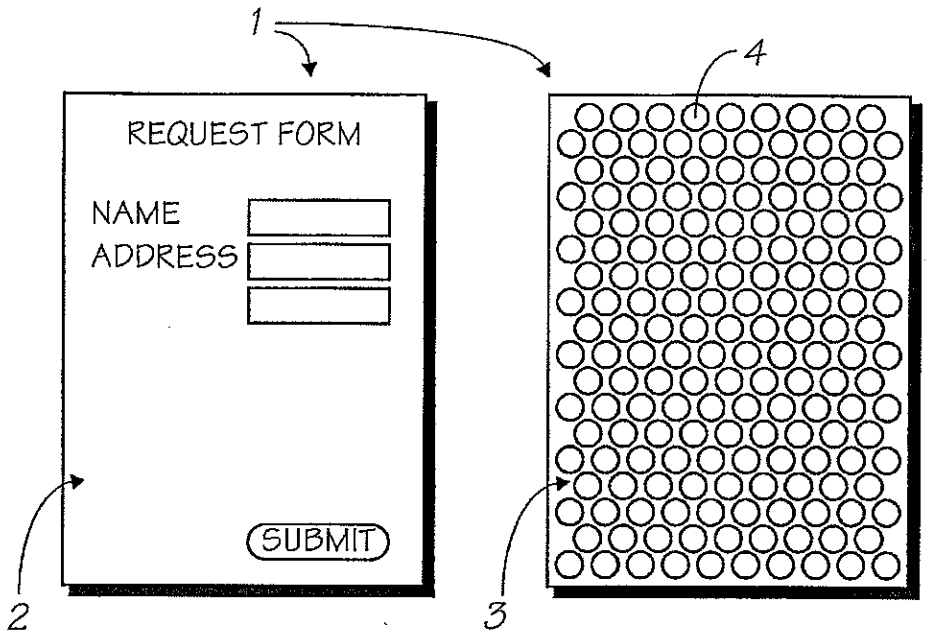

1
REQUEST FORM
NAME
ADDRESS
SUBMIT
2
3
4

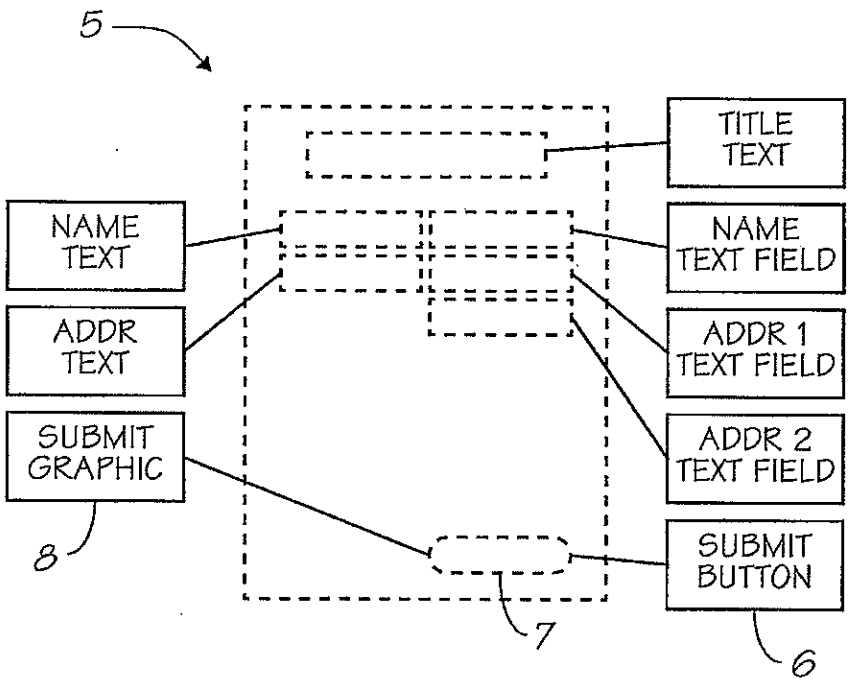

5
TITLE TEXT
NAME TEXT
NAME TEXT FIELD
ADDR TEXT
ADDR 1 TEXT FIELD
SUBMIT GRAPHIC
ADDR 2 TEXT FIELD
SUBMIT BUTTON
8
7
6

FIG. 1

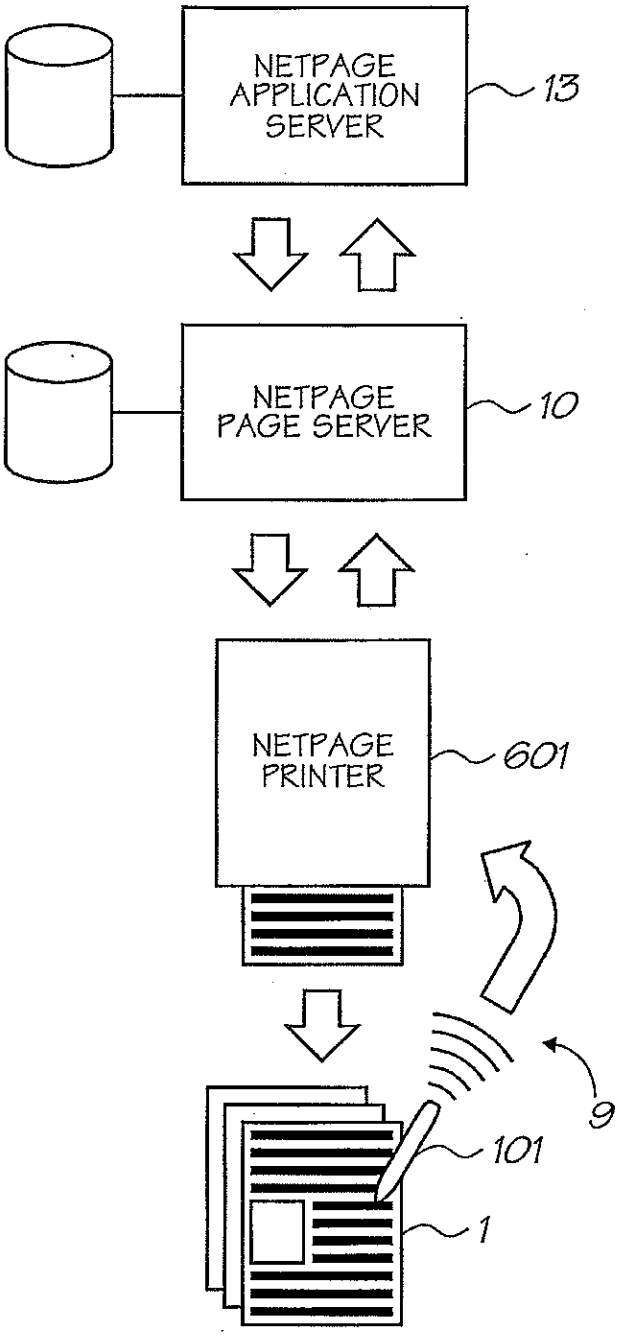

NETPAGE
APPLICATION
SERVER
13
NETPAGE
PAGE SERVER
10
NETPAGE
PRINTER
601
9
101
1

FIG. 2

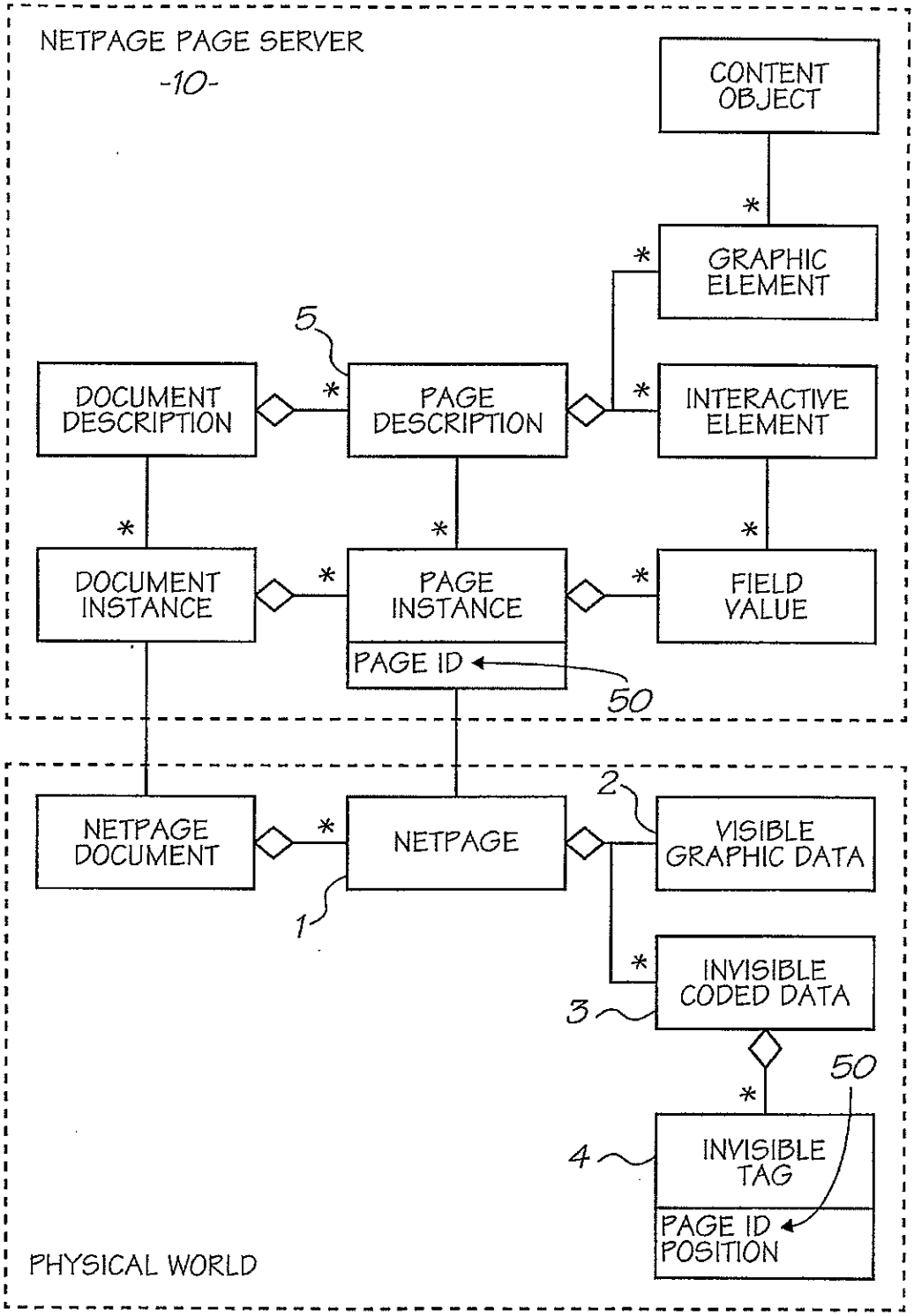

NETPAGE PAGE SERVER
-10-
CONTENT OBJECT
GRAPHIC ELEMENT
INTERACTIVE ELEMENT
FIELD VALUE
DOCUMENT DESCRIPTION
PAGE DESCRIPTION
DOCUMENT INSTANCE
PAGE INSTANCE
PAGE ID
50
5
NETPAGE DOCUMENT
NETPAGE
1
2
VISIBLE GRAPHIC DATA
INVISIBLE CODED DATA
3
INVISIBLE TAG
4
PAGE ID
POSITION
PHYSICAL WORLD

FIG. 3

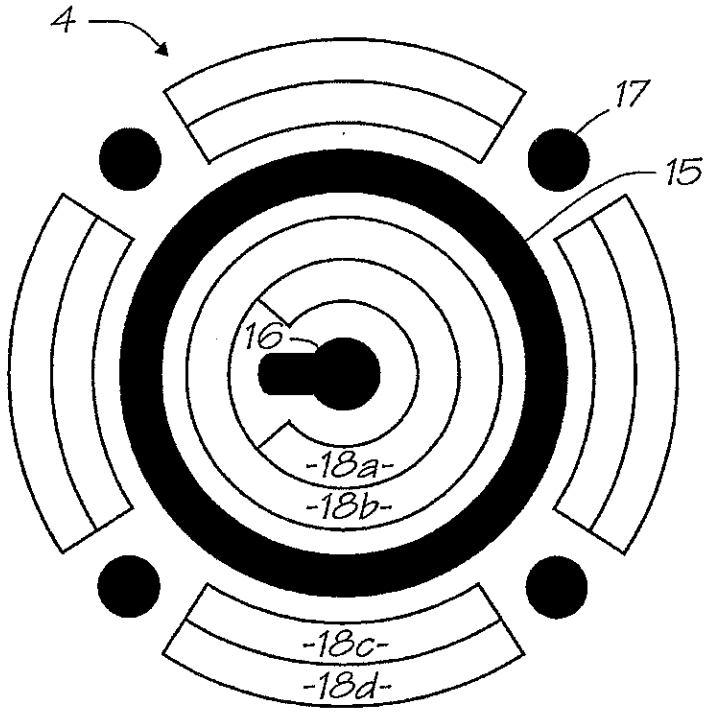


FIG. 4a

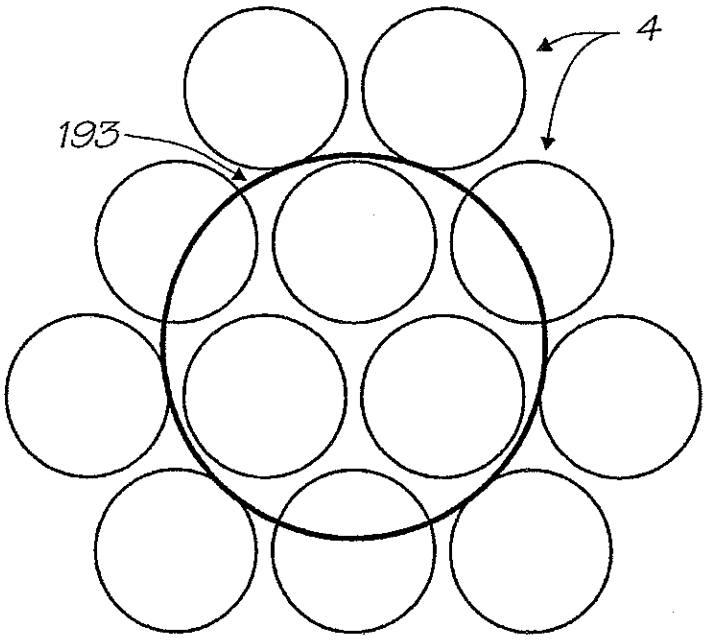


FIG. 4b

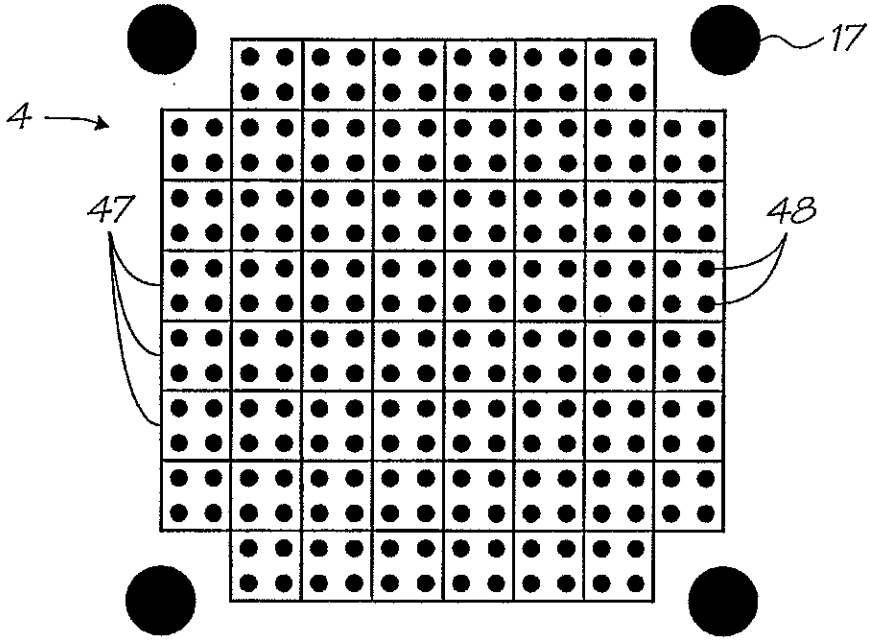


FIG. 5a

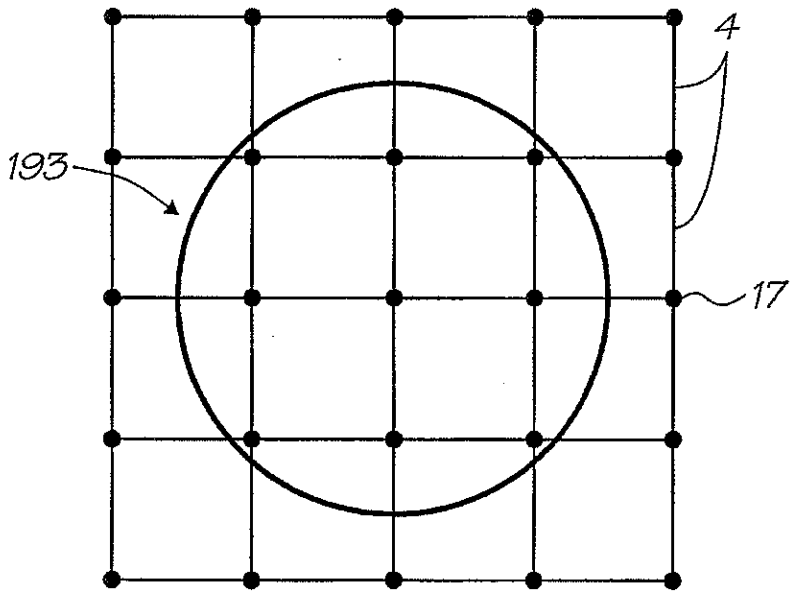


FIG. 5b

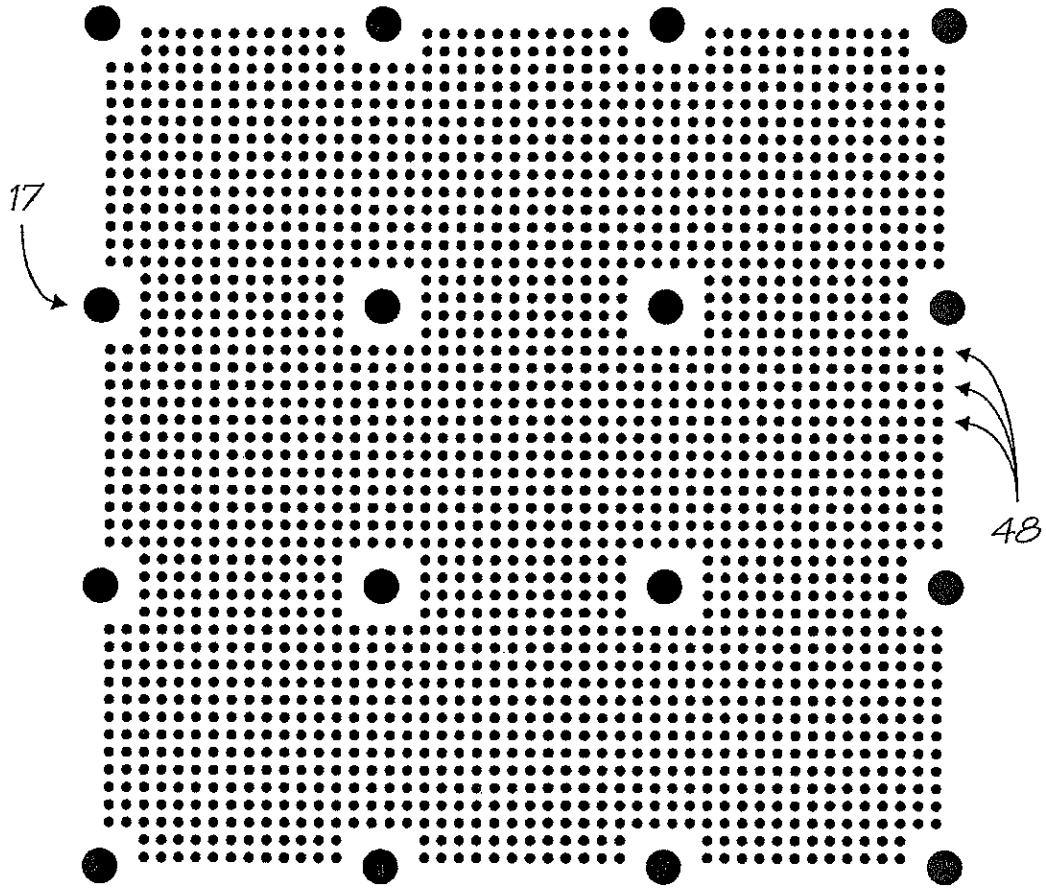


FIG. 5c

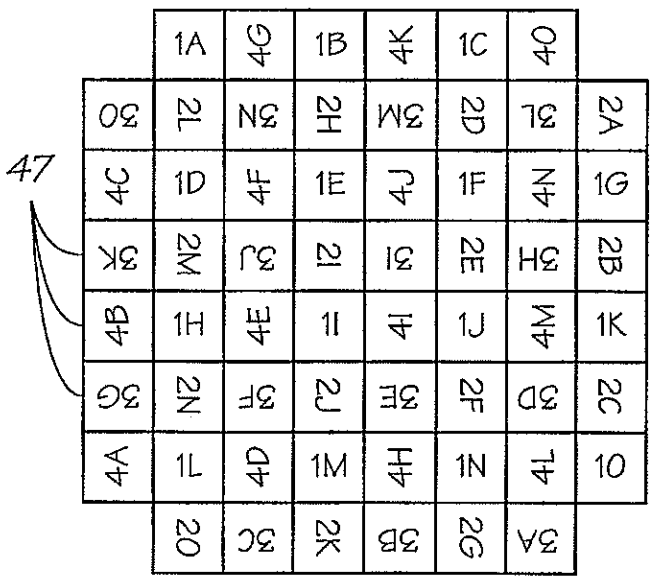


FIG. 5d

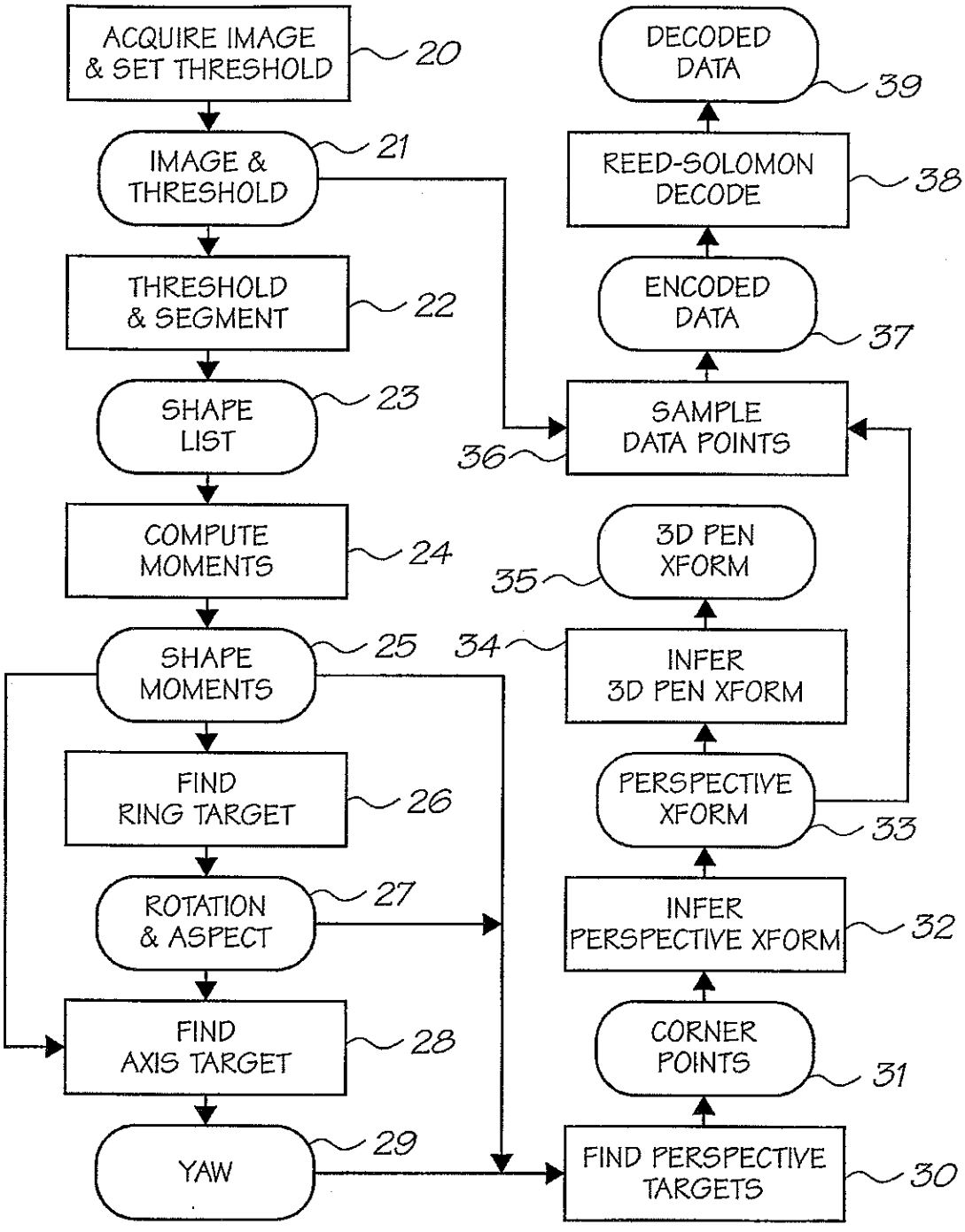

ACQUIRE IMAGE & SET THRESHOLD
20
IMAGE & THRESHOLD
21
THRESHOLD & SEGMENT
22
SHAPE LIST
23
COMPUTE MOMENTS
24
SHAPE MOMENTS
25
FIND RING TARGET
26
ROTATION & ASPECT
27
FIND AXIS TARGET
28
YAW
29
FIND PERSPECTIVE TARGETS
30
CORNER POINTS
31
INFER PERSPECTIVE XFORM
32
PERSPECTIVE XFORM
33
INFER 3D PEN XFORM
34
3D PEN XFORM
35
SAMPLE DATA POINTS
36
ENCODED DATA
37
REED-SOLOMON DECODE
38
DECODED DATA
39

FIG. 6

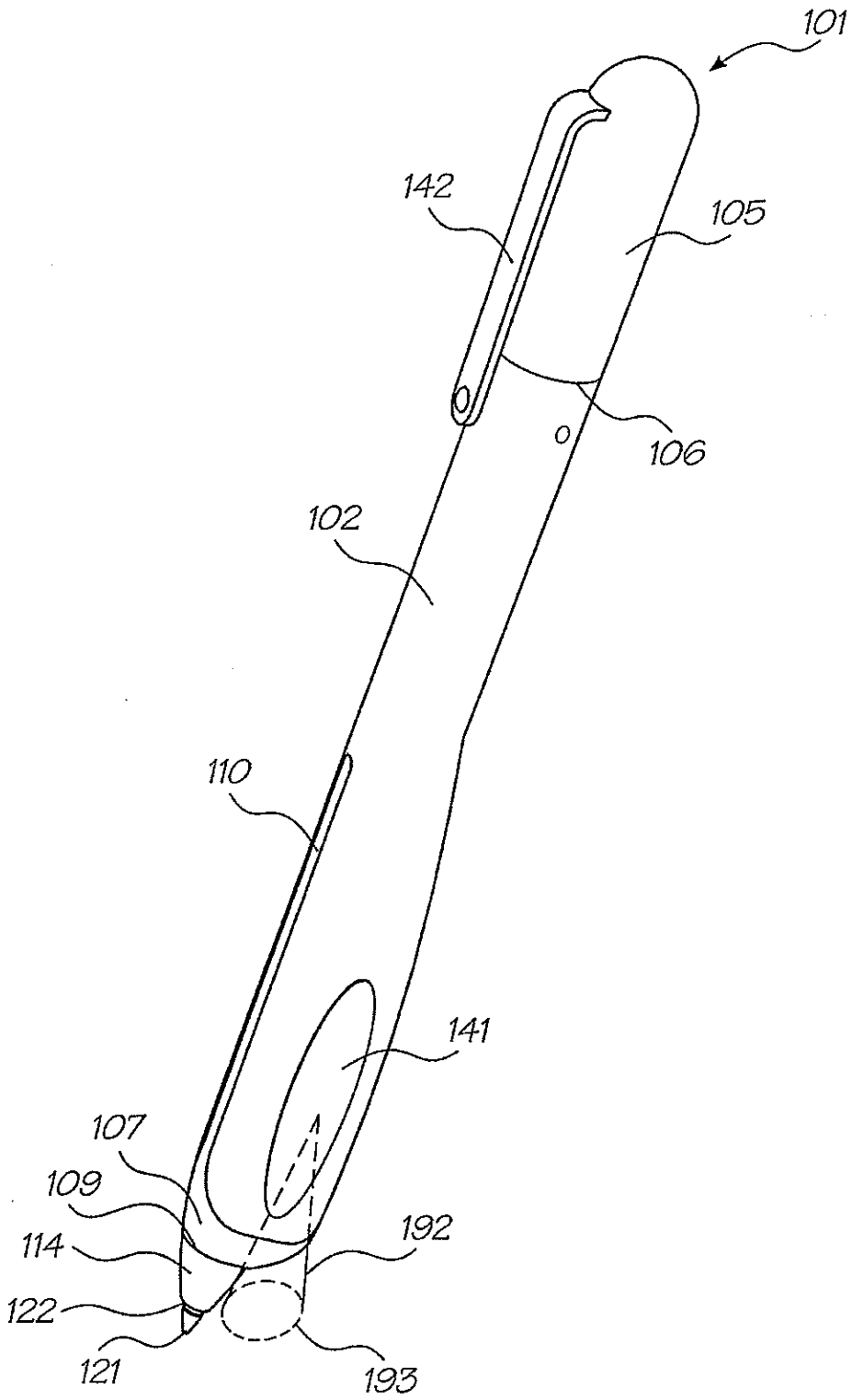


FIG. 7

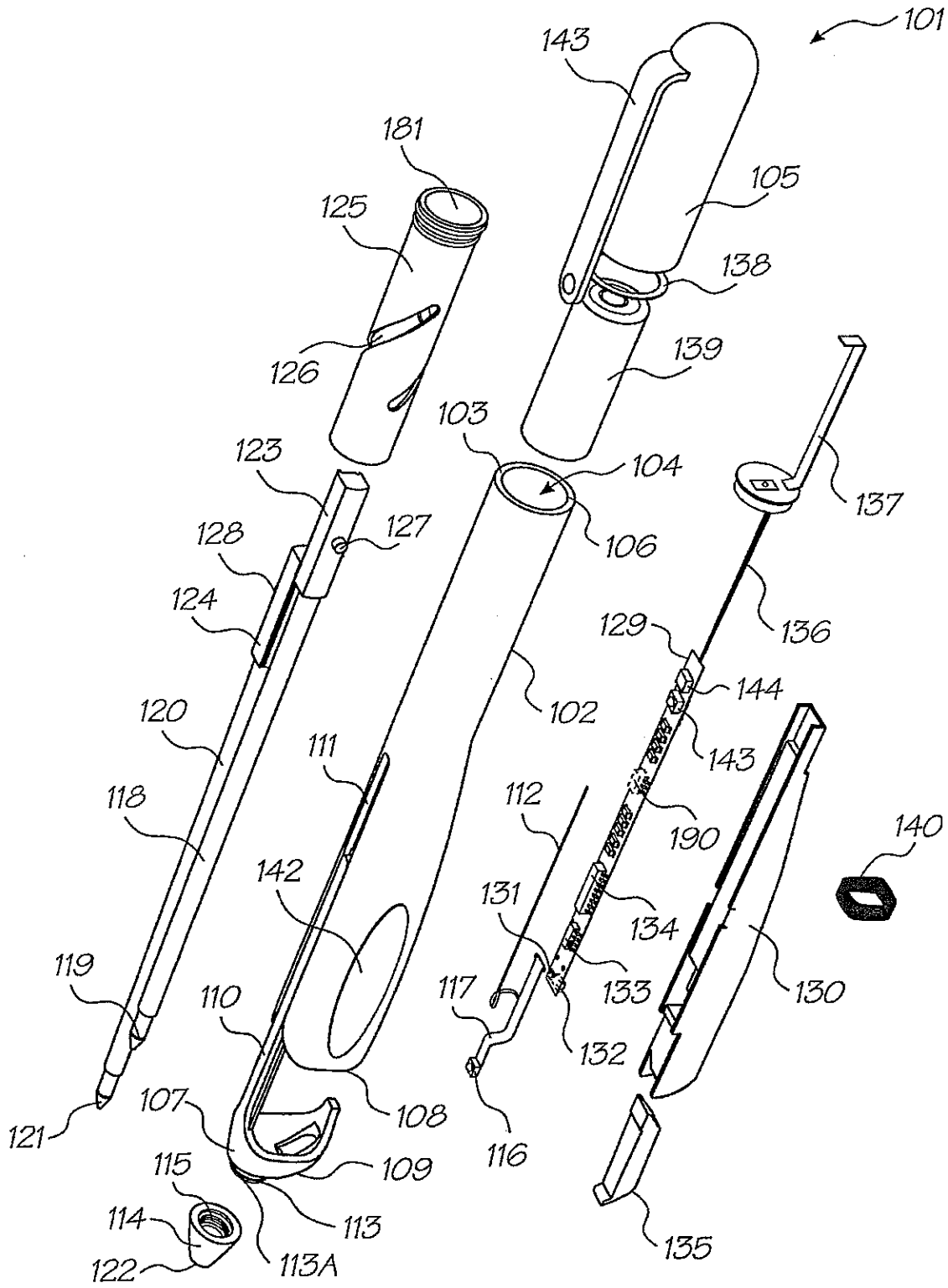

101
143
181
105
125
138
126
139
103
104
123
137
128
127
106
124
136
129
144
120
102
143
111
112
118
190
140
142
131
134
119
133
130
110
117
132
107
108
116
121
109
115
135
114
113
122
113A

FIG. 8

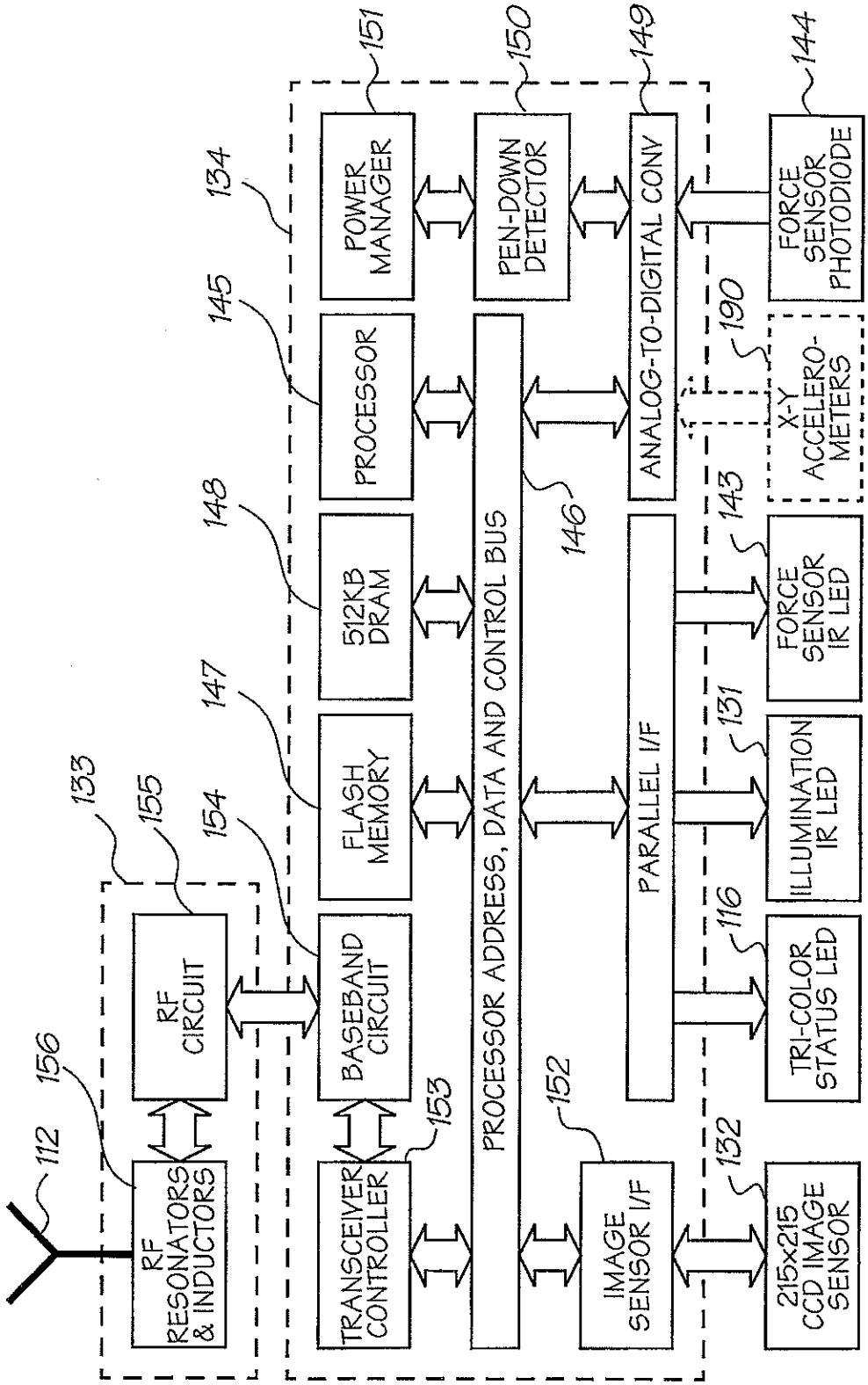

112
156
133
155
154
147
148
145
134
151
150
149
144
190
143
146
131
116
152
153
132
RF RESONATORS & INDUCTORS
RF CIRCUIT
BASEBAND CIRCUIT
FLASH MEMORY
512KB DRAM
PROCESSOR
POWER MANAGER
PEN-DOWN DETECTOR
ANALOG-TO-DIGITAL CONV
FORCE SENSOR PHOTODIODE
X-Y ACCELERO-METERS
FORCE SENSOR IR LED
ILLUMINATION IR LED
TRI-COLOR STATUS LED
TRANSCEIVER CONTROLLER
PROCESSOR ADDRESS, DATA AND CONTROL BUS
PARALLEL I/F
IMAGE SENSOR I/F
215x215 CCD IMAGE SENSOR

FIG. 9

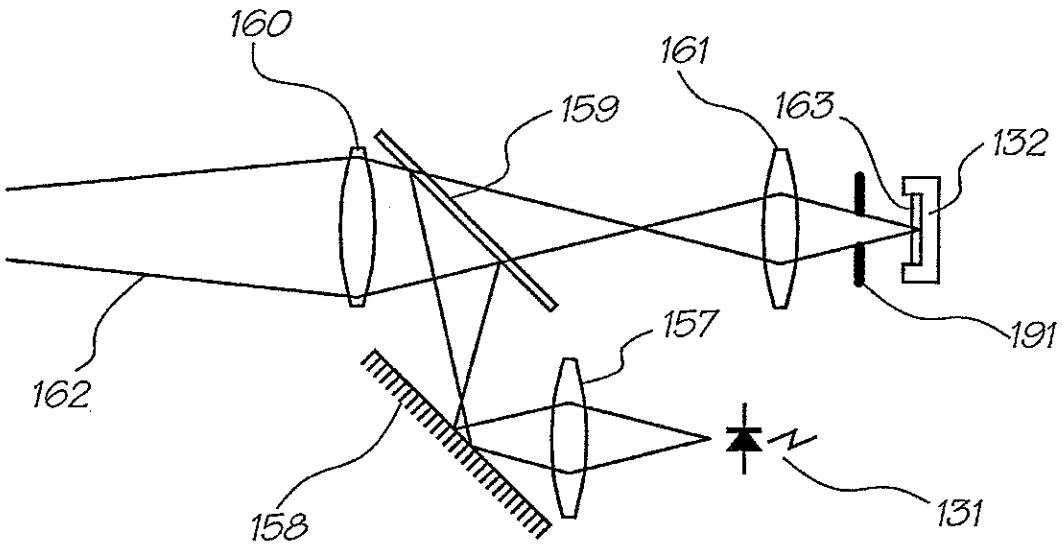


FIG. 10

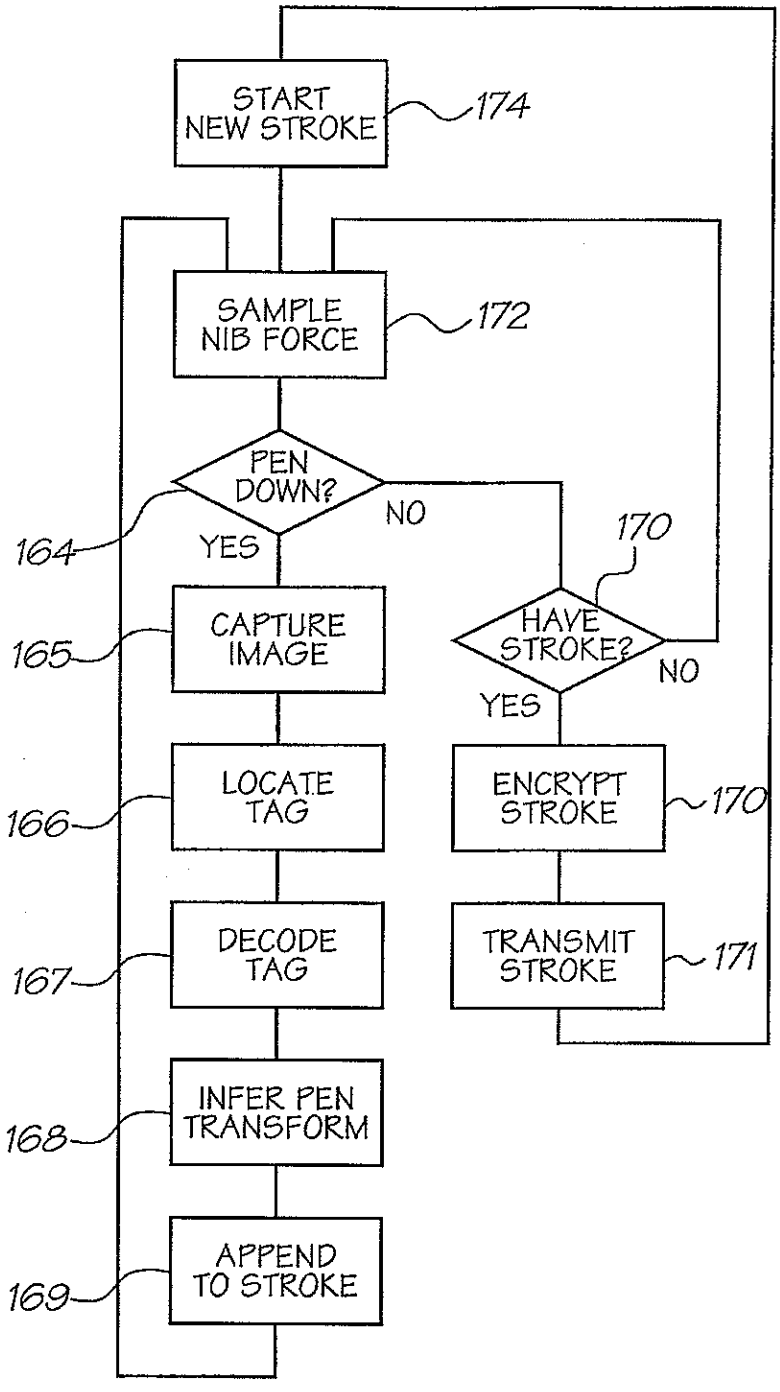

START NEW STROKE
174
SAMPLE NIB FORCE
172
PEN DOWN?
NO
YES
164
CAPTURE IMAGE
165
LOCATE TAG
166
DECODE TAG
167
INFER PEN TRANSFORM
168
APPEND TO STROKE
169
170
HAVE STROKE?
NO
YES
ENCRYPT STROKE
170
TRANSMIT STROKE
171

FIG. 11

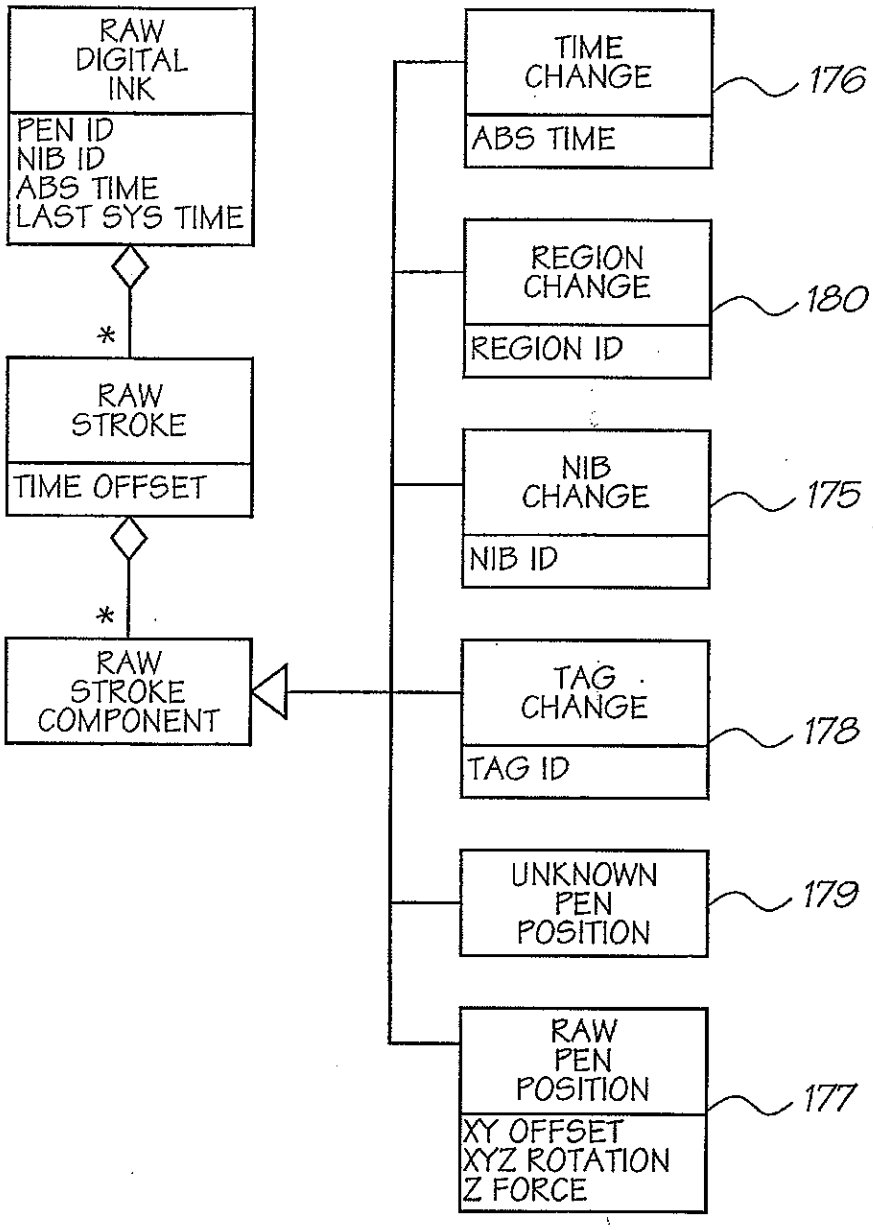

RAW
DIGITAL
INK
PEN ID
NIB ID
ABS TIME
LAST SYS TIME
*
RAW
STROKE
TIME OFFSET
*
RAW
STROKE
COMPONENT
TIME
CHANGE
ABS TIME
176
REGION
CHANGE
REGION ID
180
NIB
CHANGE
NIB ID
175
TAG
CHANGE
TAG ID
178
UNKNOWN
PEN
POSITION
179
RAW
PEN
POSITION
XY OFFSET
XYZ ROTATION
Z FORCE
177

FIG. 12

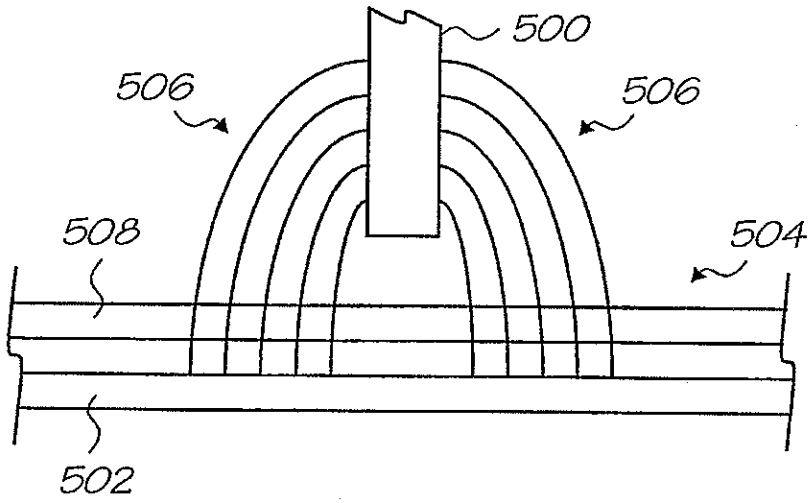


FIG. 13