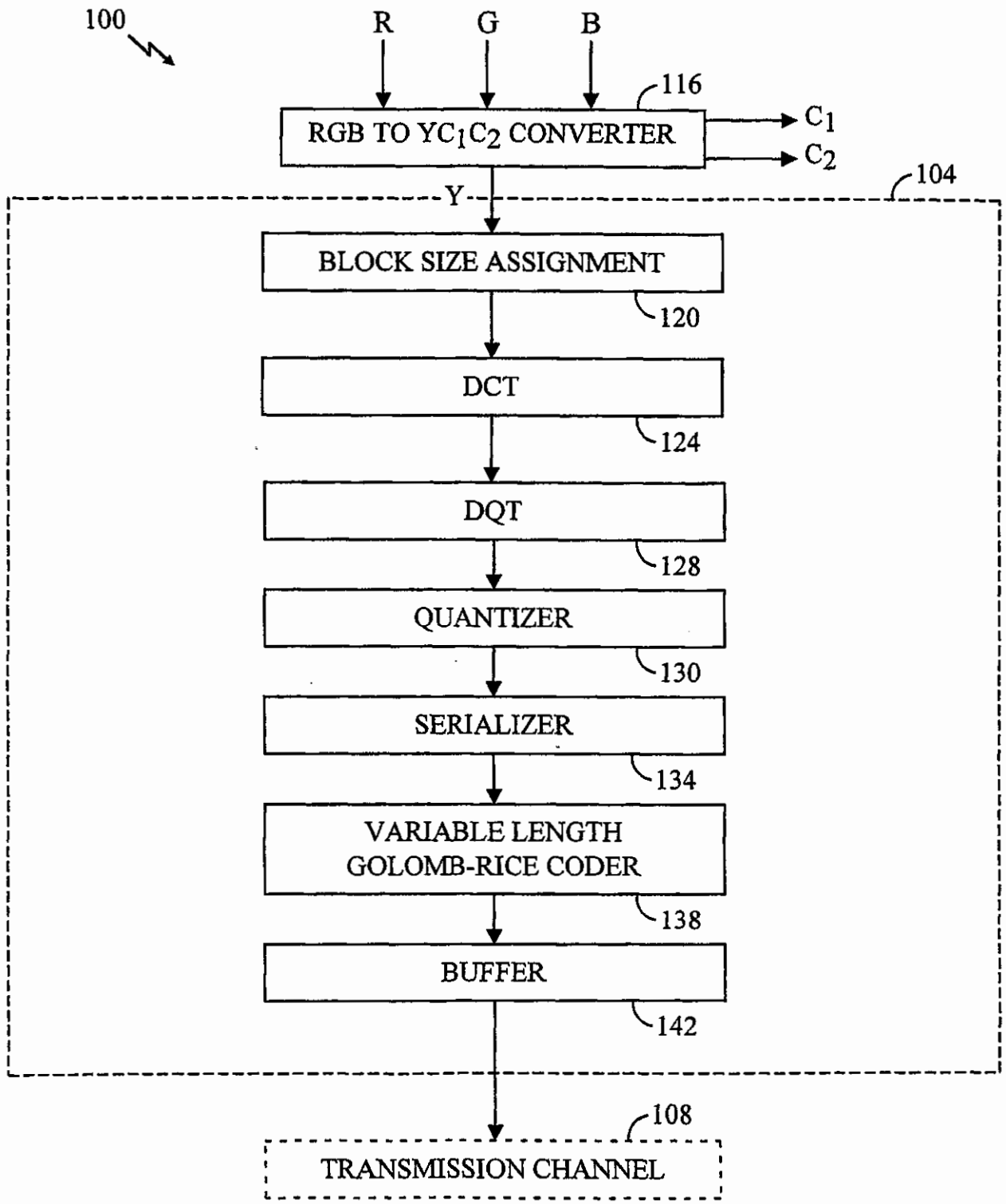

100
R
G
B
116
RGB TO YC1C2 CONVERTER
C1
C2
104
Y
BLOCK SIZE ASSIGNMENT
120
DCT
124
DQT
128
QUANTIZER
130
SERIALIZER
134
VARIABLE LENGTH
GOLOMB-RICE CODER
138
BUFFER
142
108
TRANSMISSION CHANNEL

FIG. 1

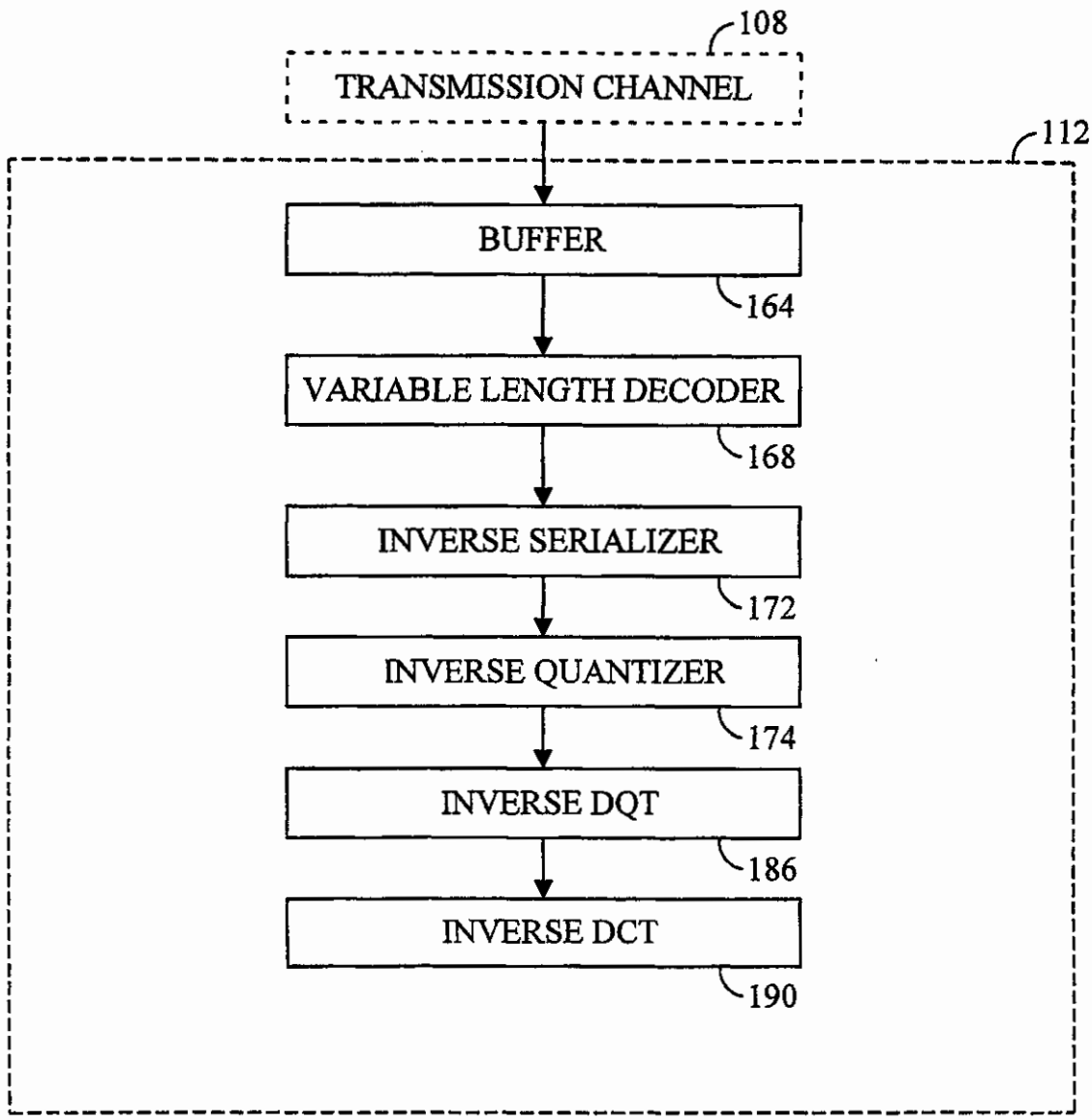

108
TRANSMISSION CHANNEL
112
BUFFER
164
VARIABLE LENGTH DECODER
168
INVERSE SERIALIZER
172
INVERSE QUANTIZER
174
INVERSE DQT
186
INVERSE DCT
190

FIG. 2

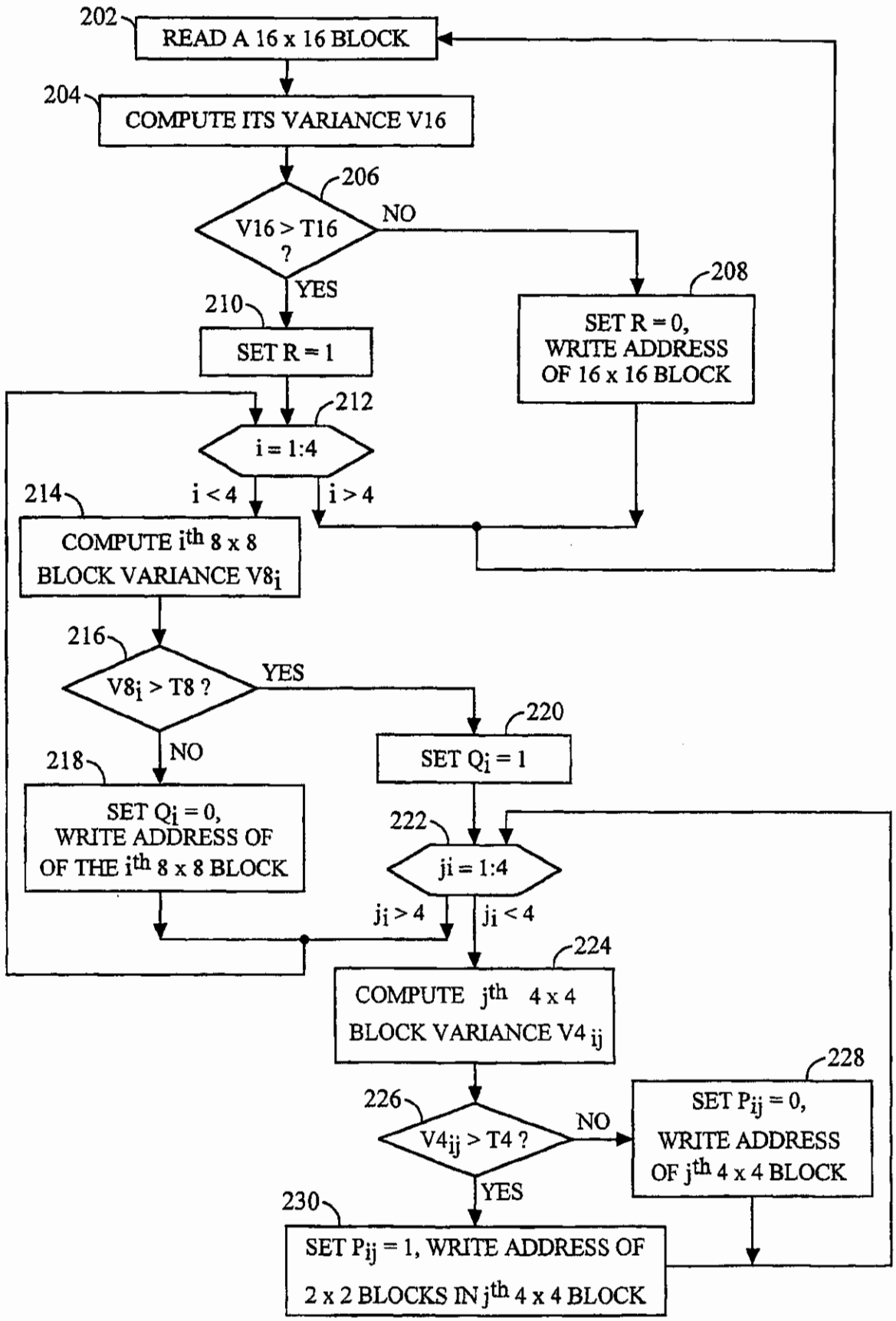

202
READ A 16 x 16 BLOCK
204
COMPUTE ITS VARIANCE V16
206
V16 > T16 ?
NO
YES
208
SET R = 0, WRITE ADDRESS OF 16 x 16 BLOCK
210
SET R = 1
212
i = 1:4
i < 4
i > 4
214
COMPUTE i^th 8 x 8 BLOCK VARIANCE V8_i
216
V8_i > T8 ?
YES
NO
218
SET Q_i = 0, WRITE ADDRESS OF OF THE i^th 8 x 8 BLOCK
220
SET Q_i = 1
222
ji = 1:4
ji > 4
ji < 4
224
COMPUTE j^th 4 x 4 BLOCK VARIANCE V4_ij
226
V4_ij > T4 ?
NO
YES
228
SET P_ij = 0, WRITE ADDRESS OF j^th 4 x 4 BLOCK
230
SET P_ij = 1, WRITE ADDRESS OF 2 x 2 BLOCKS IN j^th 4 x 4 BLOCK

FIG. 3

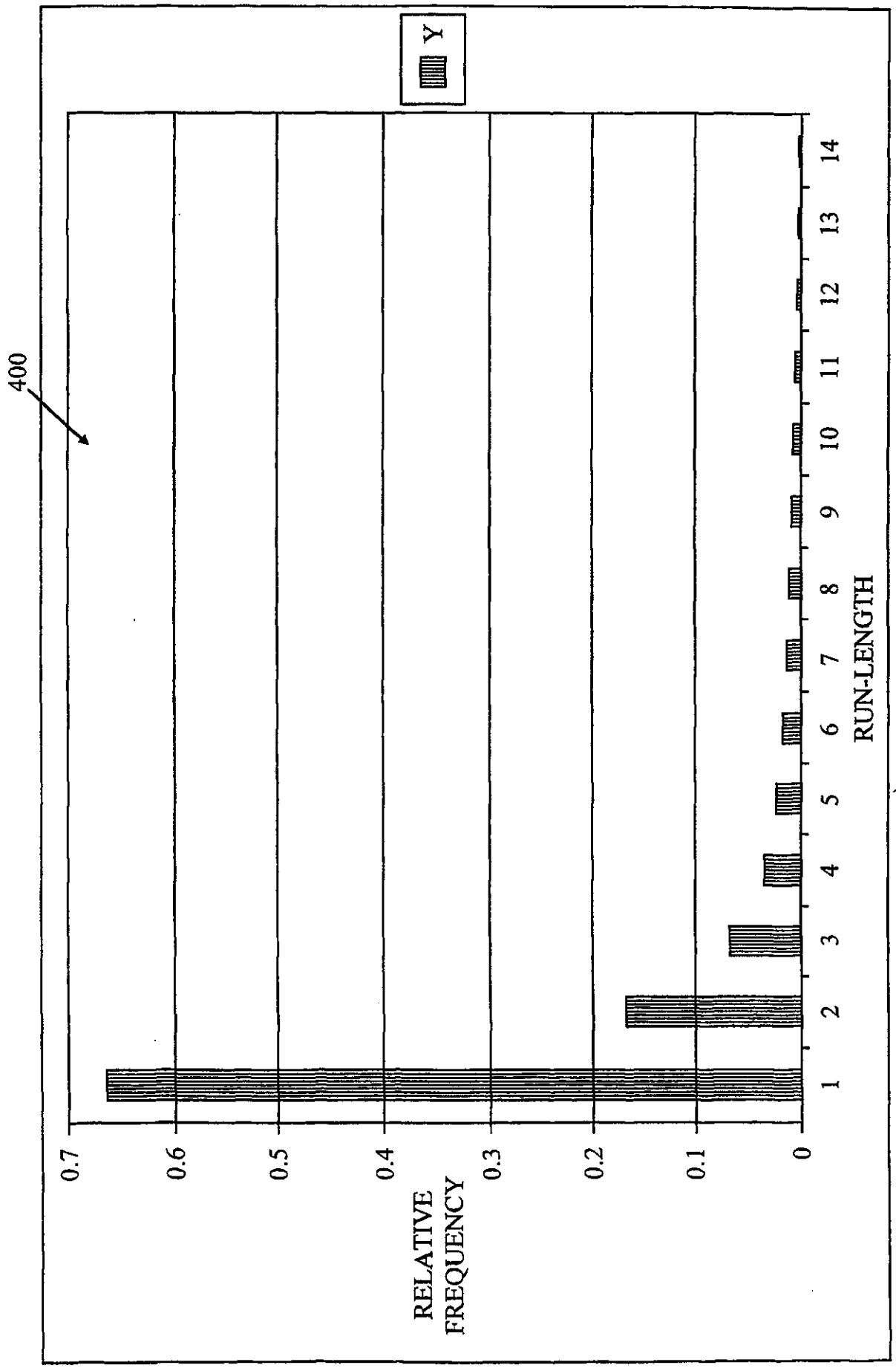

400
Y
RELATIVE FREQUENCY
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
RUN-LENGTH
1
2
3
4
5
6
7
8
9
10
11
12
13
14

FIG. 4A

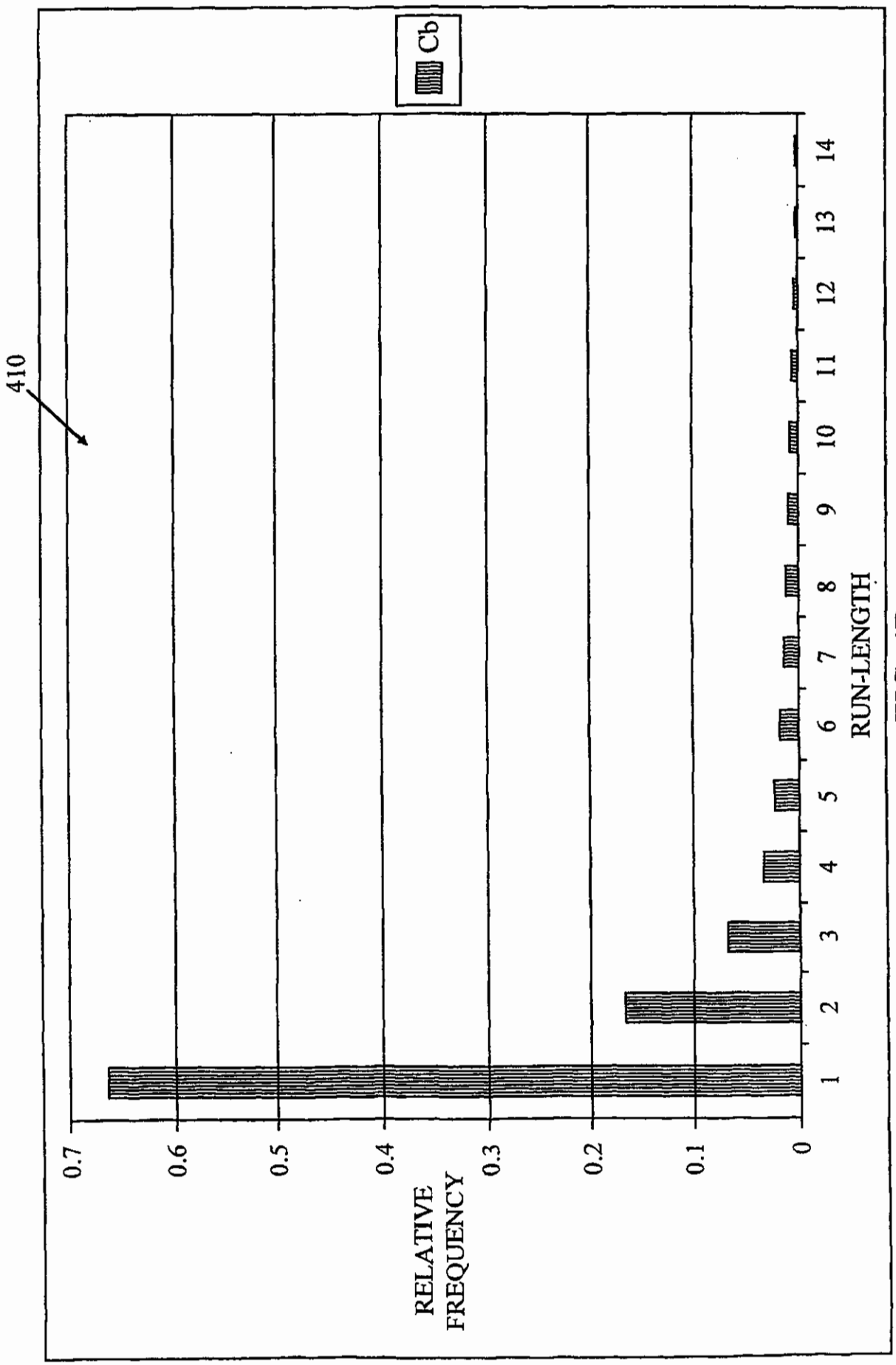

410
Cb
RELATIVE FREQUENCY
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
RUN-LENGTH
1
2
3
4
5
6
7
8
9
10
11
12
13
14

FIG. 4B

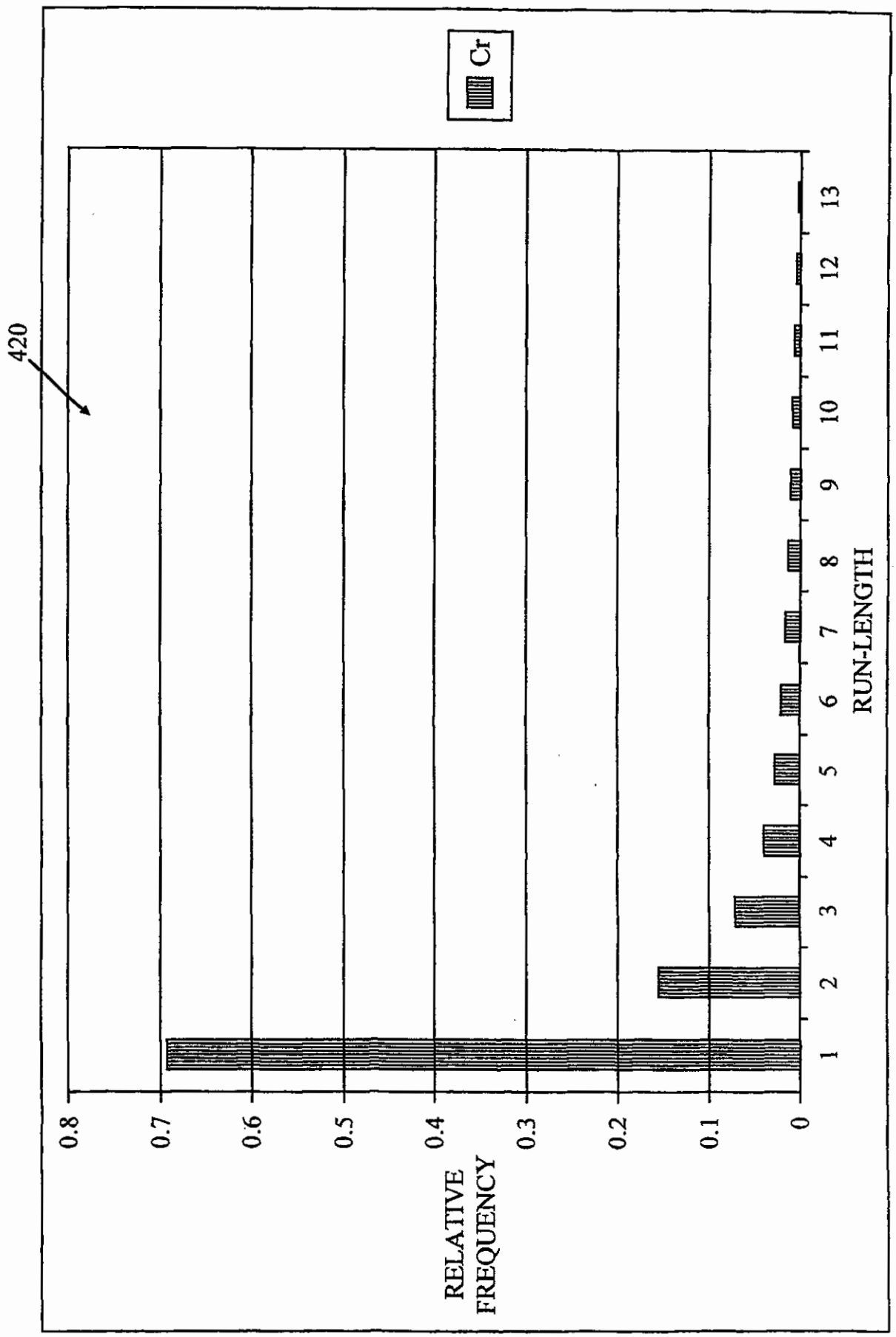

420
Cr
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
RELATIVE FREQUENCY
1
2
3
4
5
6
7
8
9
10
11
12
13
RUN-LENGTH

FIG. 4C

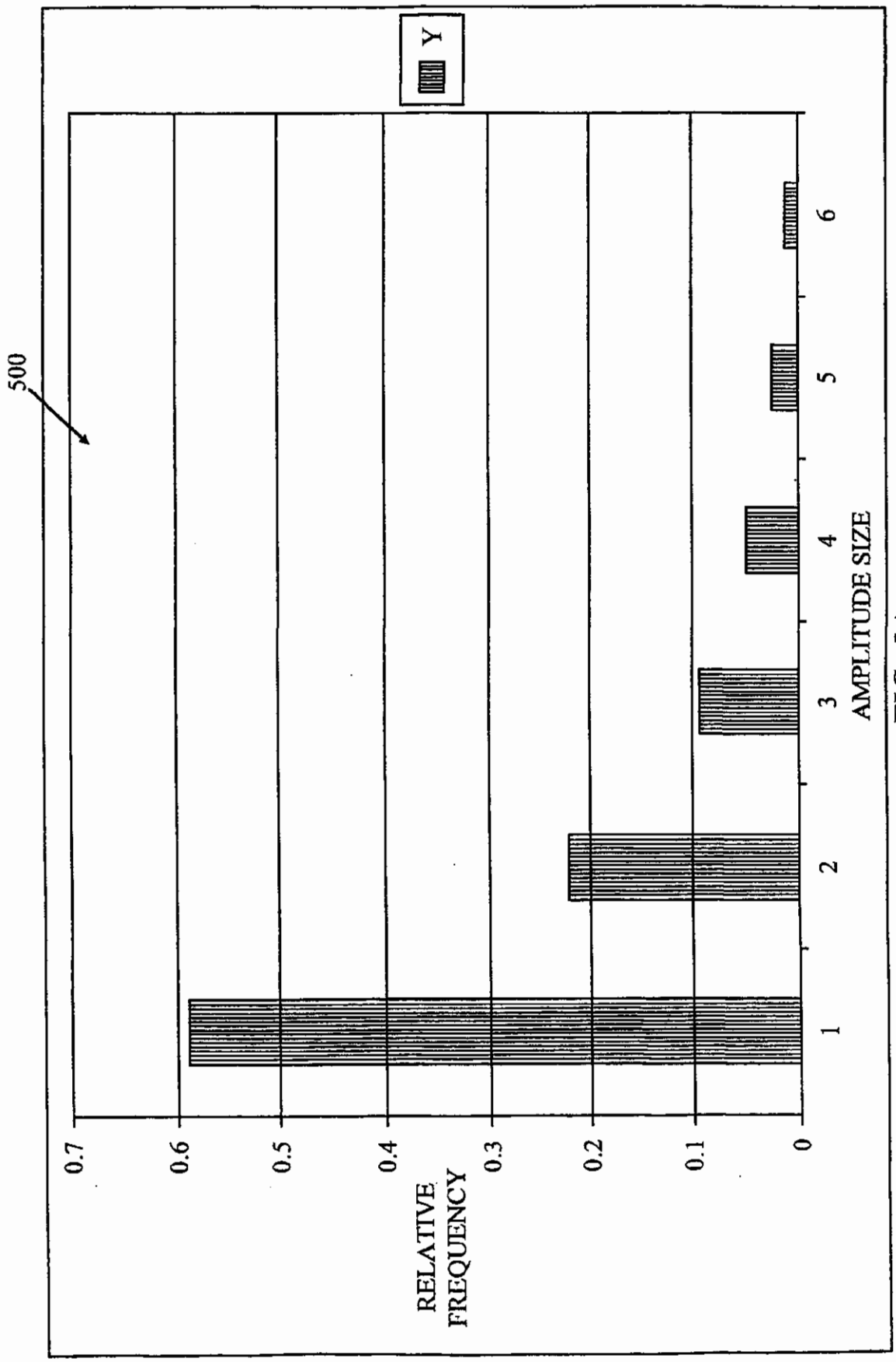

500
Y
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
RELATIVE FREQUENCY
1
2
3
4
5
6
AMPLITUDE SIZE

FIG. 5A

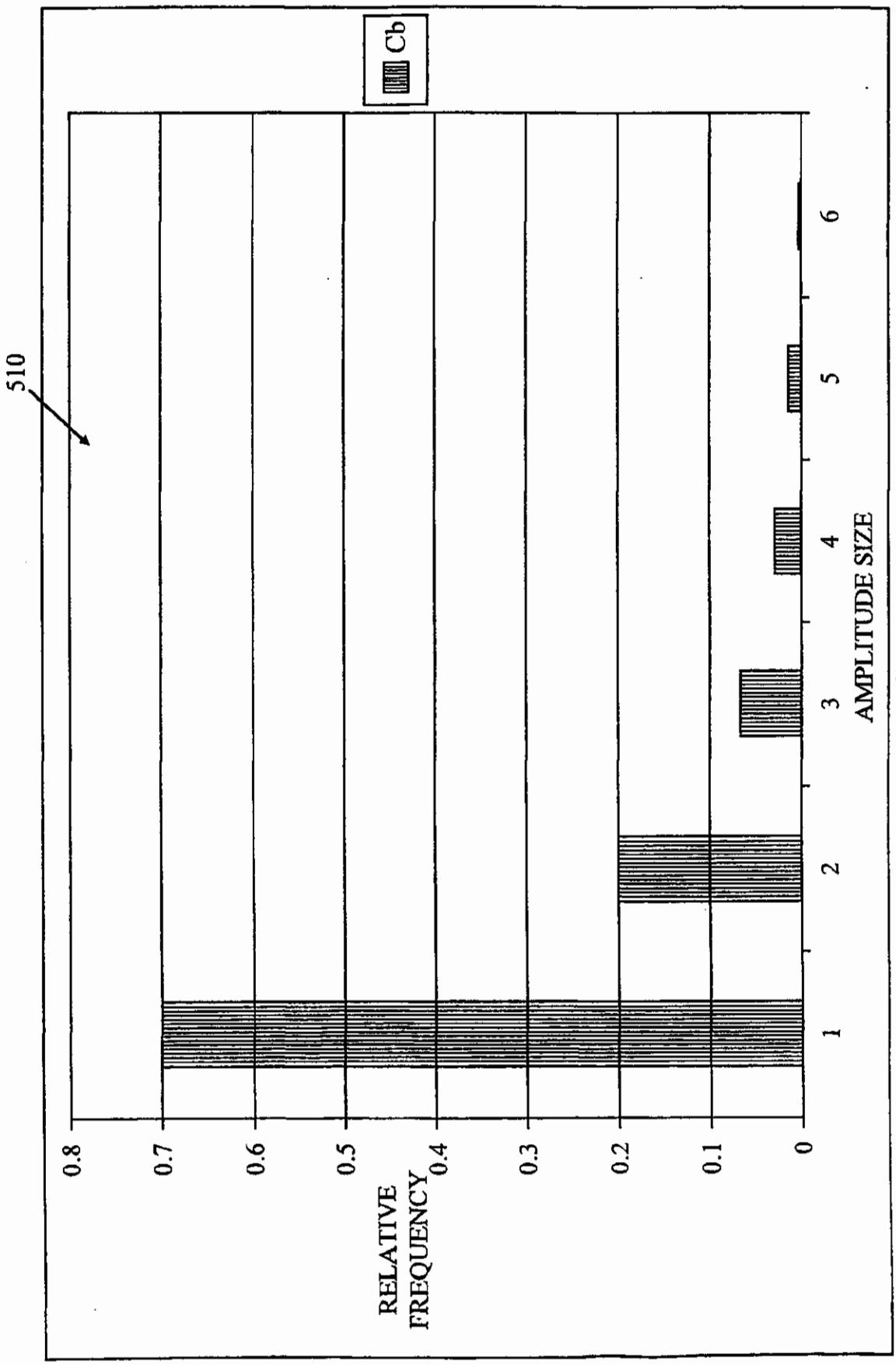

510
Cb
RELATIVE FREQUENCY
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1
2
3
4
5
6
AMPLITUDE SIZE

FIG. 5B

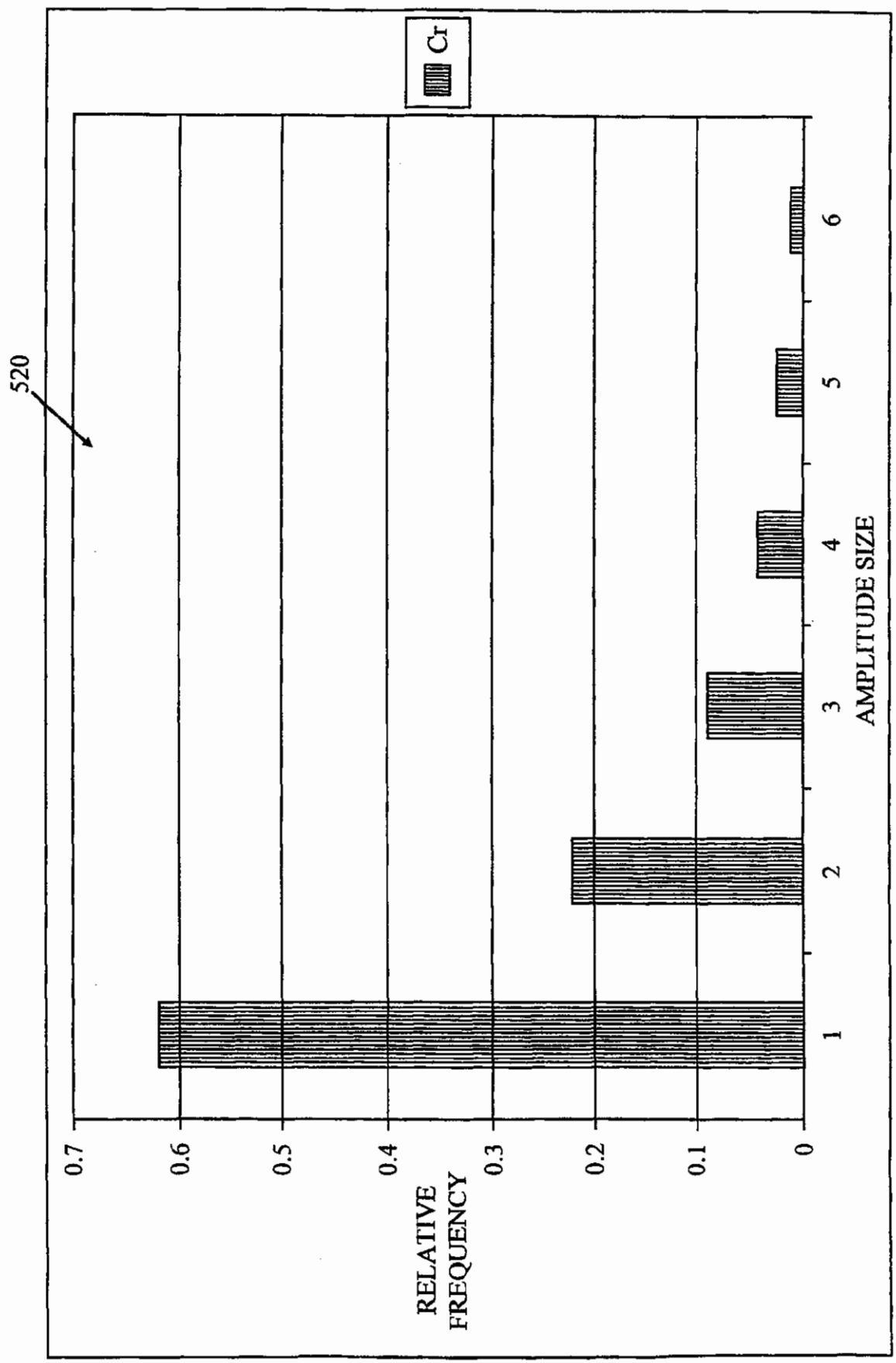

520
Cr
RELATIVE FREQUENCY
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1
2
3
4
5
6
AMPLITUDE SIZE

FIG. 5C

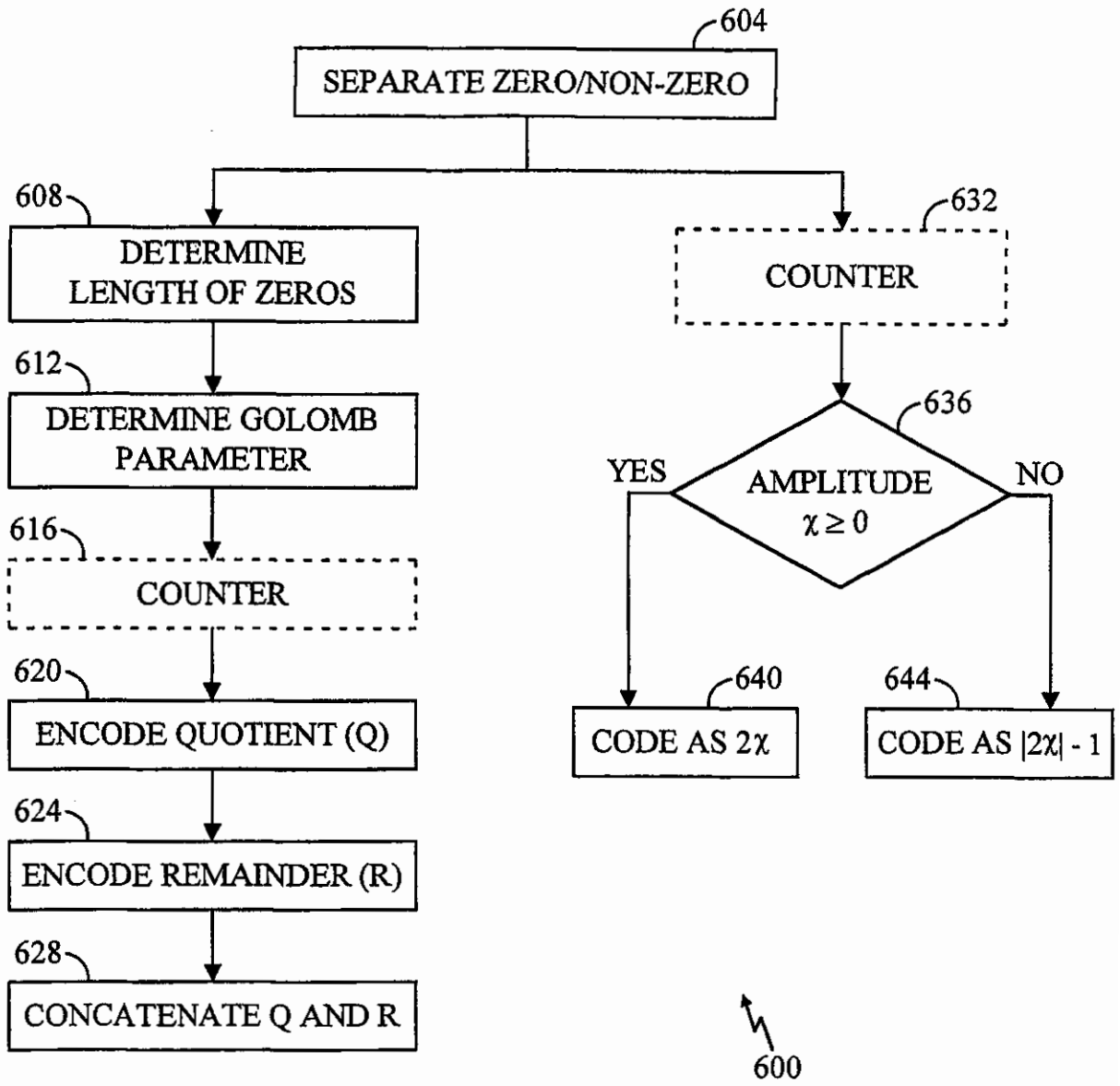

604
SEPARATE ZERO/NON-ZERO
608
DETERMINE LENGTH OF ZEROS
612
DETERMINE GOLOMB PARAMETER
616
COUNTER
620
ENCODE QUOTIENT (Q)
624
ENCODE REMAINDER (R)
628
CONCATENATE Q AND R
632
COUNTER
636
AMPLITUDE χ ≥ 0
YES
NO
640
CODE AS 2χ
644
CODE AS |2χ| - 1
600

FIG. 6

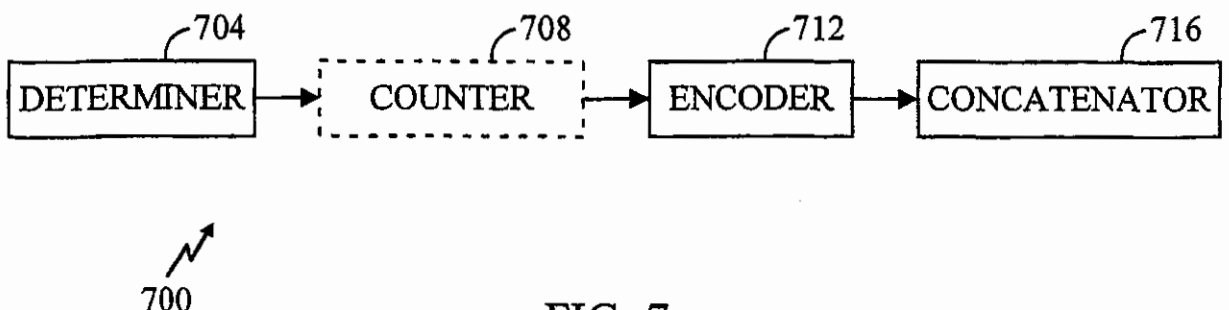

704
DETERMINER
708
COUNTER
712
ENCODER
716
CONCATENATOR
700

FIG. 7