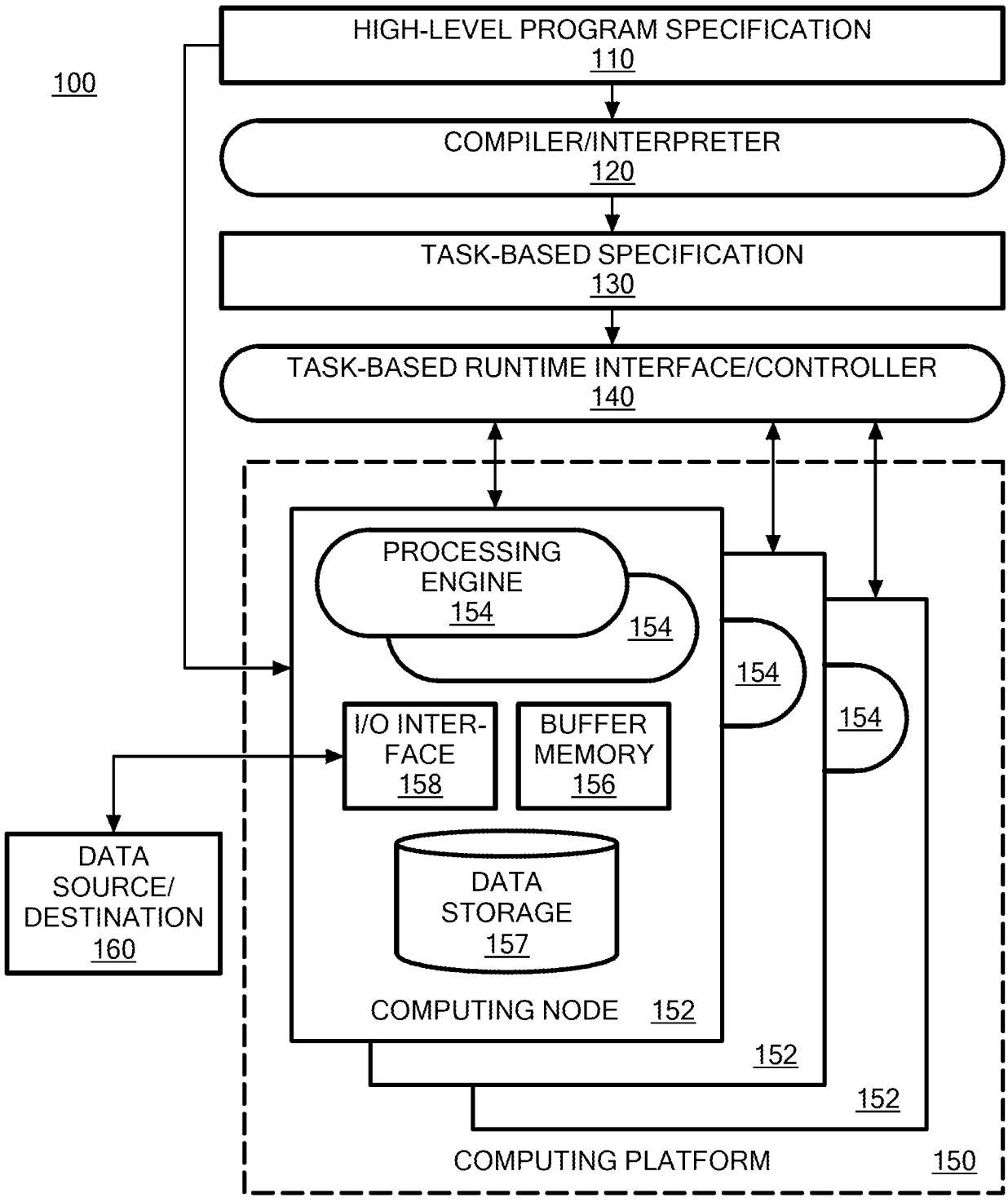

100
HIGH-LEVEL PROGRAM SPECIFICATION
110
COMPILER/INTERPRETER
120
TASK-BASED SPECIFICATION
130
TASK-BASED RUNTIME INTERFACE/CONTROLLER
140
PROCESSING ENGINE
154
154
154
154
I/O INTER-FACE
158
BUFFER MEMORY
156
DATA STORAGE
157
DATA SOURCE/ DESTINATION
160
COMPUTING NODE
152
152
152
COMPUTING PLATFORM
150

FIG. 1

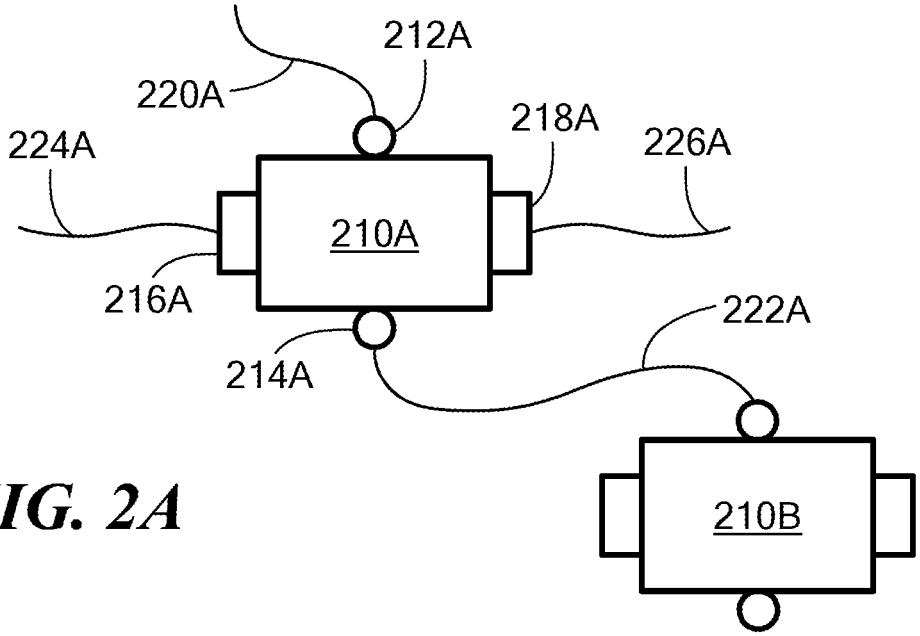

212A
220A
218A
224A
226A
210A
216A
222A
214A
210B

FIG. 2A

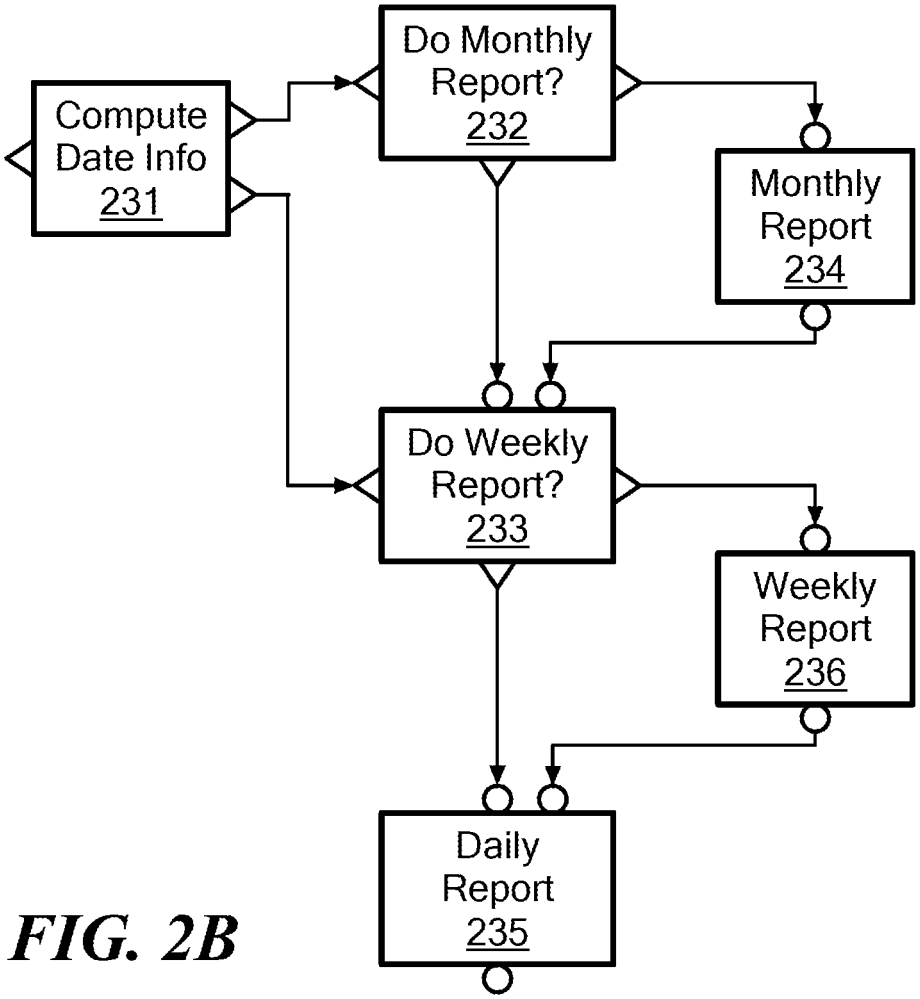

Do Monthly Report? 232
Compute Date Info 231
Monthly Report 234
Do Weekly Report? 233
Weekly Report 236
Daily Report 235

FIG. 2B

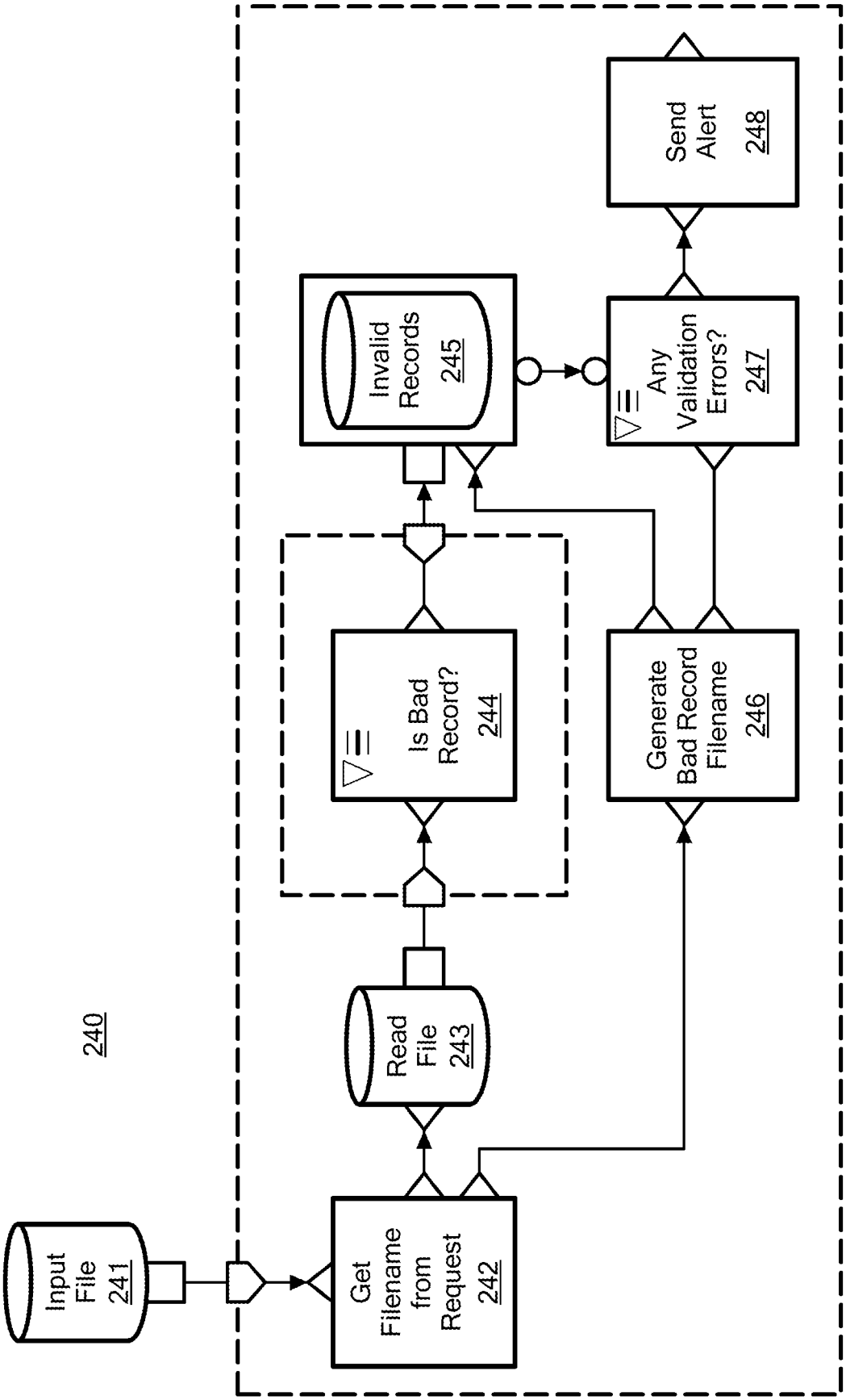

240
Input File 241
Get Filename from Request 242
Read File 243
Is Bad Record? 244
Invalid Records 245
Generate Bad Record Filename 246
Any Validation Errors? 247
Send Alert 248

FIG. 2C

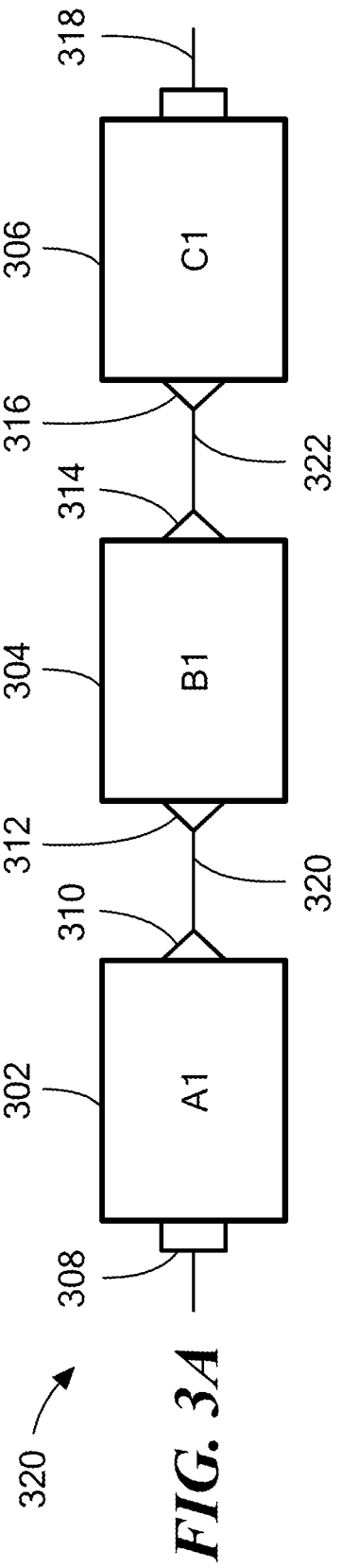


FIG. 3A

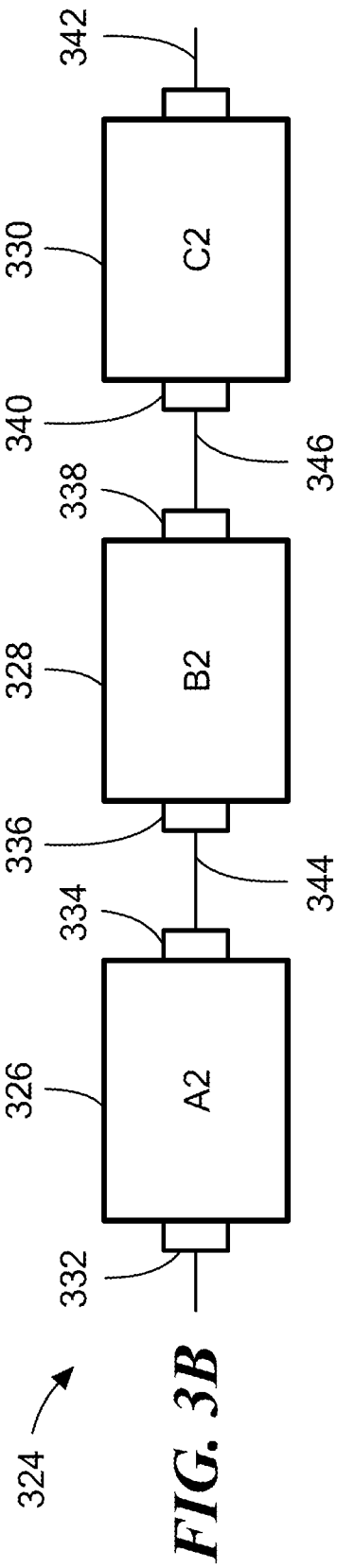


FIG. 3B

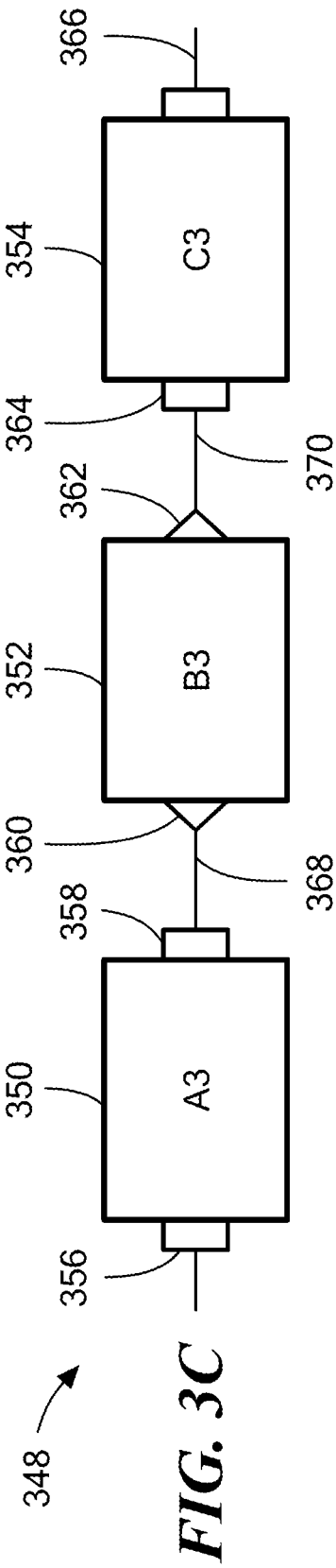


FIG. 3C

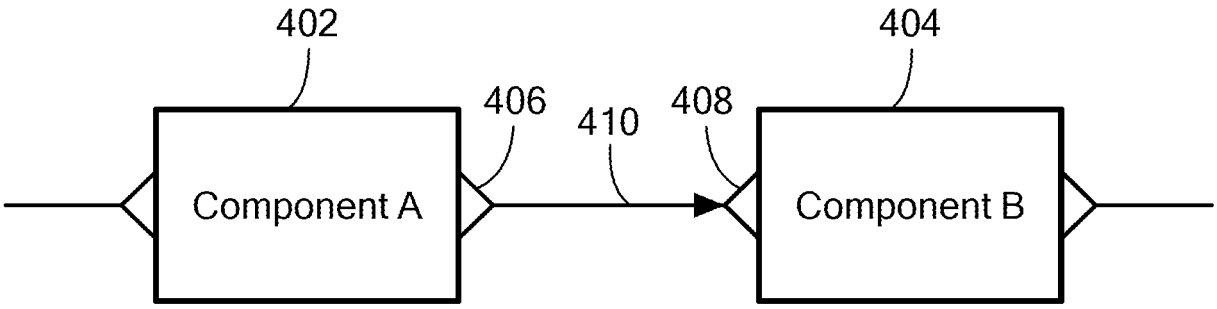


FIG. 4A

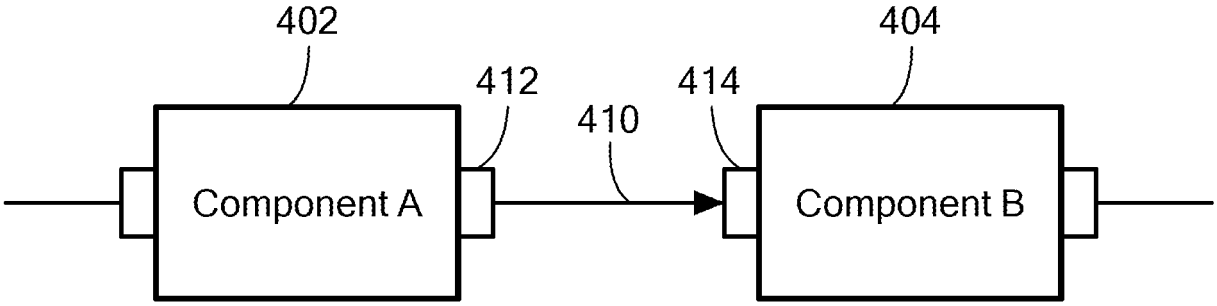


FIG. 4B

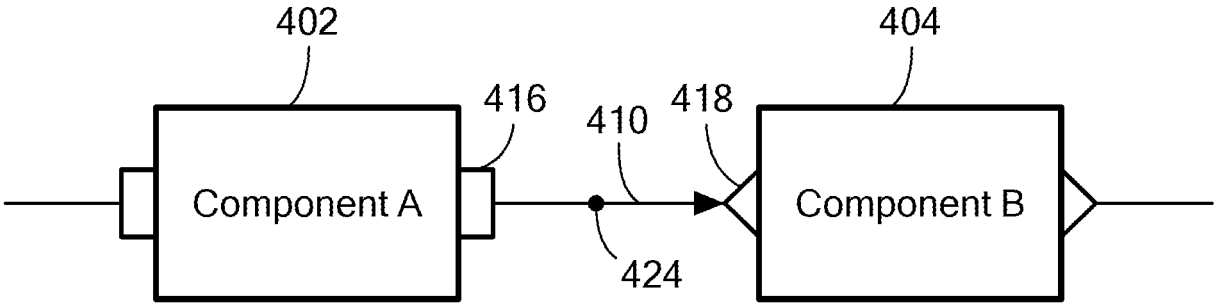


FIG. 4C

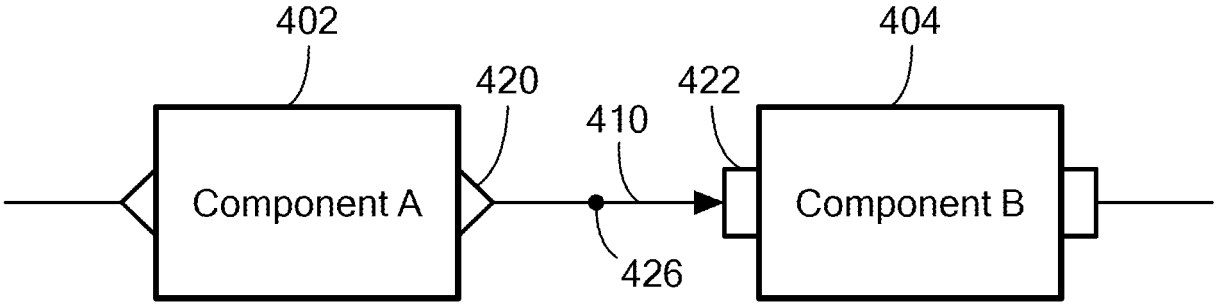


FIG. 4D

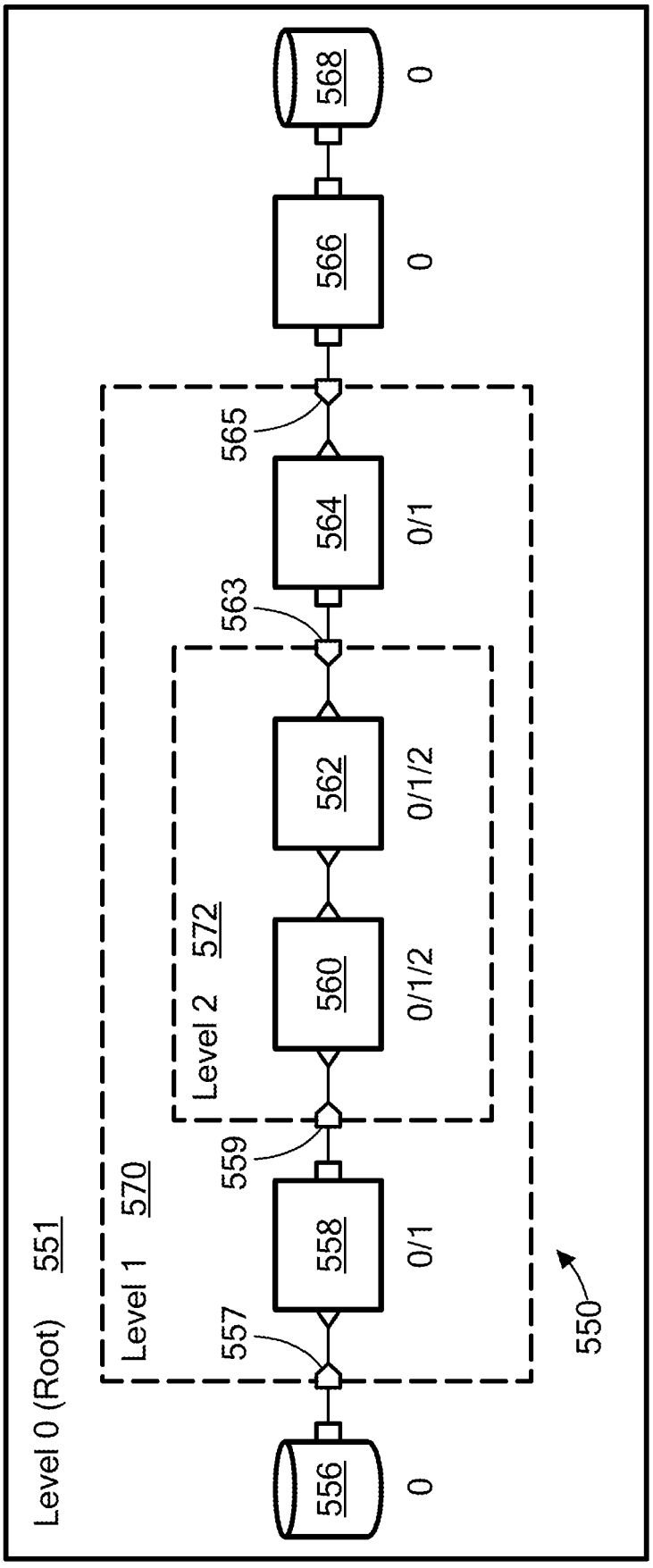

Level 0 (Root) 551
Level 1 570
Level 2 572
556
557
558
559
560
562
563
564
565
566
568
0
0/1
0/1/2
0/1/2
0/1
0
0
550

FIG. 5

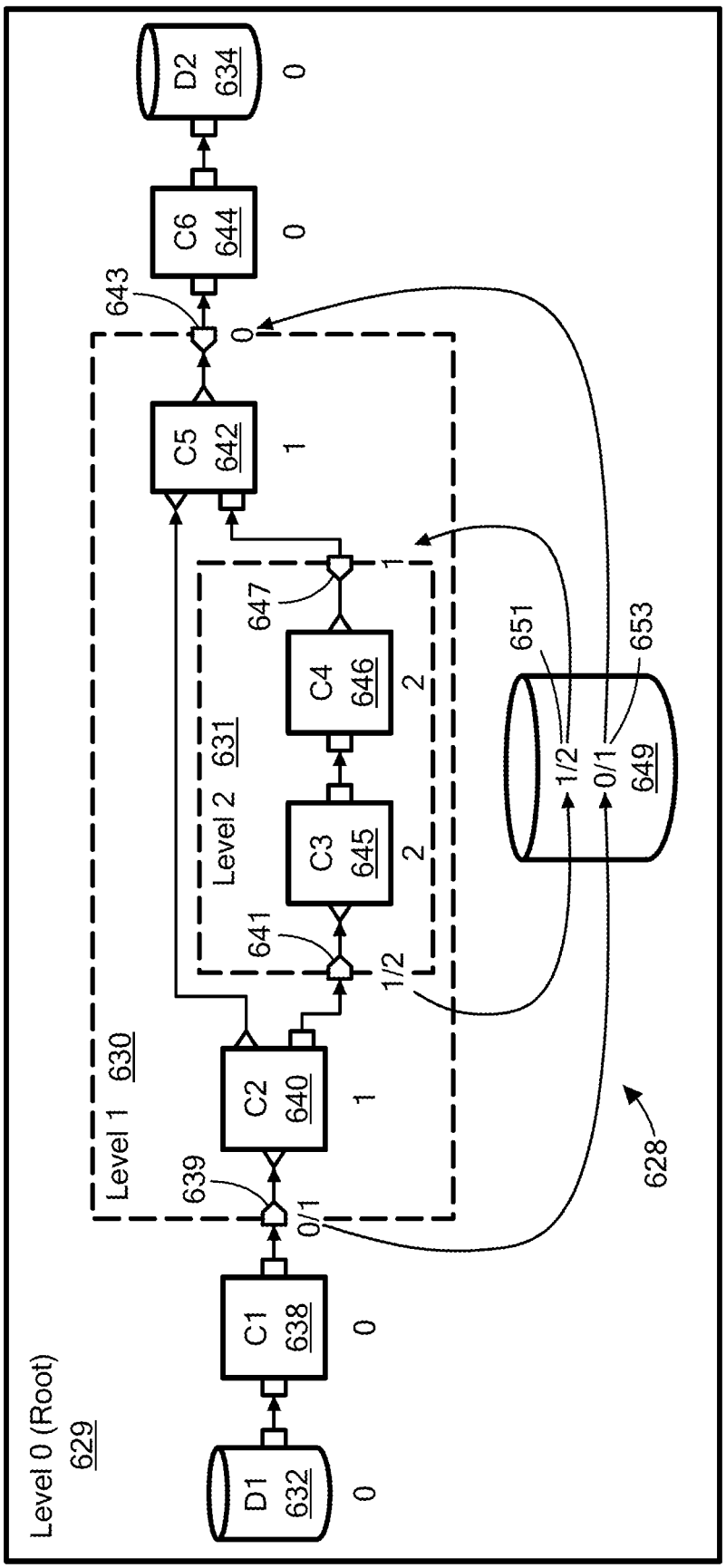

Level 0 (Root)
629
D1
632
C1
638
C2
640
C3
645
C4
646
C5
642
C6
644
D2
634
Level 1 630
Level 2 631
639
641
643
647
649
651
653
628
0
1
2
0/1
1/2

FIG. 6

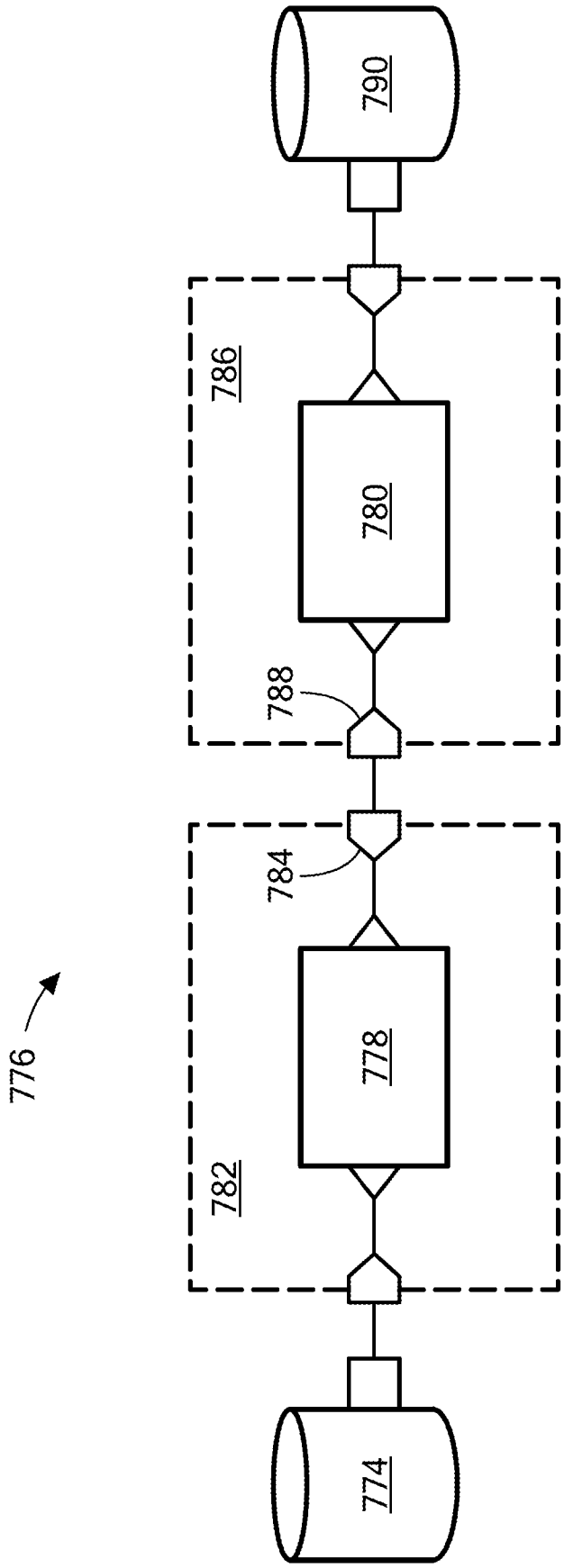


FIG. 7

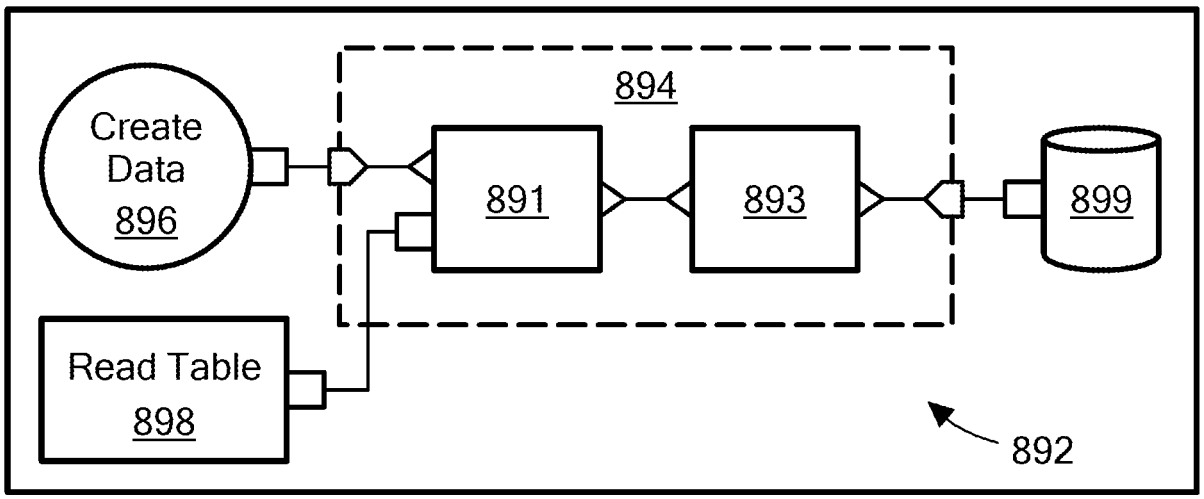

894
Create
Data
896
891
893
899
Read Table
898
892

FIG. 8A

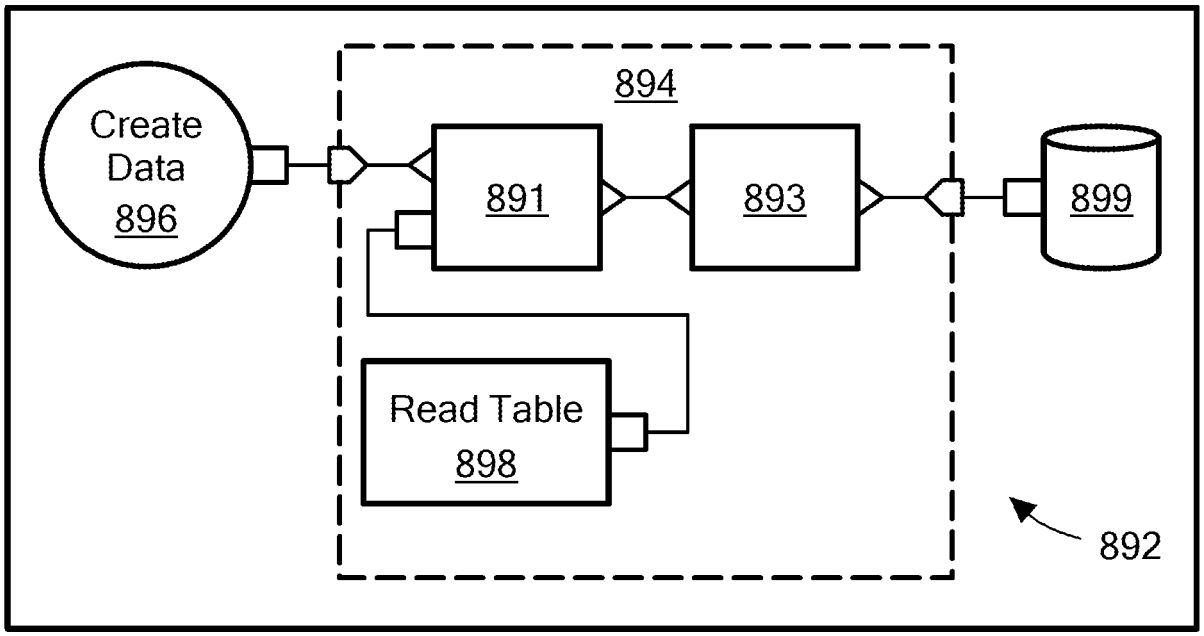

894
Create
Data
896
891
893
899
Read Table
898
892

FIG. 8B

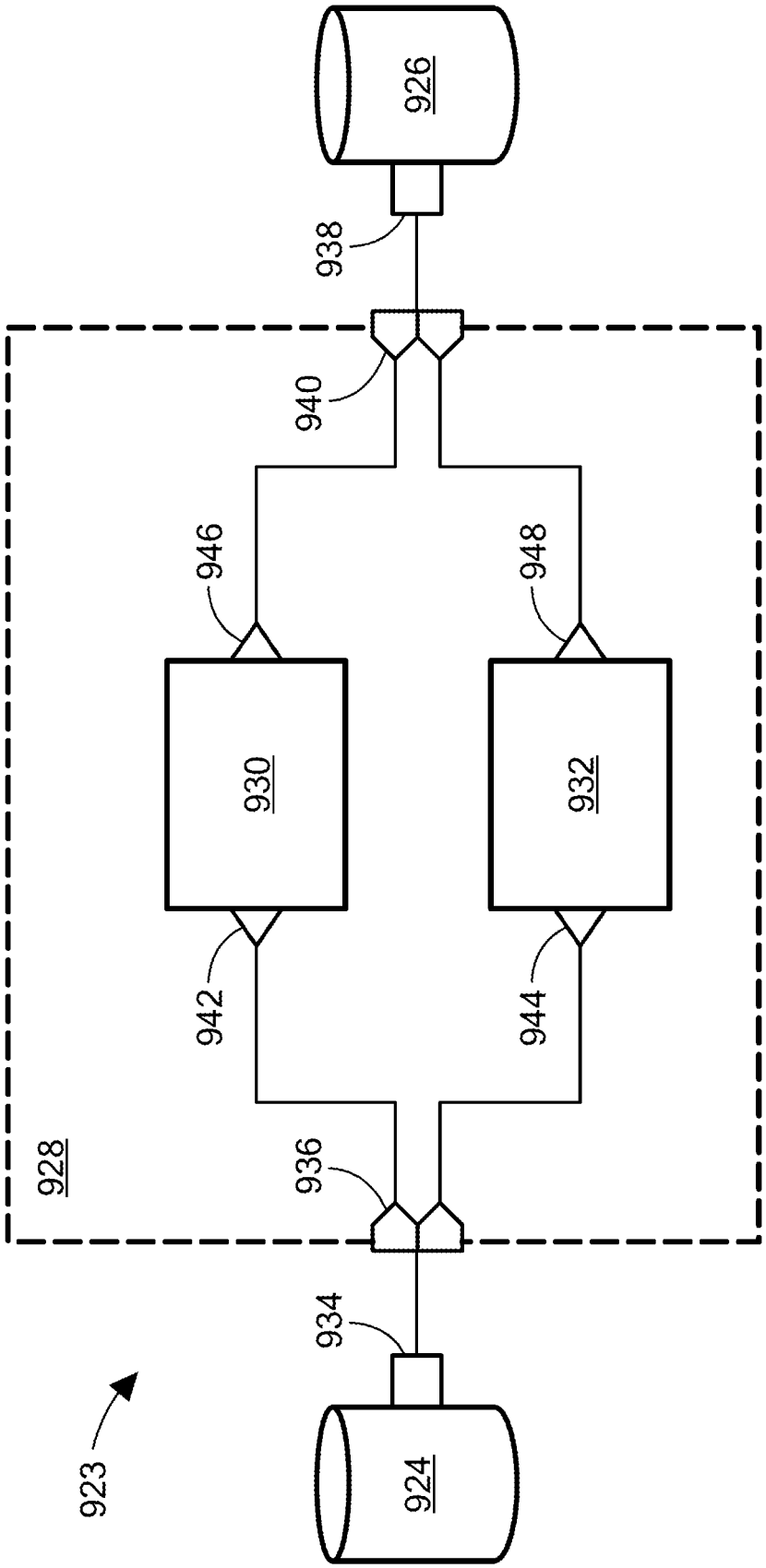


FIG. 9

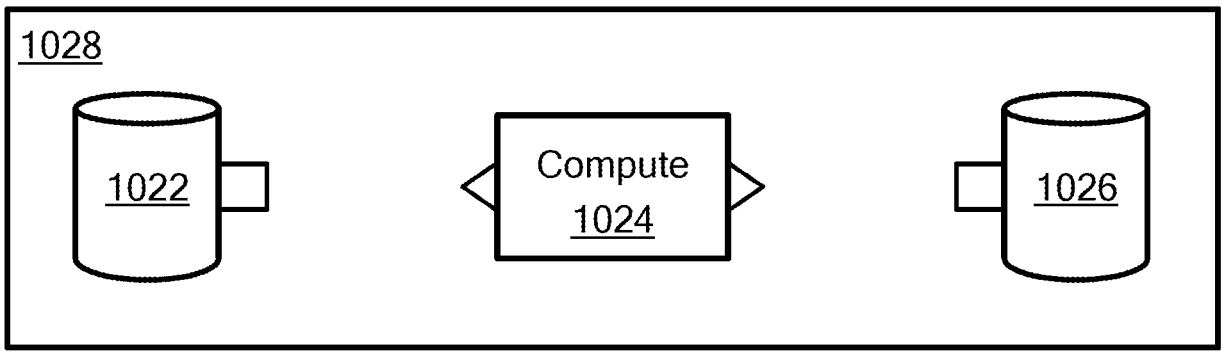


FIG. 10A

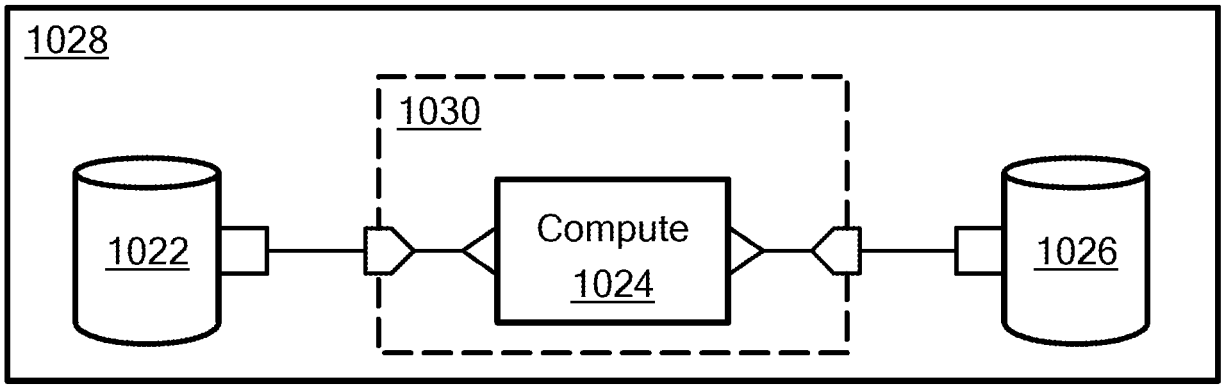


FIG. 10B

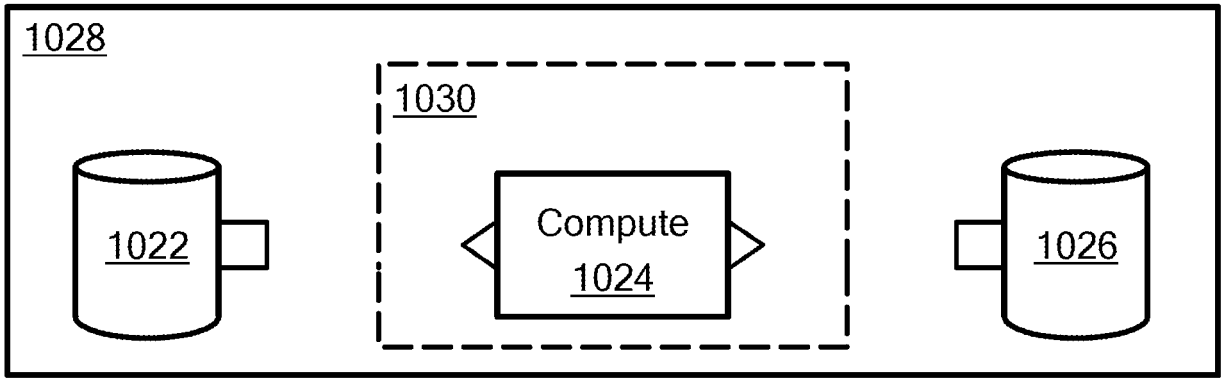


FIG. 10C

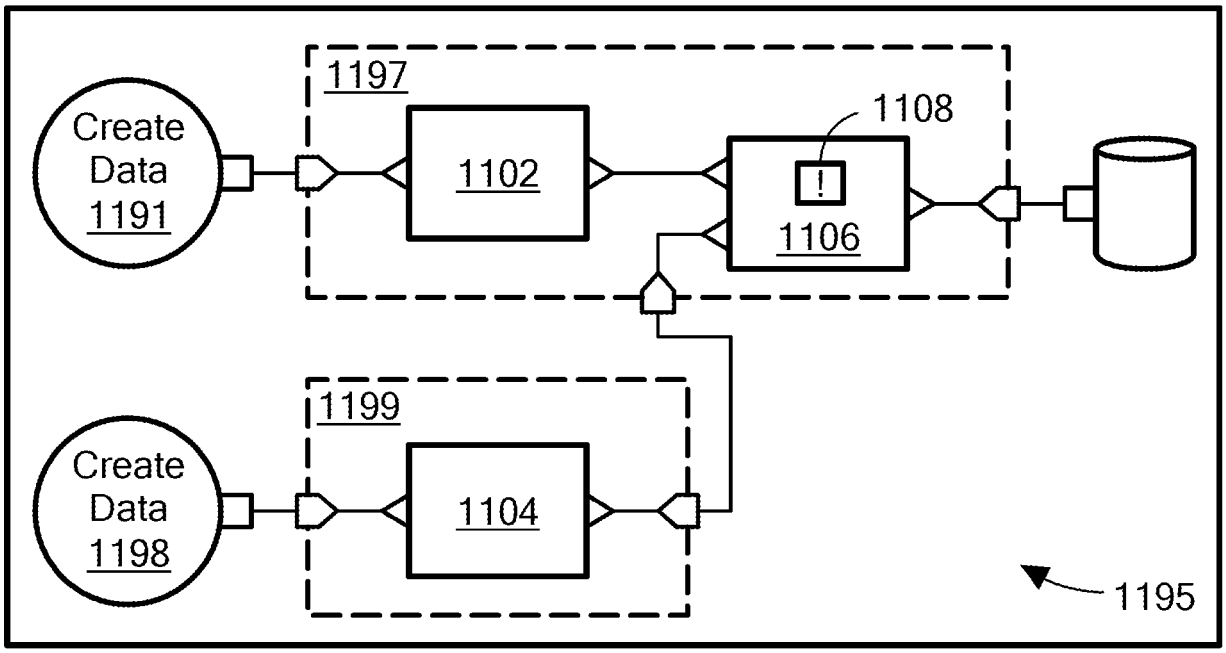


FIG. 11A

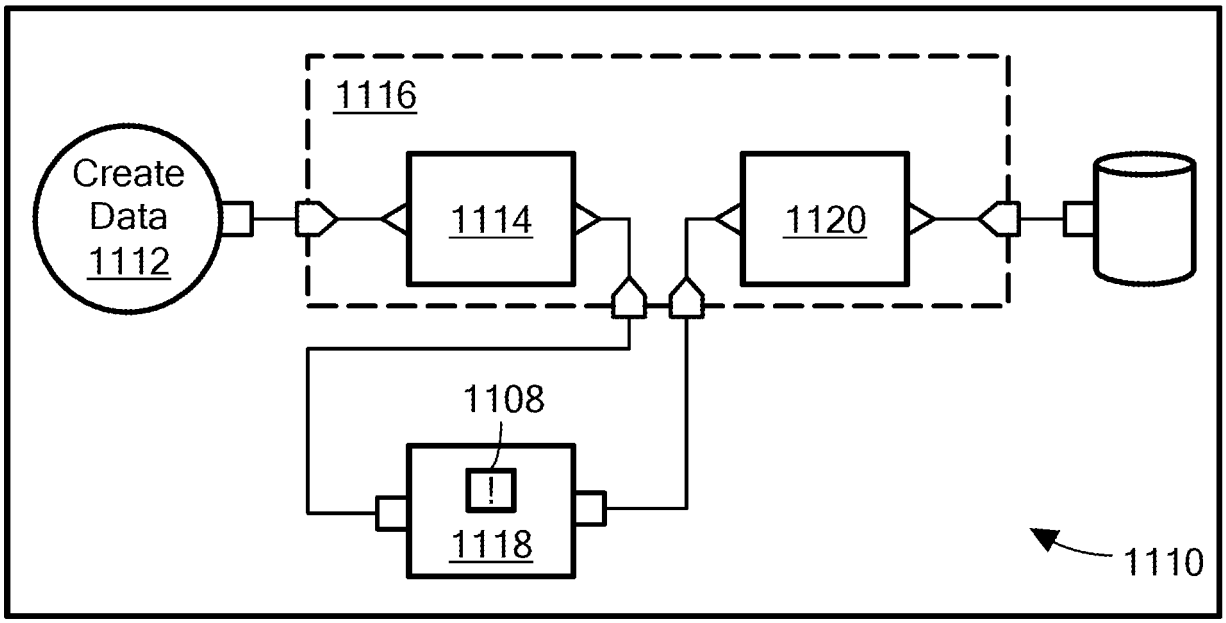
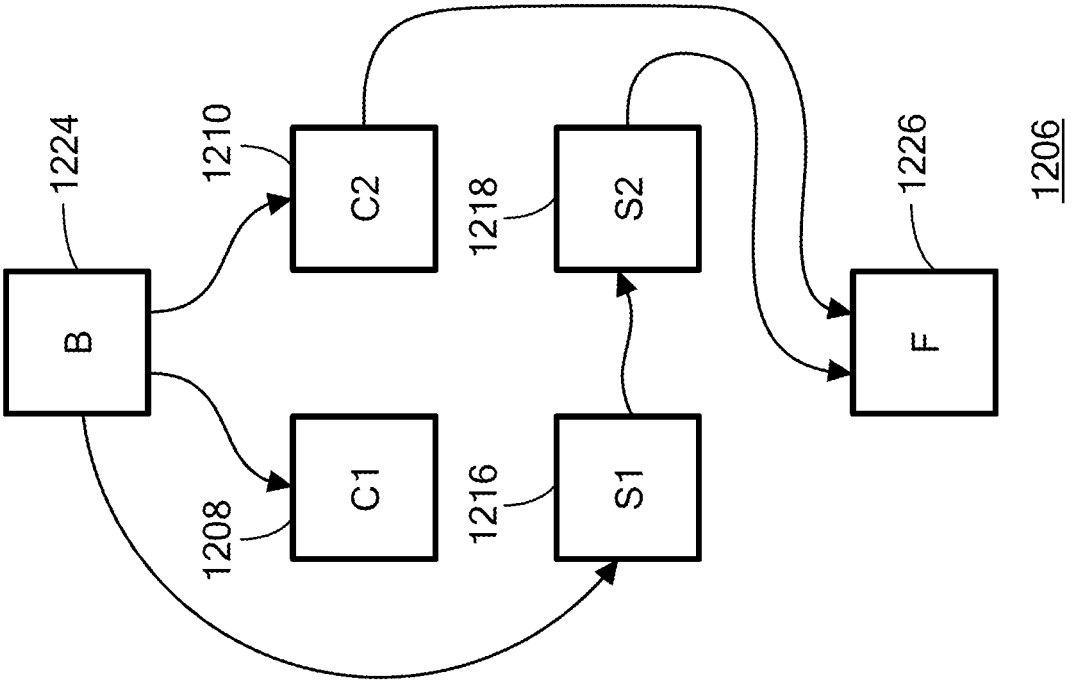


FIG. 11B


1224
B
1210
C2
1218
S2
1226
F
1206
1208
C1
1216
S1

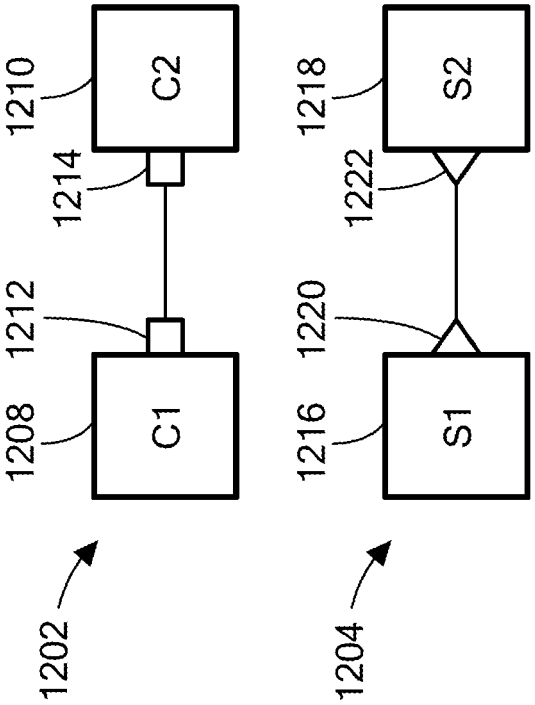

1210
C2
1214
1212
1208
C1
1202
1218
S2
1222
1220
1216
S1
1204

FIG. 12A

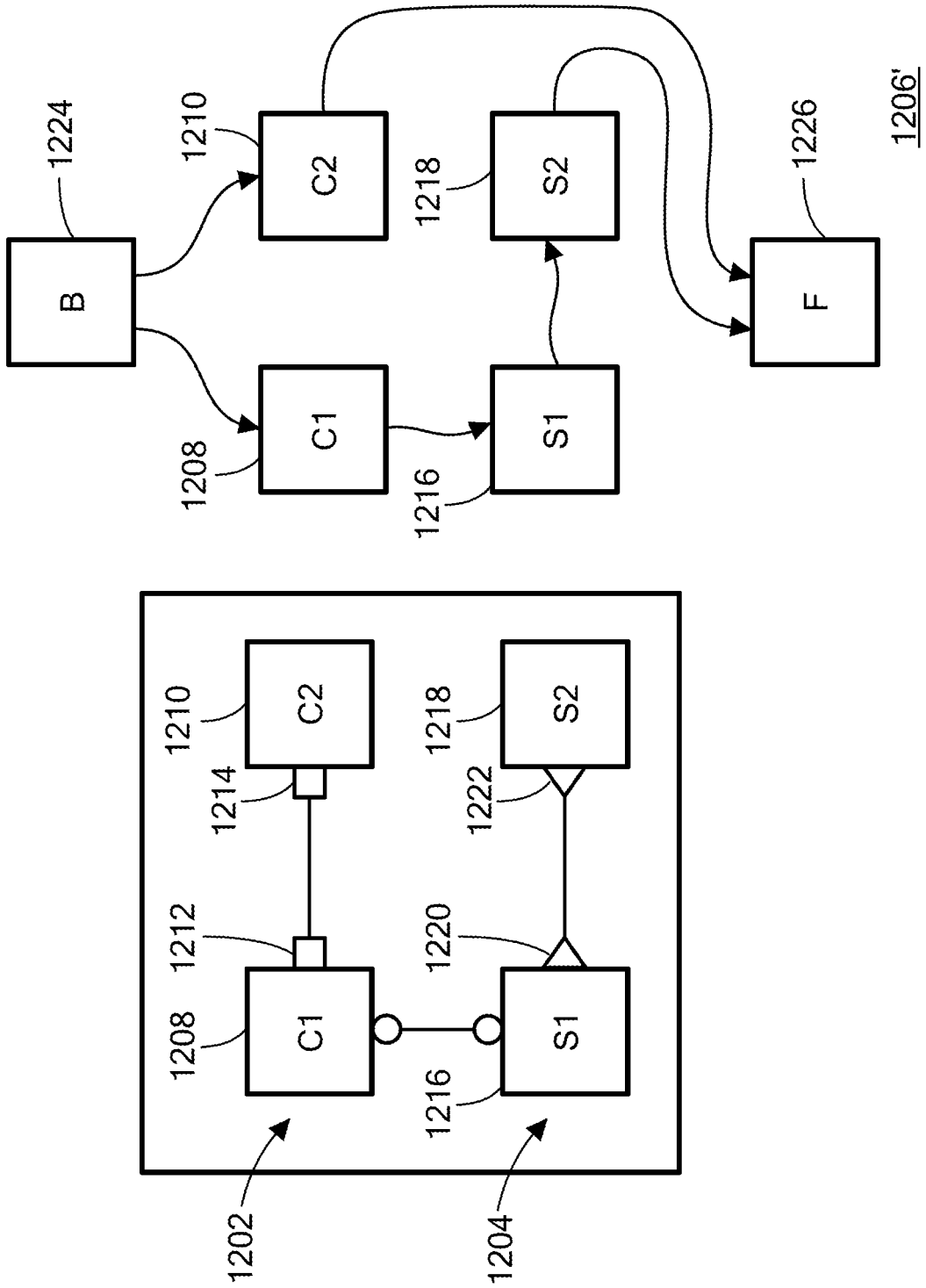

1224
B
1210
C2
1218
S2
1226
F
1206'
1208
C1
1216
S1
1210
C2
1218
S2
1214
1222
1212
1220
1208
C1
S1
1216
1202
1204

FIG. 12B

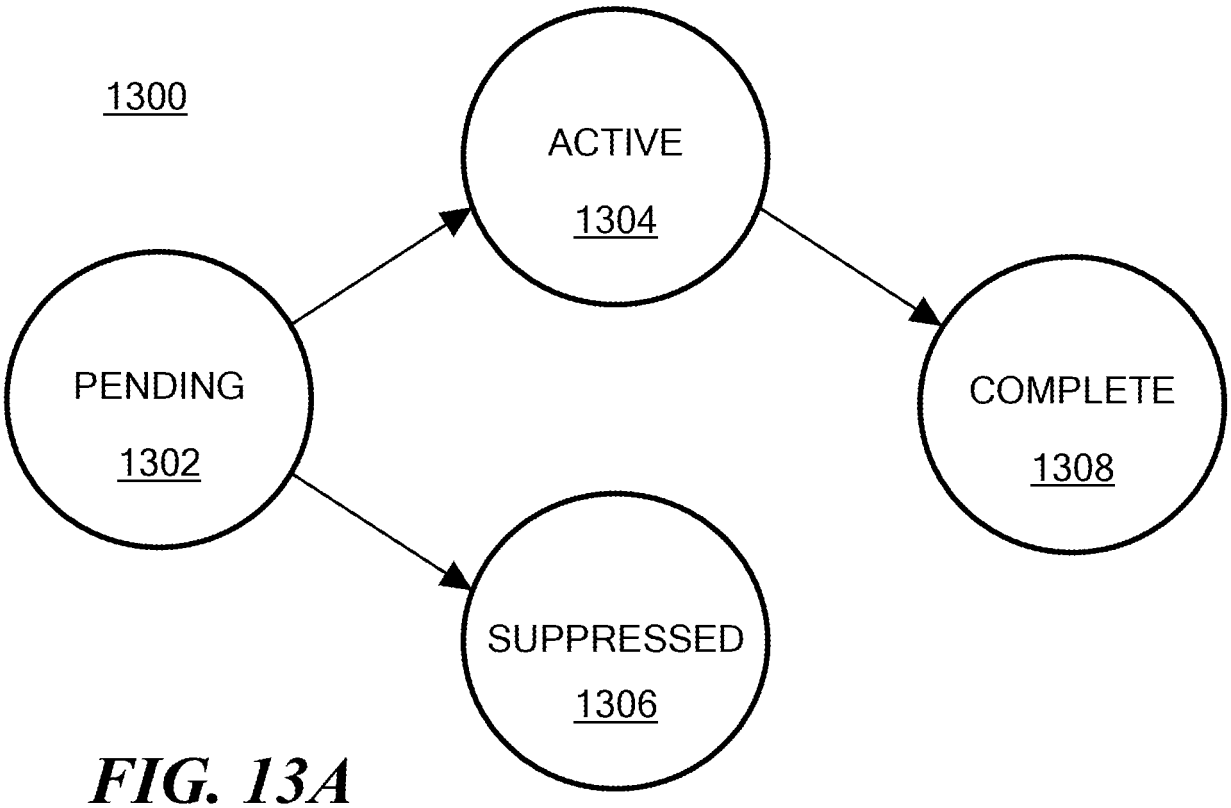


FIG. 13A

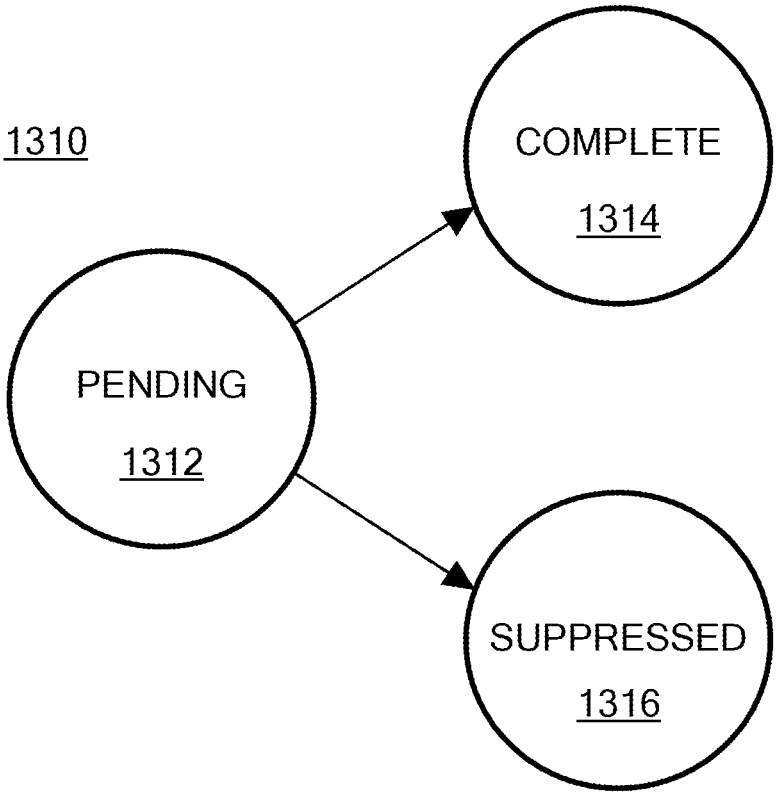


FIG. 13B

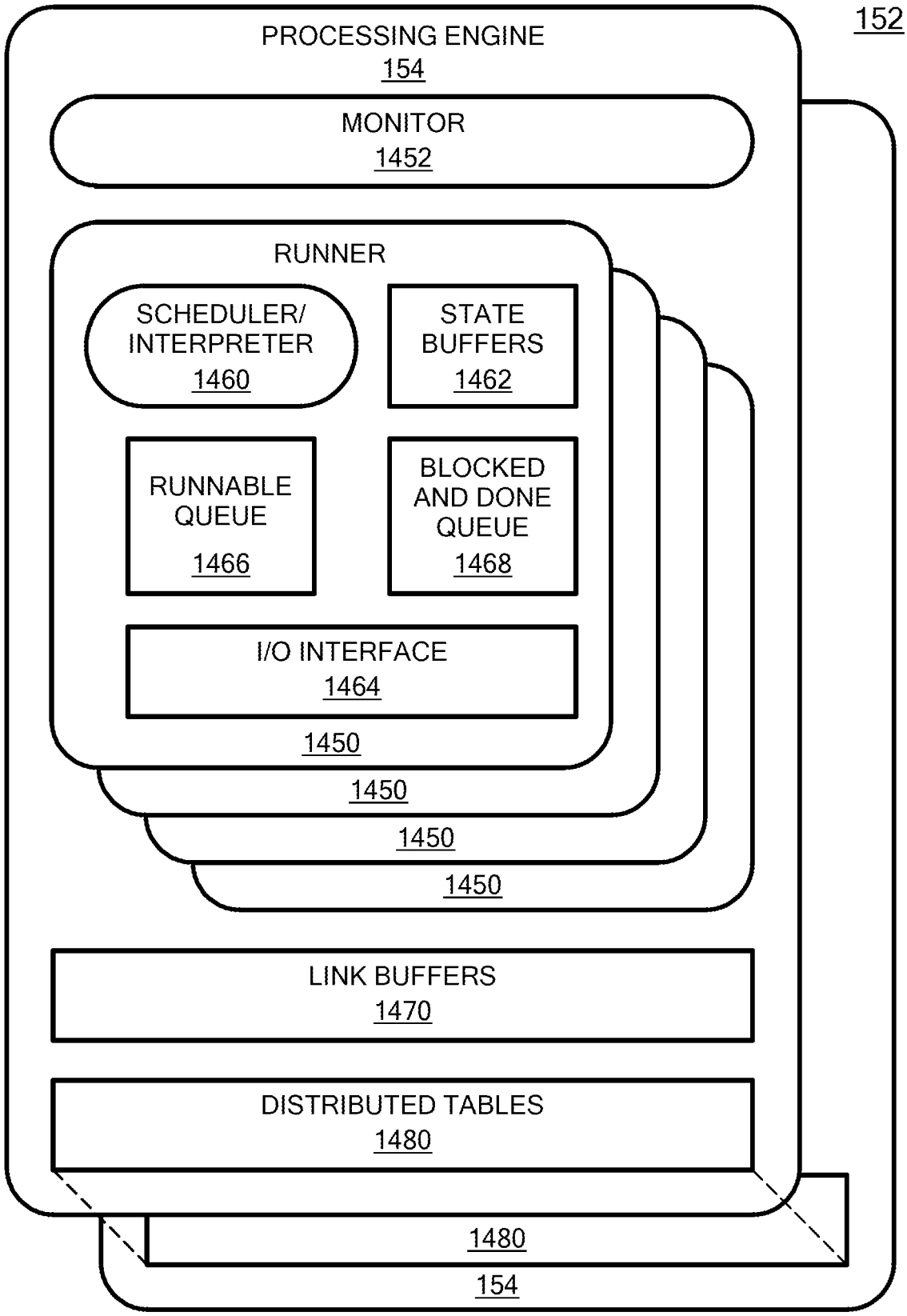

152
PROCESSING ENGINE
154
MONITOR
1452
RUNNER
SCHEDULER/
INTERPRETER
1460
STATE
BUFFERS
1462
RUNNABLE
QUEUE
1466
BLOCKED
AND DONE
QUEUE
1468
I/O INTERFACE
1464
1450
1450
1450
1450
LINK BUFFERS
1470
DISTRIBUTED TABLES
1480
1480
154

FIG. 14