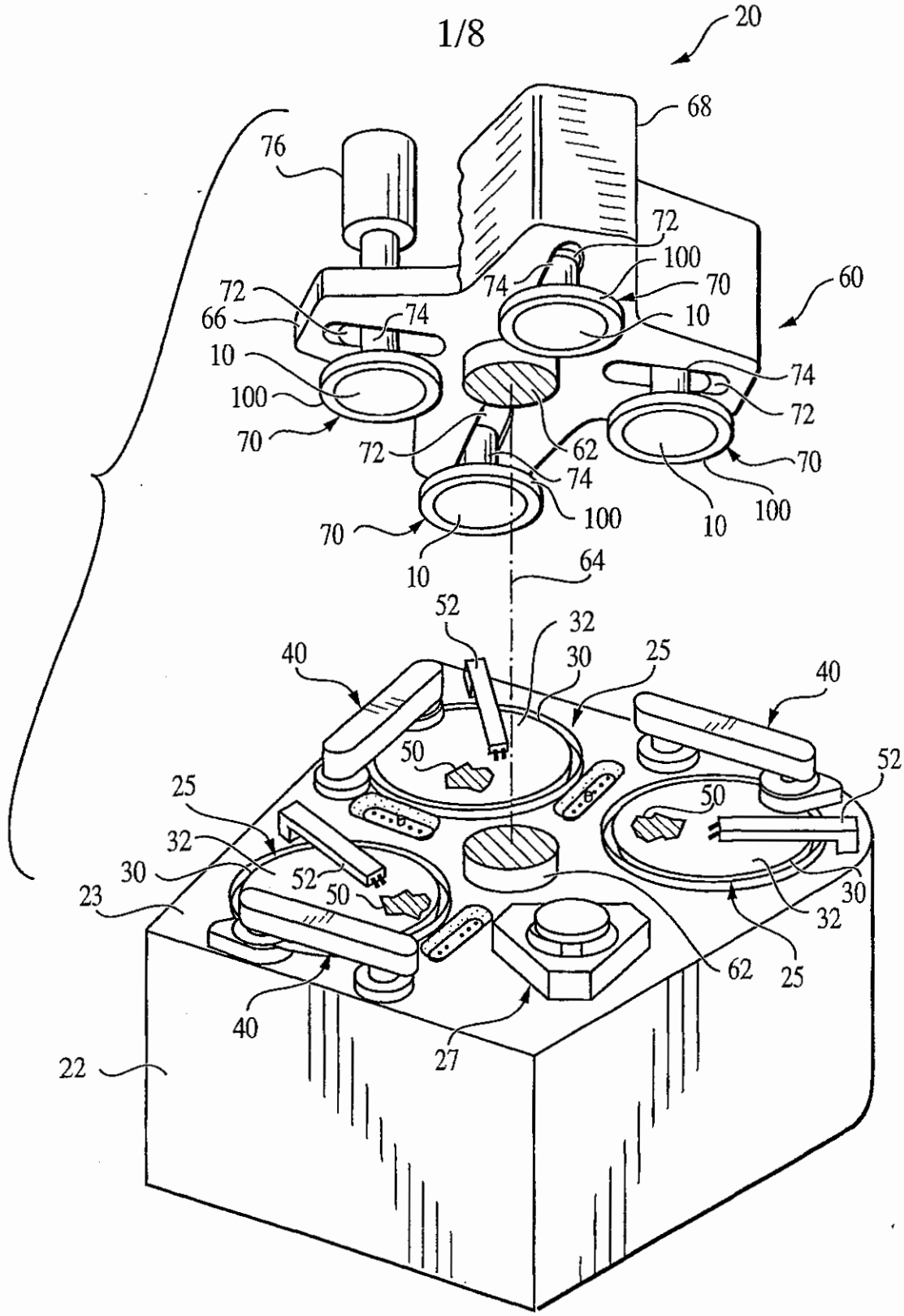

20
68
76
72
100
74
70
60
72
66
74
10
10
74
100
72
70
62
72
74
70
100
10
100
70
10
64
52
32
40
30
25
40
50
52
25
50
32
30
52
50
23
30
32
62
25
40
27
22

FIG. 1

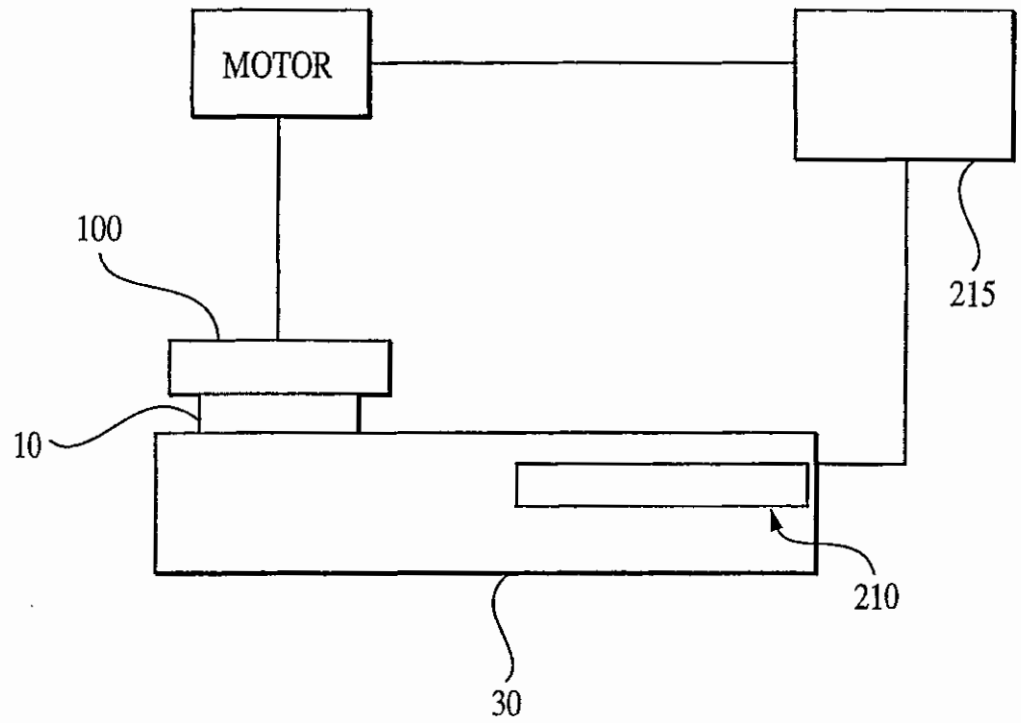


FIG. 2

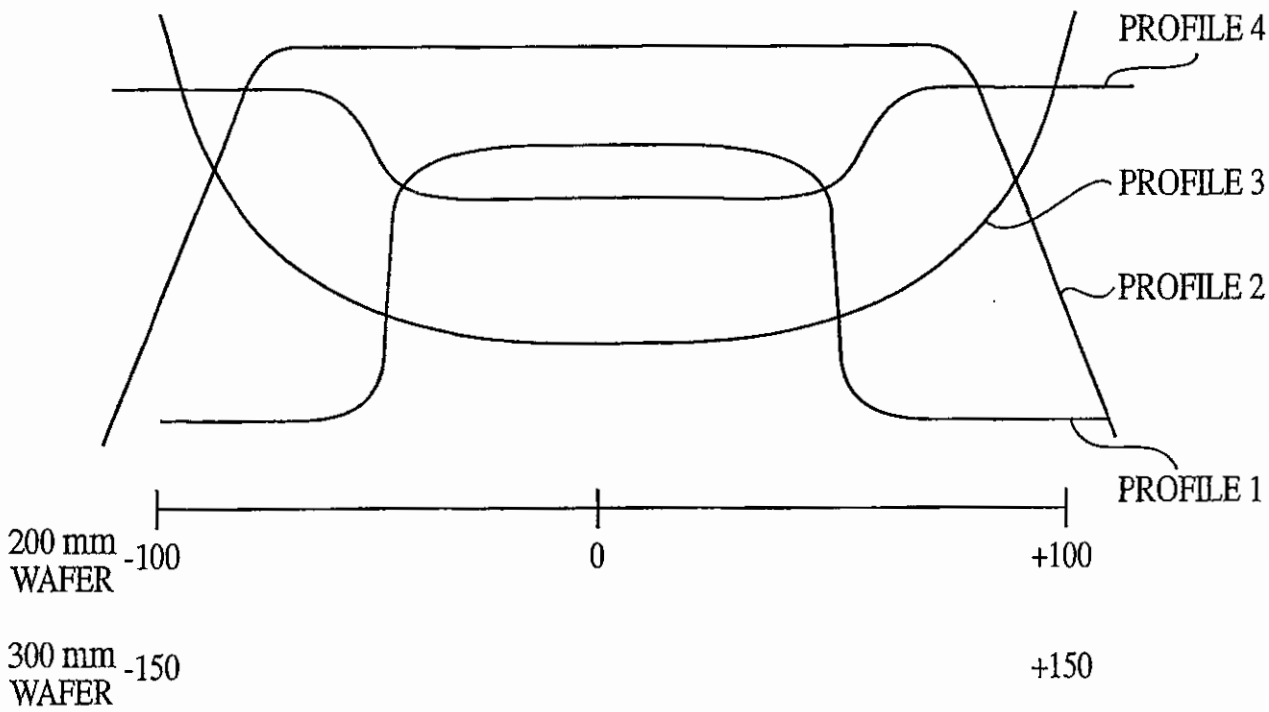

PROFILE 4
PROFILE 3
PROFILE 2
PROFILE 1
200 mm WAFER
-100
0
+100
300 mm WAFER
-150
+150

FIG. 3

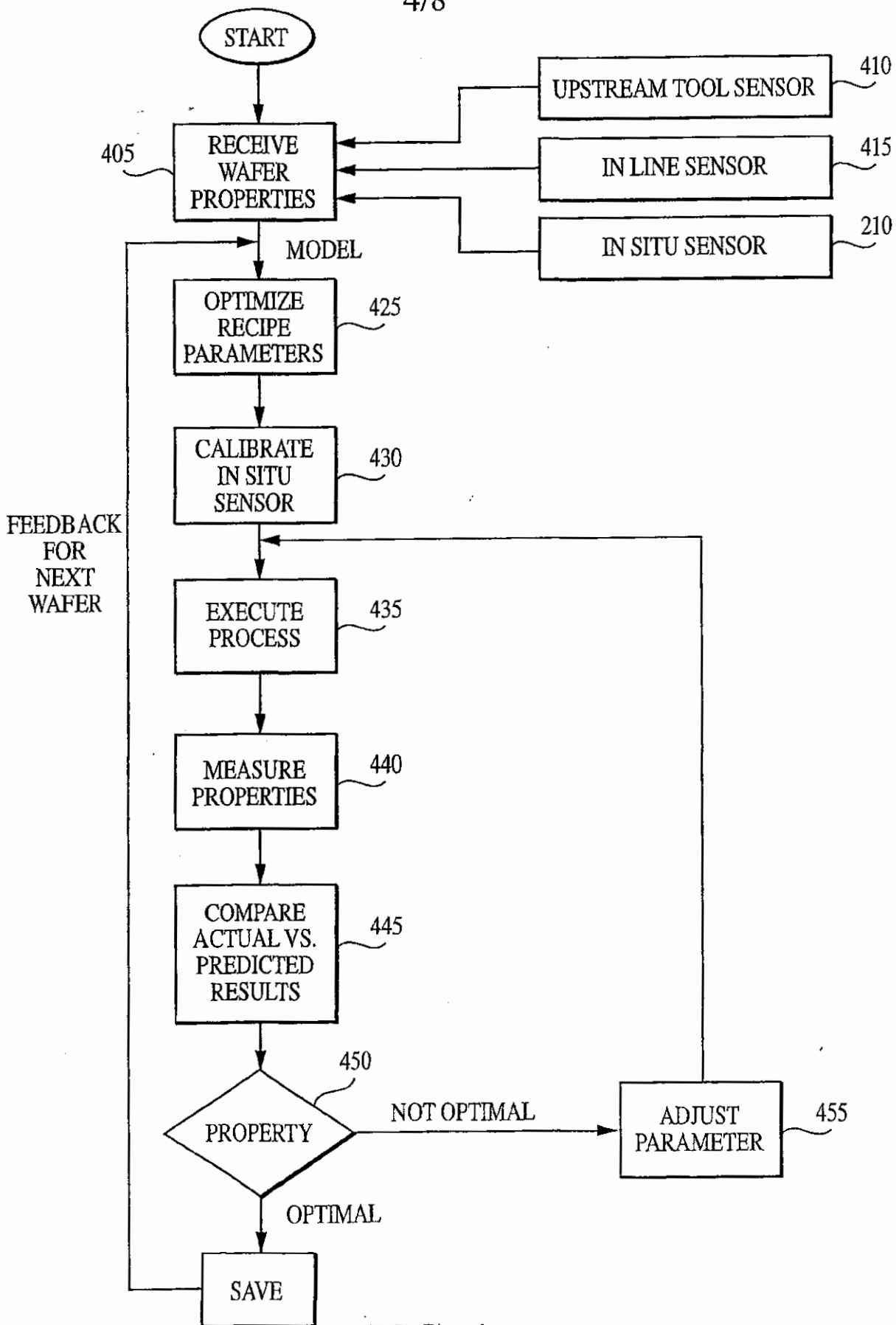

START
UPSTREAM TOOL SENSOR
410
RECEIVE WAFER PROPERTIES
405
IN LINE SENSOR
415
IN SITU SENSOR
210
MODEL
OPTIMIZE RECIPE PARAMETERS
425
CALIBRATE IN SITU SENSOR
430
FEEDBACK FOR NEXT WAFER
EXECUTE PROCESS
435
MEASURE PROPERTIES
440
COMPARE ACTUAL VS. PREDICTED RESULTS
445
450
PROPERTY
NOT OPTIMAL
ADJUST PARAMETER
455
OPTIMAL
SAVE

FIG. 4

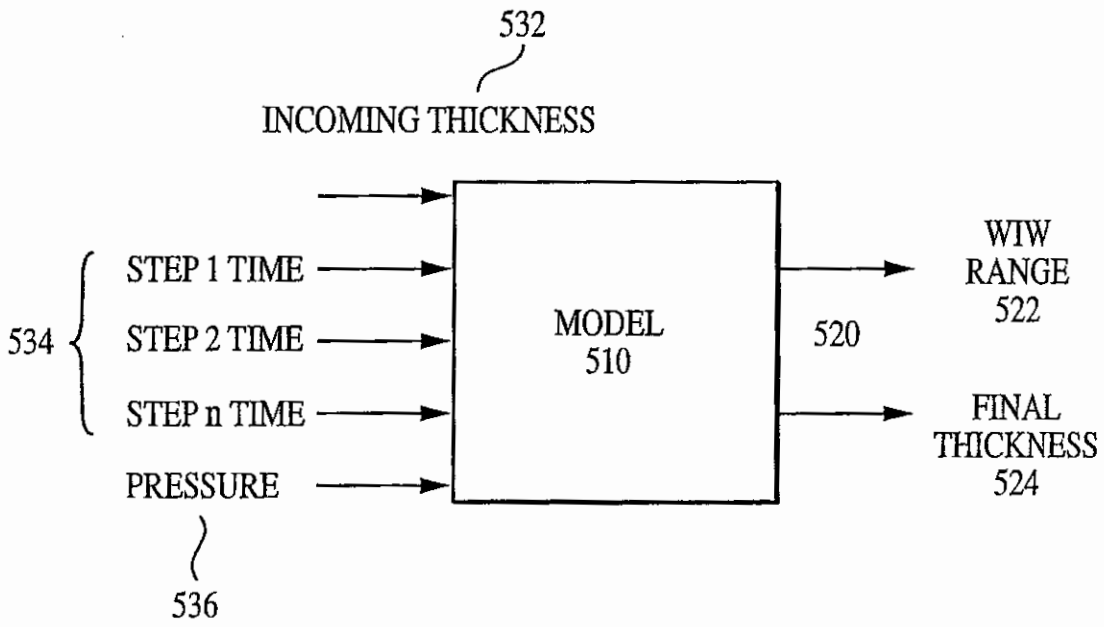

532
INCOMING THICKNESS
534
STEP 1 TIME
STEP 2 TIME
STEP n TIME
PRESSURE
536
MODEL
510
520
WIW
RANGE
522
FINAL
THICKNESS
524

FIG. 5

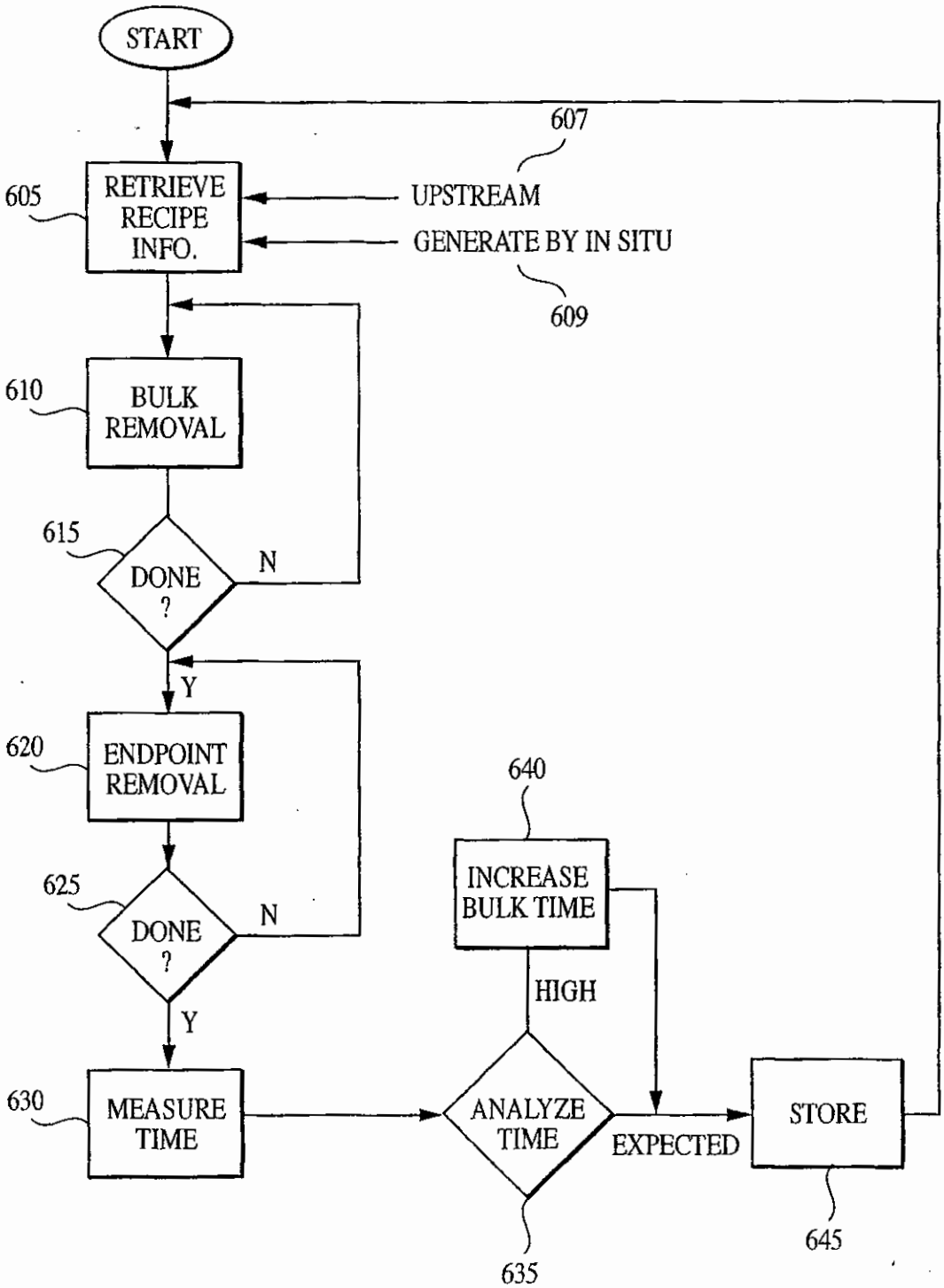

START
607
605
RETRIEVE RECIPE INFO.
UPSTREAM
GENERATE BY IN SITU
609
610
BULK REMOVAL
615
DONE ?
N
Y
620
ENDPOINT REMOVAL
625
DONE ?
N
Y
630
MEASURE TIME
640
INCREASE BULK TIME
HIGH
ANALYZE TIME
EXPECTED
STORE
635
645

FIG. 6

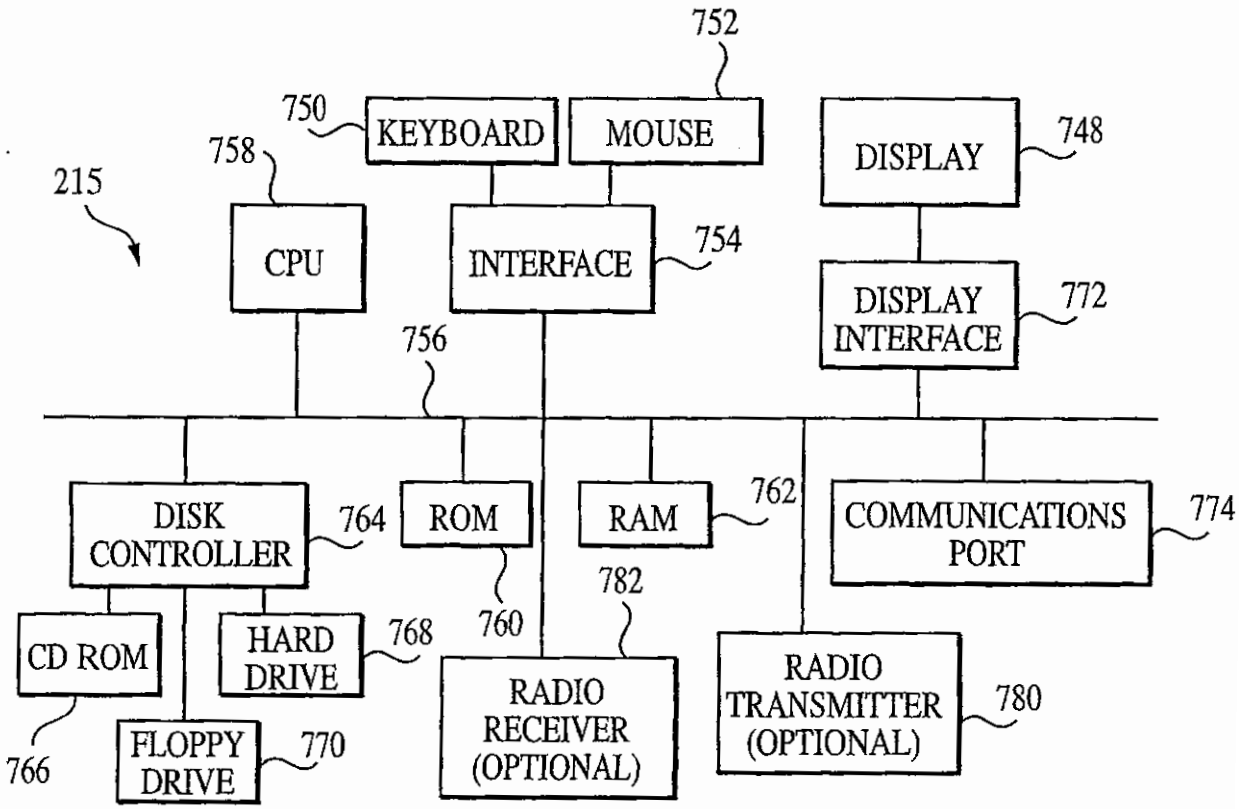

752
750
KEYBOARD
MOUSE
DISPLAY
748
758
215
CPU
INTERFACE
754
DISPLAY INTERFACE
772
756
DISK CONTROLLER
764
ROM
RAM
762
COMMUNICATIONS PORT
774
782
CD ROM
HARD DRIVE
768
760
RADIO RECEIVER (OPTIONAL)
RADIO TRANSMITTER (OPTIONAL)
780
766
FLOPPY DRIVE
770

FIG. 7

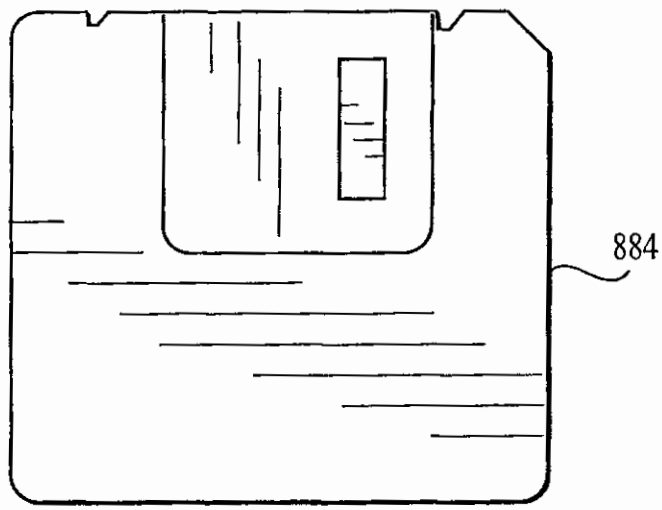


FIG. 8