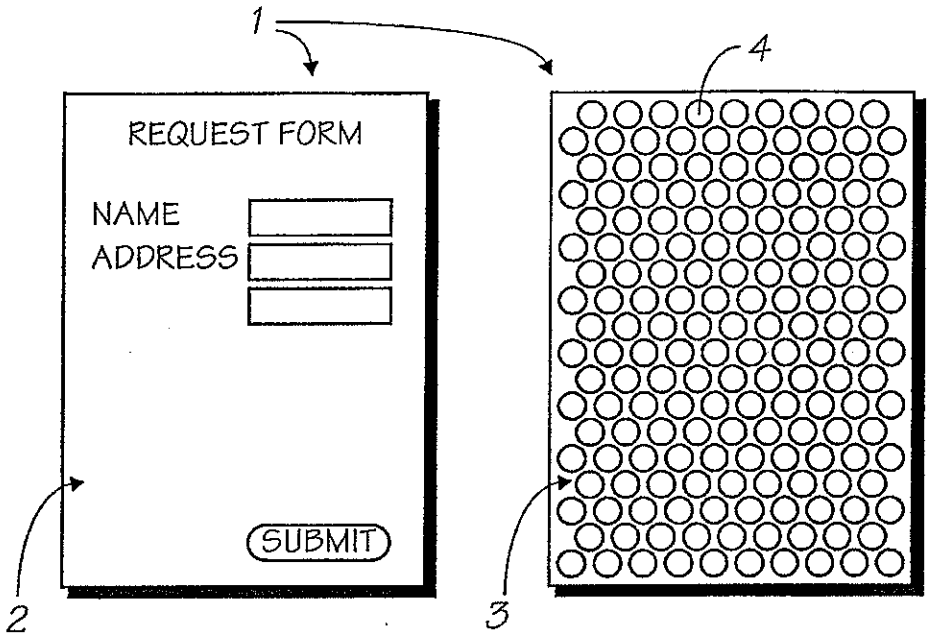

1
REQUEST FORM
NAME
ADDRESS
SUBMIT
2
3
4

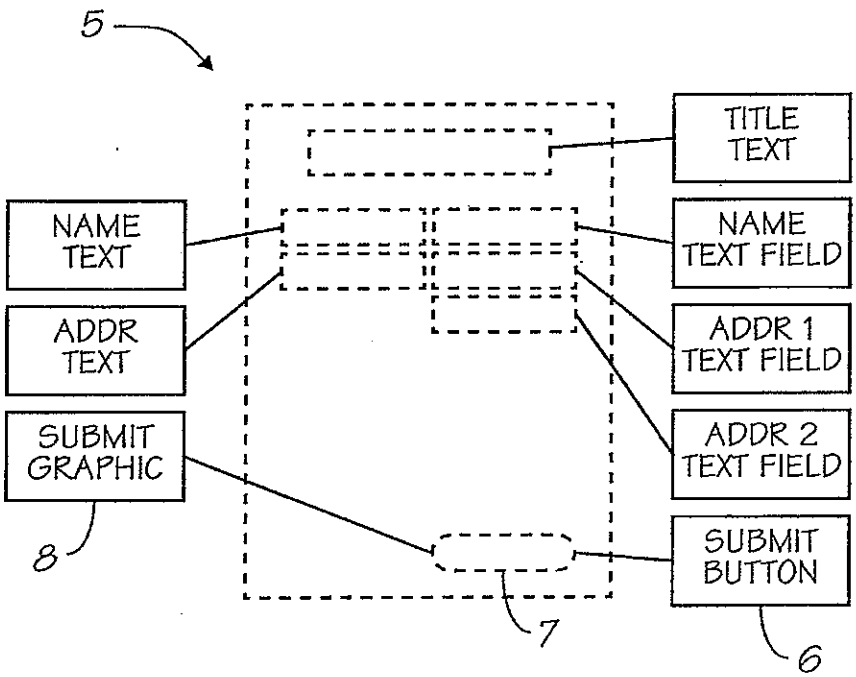

5
TITLE TEXT
NAME TEXT
NAME TEXT FIELD
ADDR TEXT
ADDR 1 TEXT FIELD
SUBMIT GRAPHIC
ADDR 2 TEXT FIELD
SUBMIT BUTTON
8
7
6

FIG. 1

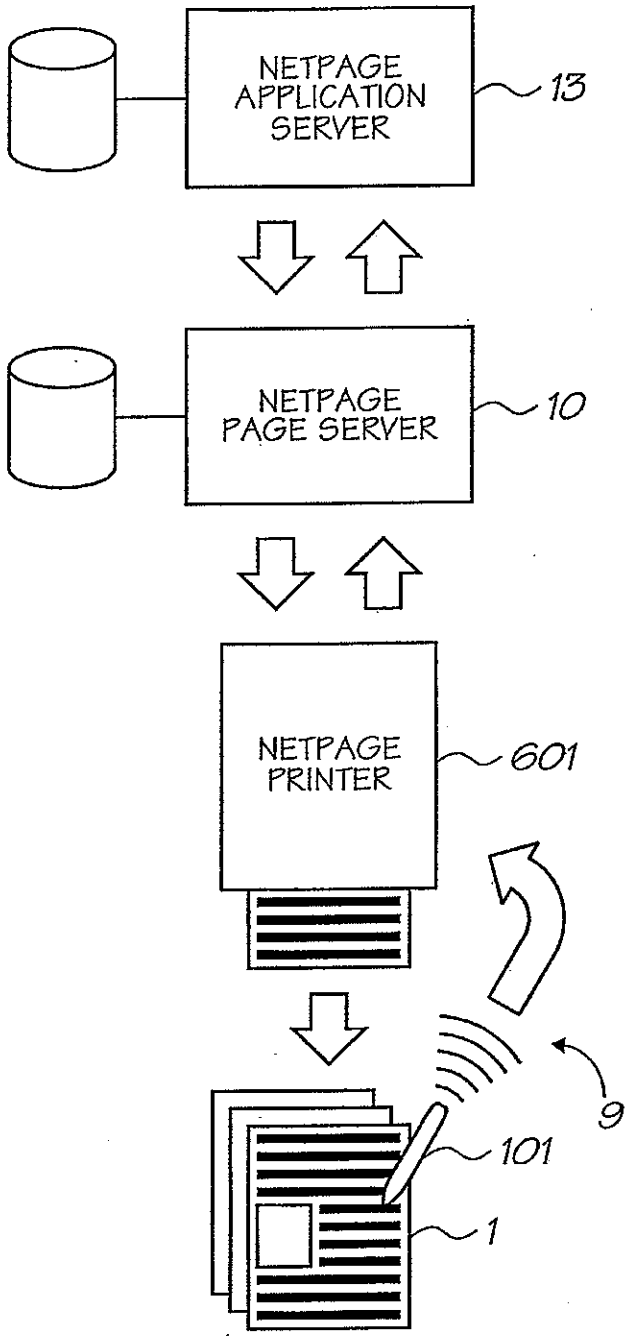

NETPAGE
APPLICATION
SERVER
13
NETPAGE
PAGE SERVER
10
NETPAGE
PRINTER
601
9
101
1

FIG. 2

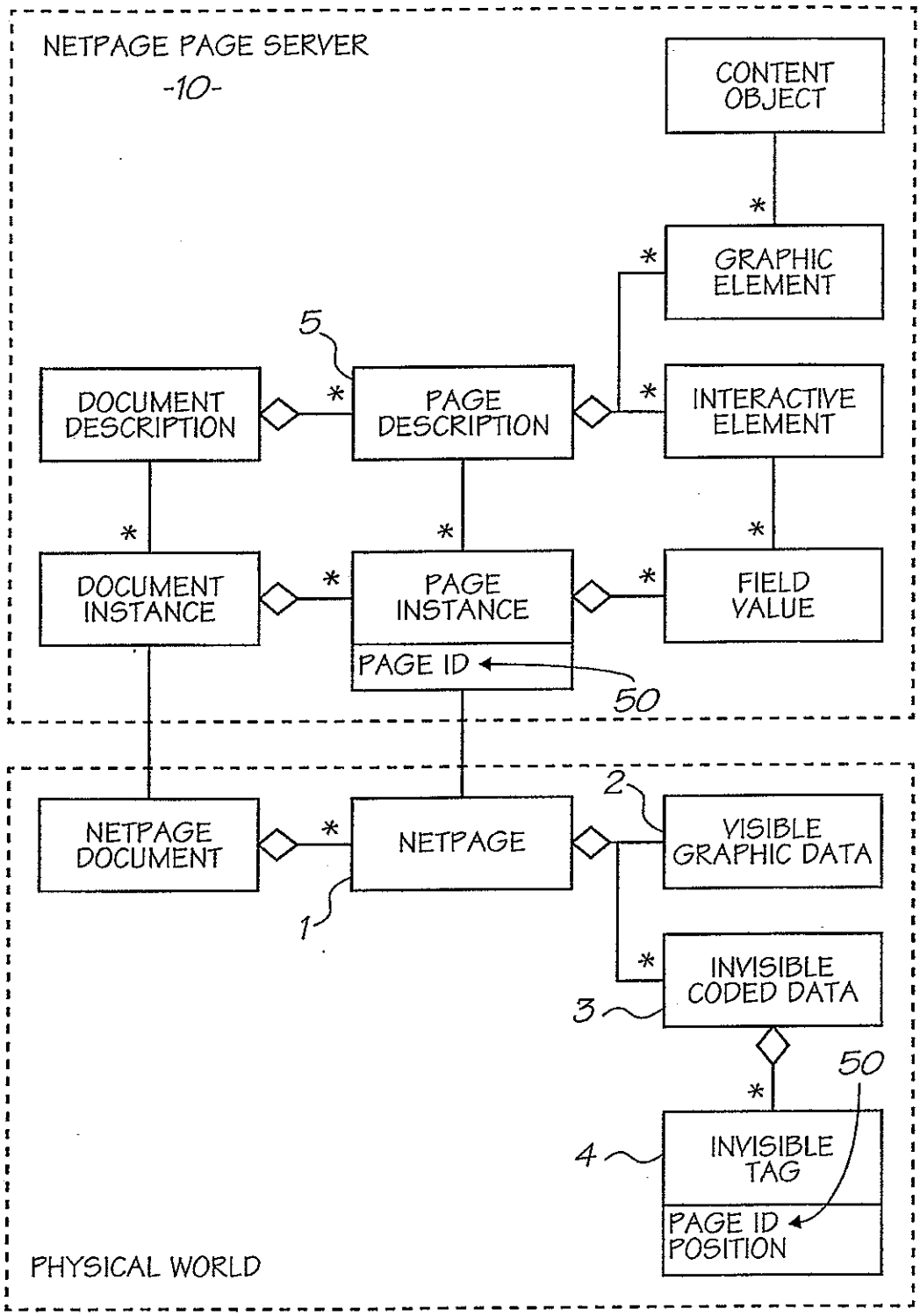

NETPAGE PAGE SERVER
-10-
CONTENT OBJECT
GRAPHIC ELEMENT
INTERACTIVE ELEMENT
FIELD VALUE
DOCUMENT DESCRIPTION
PAGE DESCRIPTION
DOCUMENT INSTANCE
PAGE INSTANCE
PAGE ID
50
5
NETPAGE DOCUMENT
NETPAGE
1
2
VISIBLE GRAPHIC DATA
INVISIBLE CODED DATA
3
INVISIBLE TAG
4
PAGE ID POSITION
PHYSICAL WORLD

FIG. 3

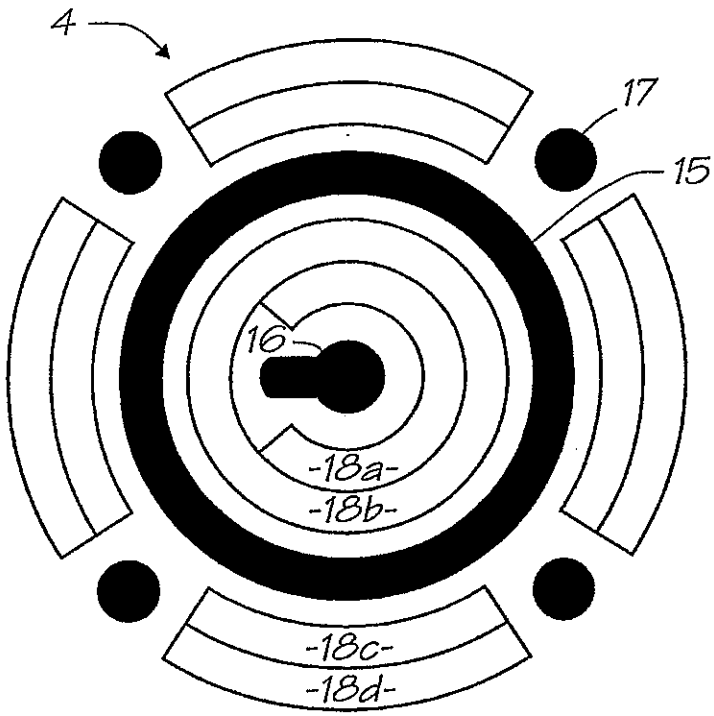


FIG. 4a

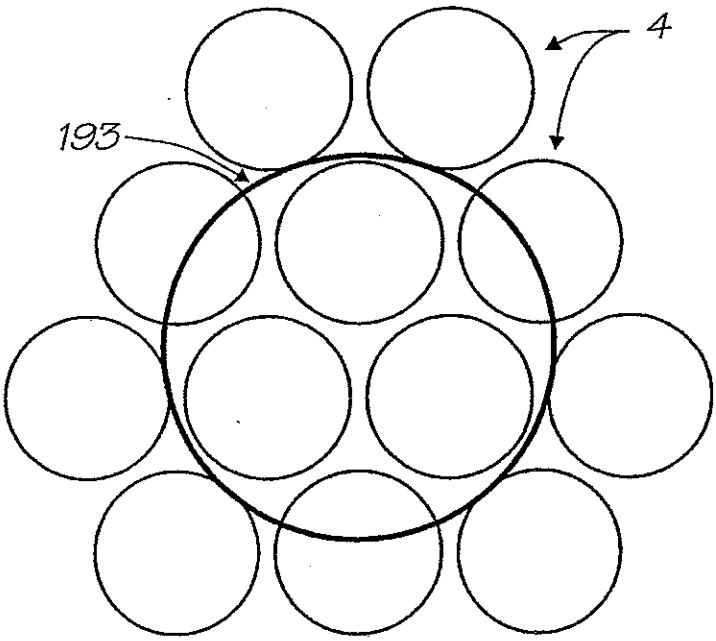


FIG. 4b

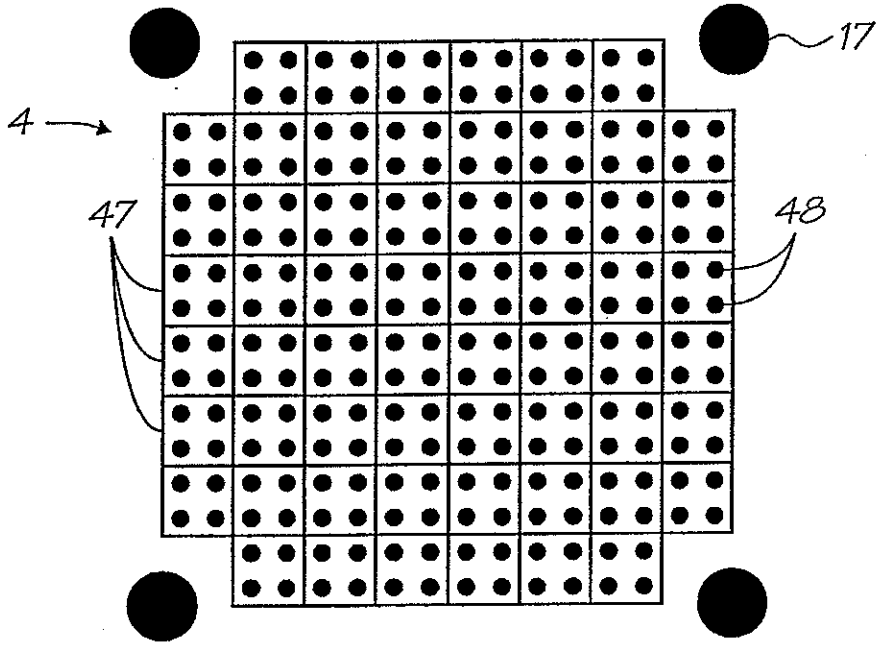


FIG. 5a

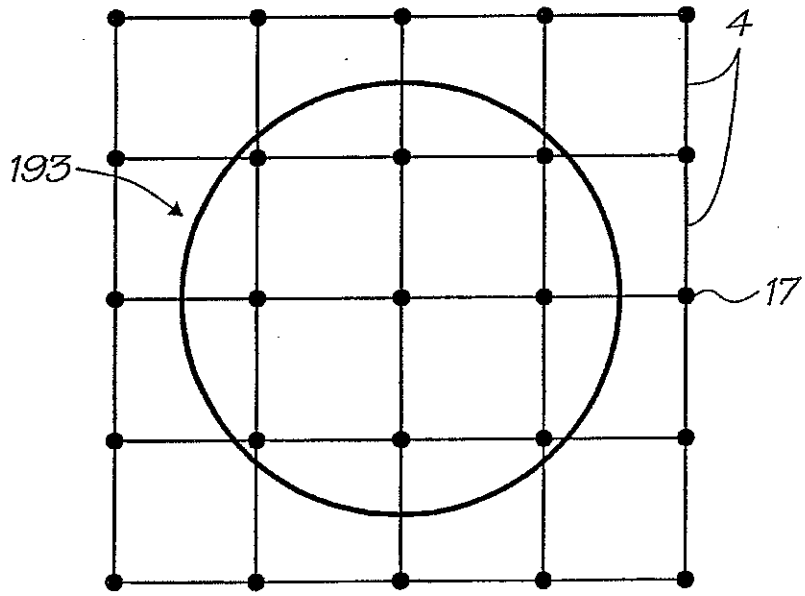


FIG. 5b

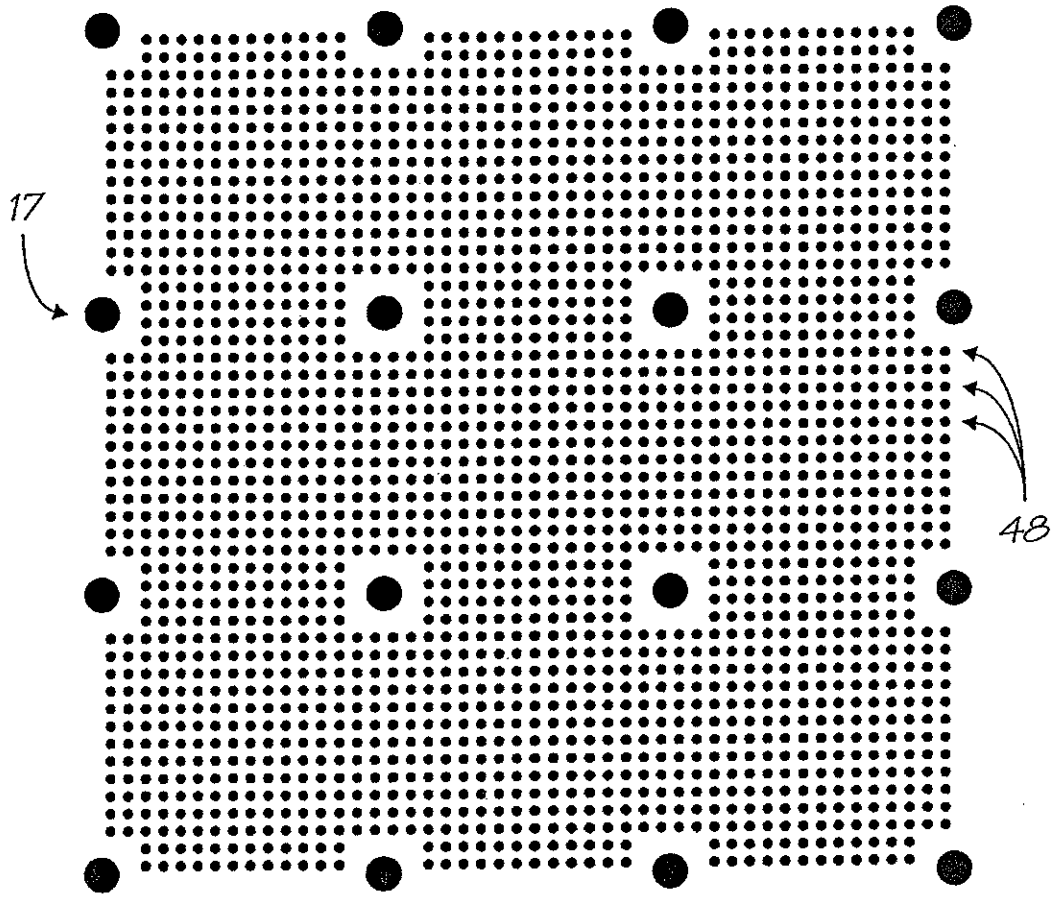

17
48

FIG. 5c

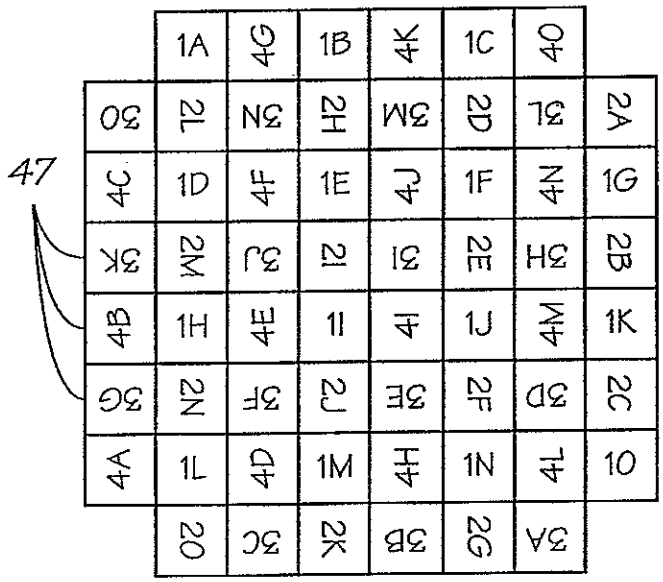

47
1A 4G 1B 4K 1C 4O
3O 2L 3N 2H 3M 2D 3L 2A
4C 1D 4F 1E 4J 1F 4N 1G
3K 2M 3J 2I 3I 2E 3H 2B
4B 1H 4E 1I 4I 1J 4M 1K
3G 2N 3F 2J 3E 2F 3D 2C
4A 1L 4D 1M 4H 1N 4L 1O
2O 3C 2K 3B 2G 3A

FIG. 5d

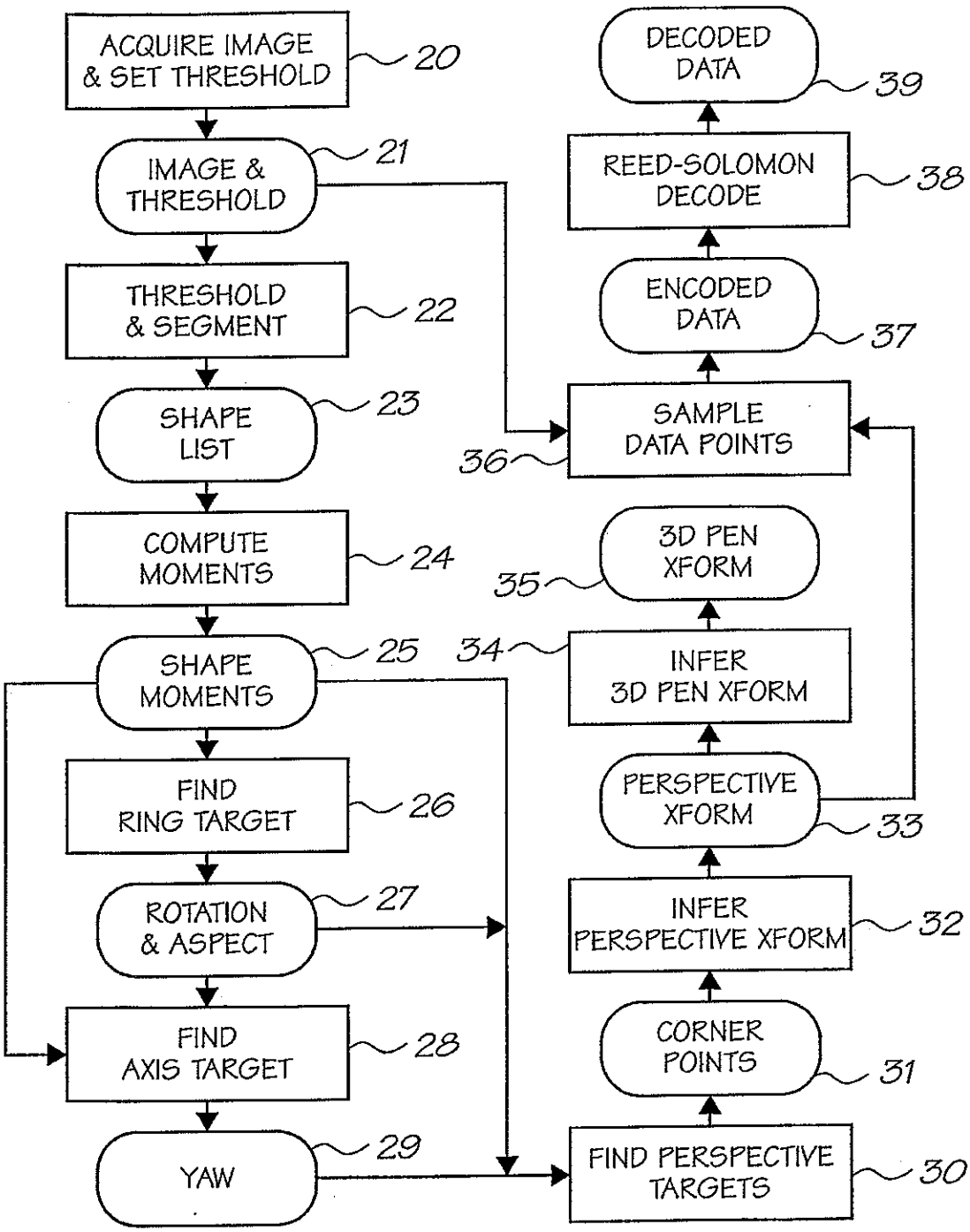

ACQUIRE IMAGE & SET THRESHOLD
20
IMAGE & THRESHOLD
21
THRESHOLD & SEGMENT
22
SHAPE LIST
23
COMPUTE MOMENTS
24
SHAPE MOMENTS
25
FIND RING TARGET
26
ROTATION & ASPECT
27
FIND AXIS TARGET
28
YAW
29
FIND PERSPECTIVE TARGETS
30
CORNER POINTS
31
INFER PERSPECTIVE XFORM
32
PERSPECTIVE XFORM
33
INFER 3D PEN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

FIG. 6

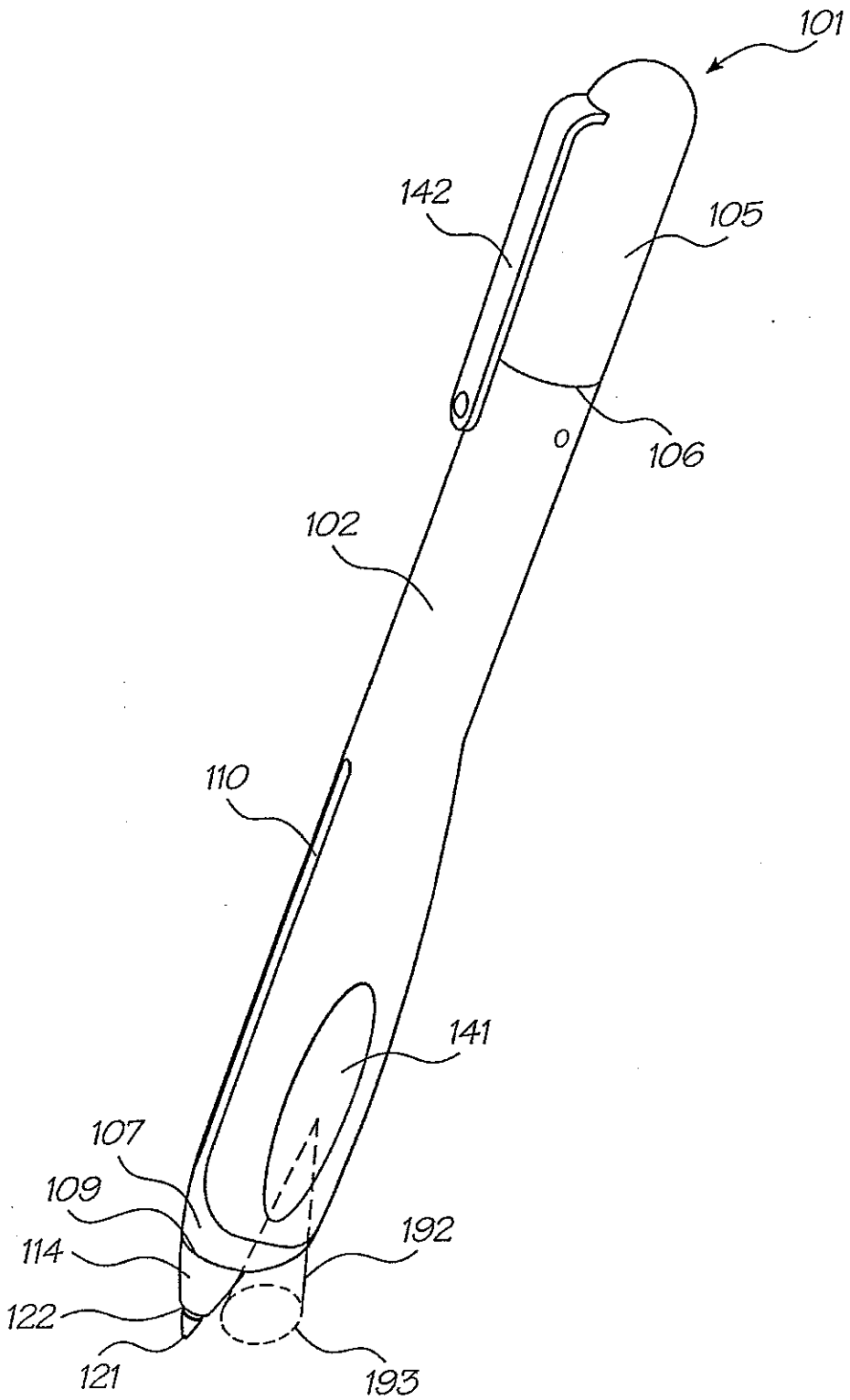


FIG. 7

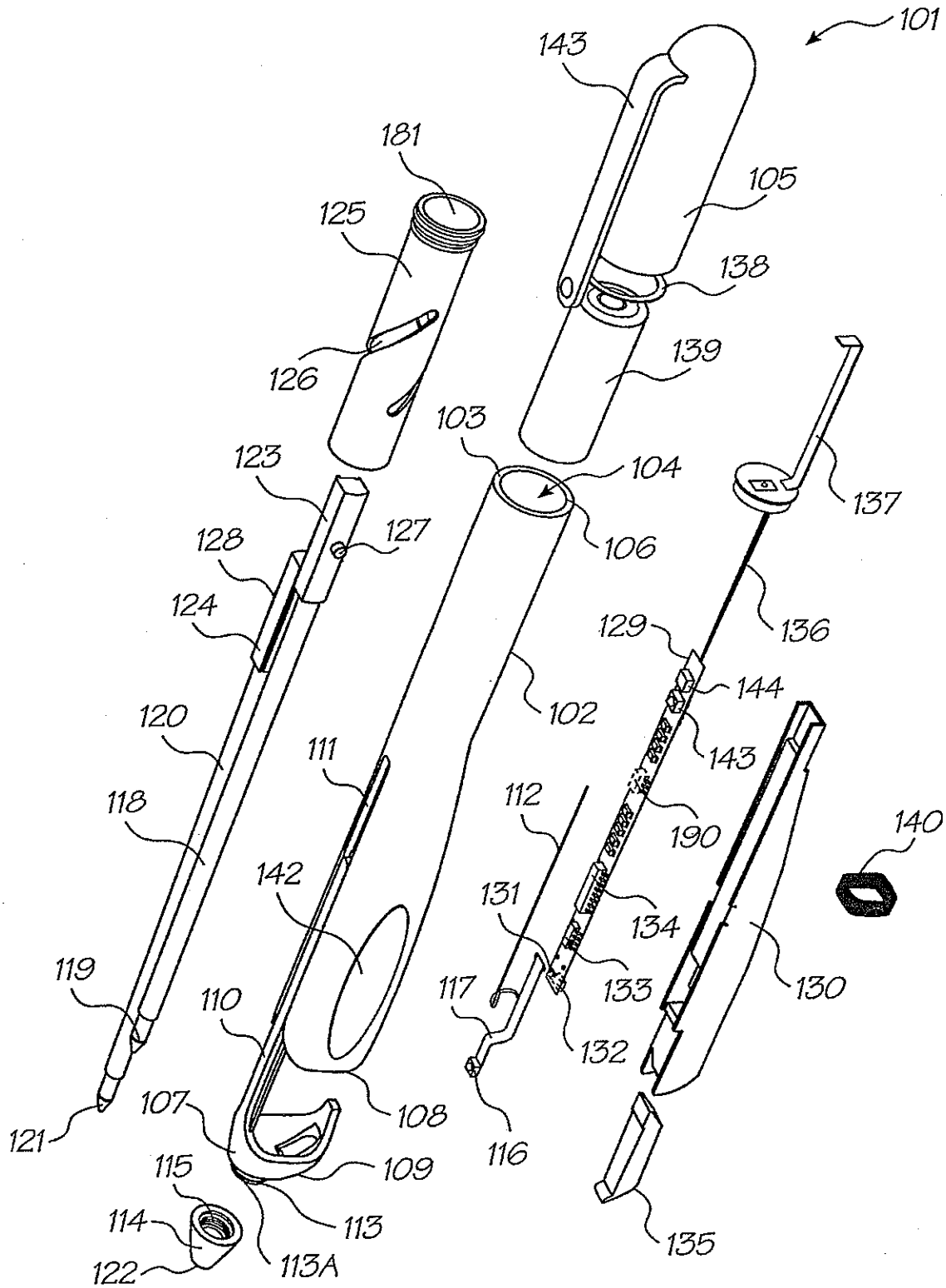

101
143
181
105
125
138
139
126
103
104
123
137
128
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106
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136
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144
120
102
143
111
112
118
190
140
142
131
134
119
133
130
117
110
132
108
107
116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

FIG. 8

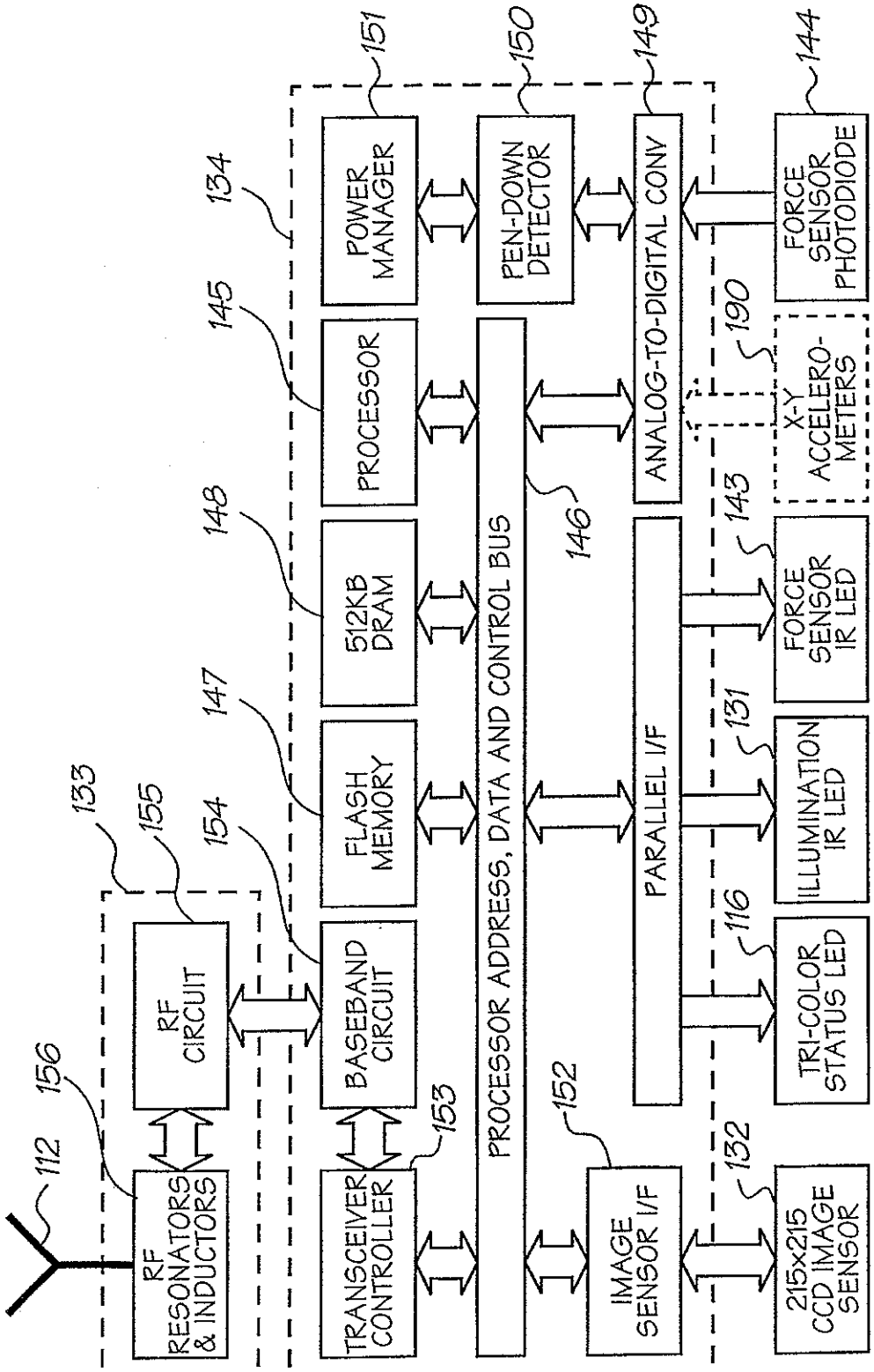

112
156
RF RESONATORS & INDUCTORS
133
155
RF CIRCUIT
154
BASEBAND CIRCUIT
153
TRANSCEIVER CONTROLLER
147
FLASH MEMORY
148
512KB DRAM
145
PROCESSOR
134
POWER MANAGER
151
PROCESSOR ADDRESS, DATA AND CONTROL BUS
146
152
IMAGE SENSOR I/F
132
215x215 CCD IMAGE SENSOR
PARALLEL I/F
131
ILLUMINATION IR LED
116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

FIG. 9

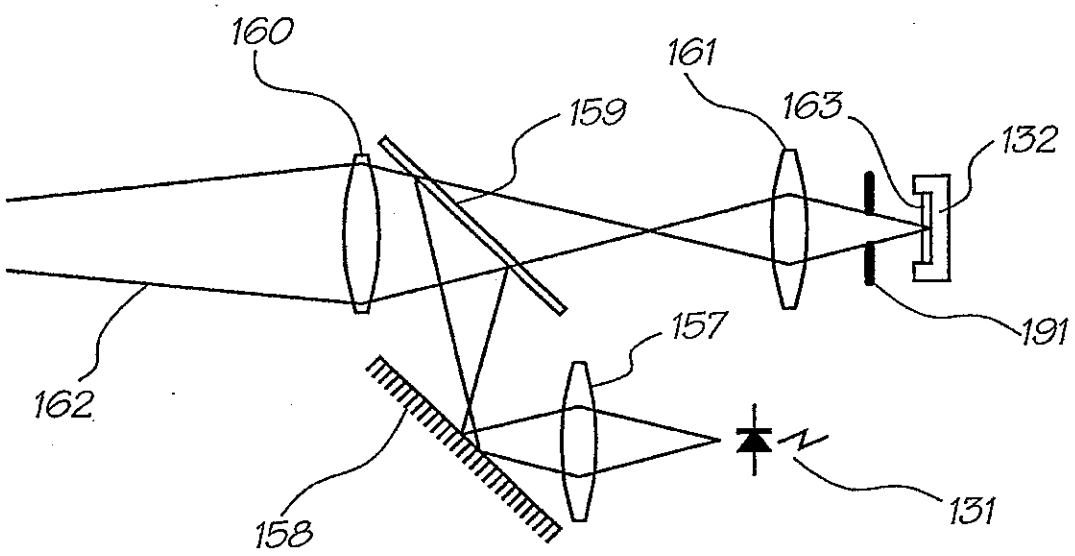


FIG. 10

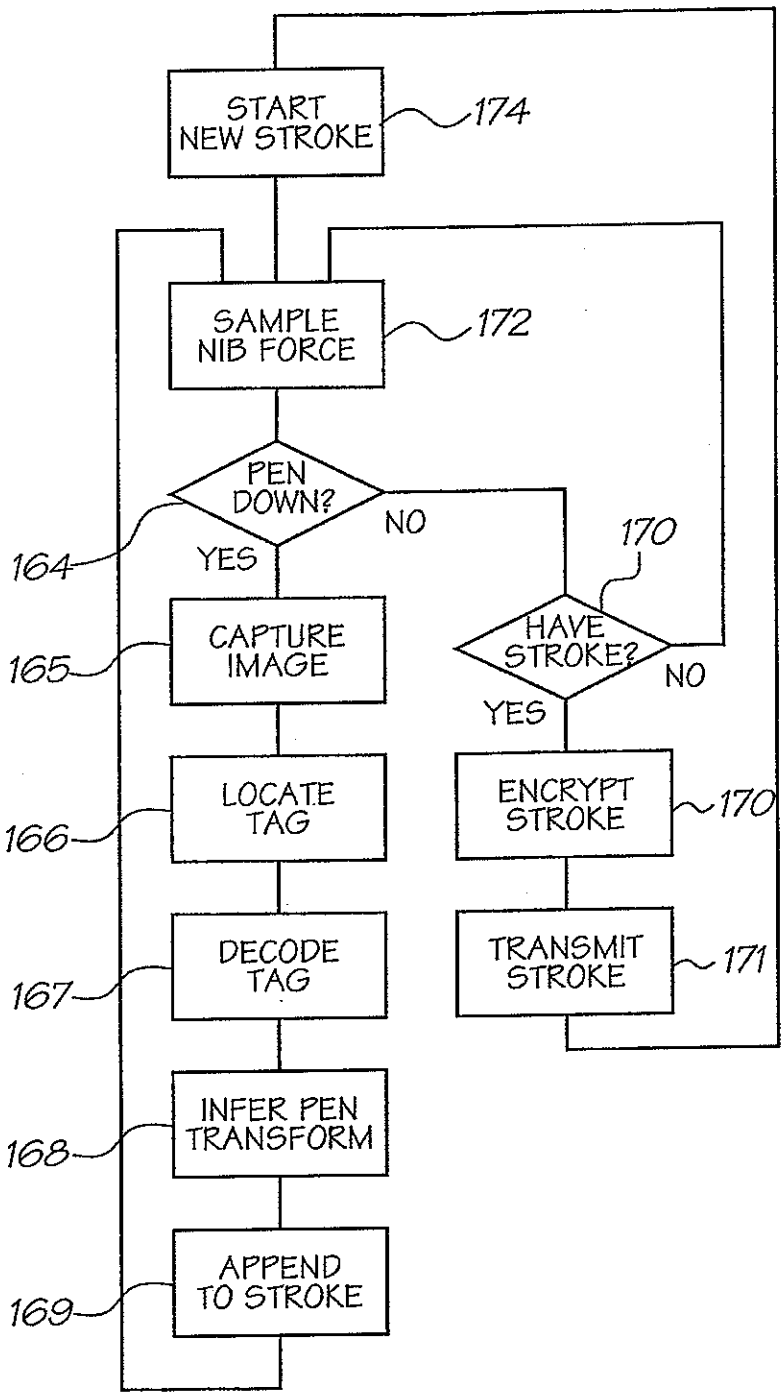

START NEW STROKE
174
SAMPLE NIB FORCE
172
PEN DOWN?
NO
YES
164
CAPTURE IMAGE
165
LOCATE TAG
166
DECODE TAG
167
INFER PEN TRANSFORM
168
APPEND TO STROKE
169
170
HAVE STROKE?
NO
YES
ENCRYPT STROKE
170
TRANSMIT STROKE
171

FIG. 11

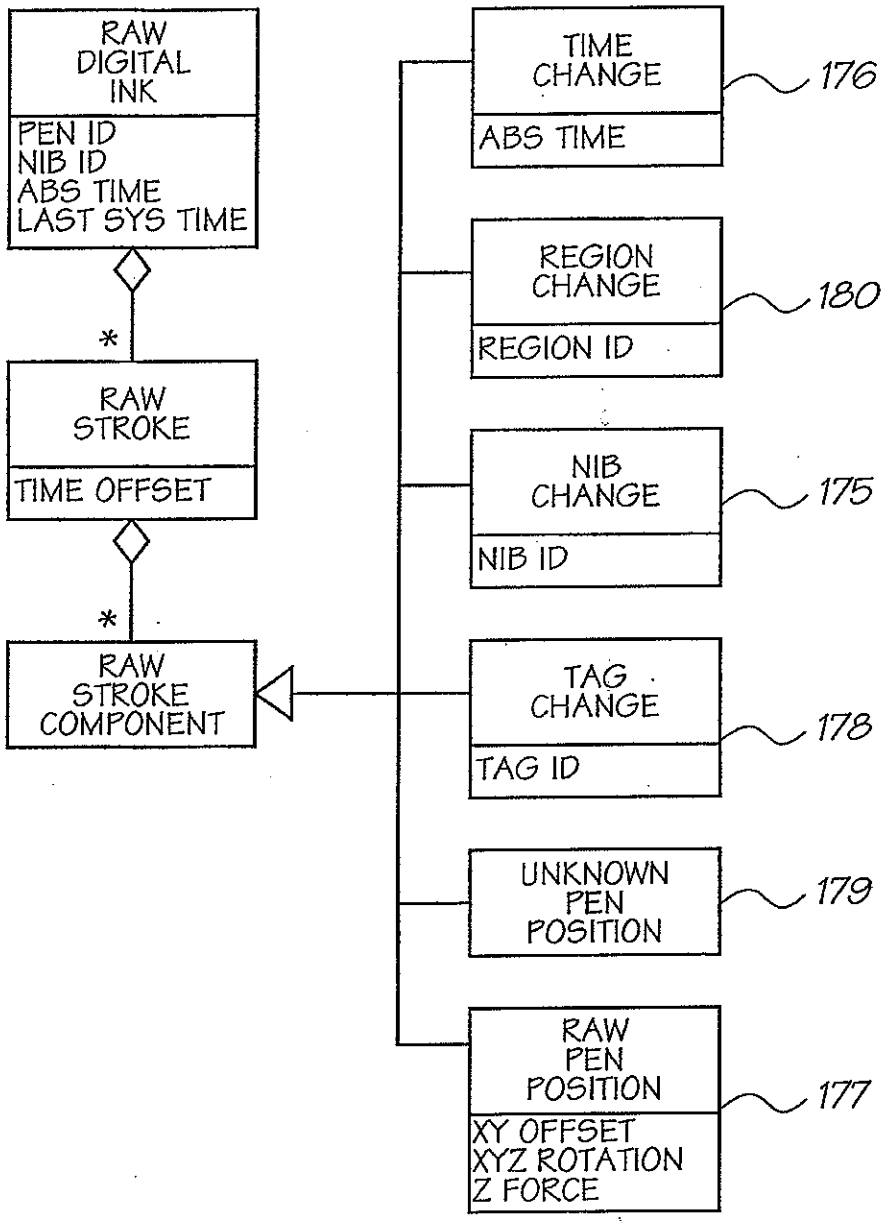

RAW DIGITAL INK
PEN ID
NIB ID
ABS TIME
LAST SYS TIME
*
RAW STROKE
TIME OFFSET
*
RAW STROKE COMPONENT
TIME CHANGE
ABS TIME
176
REGION CHANGE
REGION ID
180
NIB CHANGE
NIB ID
175
TAG CHANGE
TAG ID
178
UNKNOWN PEN POSITION
179
RAW PEN POSITION
XY OFFSET
XYZ ROTATION
Z FORCE
177

FIG. 12

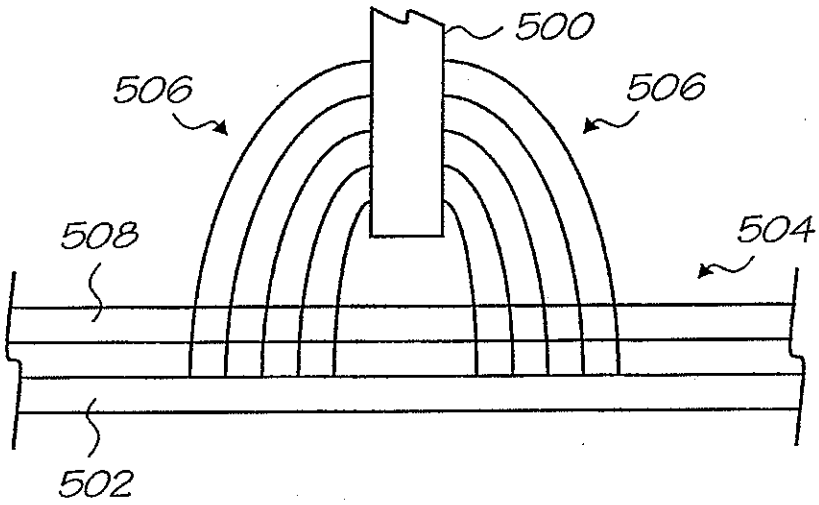


FIG. 13