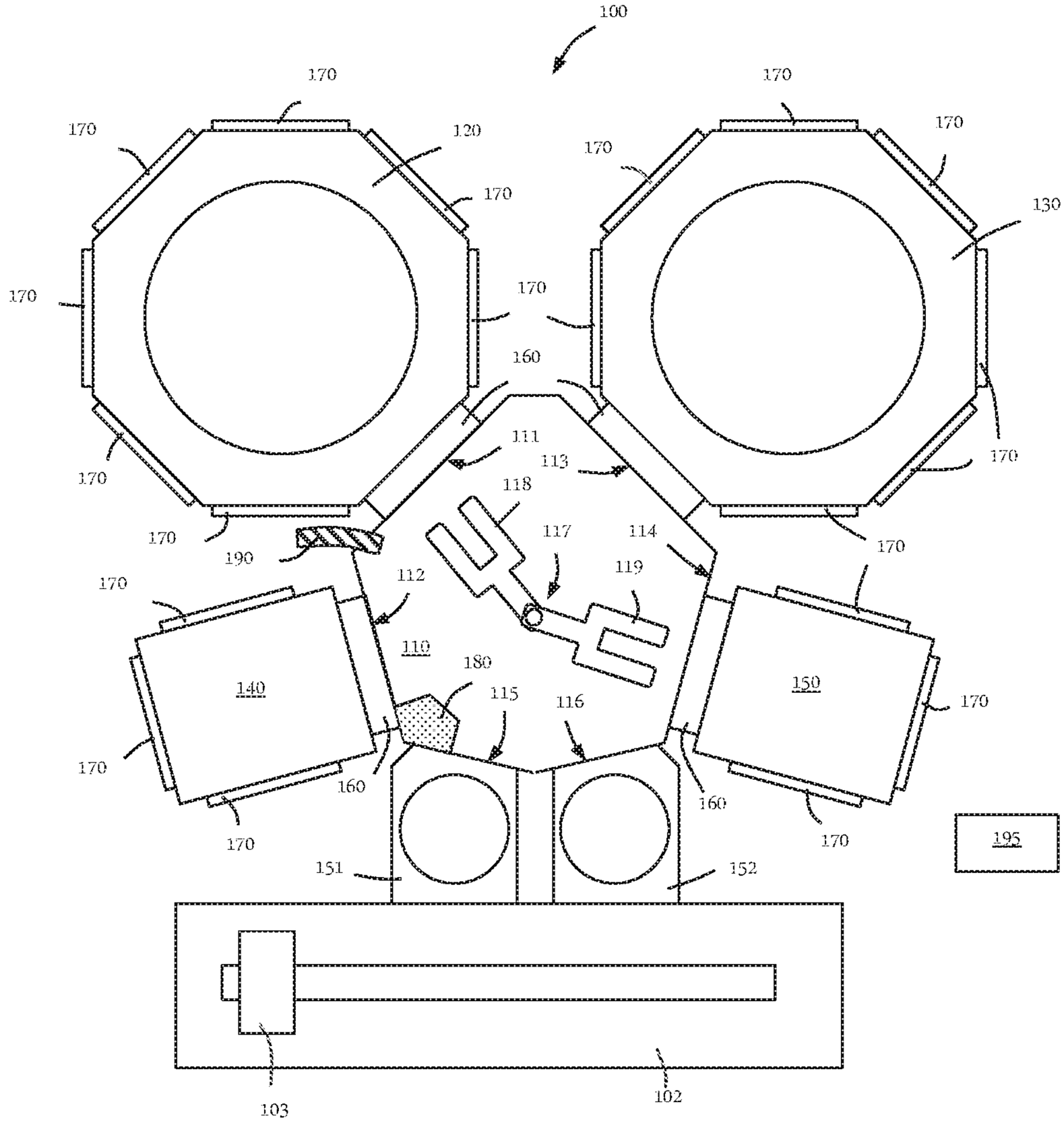

100
170
120
130
160
111
113
118
117
114
119
112
110
180
115
116
140
150
190
151
152
103
102
195
x
y

FIG. 1

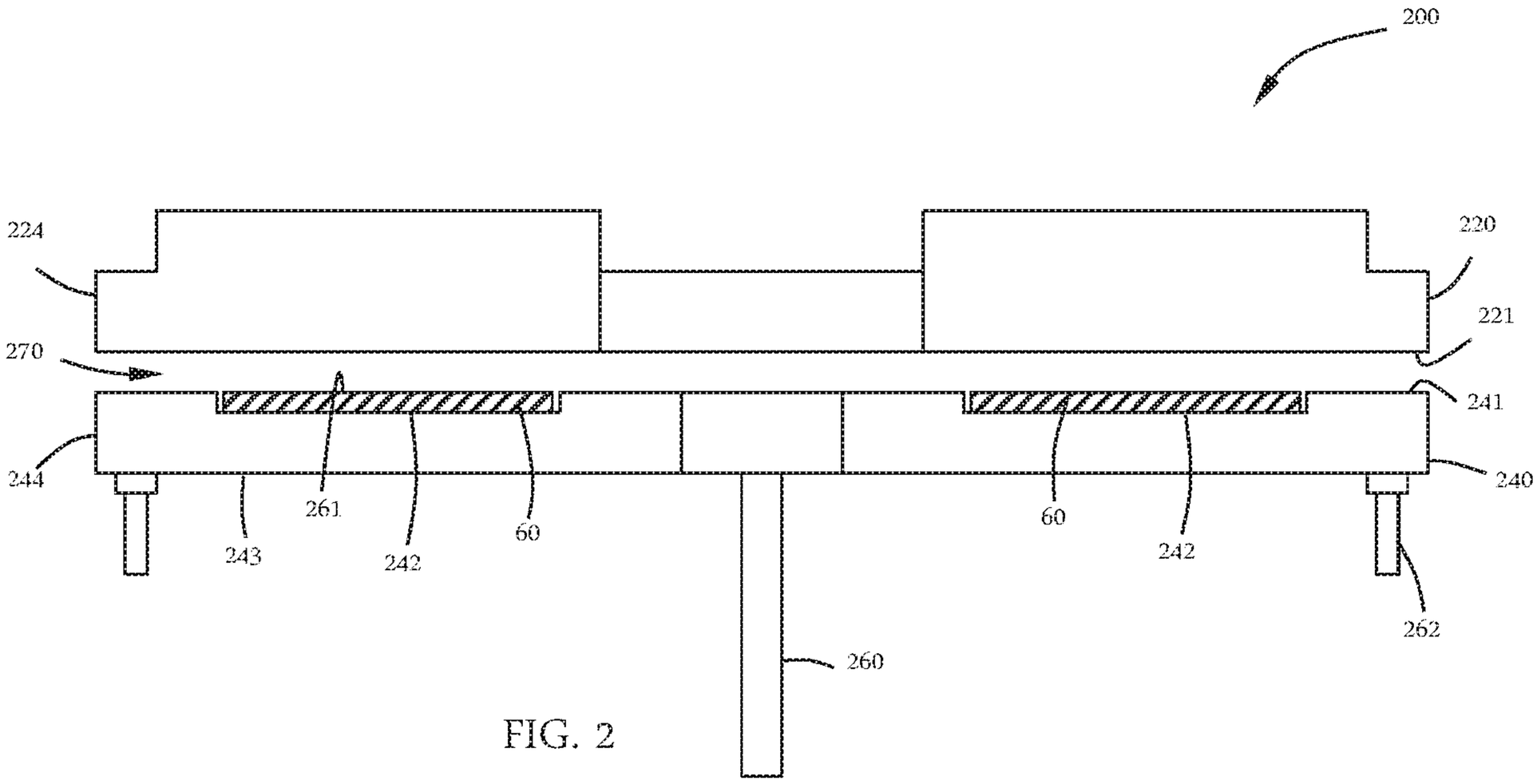

200
224
220
221
270
241
244
240
261
60
60
243
242
242
262
260

FIG. 2

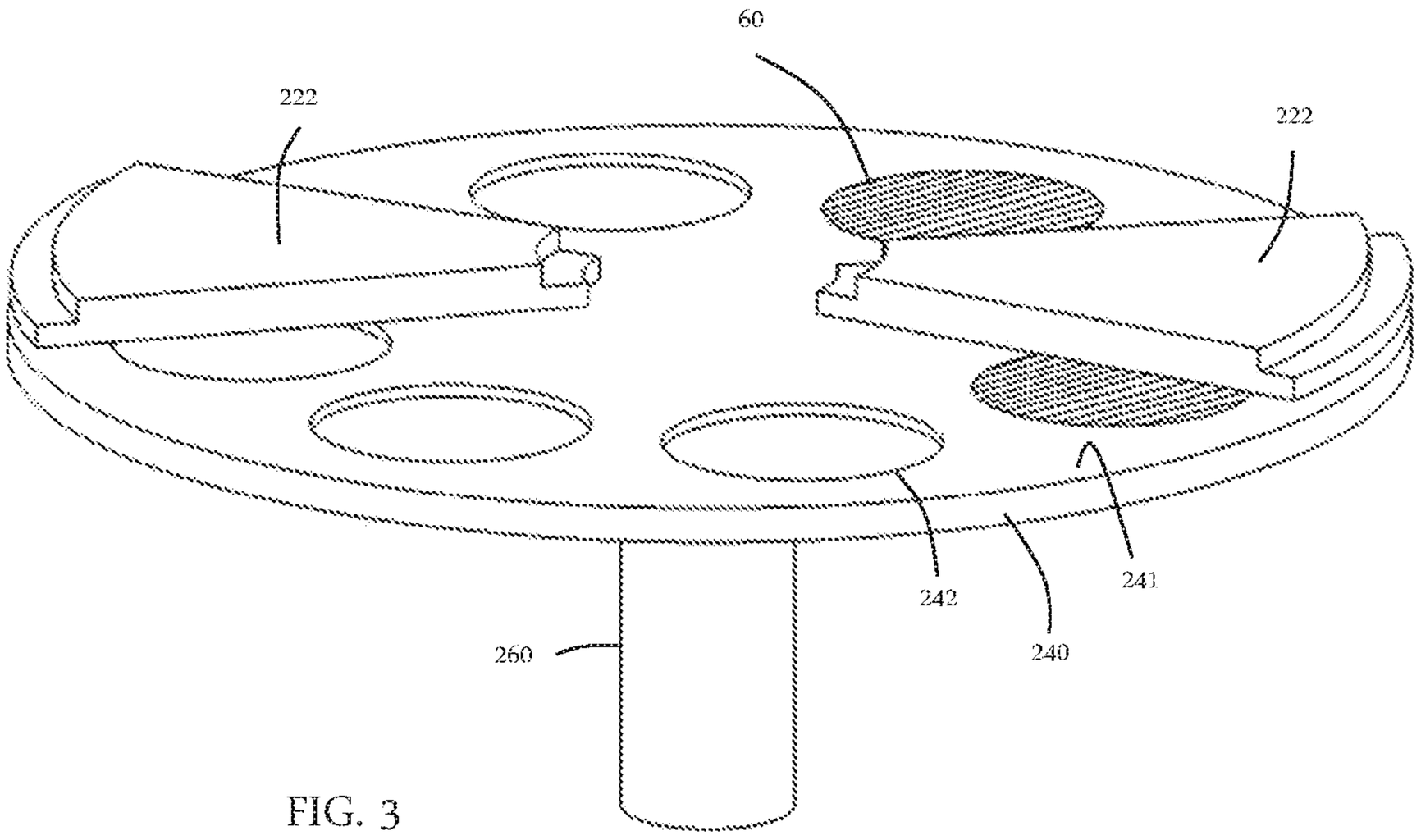

60
222
222
242
241
260
240

FIG. 3

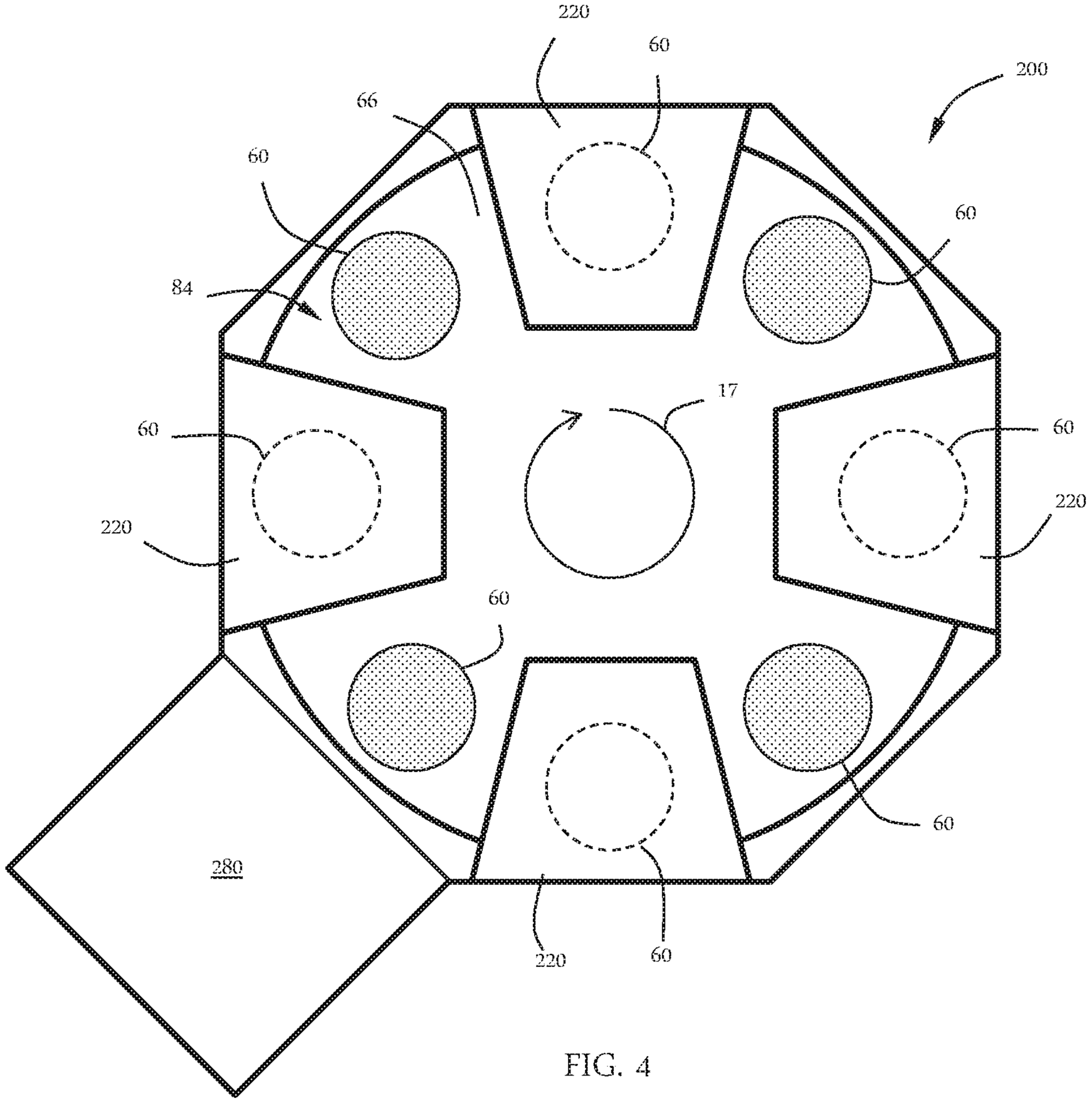


FIG. 4

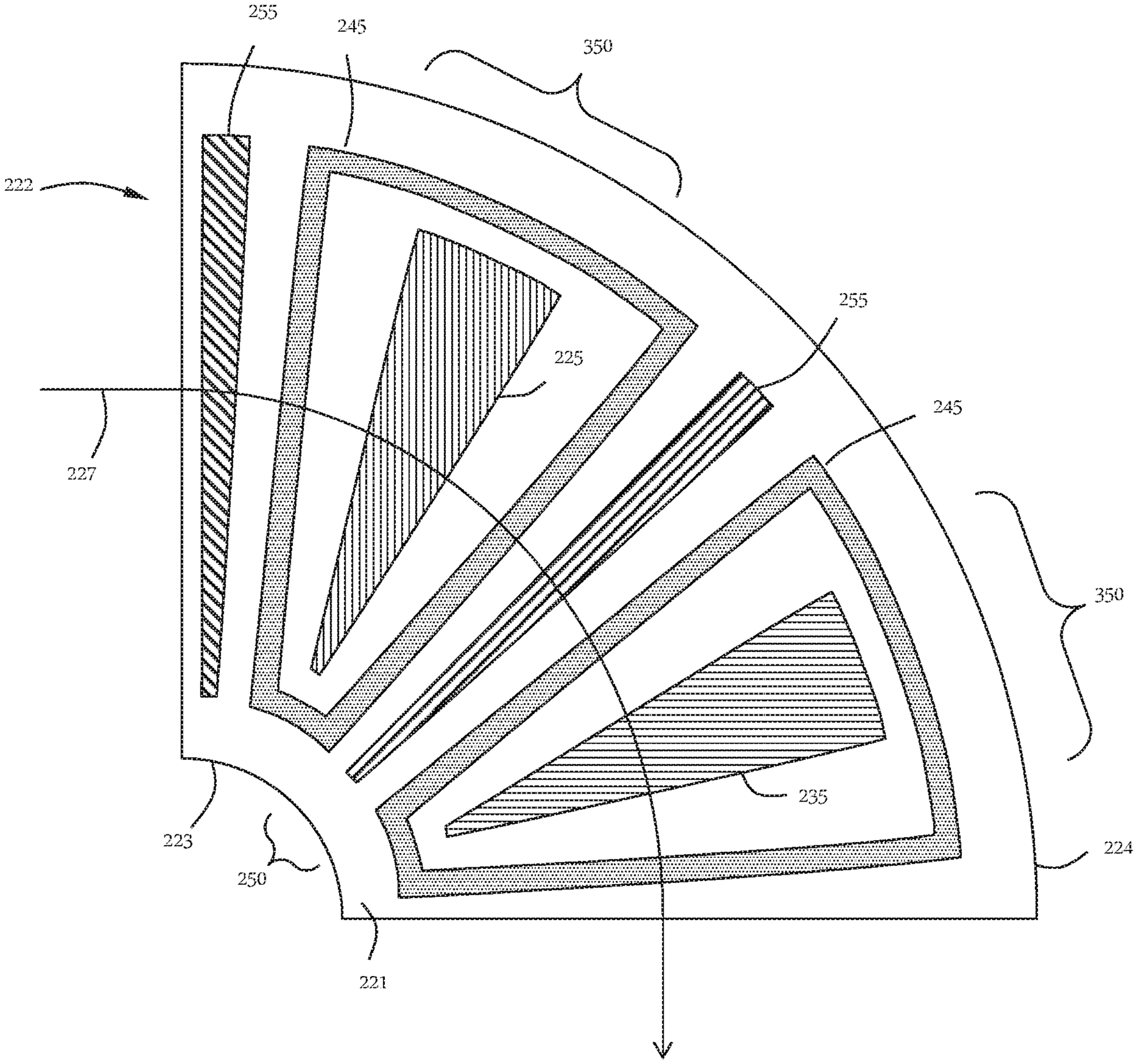


FIG. 5

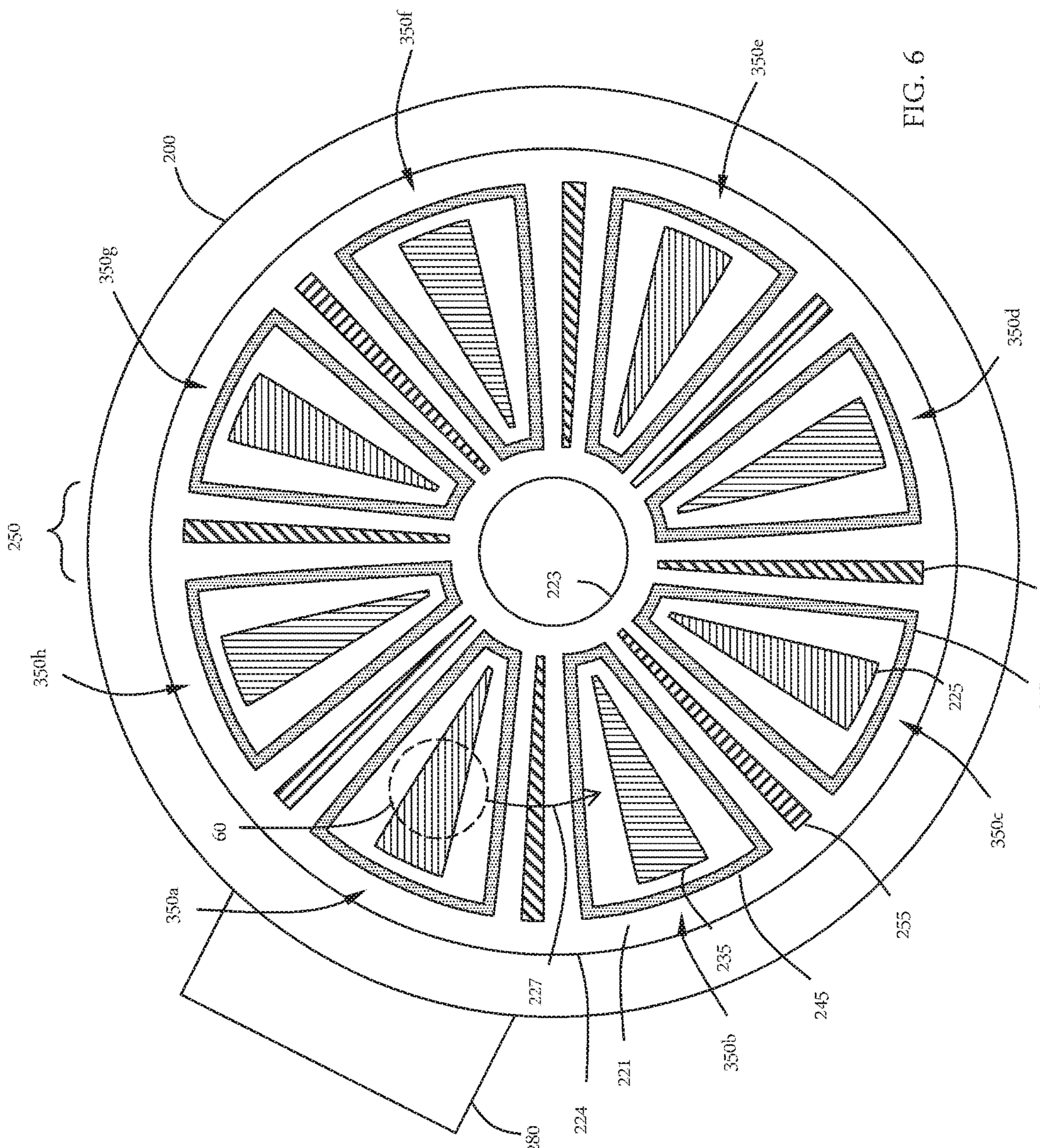

350f
350e
200
350g
350d
250
255
350h
223
225
245
60
350c
350a
255
227
235
245
221
350b
224
280

FIG. 6

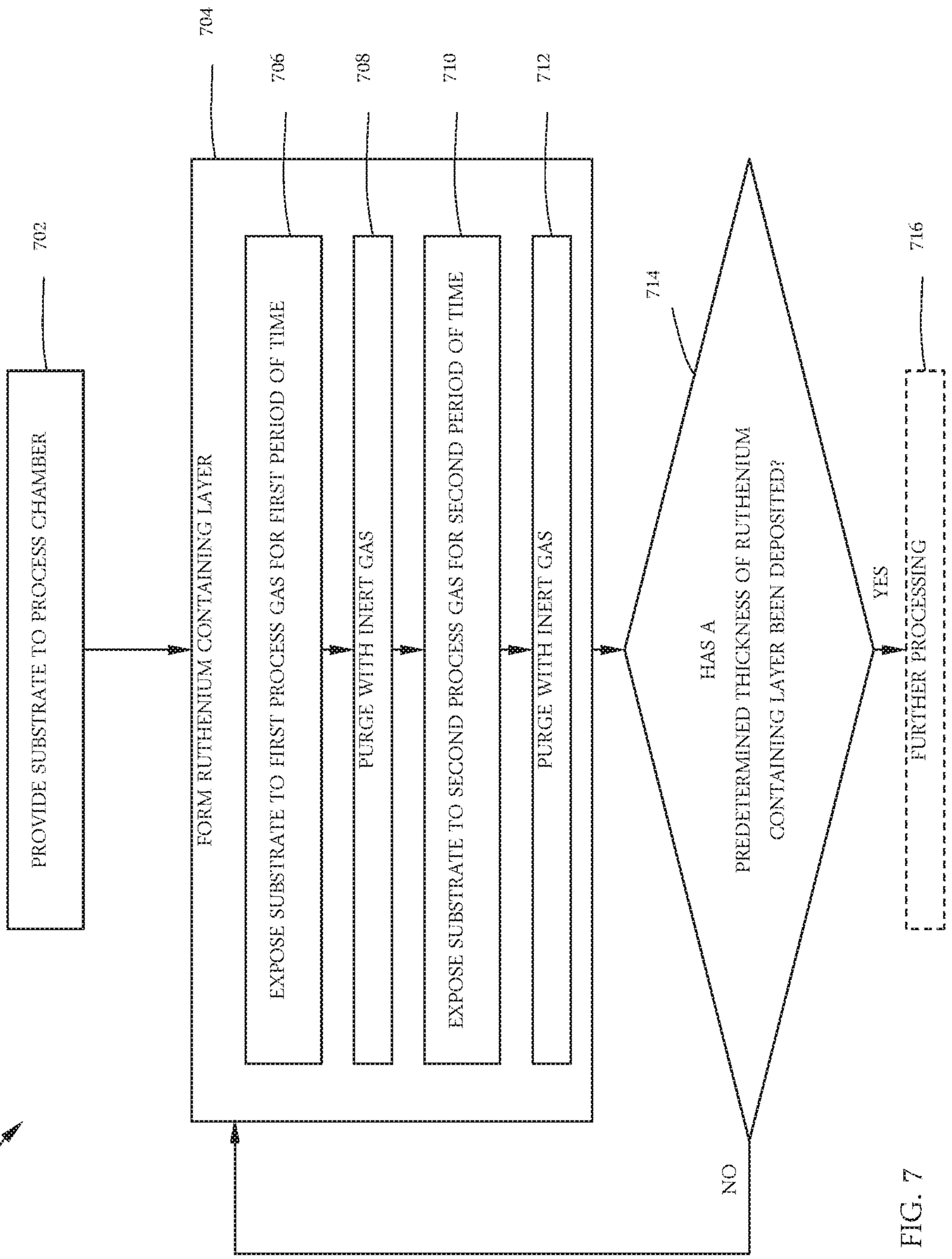

700
PROVIDE SUBSTRATE TO PROCESS CHAMBER
702
FORM RUTHENIUM CONTAINING LAYER
704
EXPOSE SUBSTRATE TO FIRST PROCESS GAS FOR FIRST PERIOD OF TIME
706
PURGE WITH INERT GAS
708
EXPOSE SUBSTRATE TO SECOND PROCESS GAS FOR SECOND PERIOD OF TIME
710
PURGE WITH INERT GAS
712
HAS A PREDETERMINED THICKNESS OF RUTHENIUM CONTAINING LAYER BEEN DEPOSITED?
714
NO
YES
FURTHER PROCESSING
716

FIG. 7