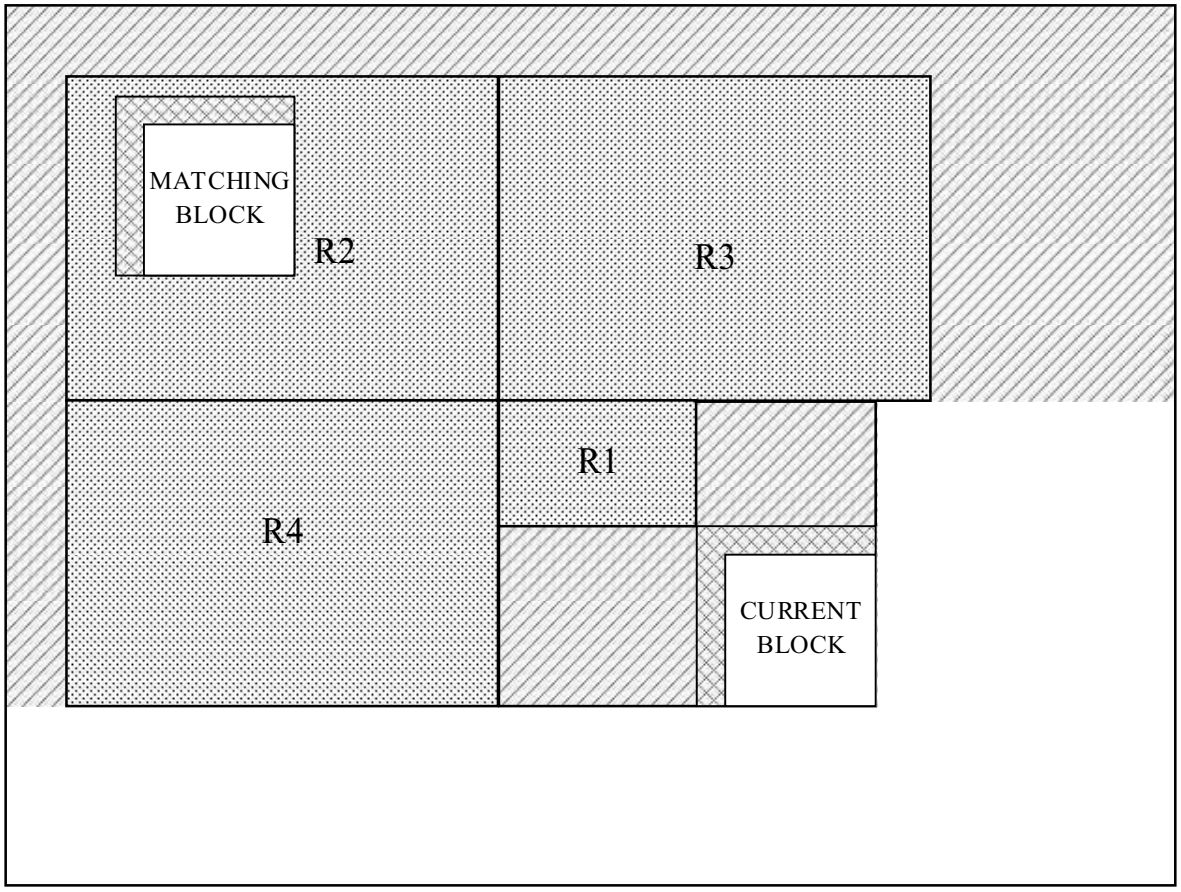

MATCHING
BLOCK
R2
R3
R1
R4
CURRENT
BLOCK
TEMPLATE
REGION
RECONSTRUCTED
REGION
SEARCH
REGION

FIG. 1

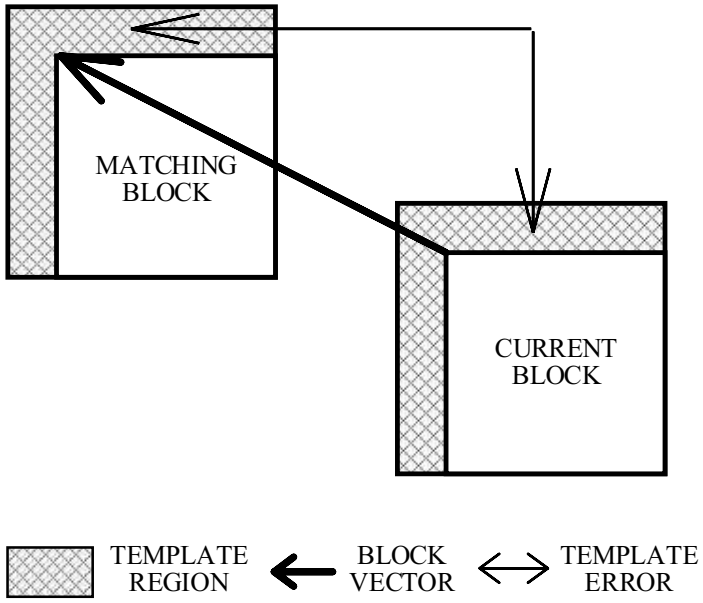

MATCHING
BLOCK
CURRENT
BLOCK
TEMPLATE
REGION
BLOCK
VECTOR
TEMPLATE
ERROR

FIG. 2

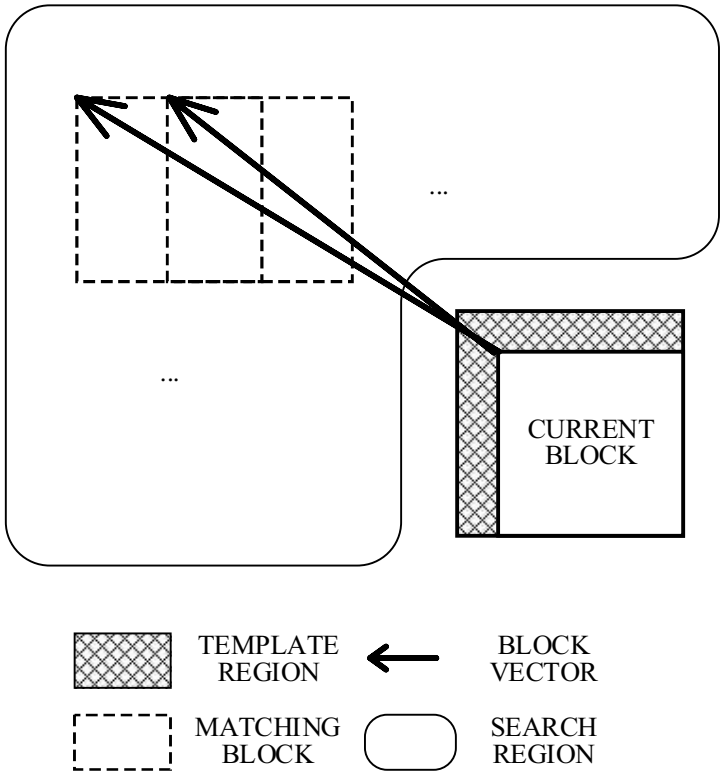

...
...
CURRENT
BLOCK
TEMPLATE
REGION
BLOCK
VECTOR
MATCHING
BLOCK
SEARCH
REGION

FIG. 3A

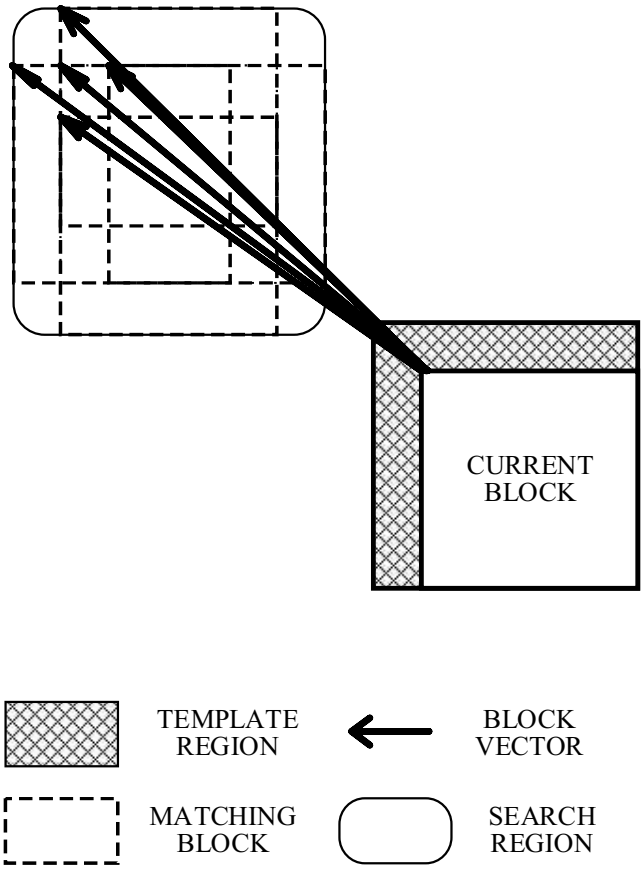

CURRENT
BLOCK
TEMPLATE
REGION
BLOCK
VECTOR
MATCHING
BLOCK
SEARCH
REGION

FIG. 3B

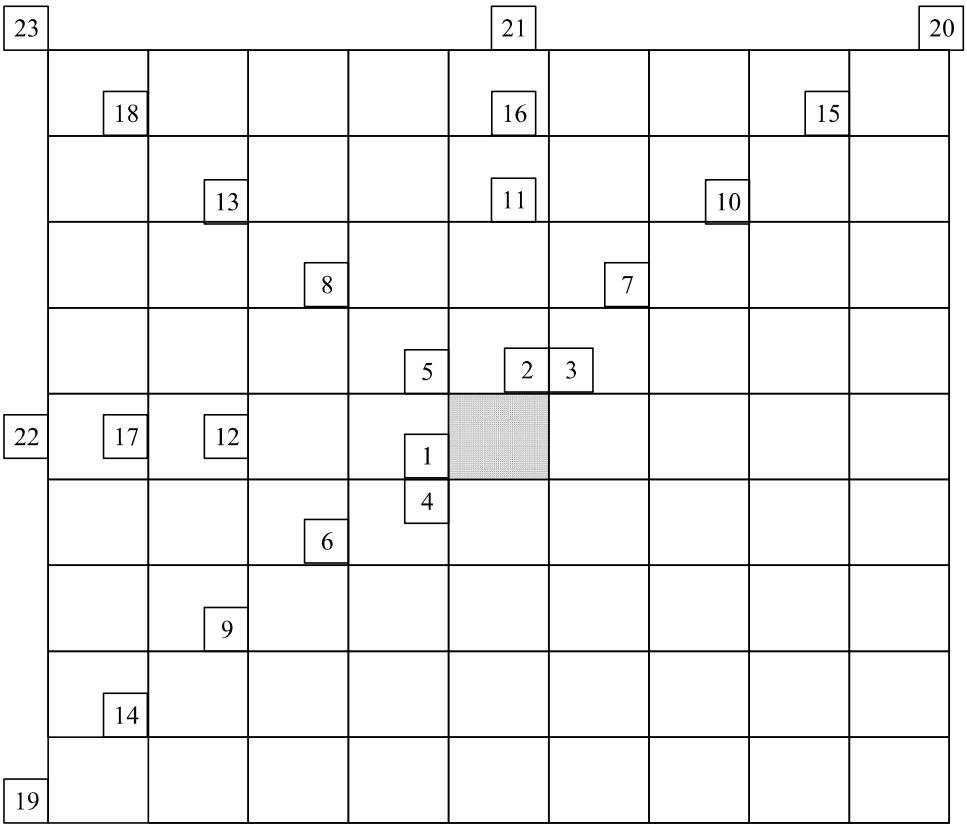

23
21
20
18
16
15
13
11
10
8
7
5
2
3
22
17
12
1
4
6
9
14
19

FIG. 4

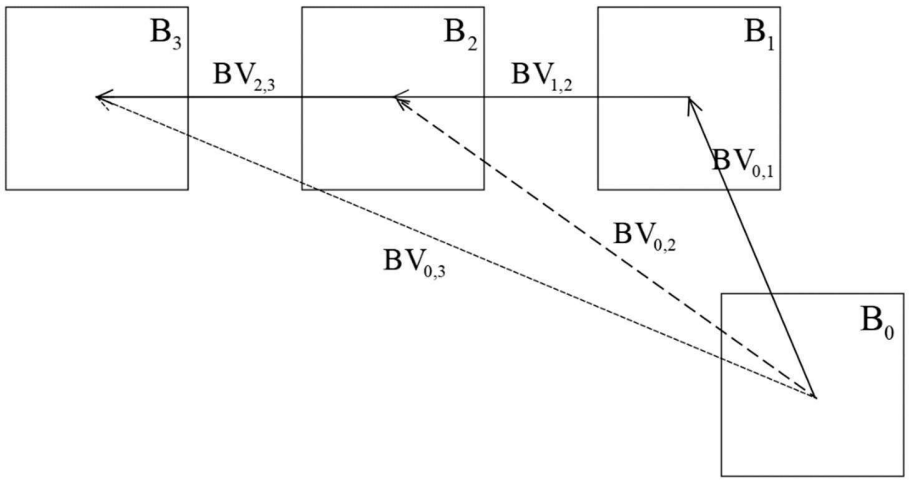

B3
B2
B1
BV2,3
BV1,2
BV0,1
BV0,2
BV0,3
B0

FIG. 5

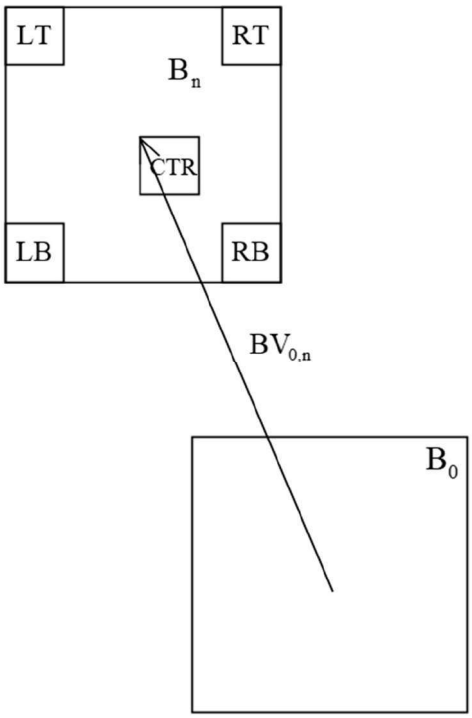

LT
RT
B_n
CTR
LB
RB
$BV_{0,n}$
B_0

FIG. 6

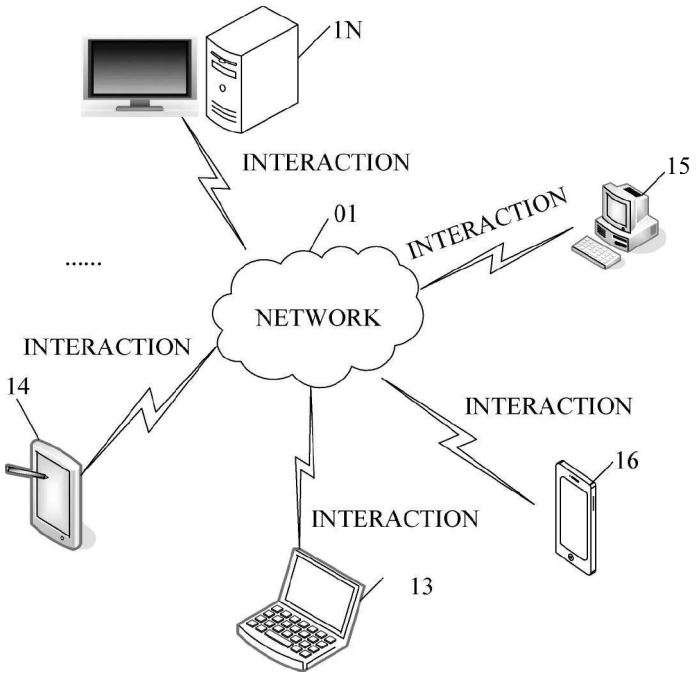

1N
INTERACTION
01
15
INTERACTION
.....
NETWORK
INTERACTION
14
INTERACTION
16
INTERACTION
13

FIG. 7

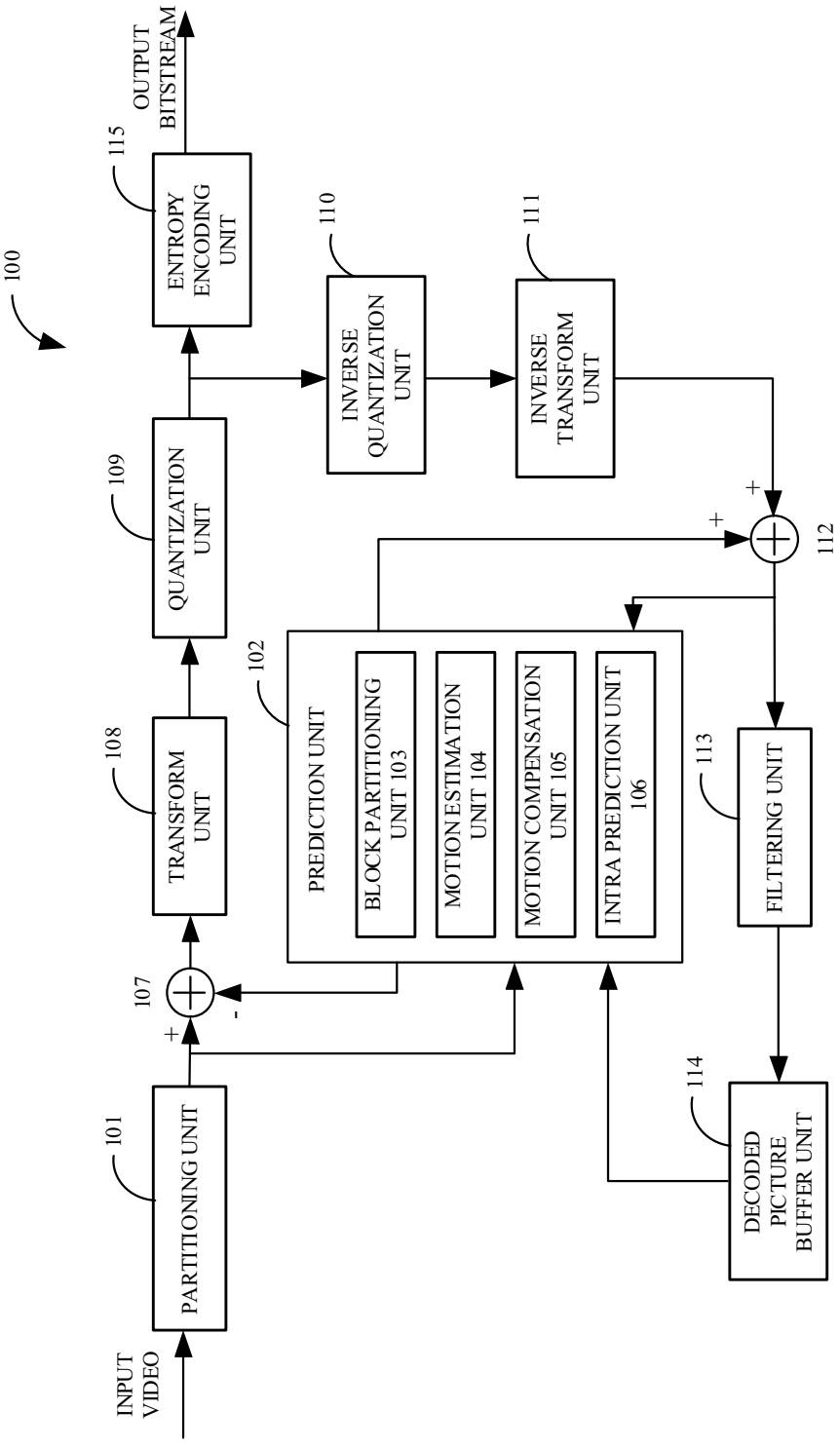

100
INPUT VIDEO
101
PARTITIONING UNIT
107
+
-
108
TRANSFORM UNIT
109
QUANTIZATION UNIT
102
PREDICTION UNIT
BLOCK PARTITIONING UNIT 103
MOTION ESTIMATION UNIT 104
MOTION COMPENSATION UNIT 105
INTRA PREDICTION UNIT 106
110
INVERSE QUANTIZATION UNIT
111
INVERSE TRANSFORM UNIT
112
+
+
113
FILTERING UNIT
114
DECODED PICTURE BUFFER UNIT
115
ENTROPY ENCODING UNIT
OUTPUT BITSTREAM

FIG. 8

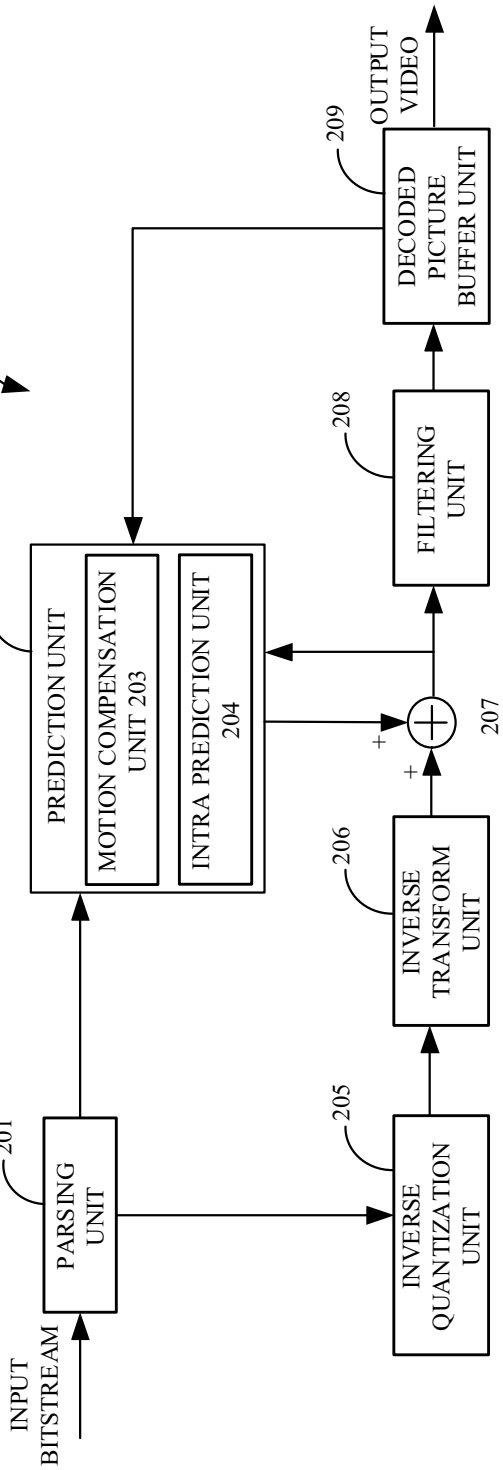

200
INPUT BITSTREAM
201
PARSING UNIT
205
INVERSE QUANTIZATION UNIT
206
INVERSE TRANSFORM UNIT
207
+
+
202
PREDICTION UNIT
MOTION COMPENSATION UNIT 203
INTRA PREDICTION UNIT 204
208
FILTERING UNIT
209
DECODED PICTURE BUFFER UNIT
OUTPUT VIDEO

FIG. 9

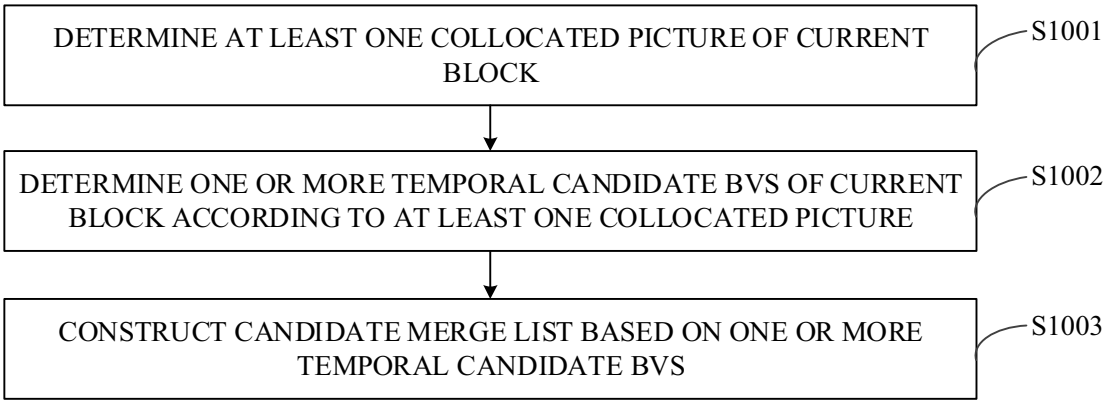

DETERMINE AT LEAST ONE COLLOCATED PICTURE OF CURRENT BLOCK
S1001
DETERMINE ONE OR MORE TEMPORAL CANDIDATE BVS OF CURRENT BLOCK ACCORDING TO AT LEAST ONE COLLOCATED PICTURE
S1002
CONSTRUCT CANDIDATE MERGE LIST BASED ON ONE OR MORE TEMPORAL CANDIDATE BVS
S1003

FIG. 10

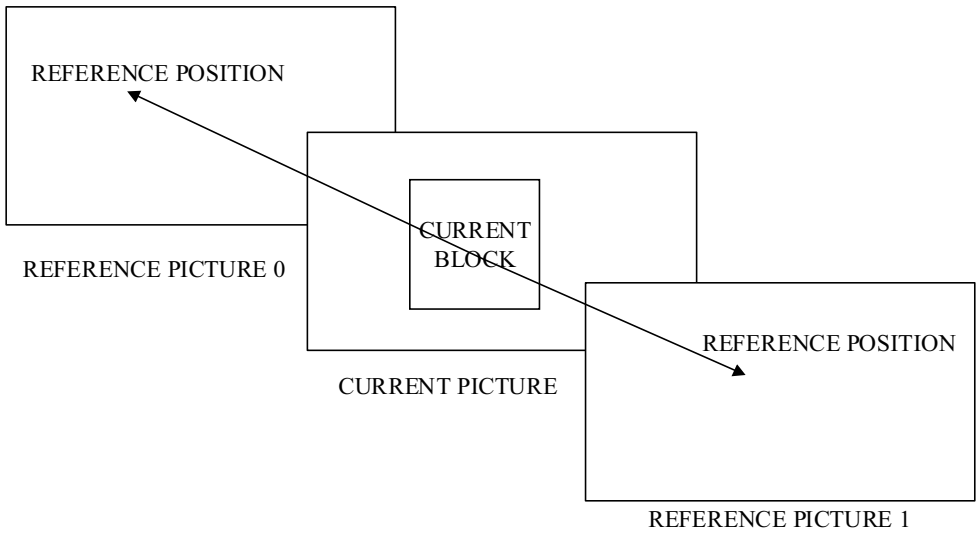

REFERENCE POSITION
REFERENCE PICTURE 0
CURRENT BLOCK
REFERENCE POSITION
CURRENT PICTURE
REFERENCE PICTURE 1

FIG. 11

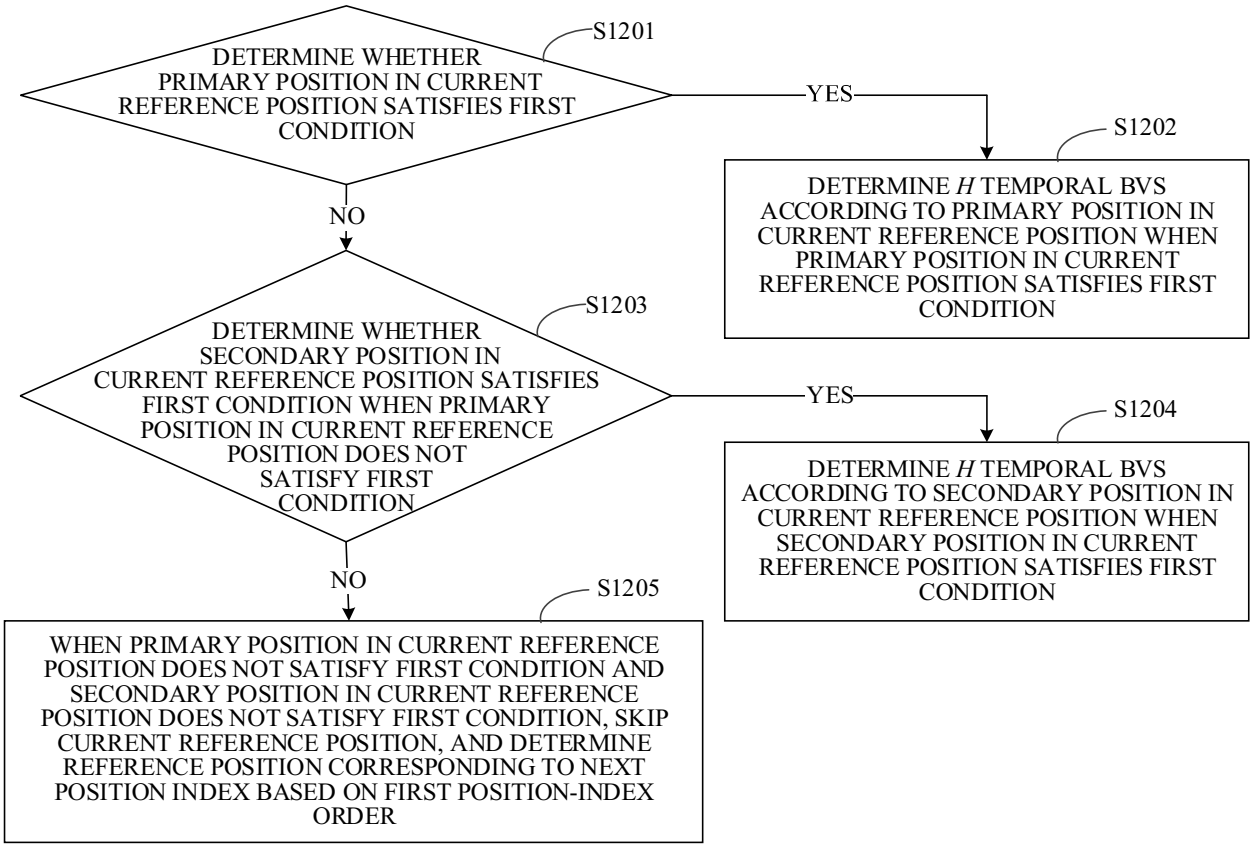

S1201
DETERMINE WHETHER PRIMARY POSITION IN CURRENT REFERENCE POSITION SATISFIES FIRST CONDITION
YES
S1202
DETERMINE H TEMPORAL BVS ACCORDING TO PRIMARY POSITION IN CURRENT REFERENCE POSITION WHEN PRIMARY POSITION IN CURRENT REFERENCE POSITION SATISFIES FIRST CONDITION
NO
S1203
DETERMINE WHETHER SECONDARY POSITION IN CURRENT REFERENCE POSITION SATISFIES FIRST CONDITION WHEN PRIMARY POSITION IN CURRENT REFERENCE POSITION DOES NOT SATISFY FIRST CONDITION
YES
S1204
DETERMINE H TEMPORAL BVS ACCORDING TO SECONDARY POSITION IN CURRENT REFERENCE POSITION WHEN SECONDARY POSITION IN CURRENT REFERENCE POSITION SATISFIES FIRST CONDITION
NO
S1205
WHEN PRIMARY POSITION IN CURRENT REFERENCE POSITION DOES NOT SATISFY FIRST CONDITION AND SECONDARY POSITION IN CURRENT REFERENCE POSITION DOES NOT SATISFY FIRST CONDITION, SKIP CURRENT REFERENCE POSITION, AND DETERMINE REFERENCE POSITION CORRESPONDING TO NEXT POSITION INDEX BASED ON FIRST POSITION-INDEX ORDER

FIG. 12

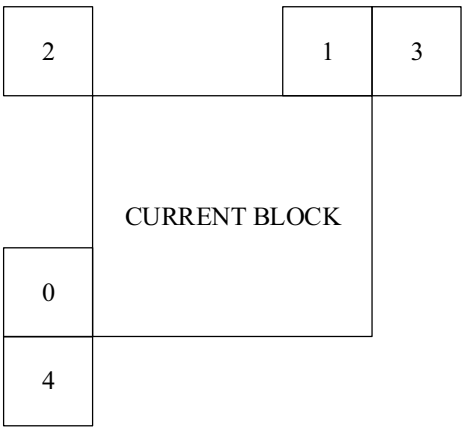

2
1
3
CURRENT BLOCK
0
4

FIG. 13

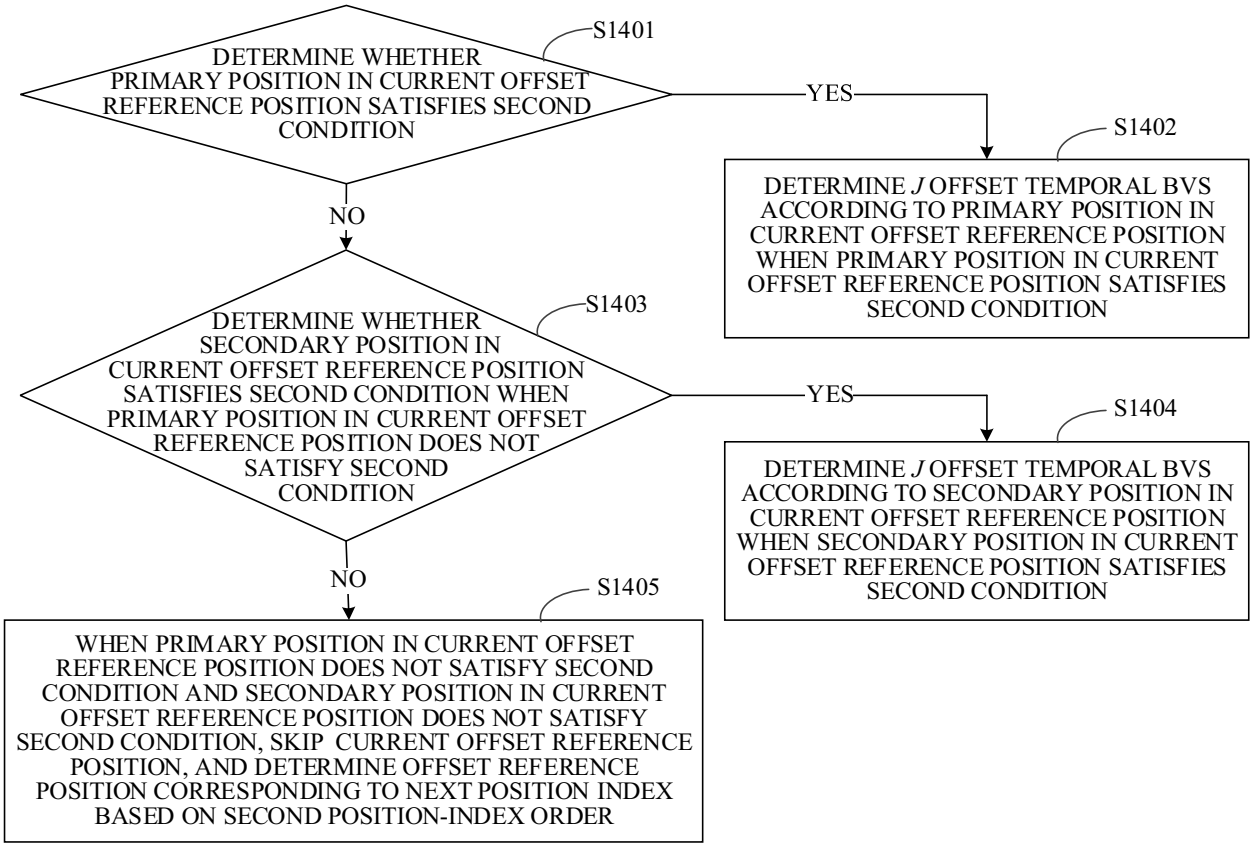

S1401
DETERMINE WHETHER PRIMARY POSITION IN CURRENT OFFSET REFERENCE POSITION SATISFIES SECOND CONDITION
YES
S1402
DETERMINE J OFFSET TEMPORAL BVS ACCORDING TO PRIMARY POSITION IN CURRENT OFFSET REFERENCE POSITION WHEN PRIMARY POSITION IN CURRENT OFFSET REFERENCE POSITION SATISFIES SECOND CONDITION
NO
S1403
DETERMINE WHETHER SECONDARY POSITION IN CURRENT OFFSET REFERENCE POSITION SATISFIES SECOND CONDITION WHEN PRIMARY POSITION IN CURRENT OFFSET REFERENCE POSITION DOES NOT SATISFY SECOND CONDITION
YES
S1404
DETERMINE J OFFSET TEMPORAL BVS ACCORDING TO SECONDARY POSITION IN CURRENT OFFSET REFERENCE POSITION WHEN SECONDARY POSITION IN CURRENT OFFSET REFERENCE POSITION SATISFIES SECOND CONDITION
NO
S1405
WHEN PRIMARY POSITION IN CURRENT OFFSET REFERENCE POSITION DOES NOT SATISFY SECOND CONDITION AND SECONDARY POSITION IN CURRENT OFFSET REFERENCE POSITION DOES NOT SATISFY SECOND CONDITION, SKIP CURRENT OFFSET REFERENCE POSITION, AND DETERMINE OFFSET REFERENCE POSITION CORRESPONDING TO NEXT POSITION INDEX BASED ON SECOND POSITION-INDEX ORDER

FIG. 14

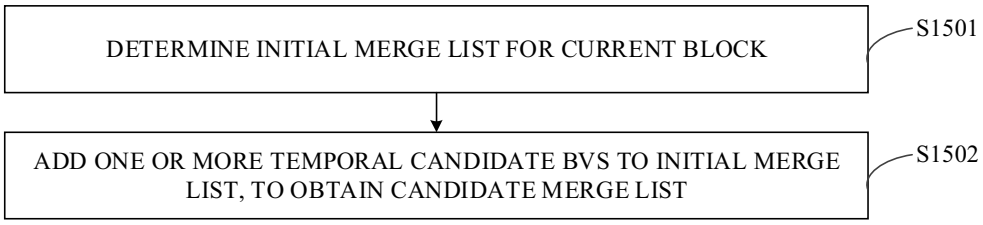

DETERMINE INITIAL MERGE LIST FOR CURRENT BLOCK
S1501
ADD ONE OR MORE TEMPORAL CANDIDATE BVS TO INITIAL MERGE LIST, TO OBTAIN CANDIDATE MERGE LIST
S1502

FIG. 15

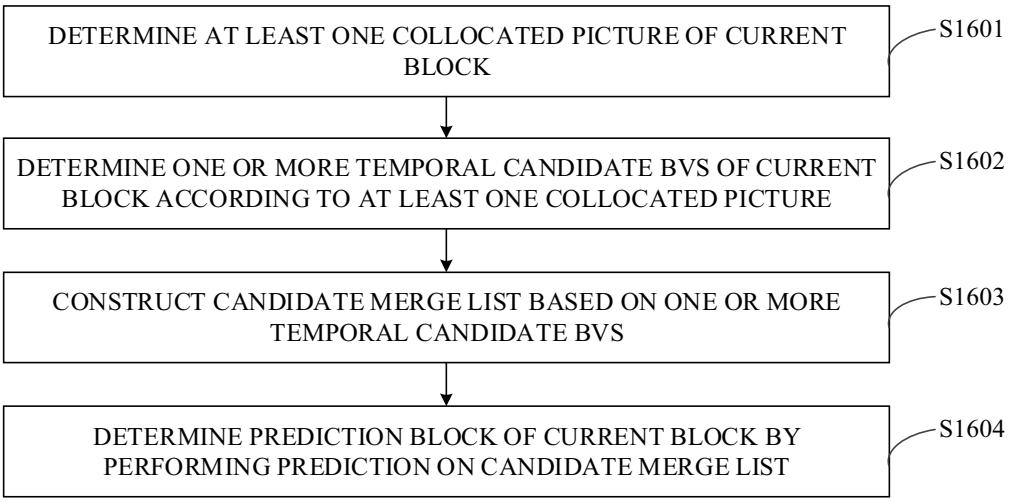


FIG. 16

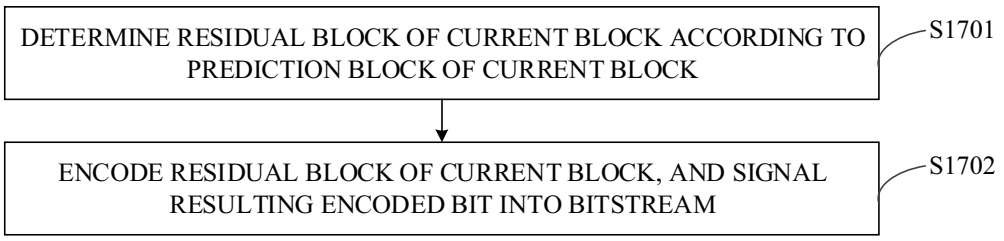


FIG. 17

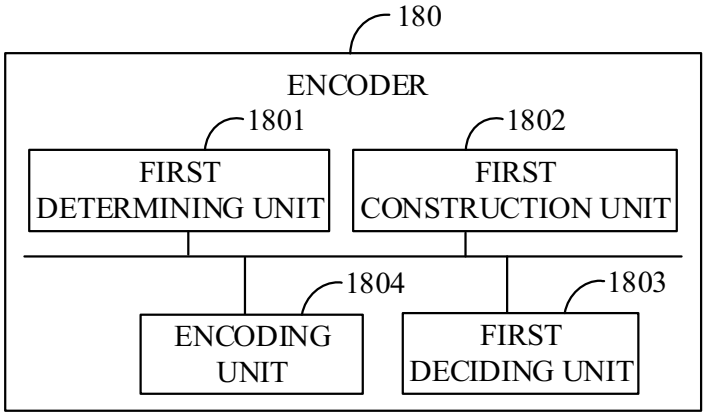


FIG. 18

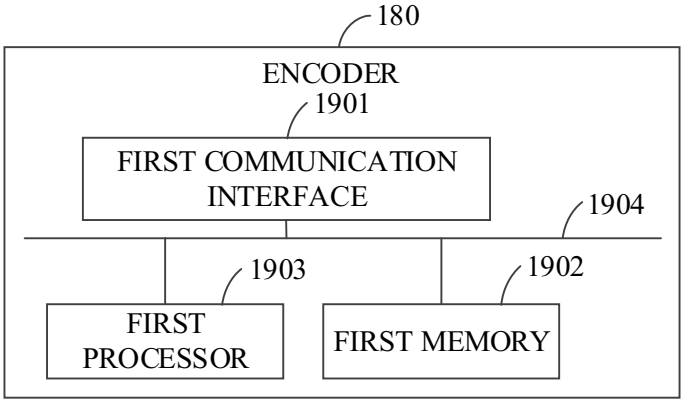


FIG. 19

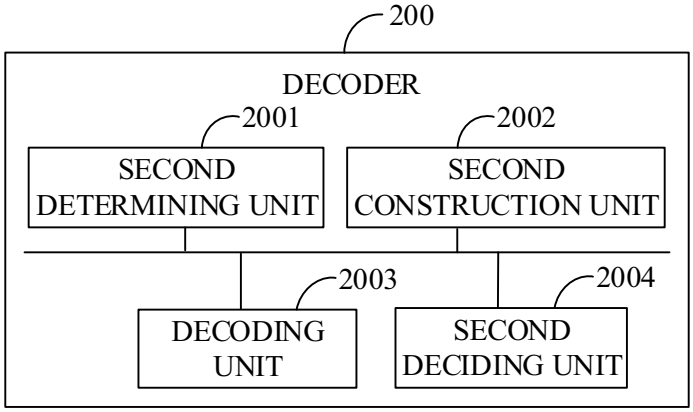


FIG. 20

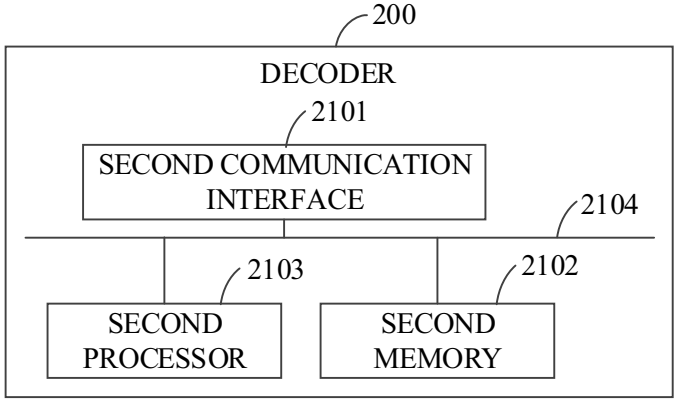


FIG. 21

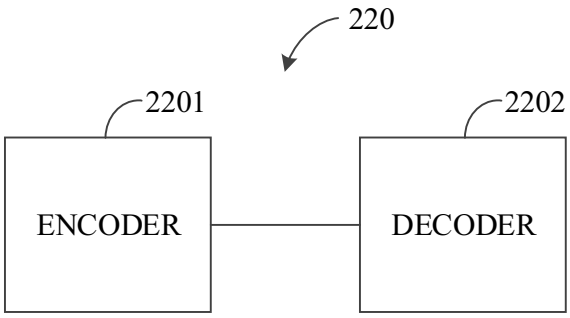


FIG. 22