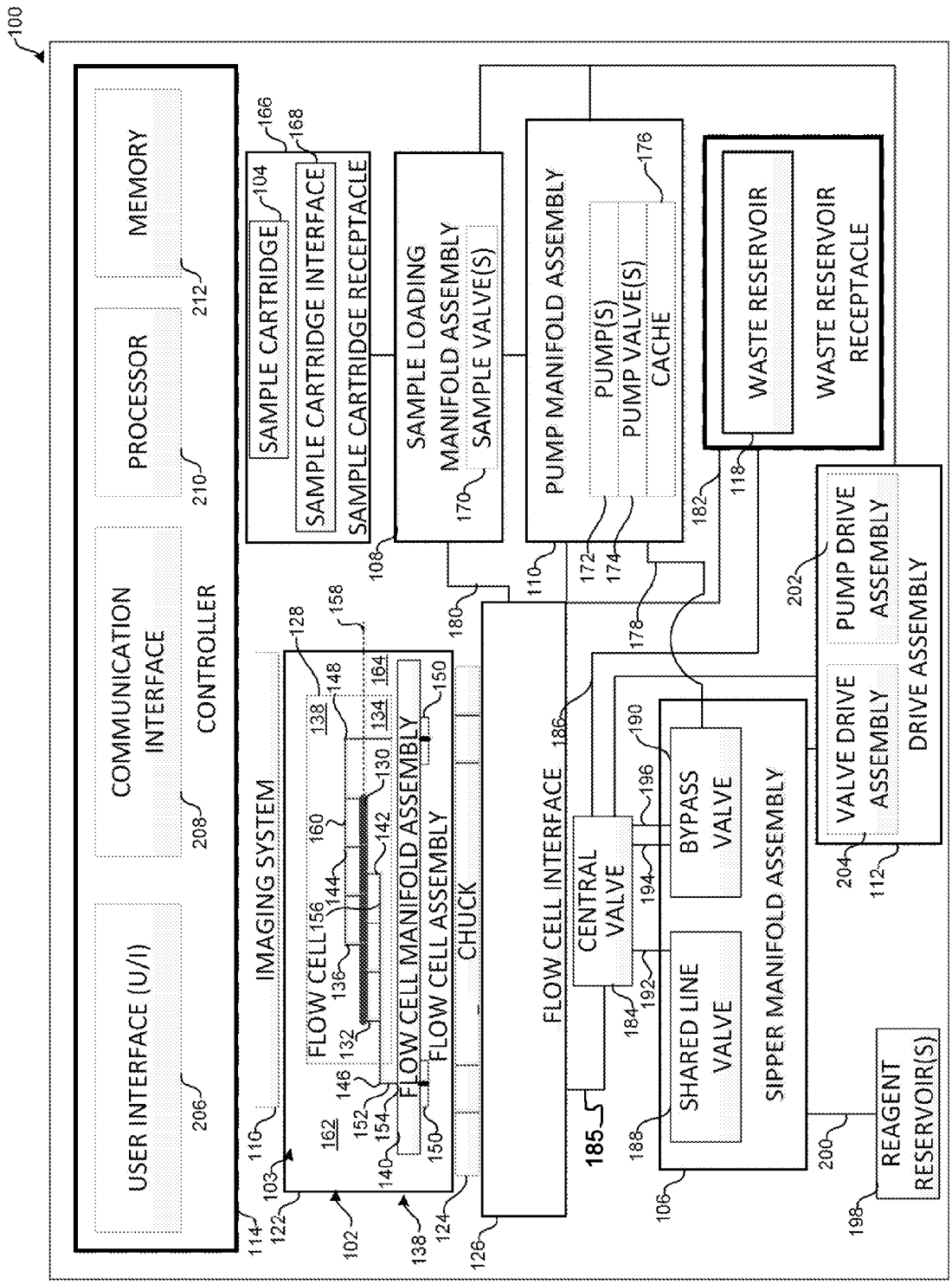

100
USER INTERFACE (U/I)
206
COMMUNICATION INTERFACE
208
PROCESSOR
210
MEMORY
212
CONTROLLER
114
SAMPLE CARTRIDGE
104
SAMPLE CARTRIDGE INTERFACE
166
168
SAMPLE CARTRIDGE RECEPTACLE
108
SAMPLE LOADING MANIFOLD ASSEMBLY
SAMPLE VALVE(S)
170
PUMP MANIFOLD ASSEMBLY
110
PUMP(S)
PUMP VALVE(S)
CACHE
172
174
176
WASTE RESERVOIR
WASTE RESERVOIR RECEPTACLE
118
182
IMAGING SYSTEM
110
103
122
102
FLOW CELL
156
162
160
144
136
132
146
152
154
140
FLOW CELL MANIFOLD ASSEMBLY
FLOW CELL ASSEMBLY
138
128
148
138
134
164
158
130
142
150
CHUCK
124
126
180
FLOW CELL INTERFACE
186
178
CENTRAL VALVE
185
184
192
194
BYPASS VALVE
196
190
SHARED LINE VALVE
188
SIPPER MANIFOLD ASSEMBLY
106
200
REAGENT RESERVOIR(S)
198
VALVE DRIVE ASSEMBLY
204
112
PUMP DRIVE ASSEMBLY
202
DRIVE ASSEMBLY

FIG. 1

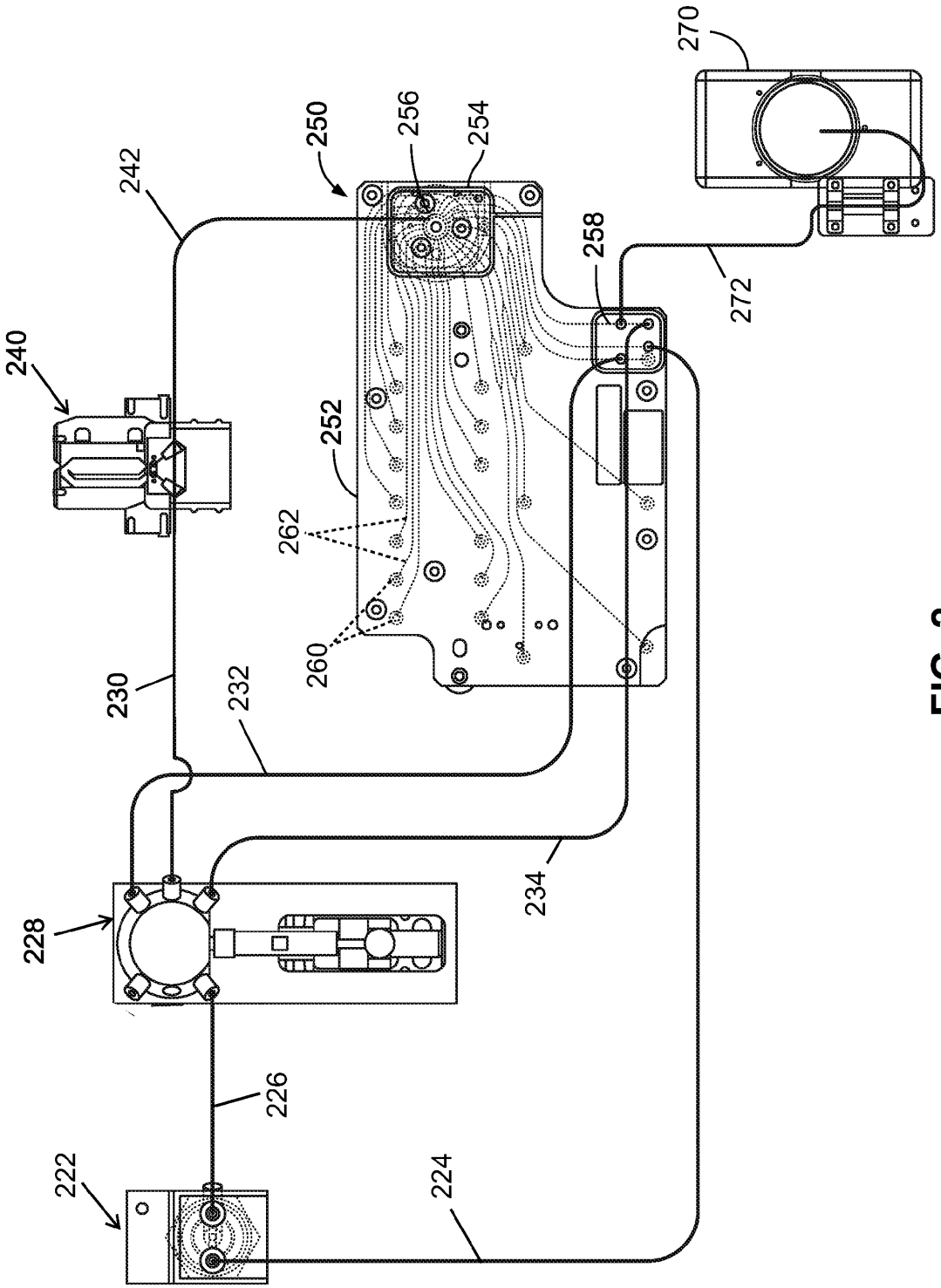

270
250
256
254
242
258
272
240
252
262
260
230
232
234
228
226
222
224

FIG. 2

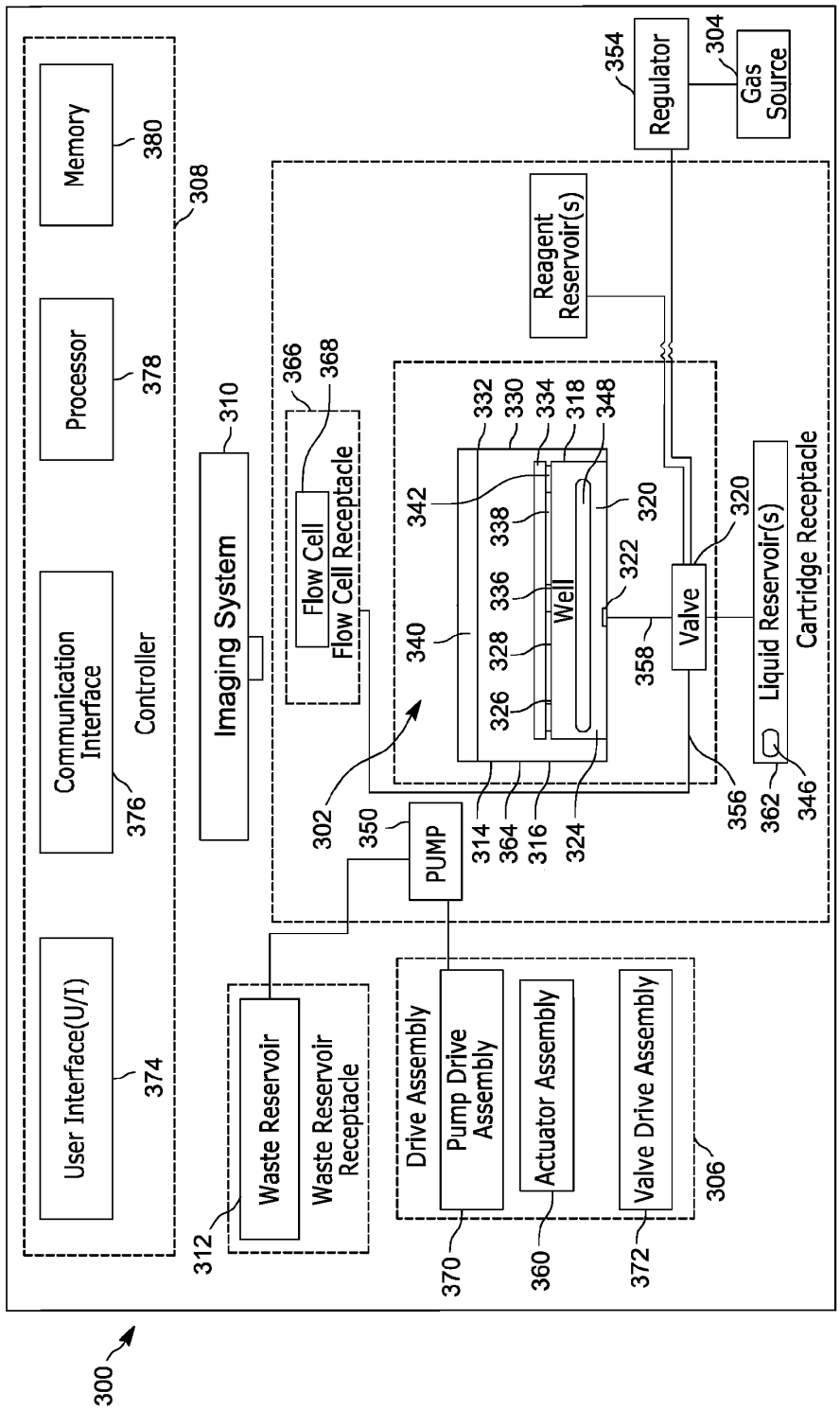

300
308
Controller
Memory
380
Processor
378
Communication Interface
376
User Interface(U/I)
374
Imaging System
310
Flow Cell
Flow Cell Receptacle
366
368
Reagent Reservoir(s)
Regulator
354
Gas Source
304
Cartridge Receptacle
Liquid Reservoir(s)
Valve
Well
302
340
342
326
328
336
338
314
364
316
324
332
330
334
318
348
320
322
358
356
362
346
PUMP
350
Waste Reservoir
Waste Reservoir Receptacle
312
Drive Assembly
Pump Drive Assembly
Actuator Assembly
Valve Drive Assembly
306
370
360
372

FIG. 3

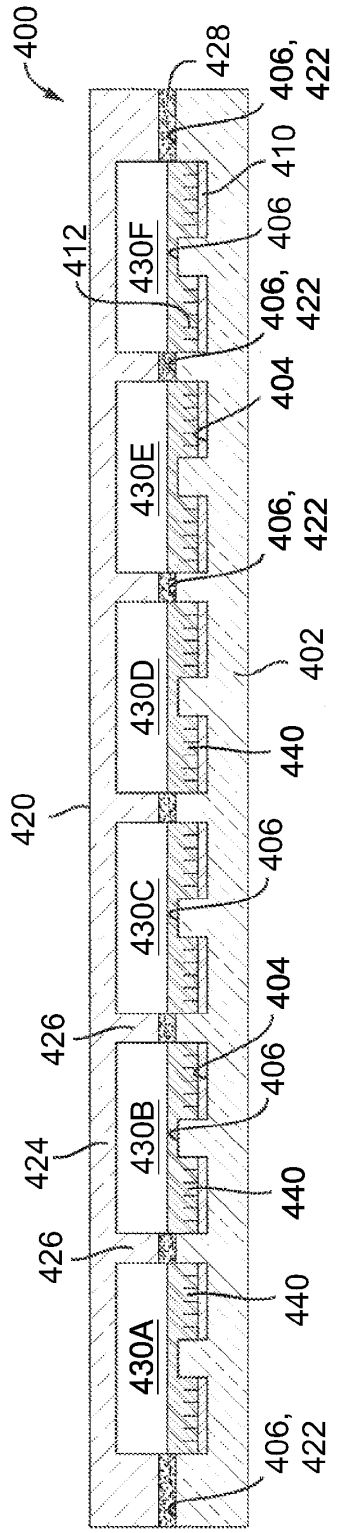

400
428
406, 422
410
406
412
430F
406, 422
404
430E
406, 422
402
430D
440
420
406
430C
404
426
406
424
430B
440
426
440
430A
406, 422

FIG. 4

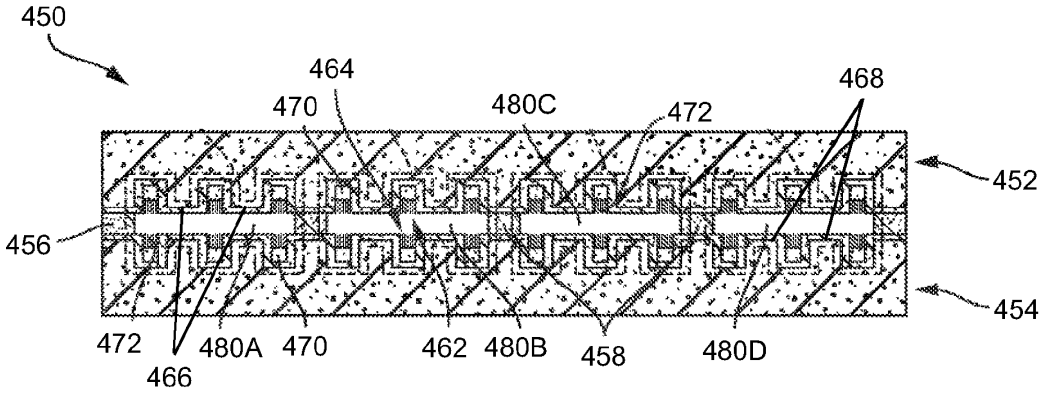

450
464
470
480C
472
468
452
456
454
472
480A
470
462
480B
458
480D
466

FIG. 5

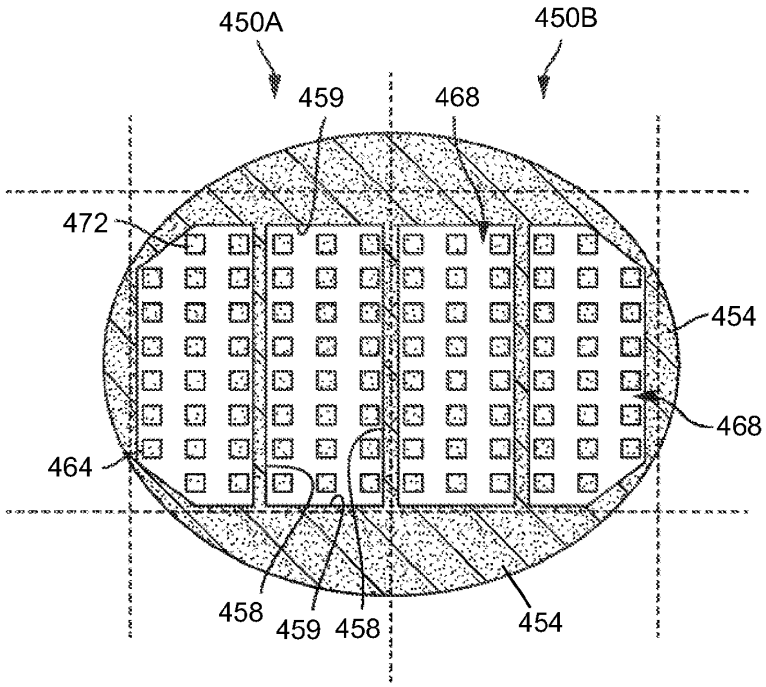

450A
450B
459
468
472
454
468
464
458
459
458
454

FIG. 6

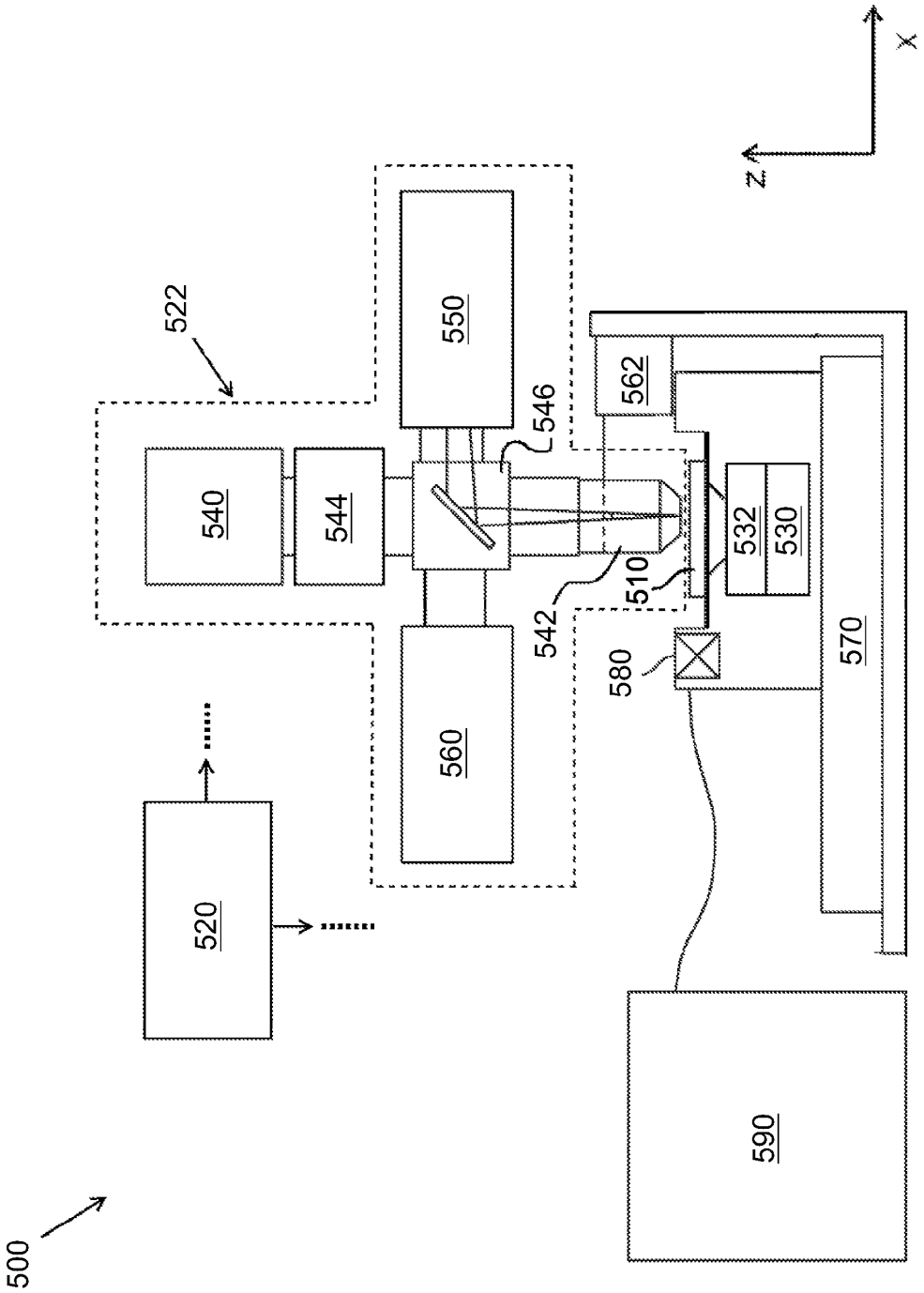

500
520
522
540
544
546
550
560
562
570
580
590
510
530
532
542
X
Z

FIG. 7

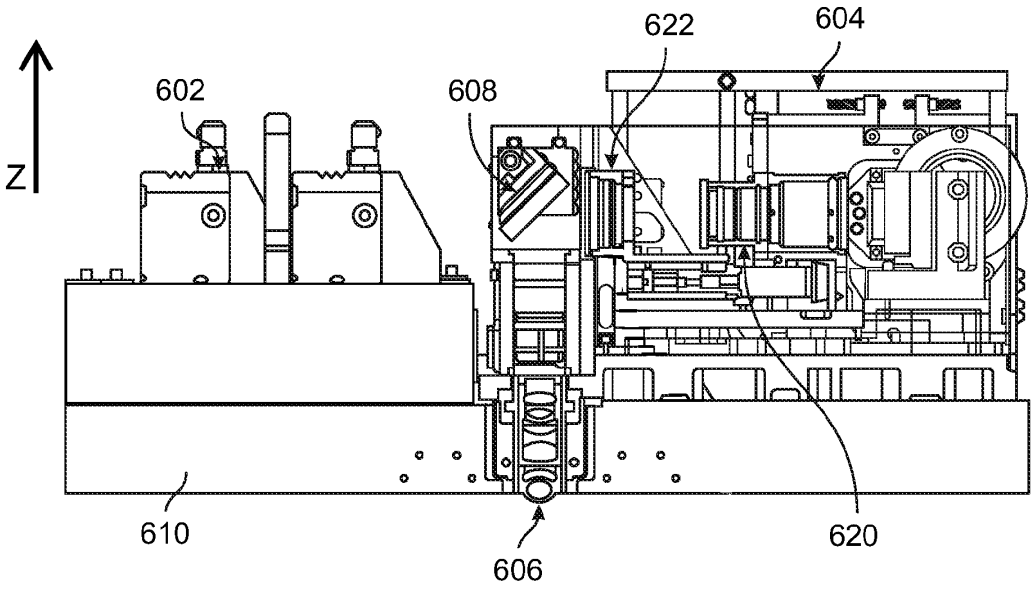


FIG. 8

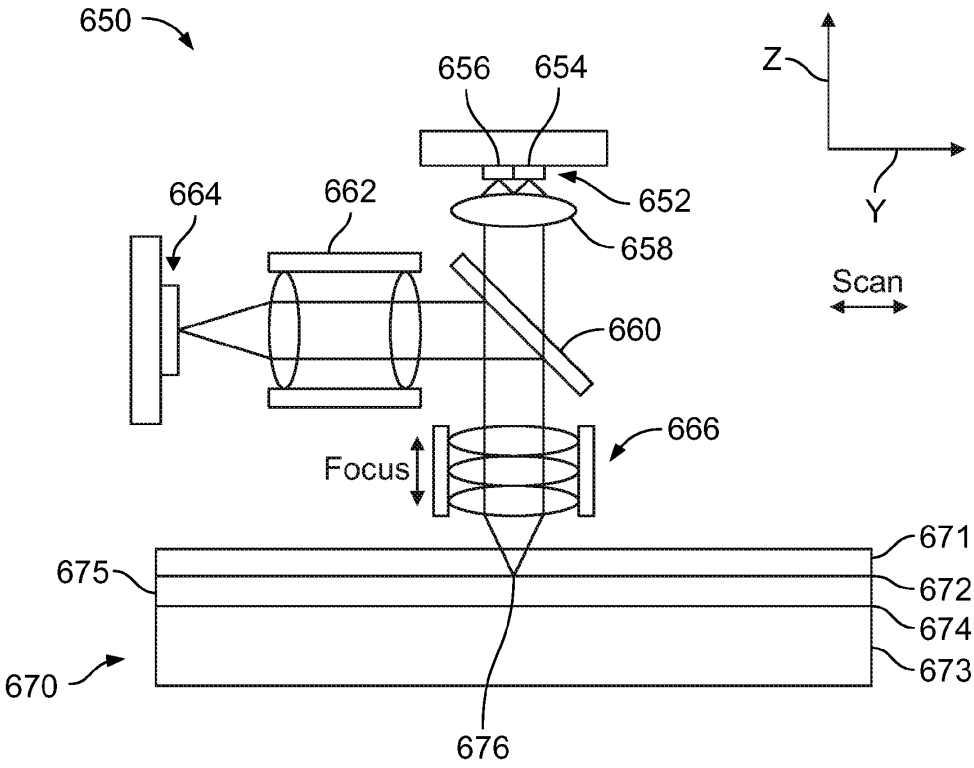

650
656
654
Z
664
662
652
658
Y
Scan
660
666
Focus
671
675
672
674
673
670
676

FIG. 9

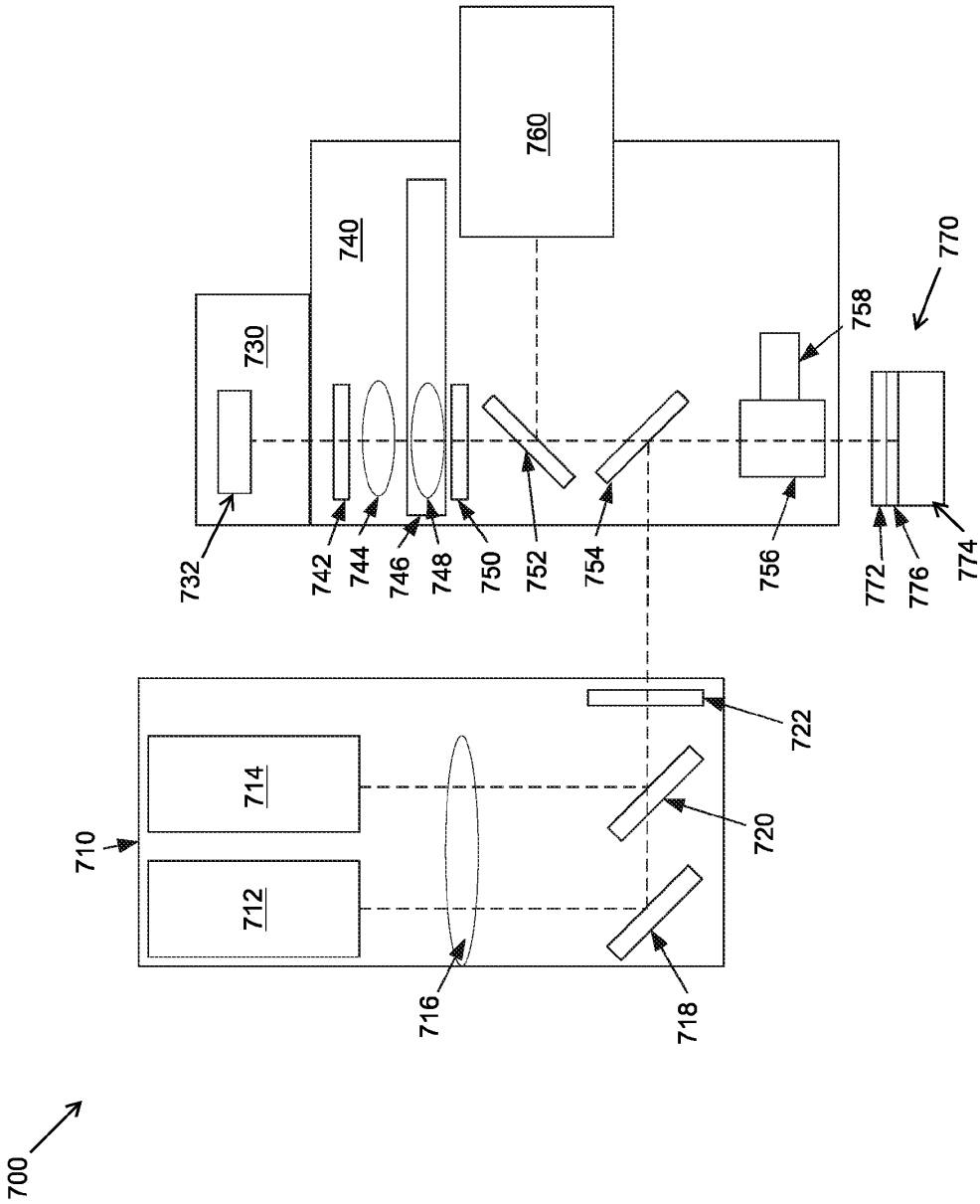

760
740
730
770
758
732
742
744
746
748
750
752
754
756
772
776
774
722
714
710
720
712
716
718
700

FIG. 10

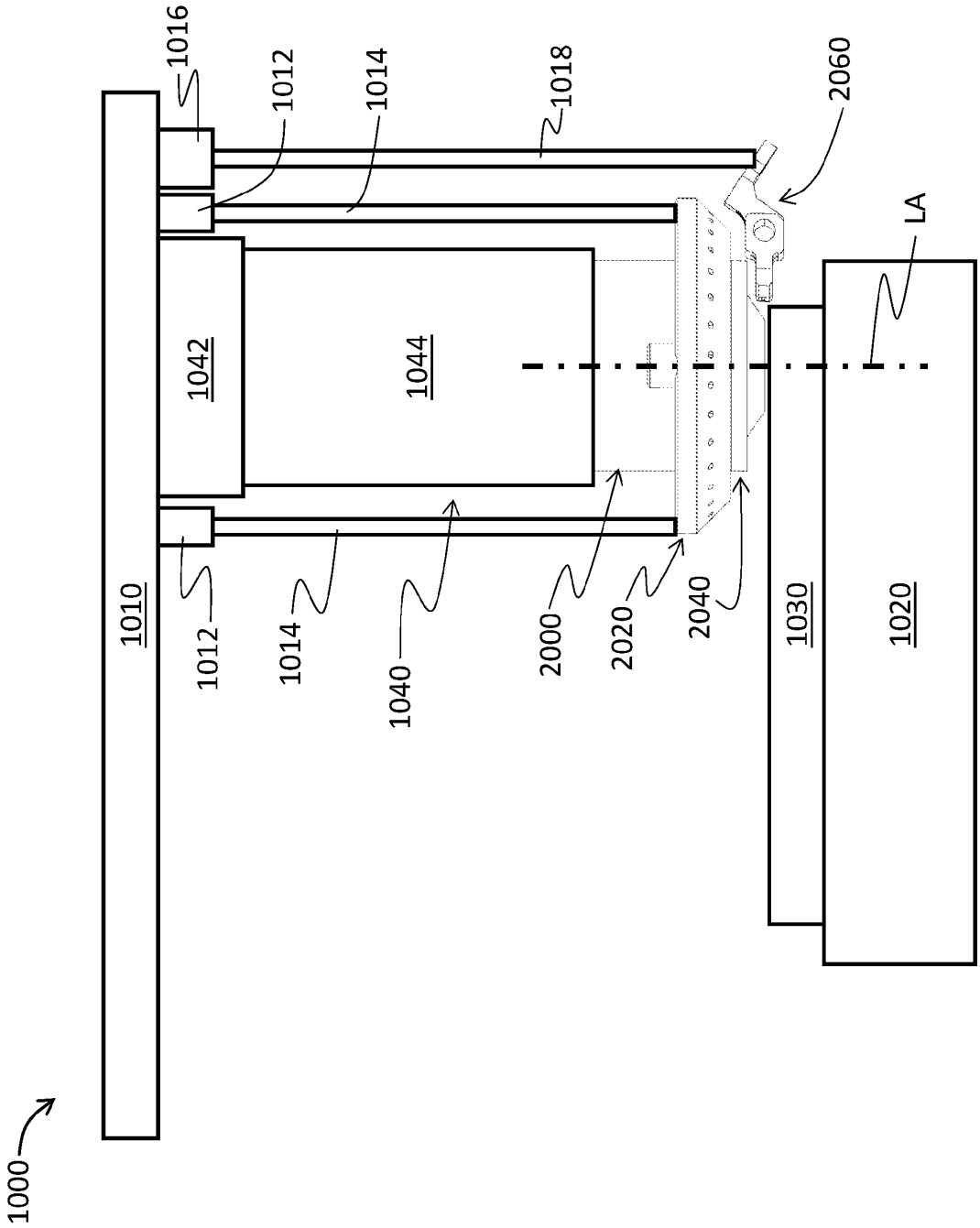

1000
1010
1012
1014
1040
1042
1044
1012
1014
1016
1018
2000
2020
2040
2060
1030
1020
LA

FIG. 11

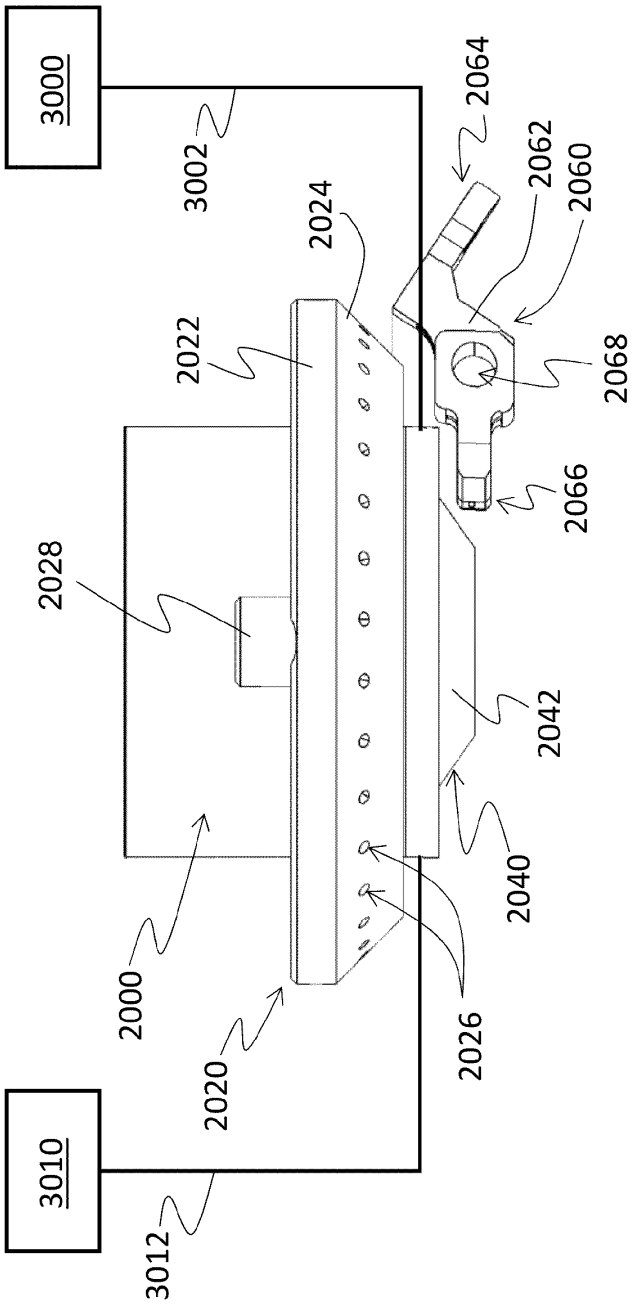

3000
3002
2064
2062
2060
2024
2022
2068
2066
2028
2042
2040
2000
2020
2026
3010
3012

FIG. 12

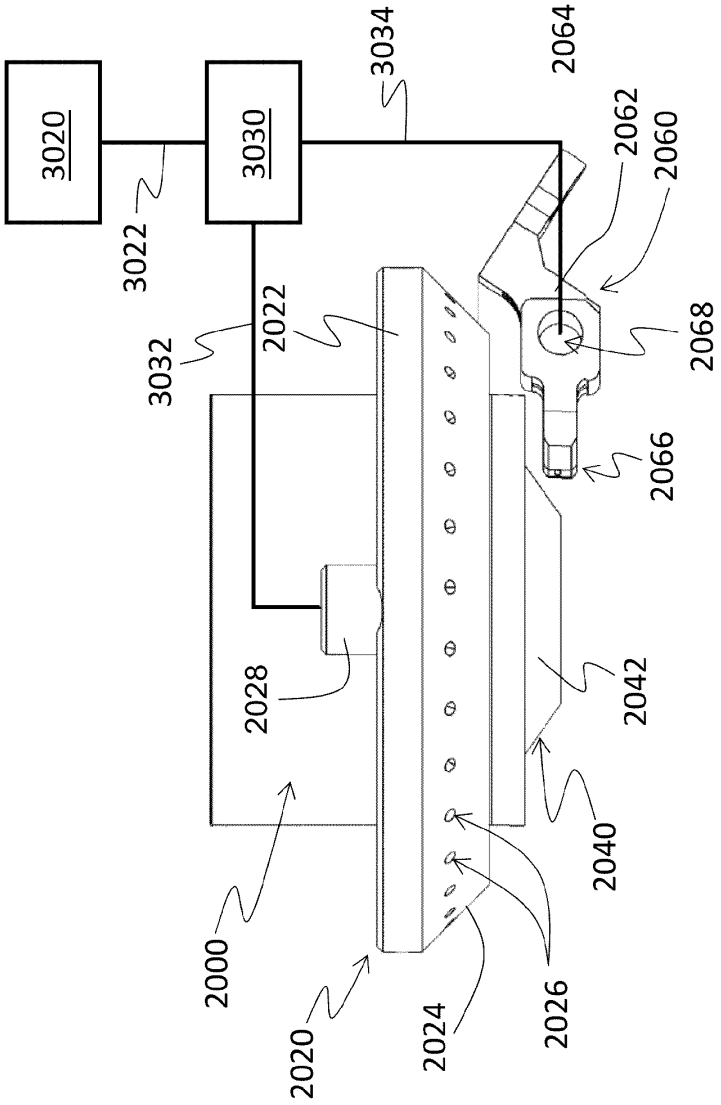

3020
3030
3034
2064
2062
2060
3022
2022
3032
2068
2066
2028
2042
2040
2000
2020
2024
2026

FIG. 13

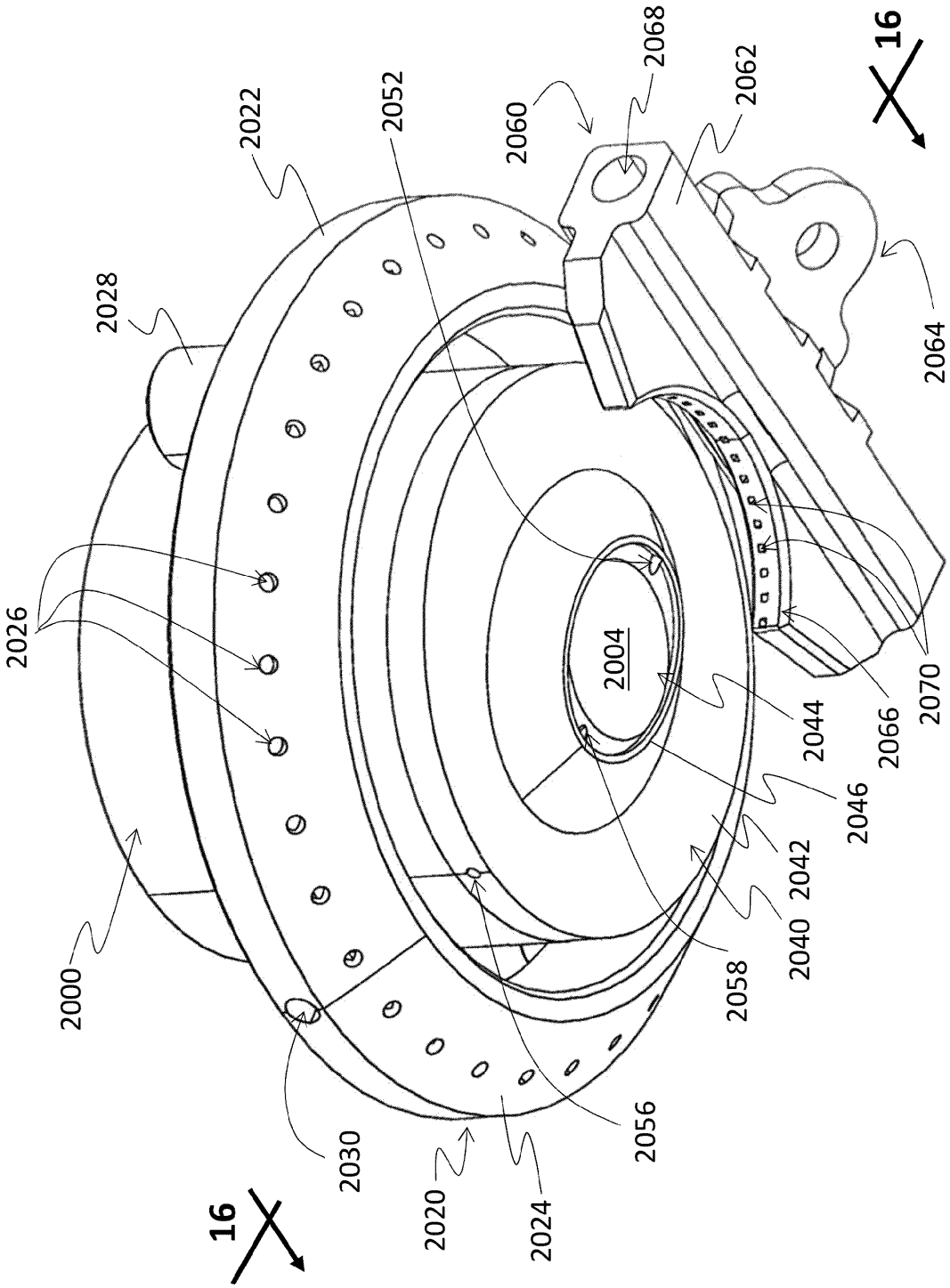

16
16
2000
2004
2020
2022
2024
2026
2028
2030
2040
2042
2044
2046
2052
2056
2058
2060
2062
2064
2066
2068
2070

FIG. 14

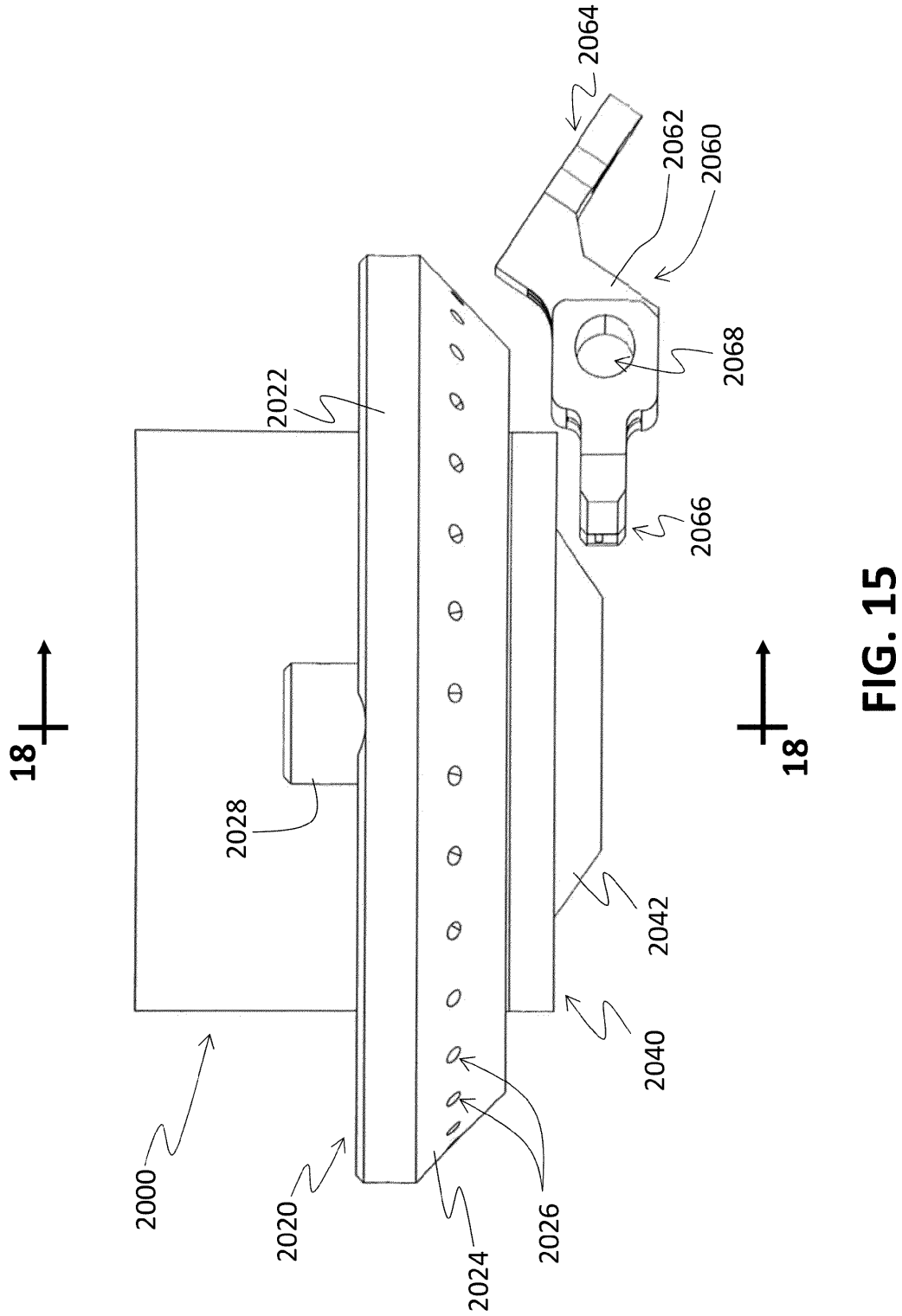

2064
2062
2060
2068
2022
2066
18
2028
2042
2040
18
2000
2020
2024
2026

FIG. 15

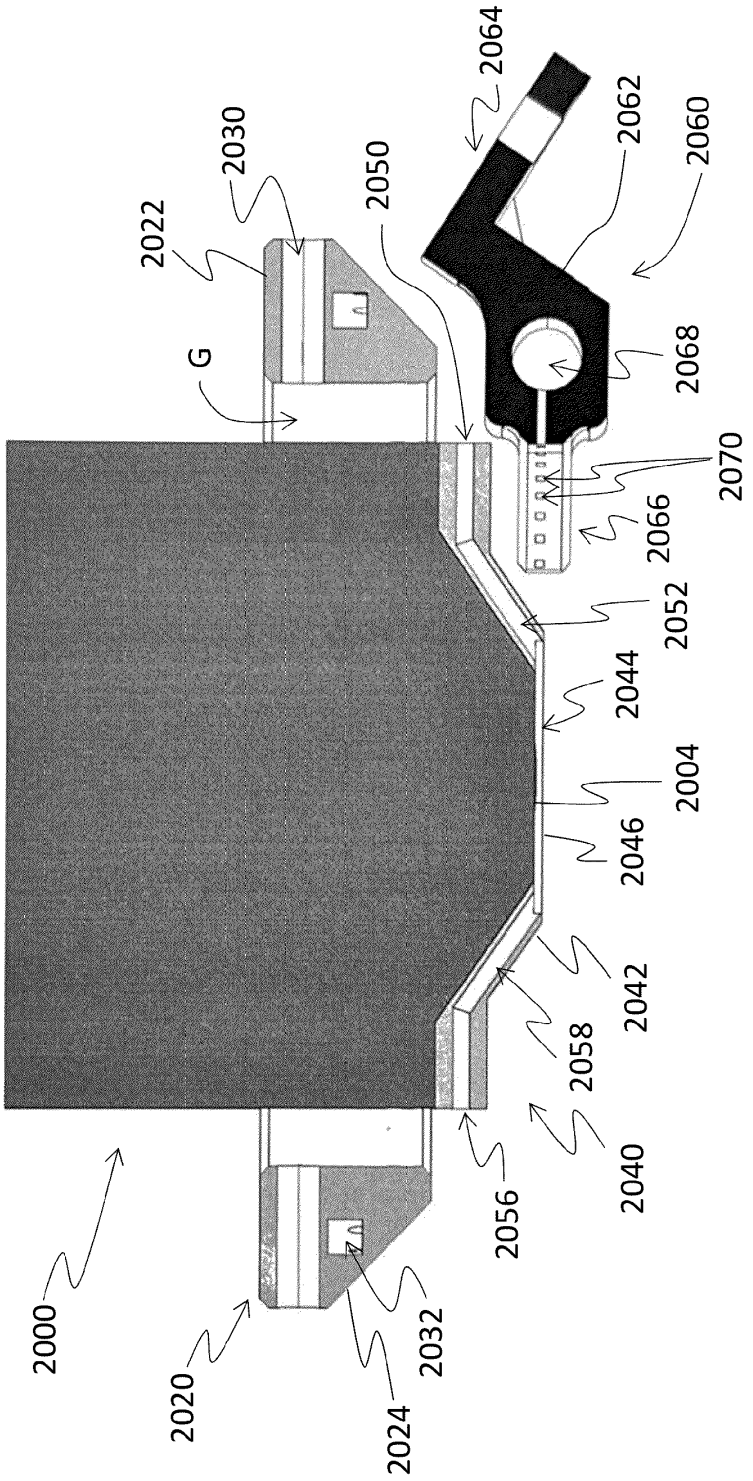

2064
2062
2060
2030
2050
2022
G
2068
2070
2066
2052
2044
2004
2046
2042
2058
2040
2056
2000
2020
2032
2024

FIG. 16

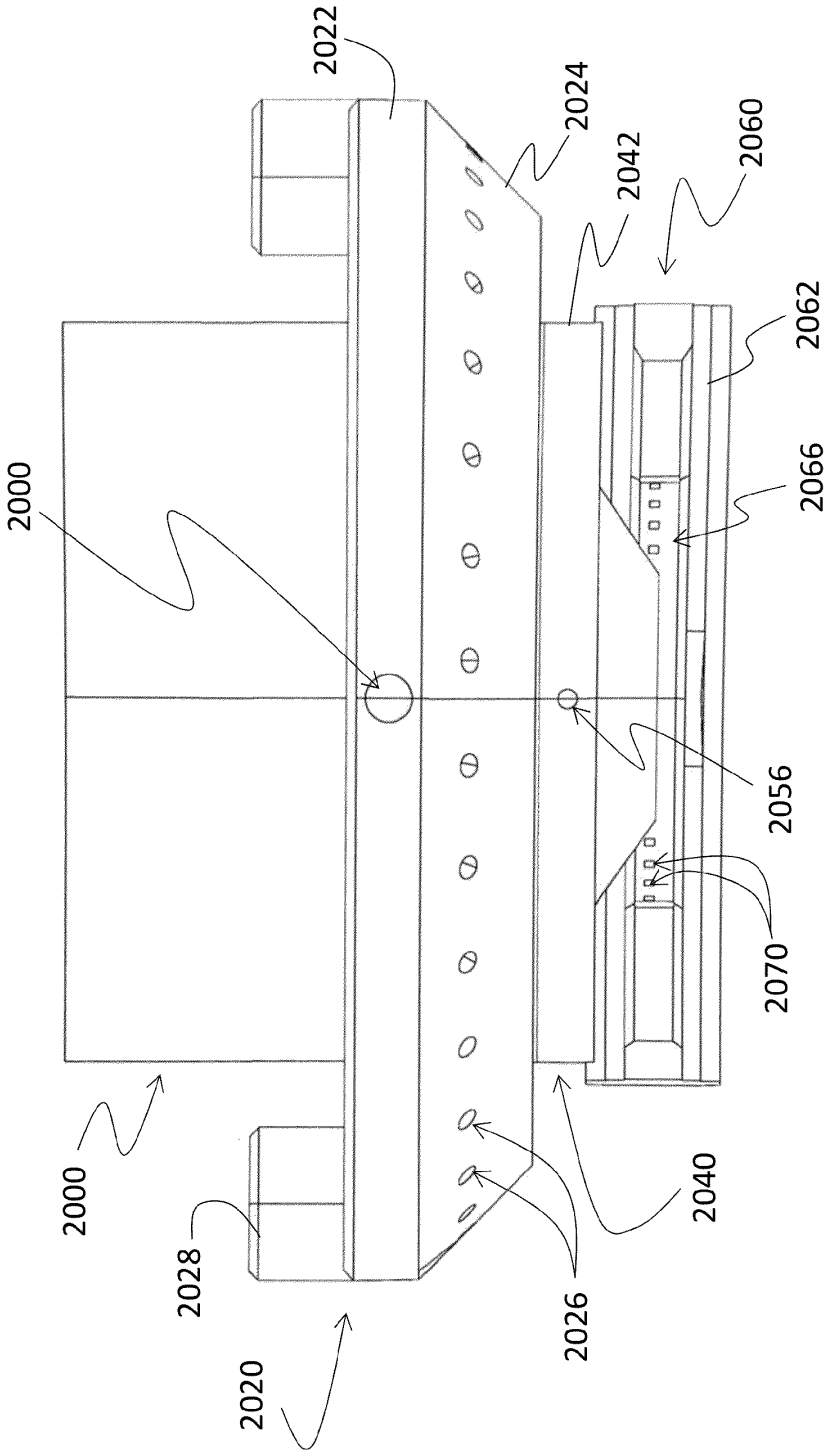

2022
2024
2042
2060
2062
2066
2000
2056
2070
2000
2040
2028
2026
2020

FIG. 17

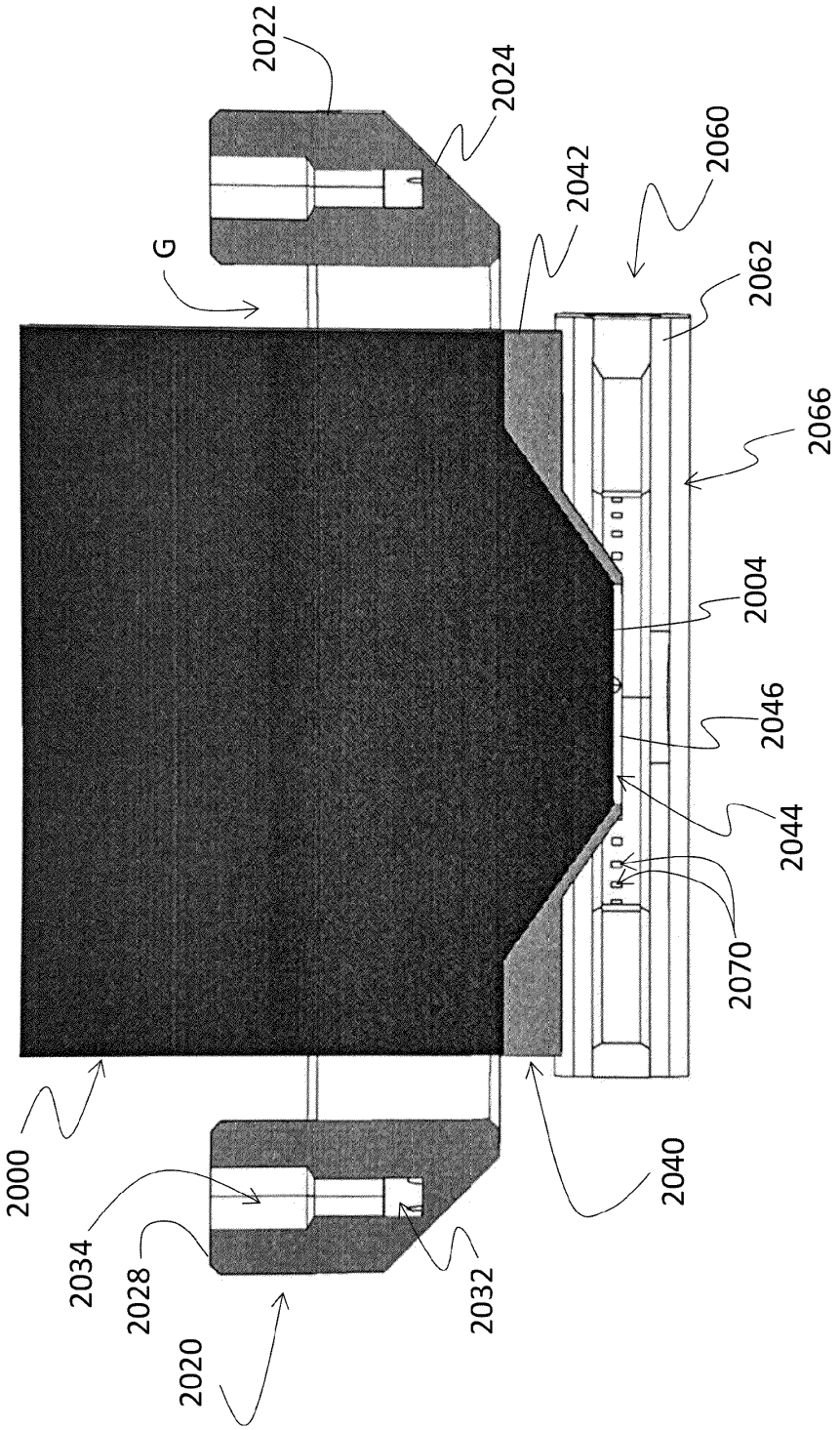

2022
2024
2042
2060
G
2062
2066
2004
2046
2044
2070
2000
2040
2034
2028
2032
2020

FIG. 18

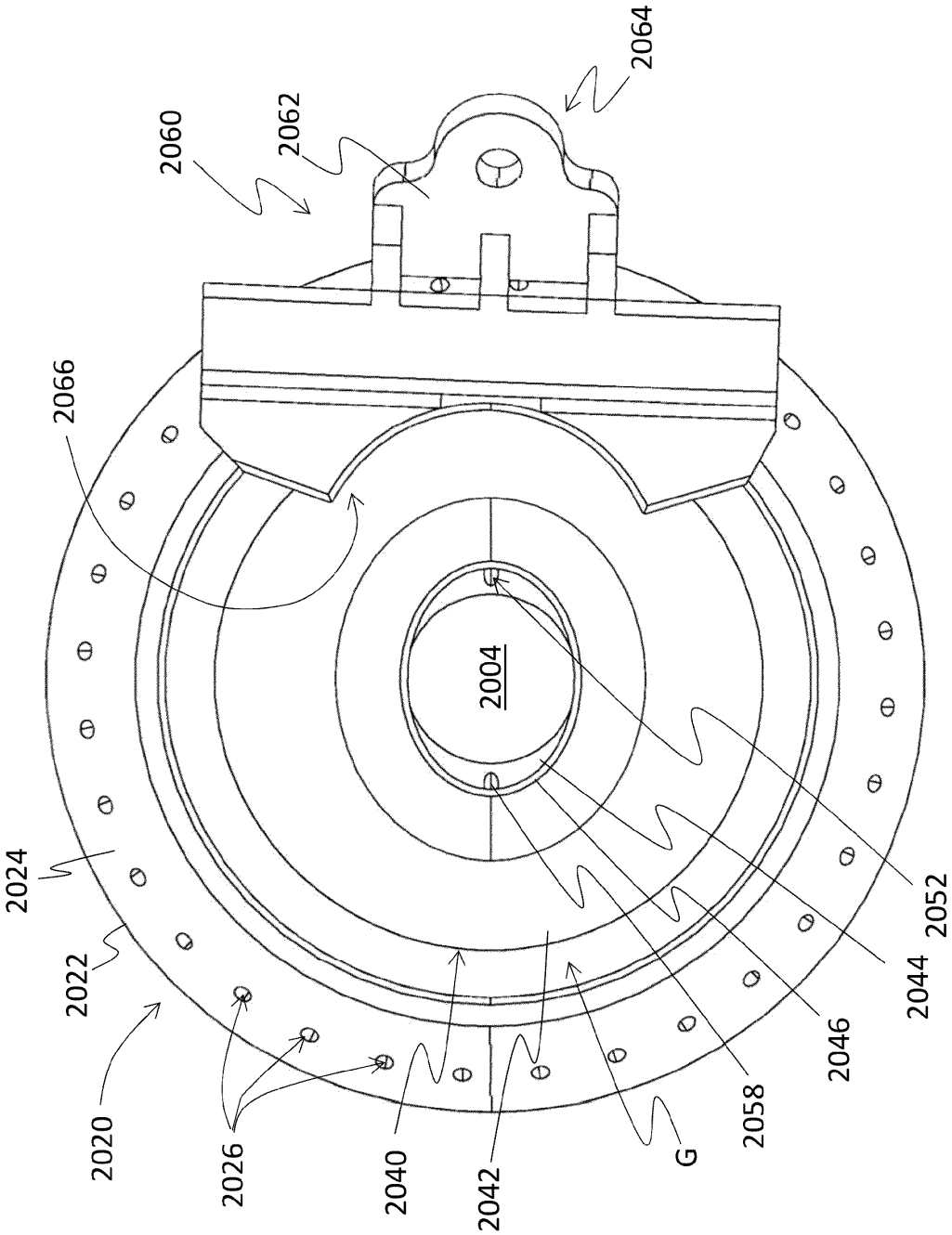

2064
2060
2062
2066
2004
2024
2022
2020
2026
2040
2042
G
2058
2046
2044
2052

FIG. 19

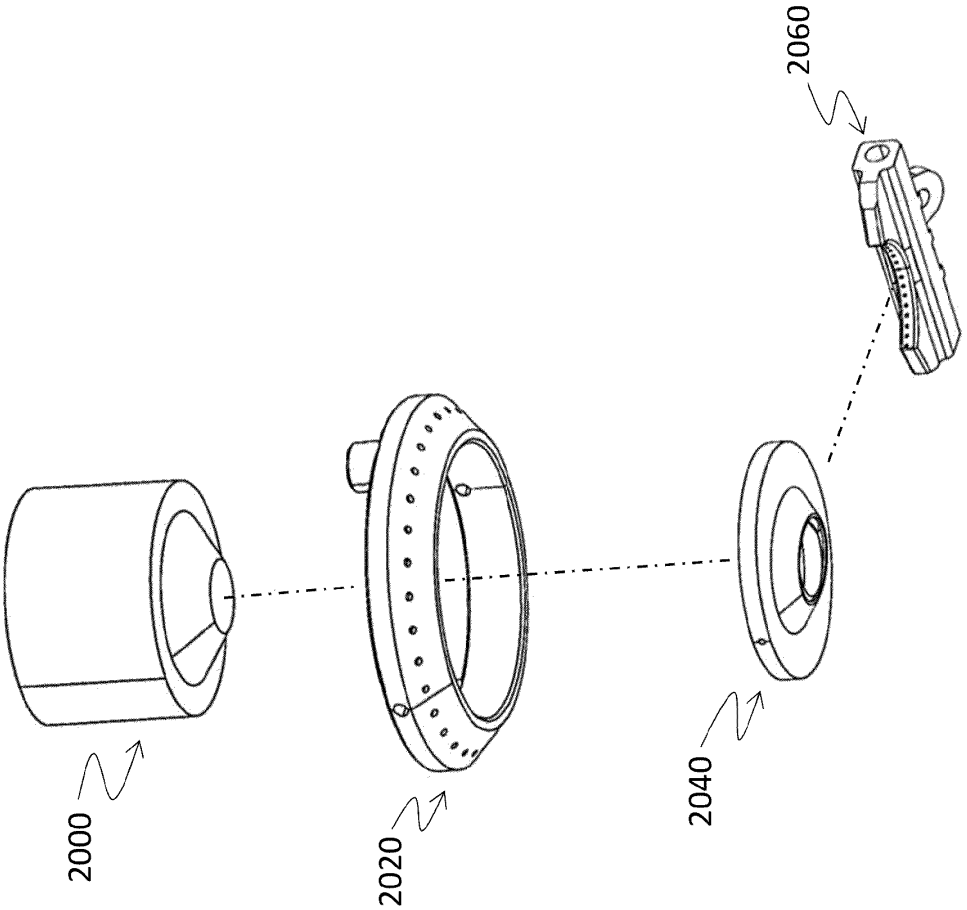


FIG. 20

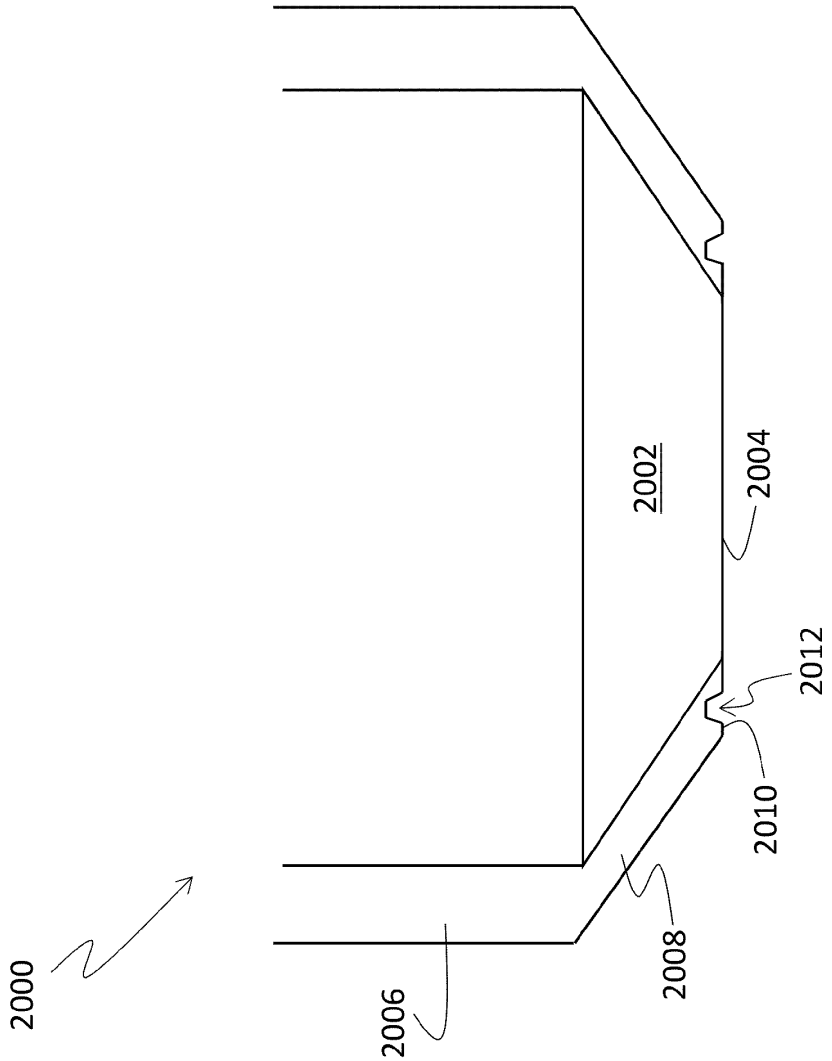


FIG. 21

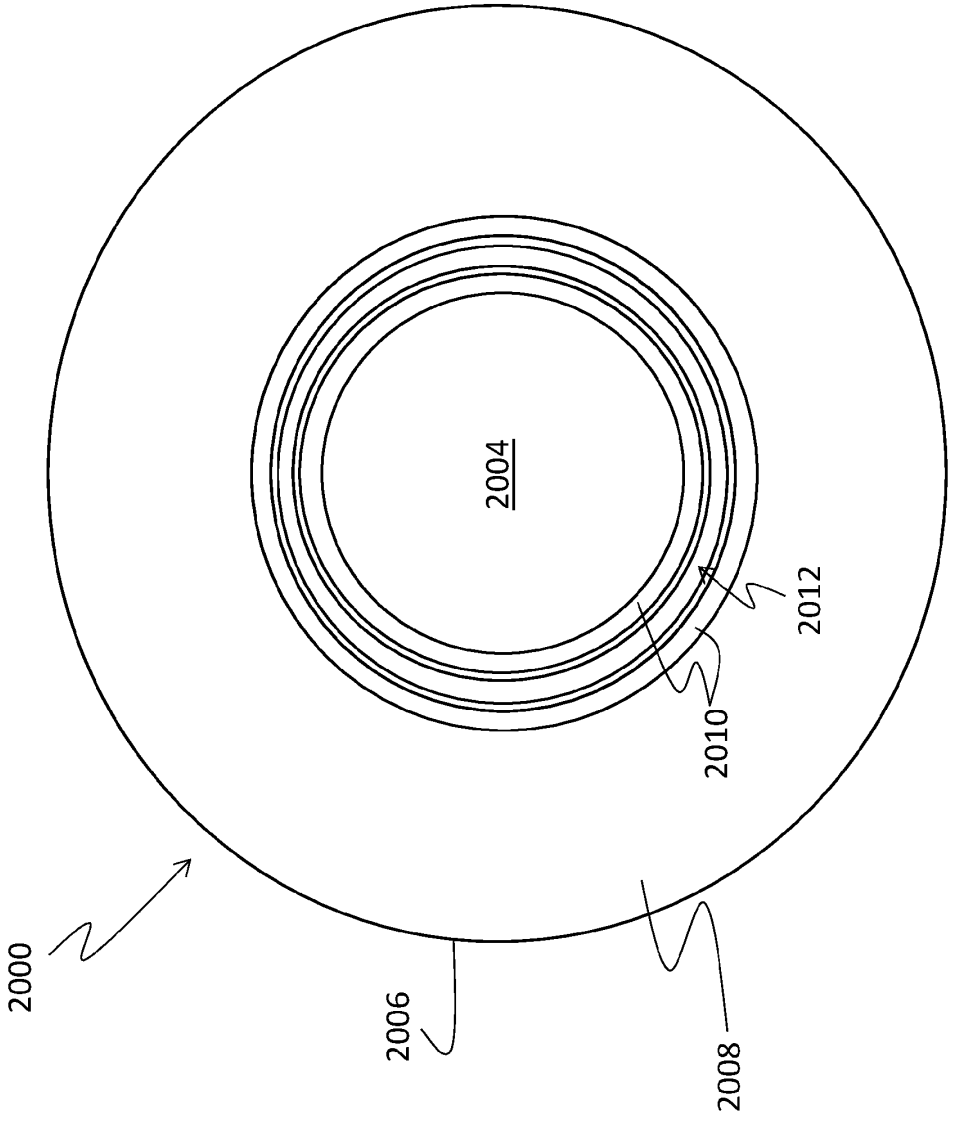


FIG. 22

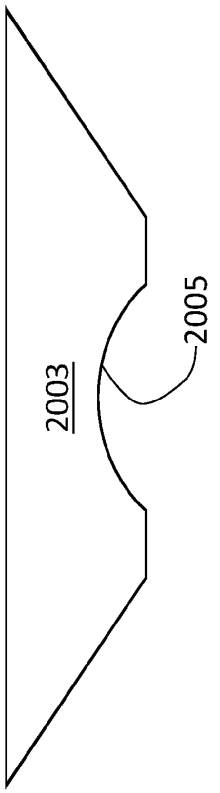


FIG. 23

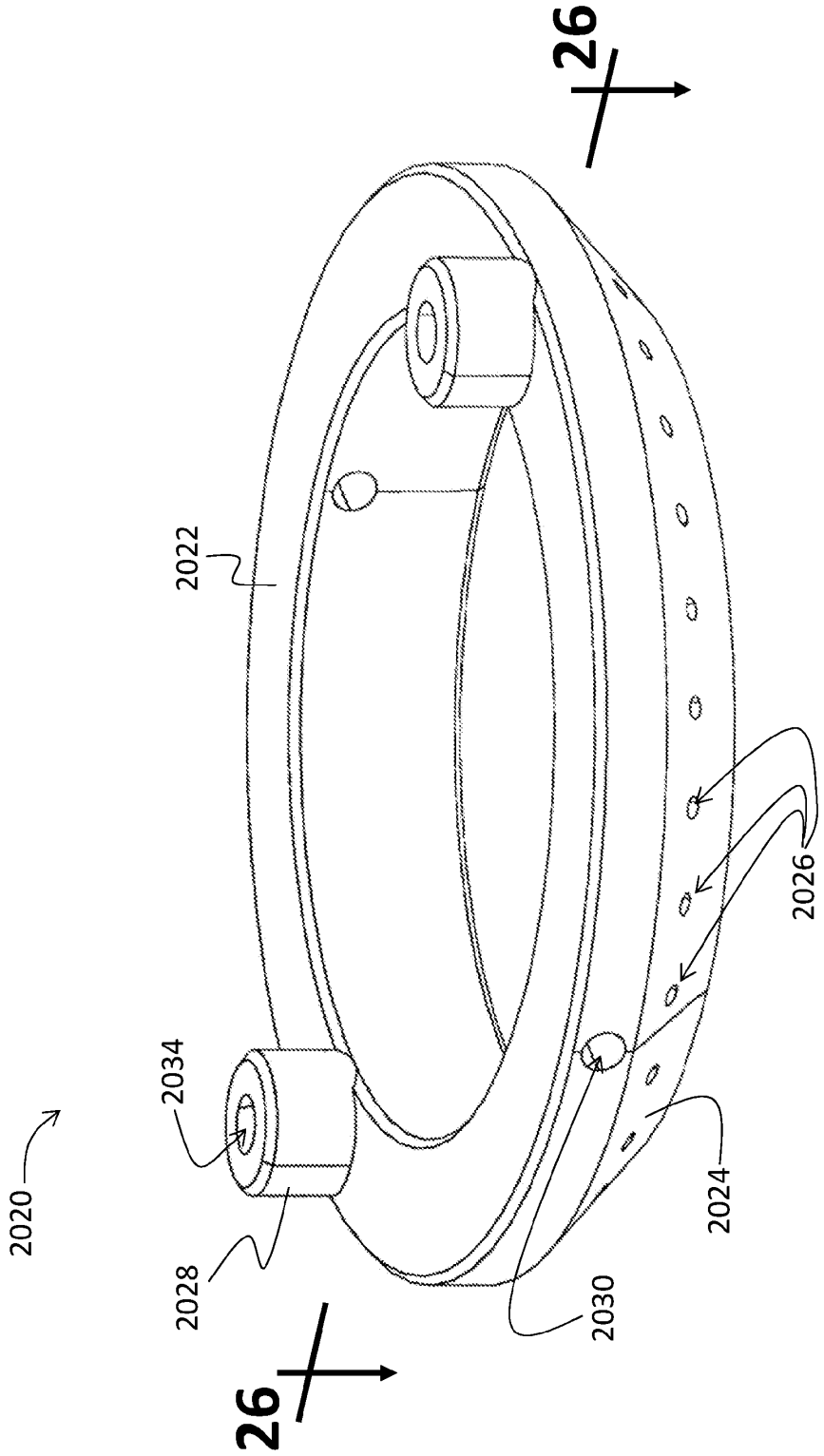


FIG. 24

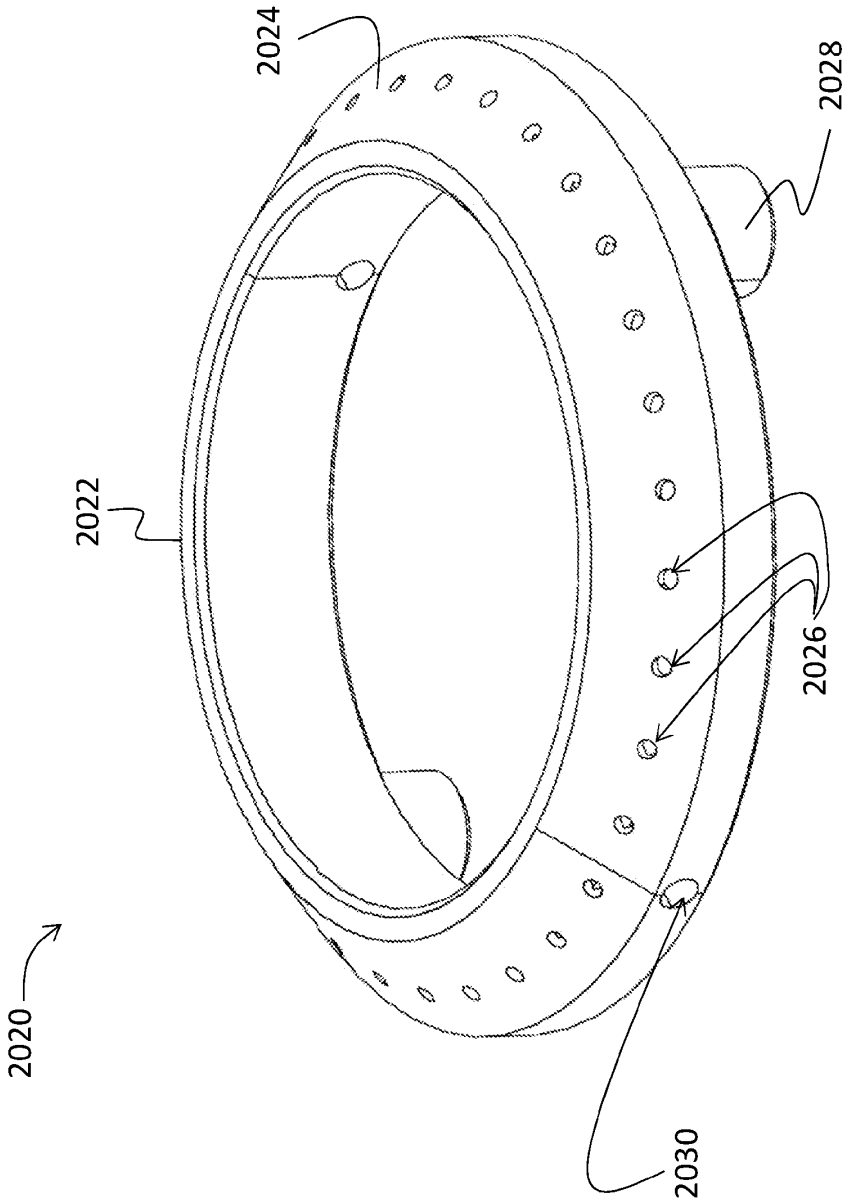


FIG. 25

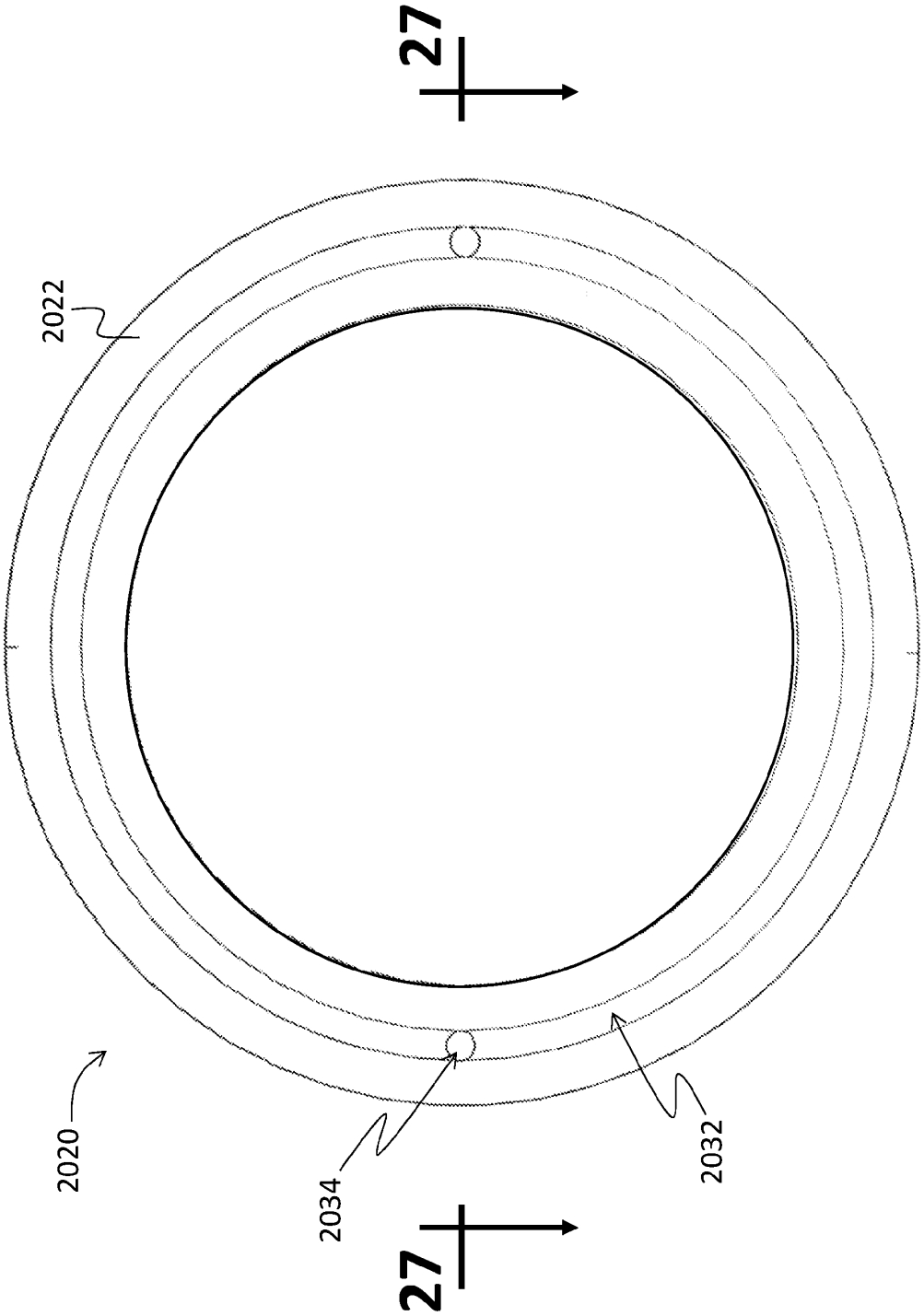


FIG. 26

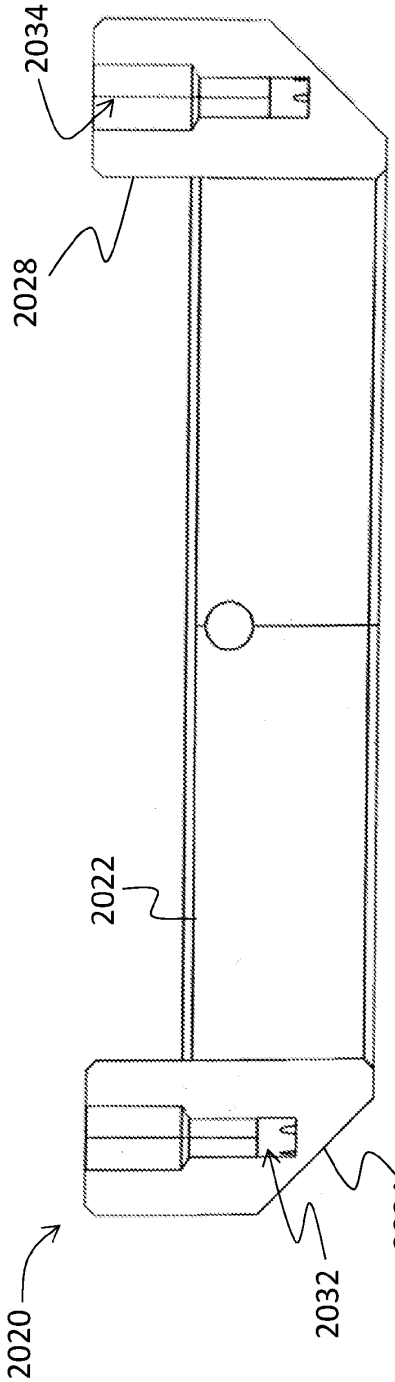


FIG. 27

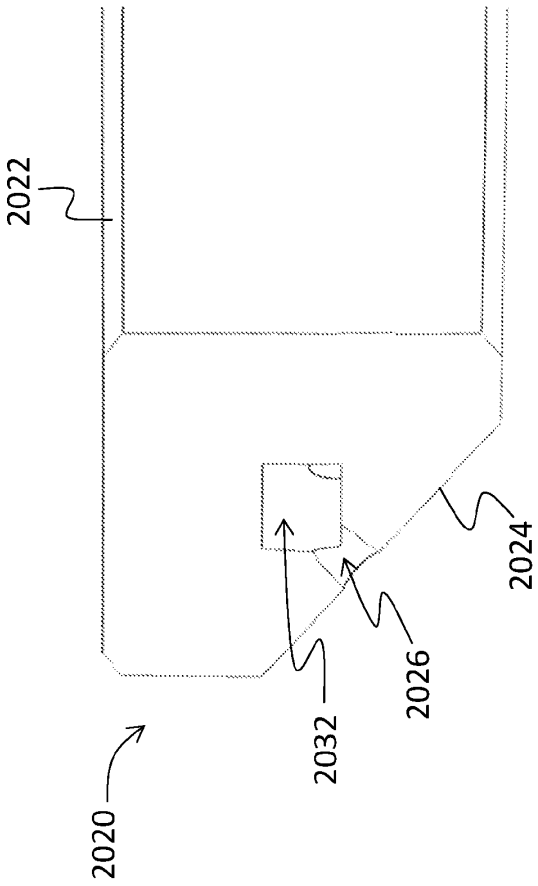


FIG. 28

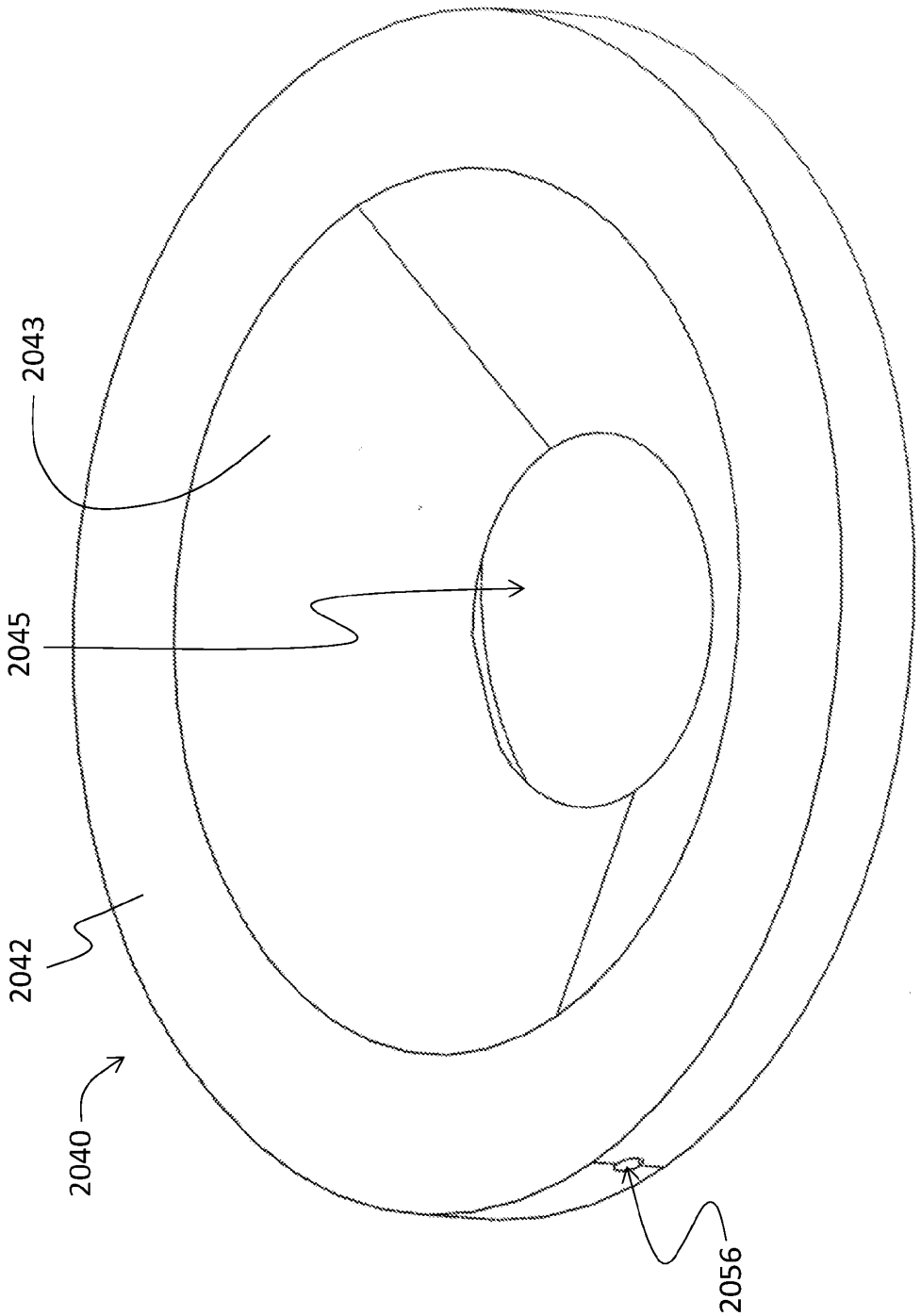


FIG. 29

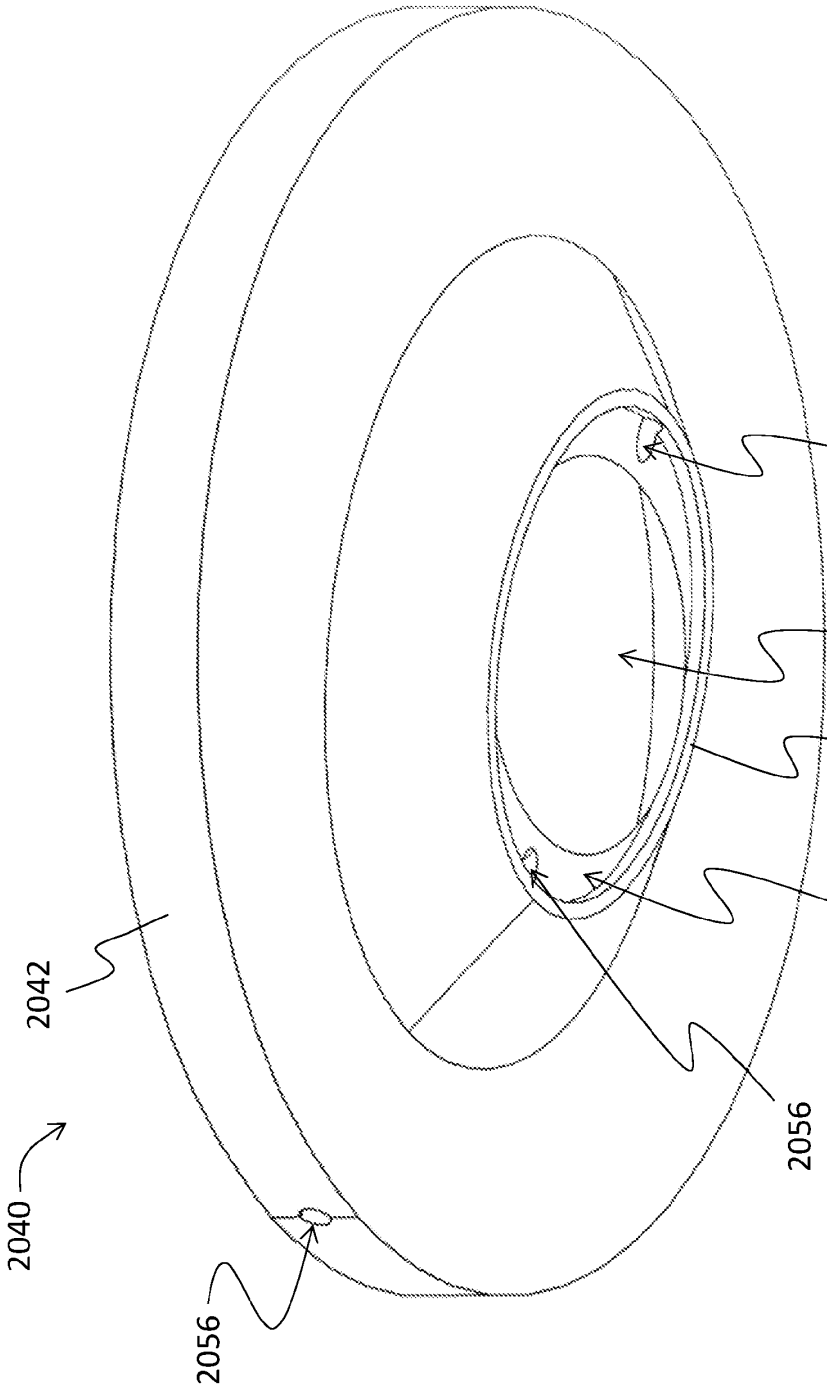


FIG. 30

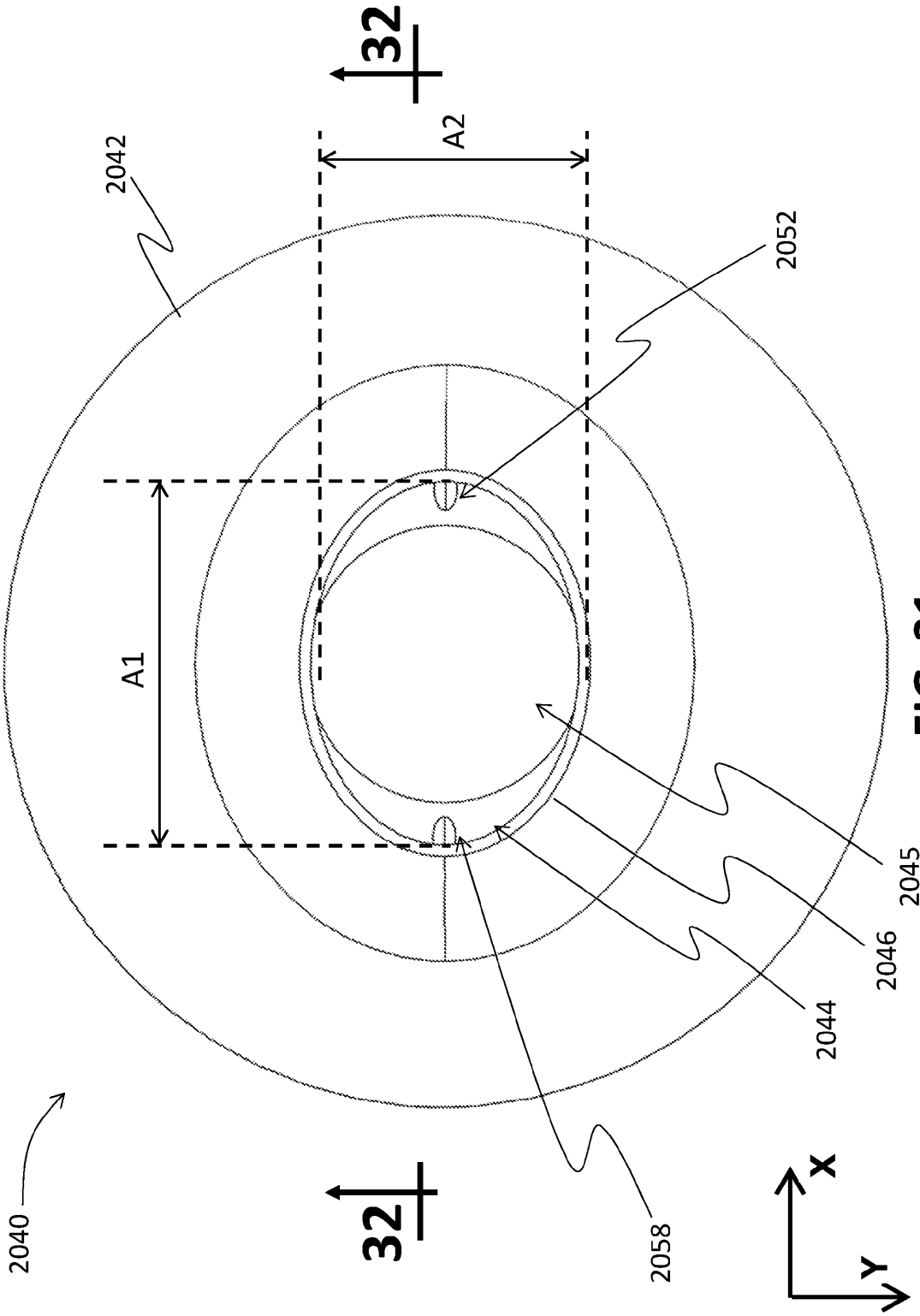


FIG. 31

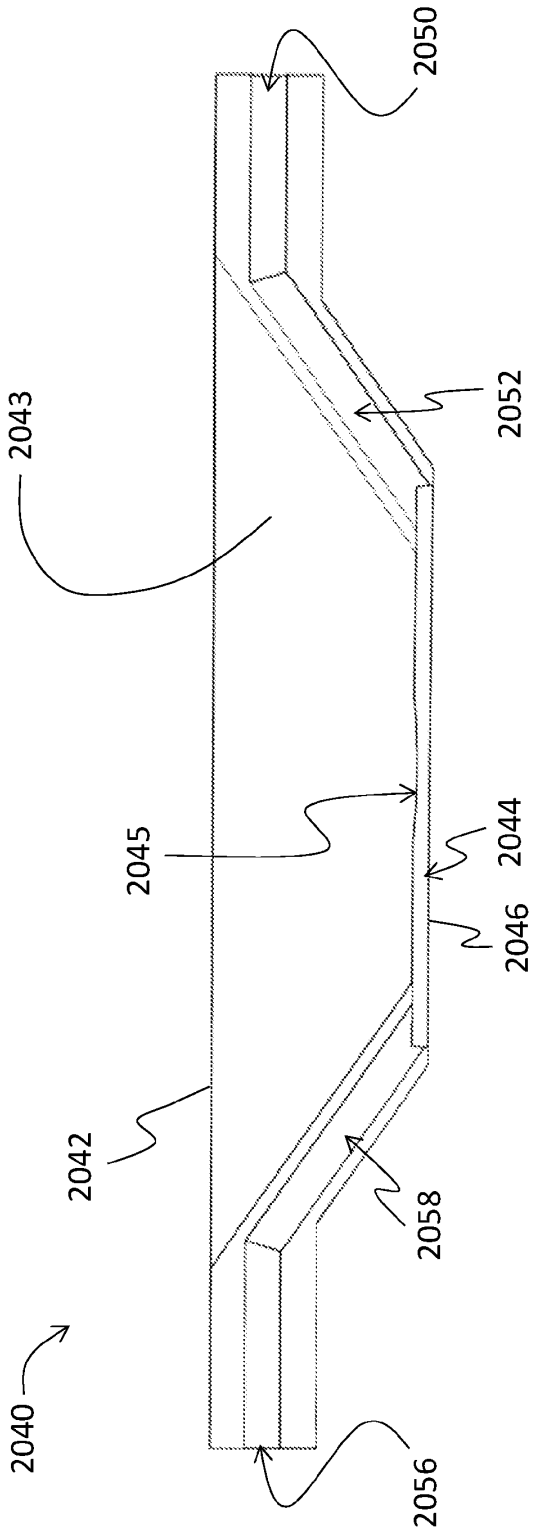


FIG. 32

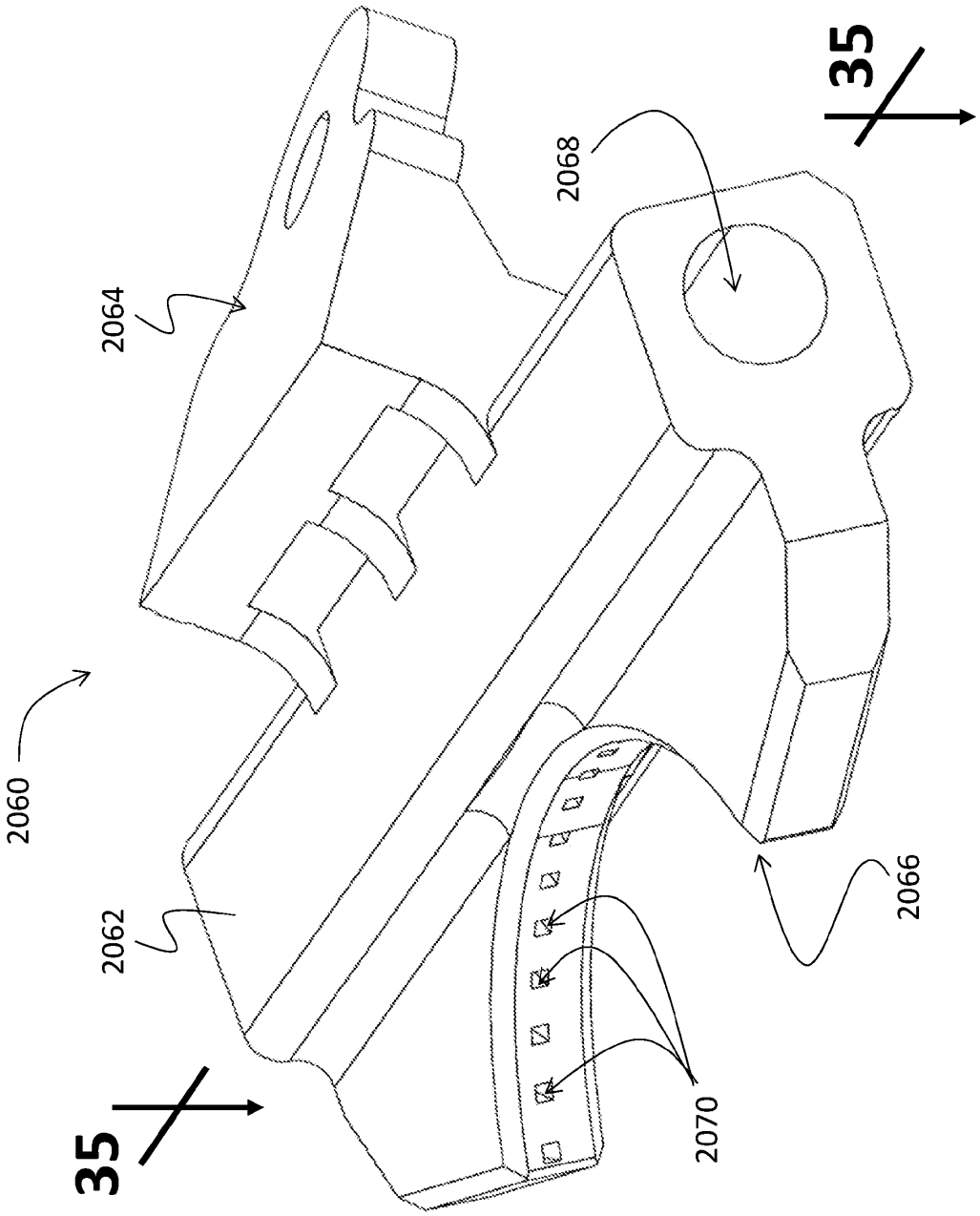


FIG. 33

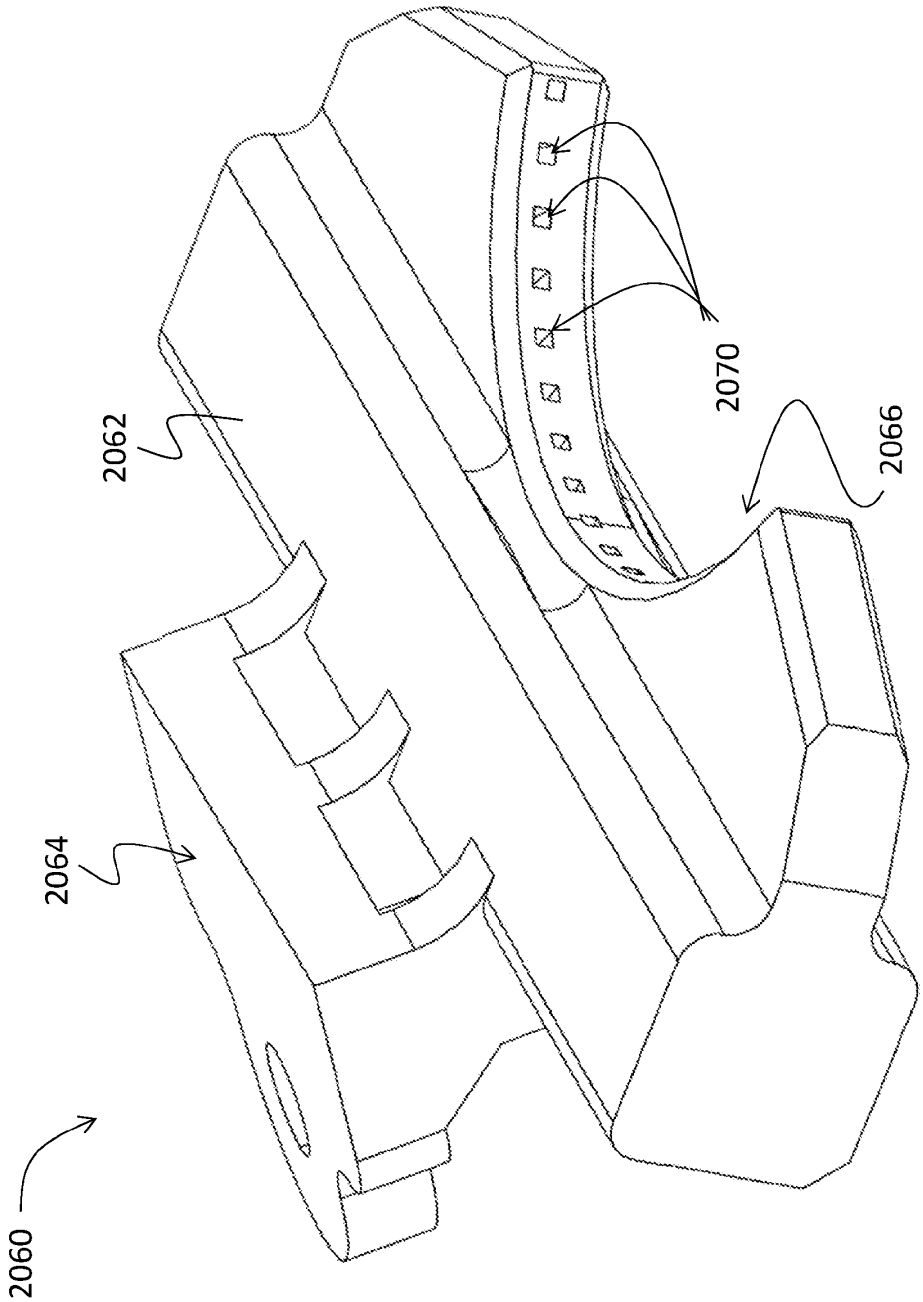


FIG. 34

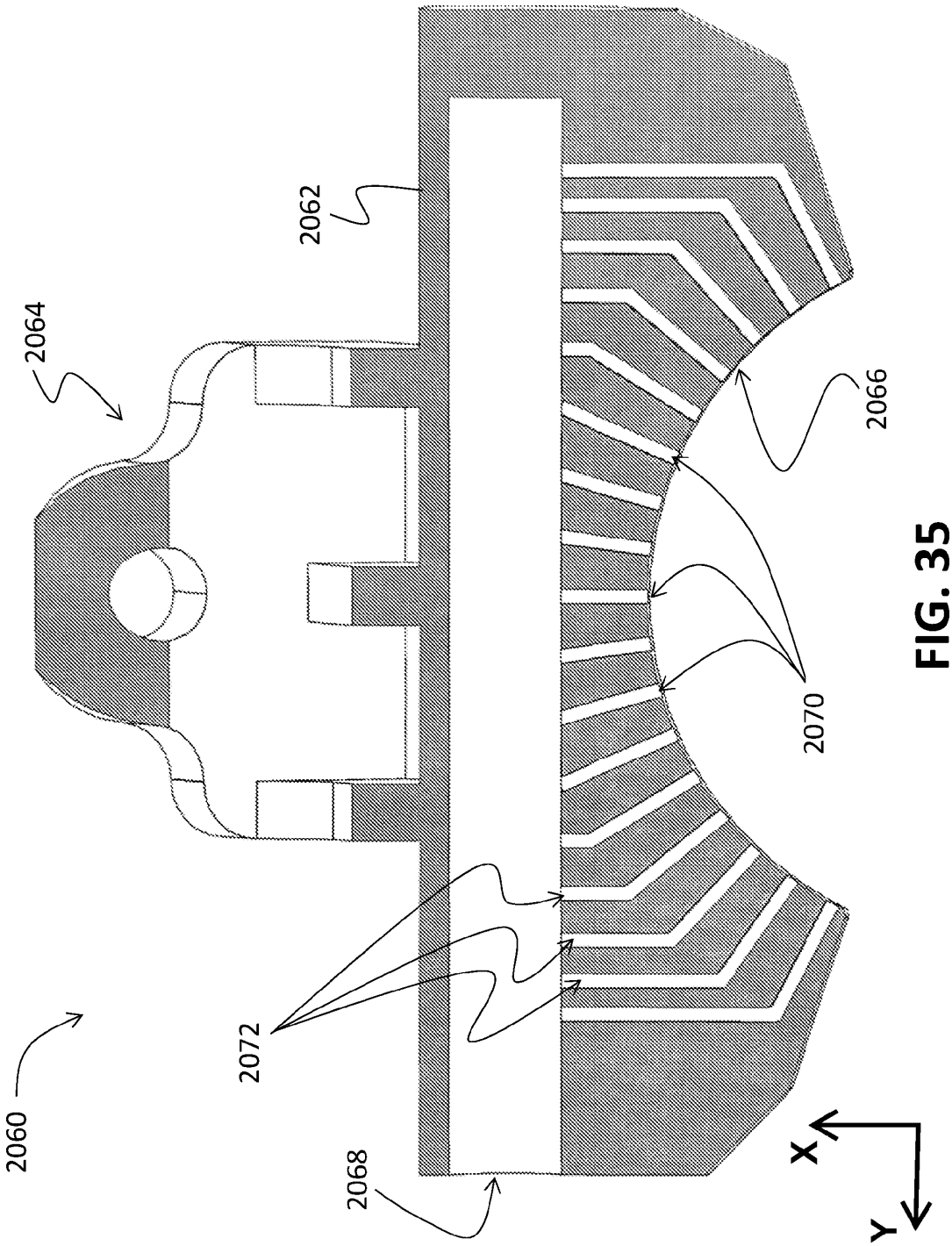


FIG. 35

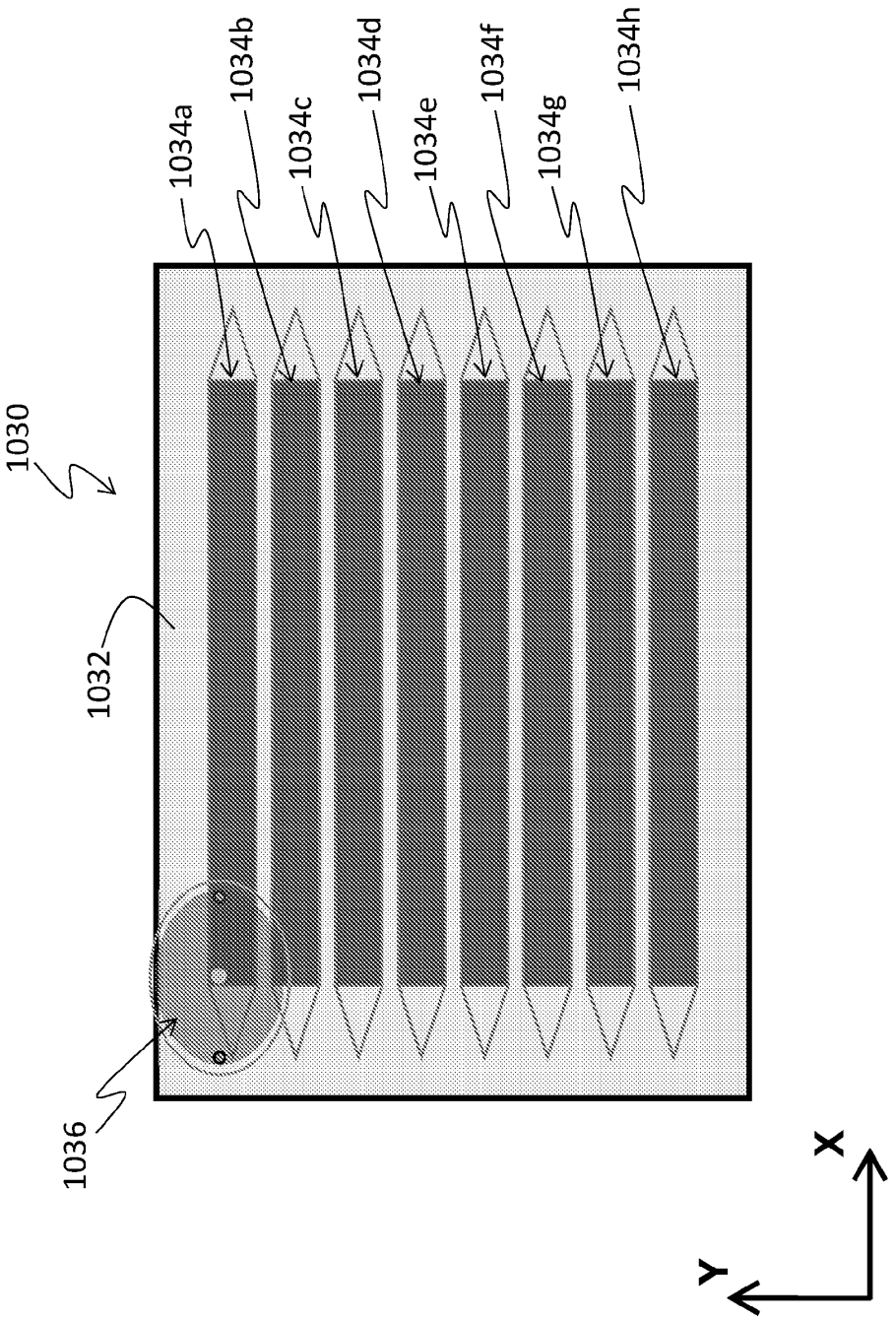

1034a
1034b
1034c
1034d
1034e
1034f
1034g
1034h
1030
1032
1036
X
Y

FIG. 36A

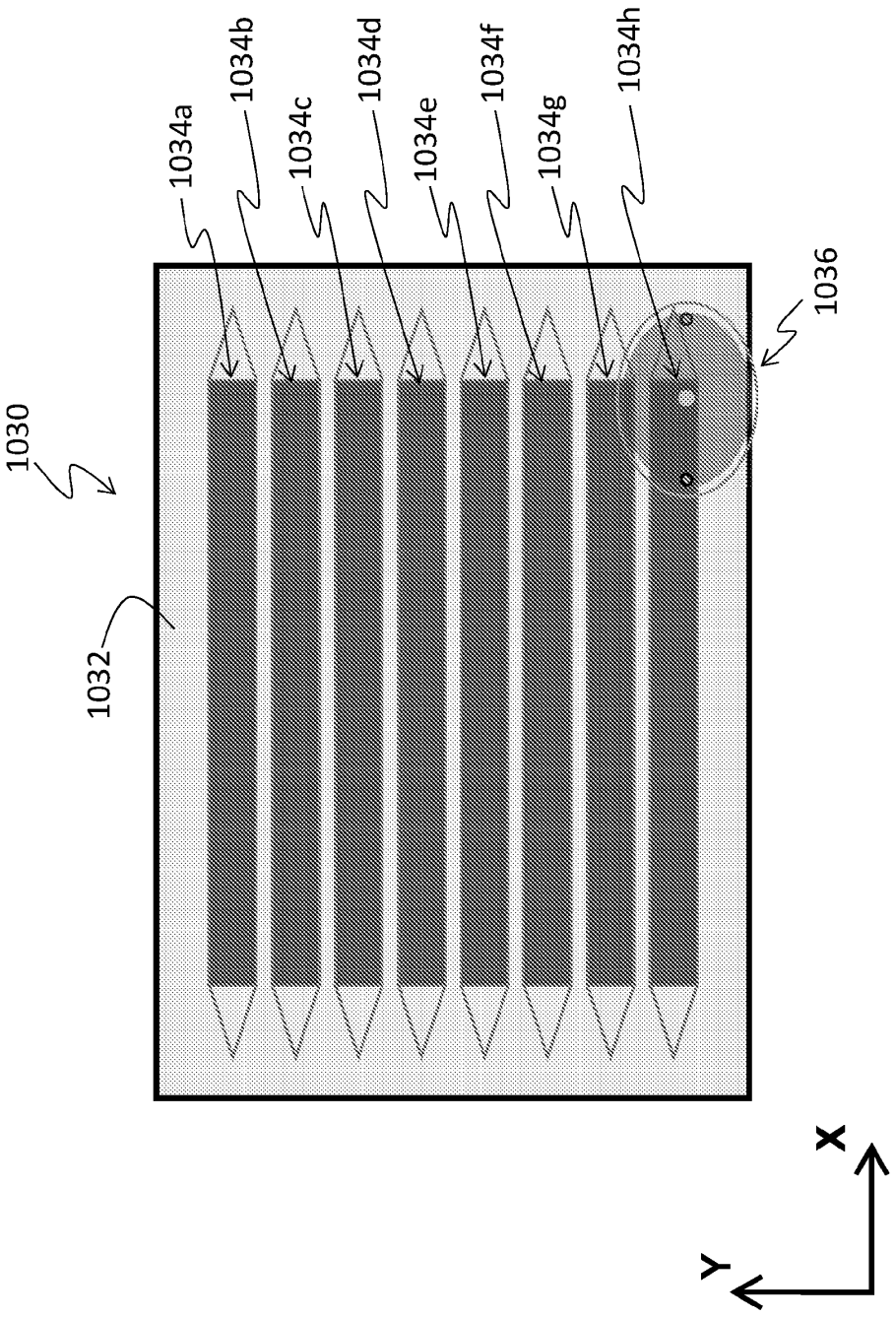

1034a
1034b
1034c
1034d
1034e
1034f
1034g
1034h
1036
1030
1032
X
Y

FIG. 36B

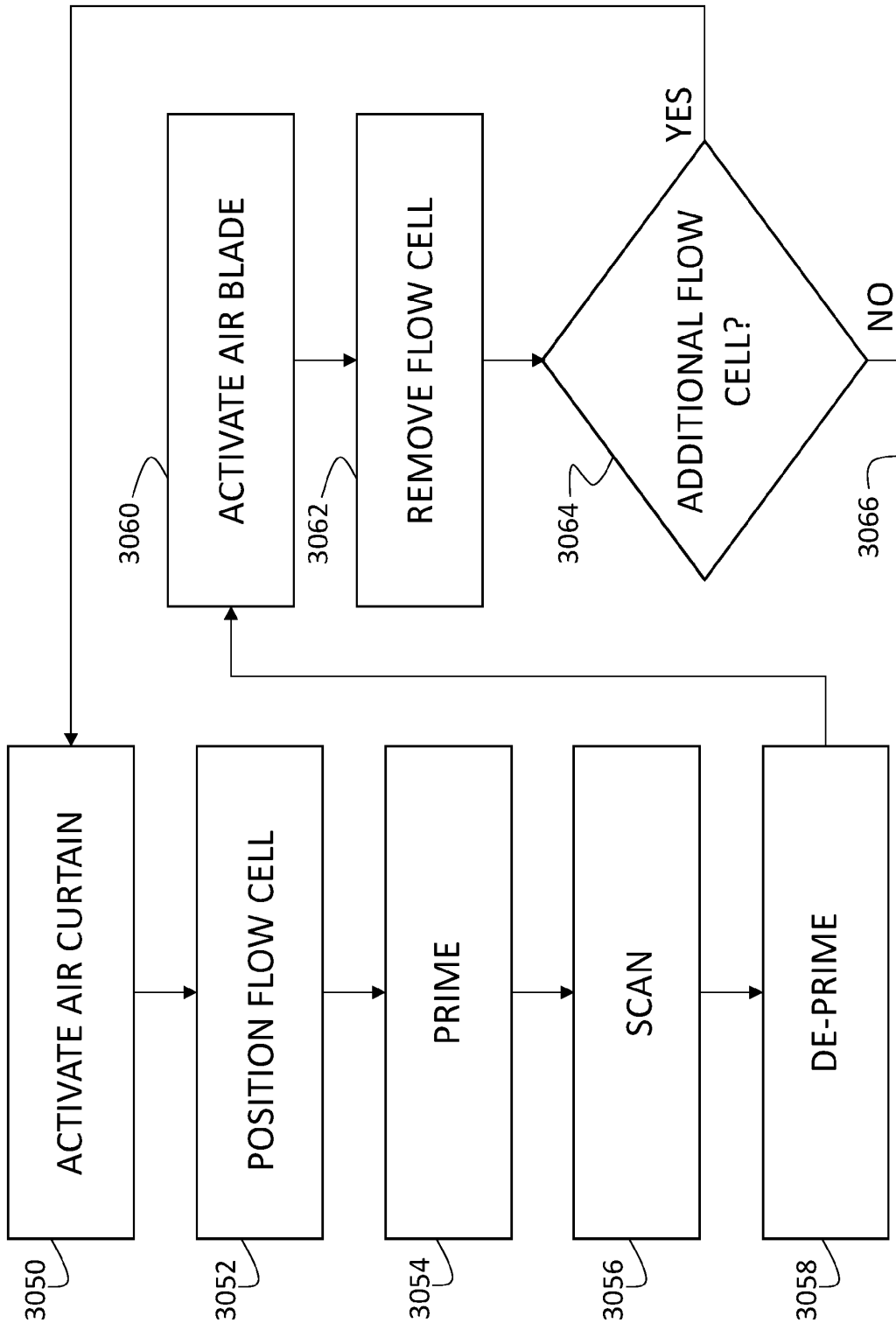

ACTIVATE AIR CURTAIN
POSITION FLOW CELL
PRIME
SCAN
DE-PRIME
ACTIVATE AIR BLADE
REMOVE FLOW CELL
ADDITIONAL FLOW CELL?
YES
NO
END
3050
3052
3054
3056
3058
3060
3062
3064
3066

FIG. 37

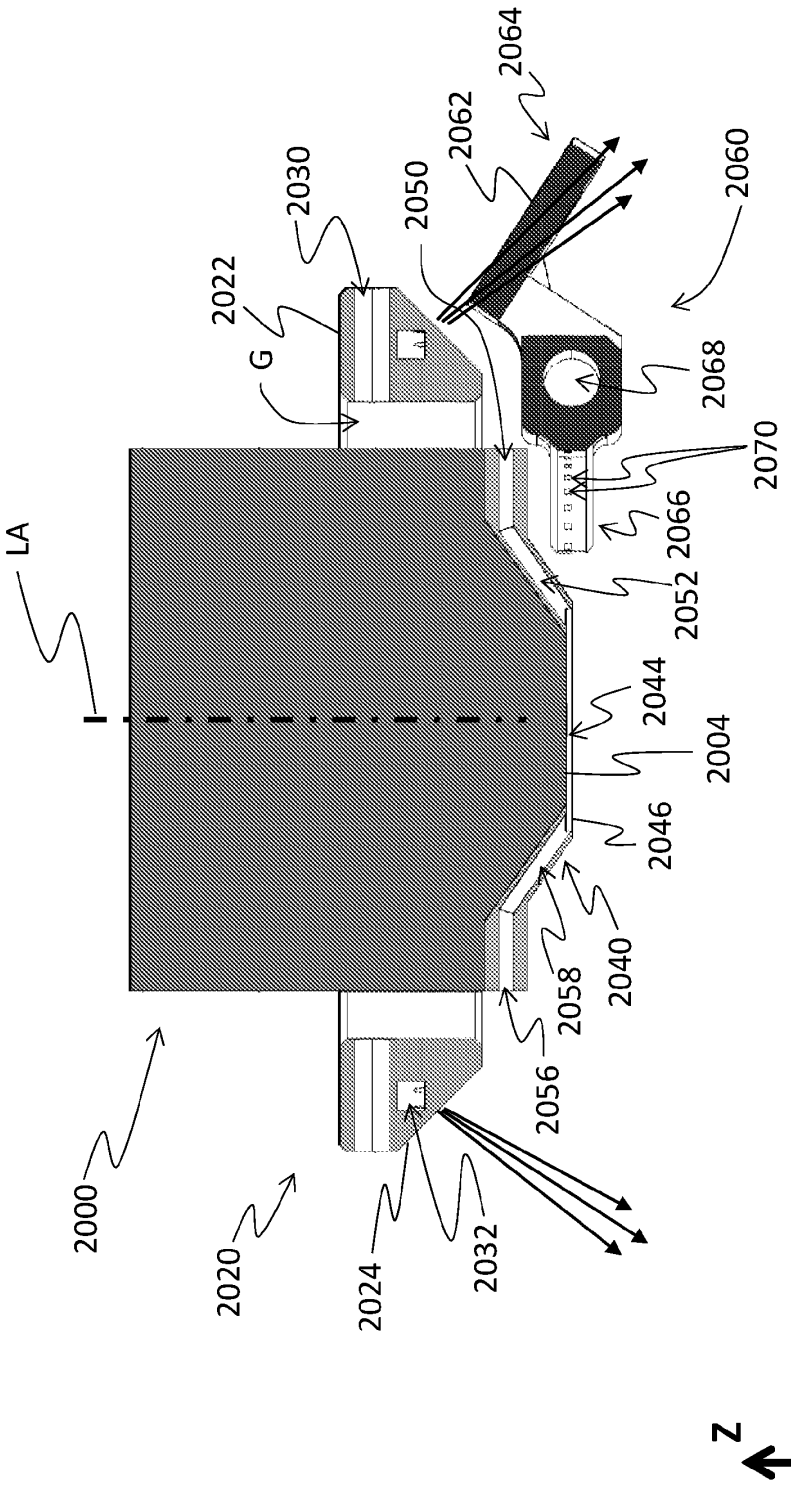

2064
2062
2030
2050
2060
2022
G
2068
2070
2066
LA
2052
2044
2004
2046
2040
2058
2056
2000
2020
2024
2032
X
Z

FIG. 38A

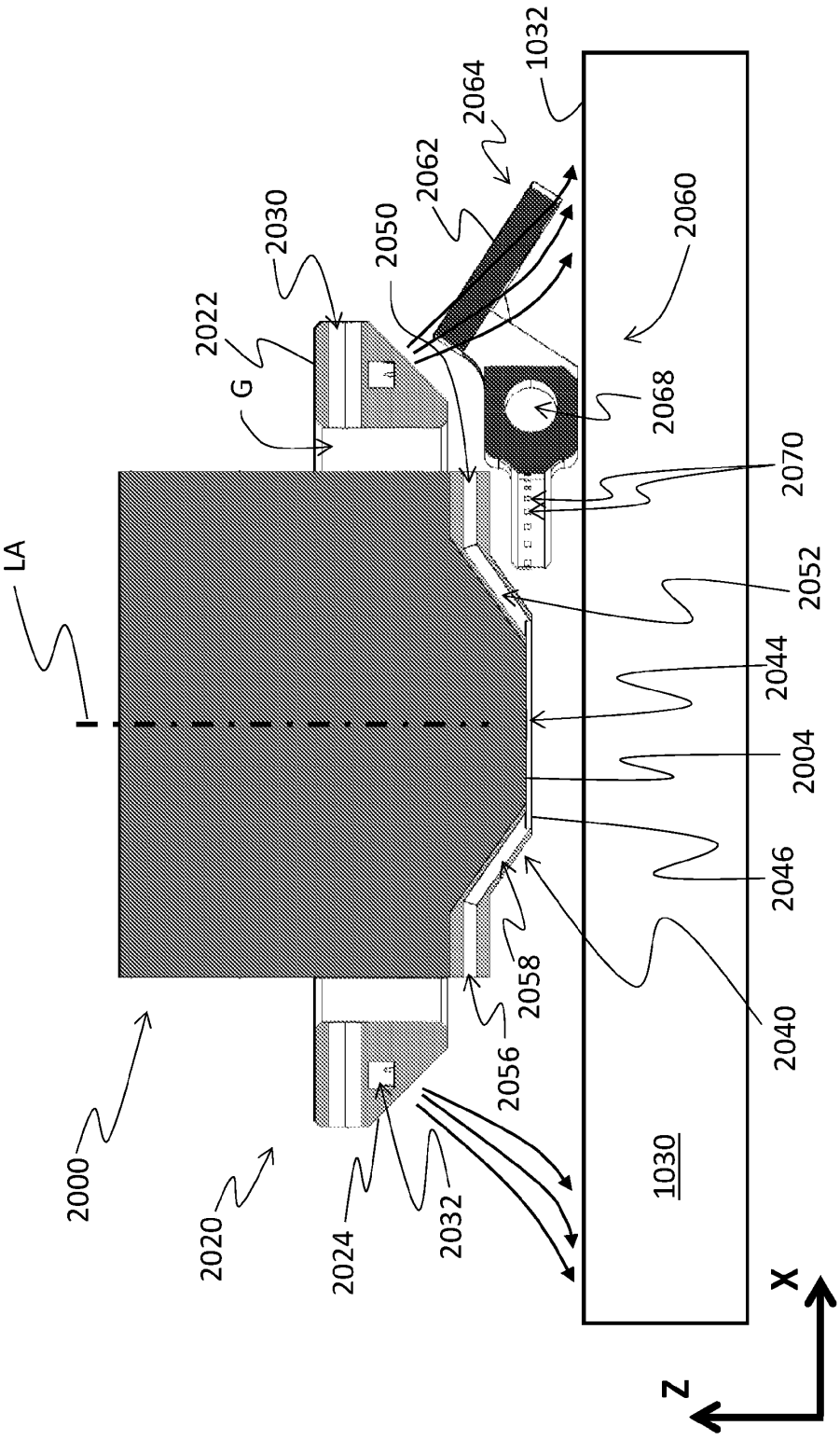

1032
2064
2062
2030
2050
2060
2022
G
2068
2070
LA
2052
2044
2004
2046
2058
2056
2040
2000
2020
2024
2032
1030
X
Z

FIG. 38B

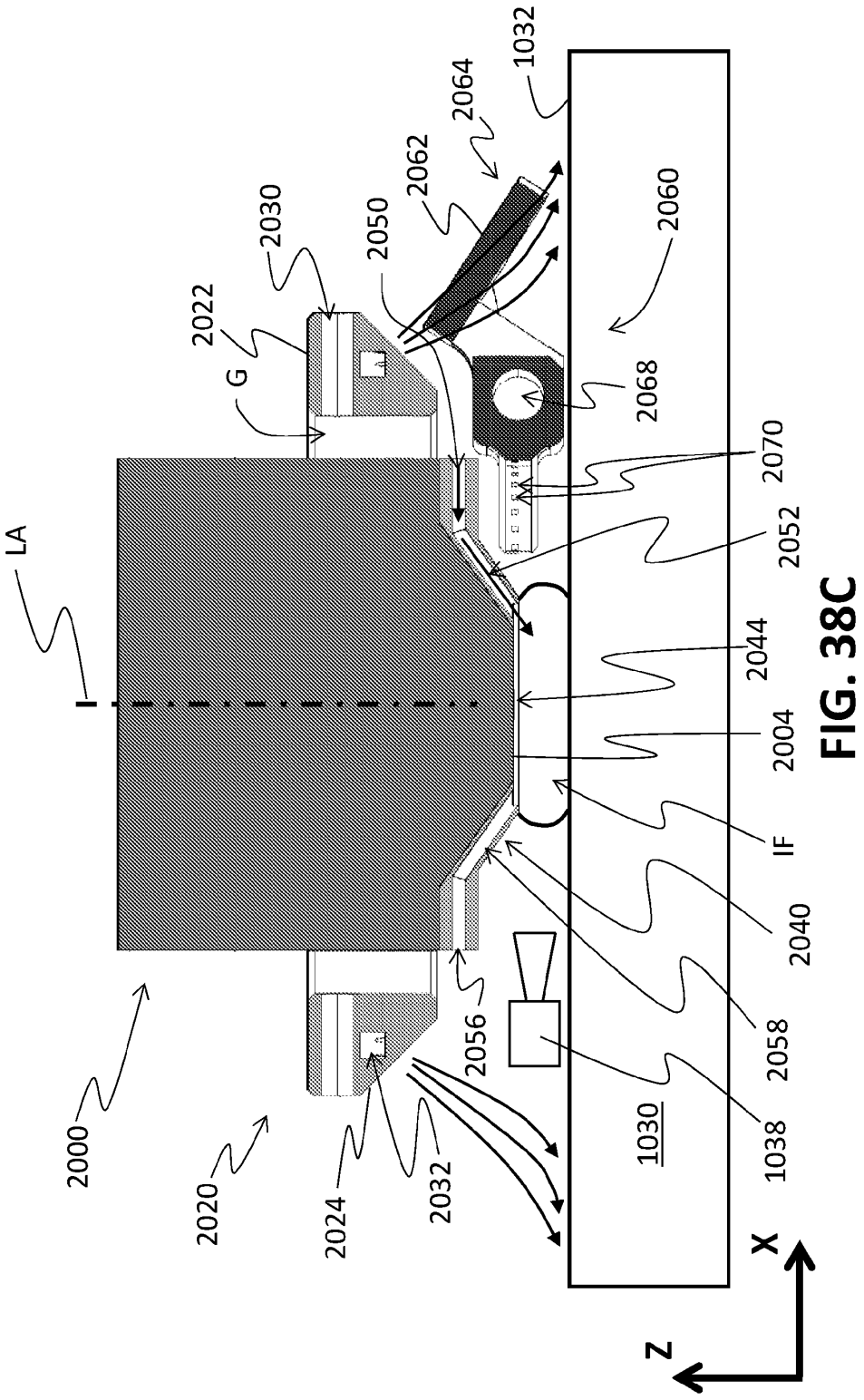

1032
2064
2062
2030
2050
2060
2022
G
2068
2070
LA
2052
2044
2004
IF
2040
2056
2058
2000
2020
2024
2032
1030
1038
X
Z

FIG. 38C

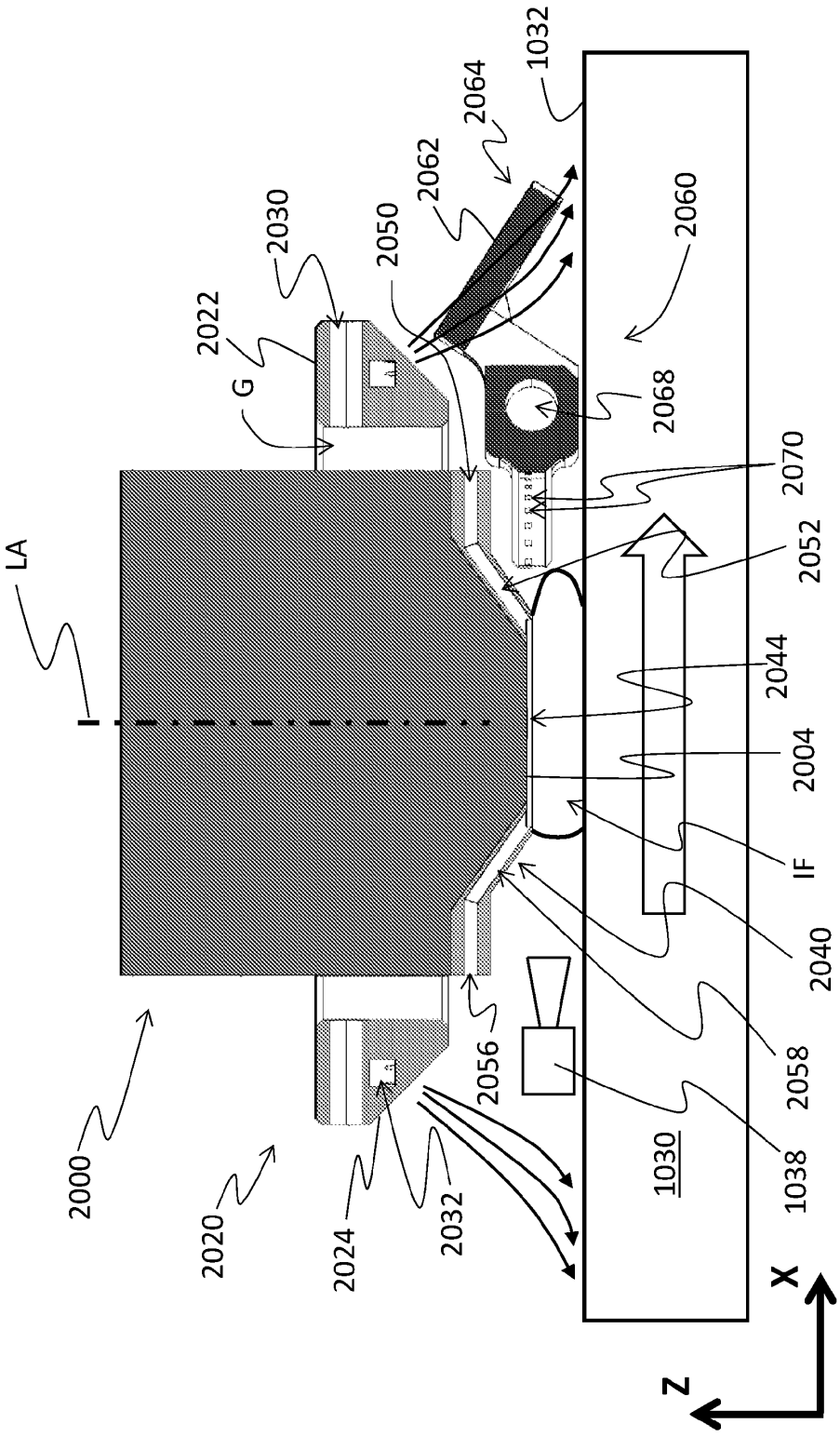

1032
2064
2062
2030
2050
2060
2022
G
2068
2070
LA
2052
2044
2004
IF
2040
2058
2056
2000
2020
2024
2032
1030
1038
X
Z

FIG. 38D

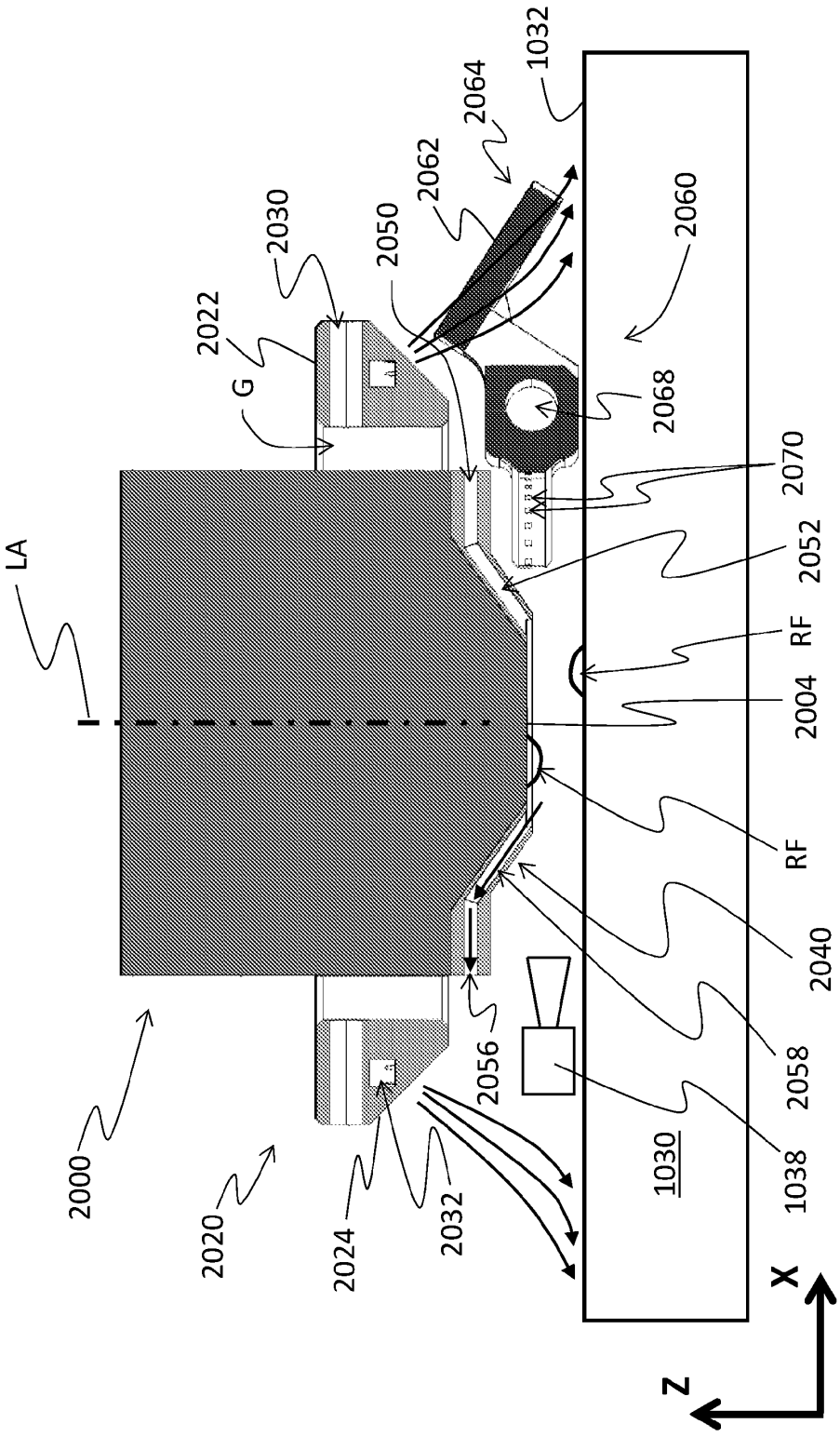

1032
2064
2062
2030
2050
2060
2022
G
2068
2070
LA
2052
RF
2004
RF
2040
2056
2058
2000
2020
2024
2032
1030
1038
X
Z

FIG. 38E

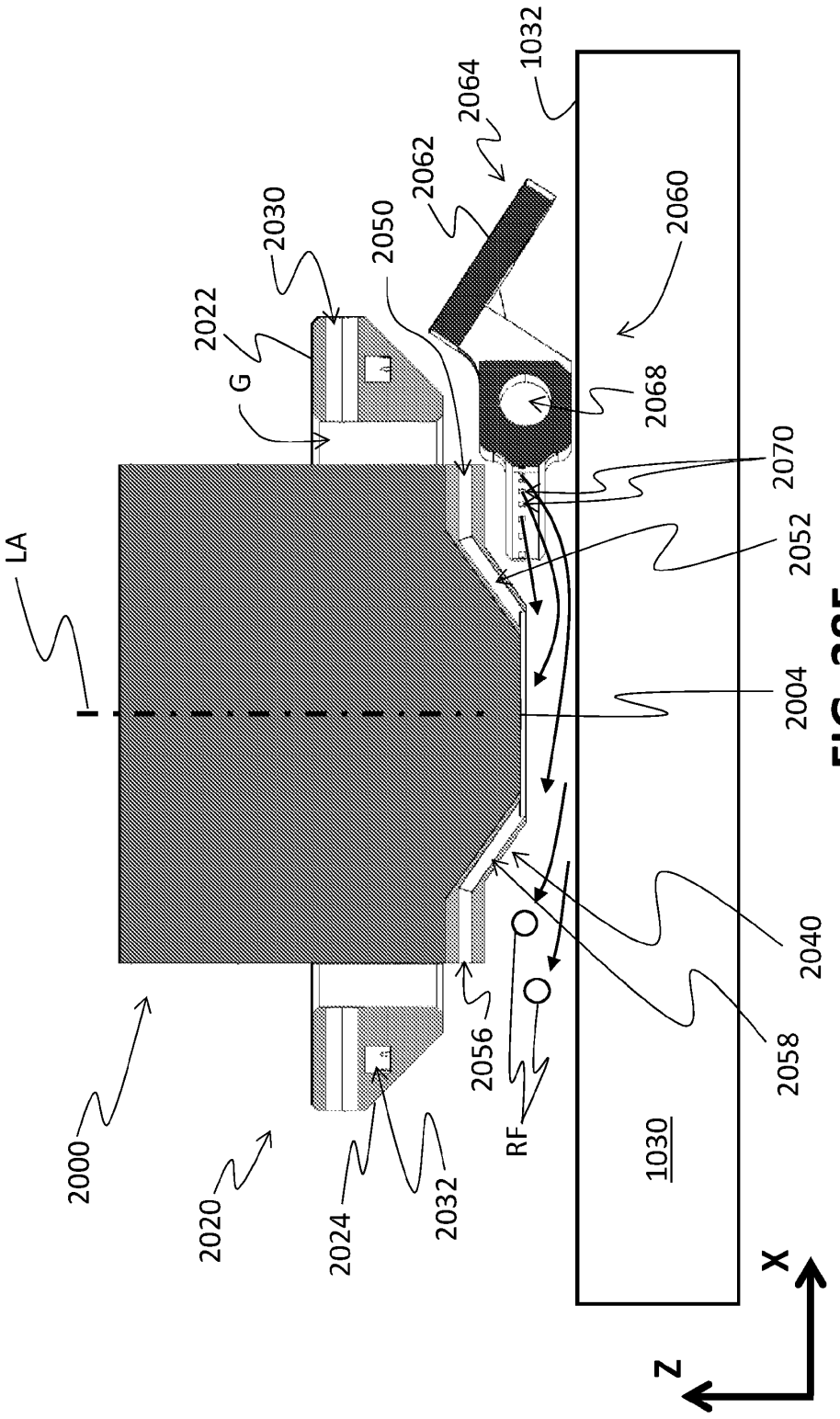

1032
2064
2062
2030
2050
2060
2022
G
2068
2070
LA
2052
2004
2040
2058
2056
RF
1030
2000
2020
2024
2032
X
Z

FIG. 38F

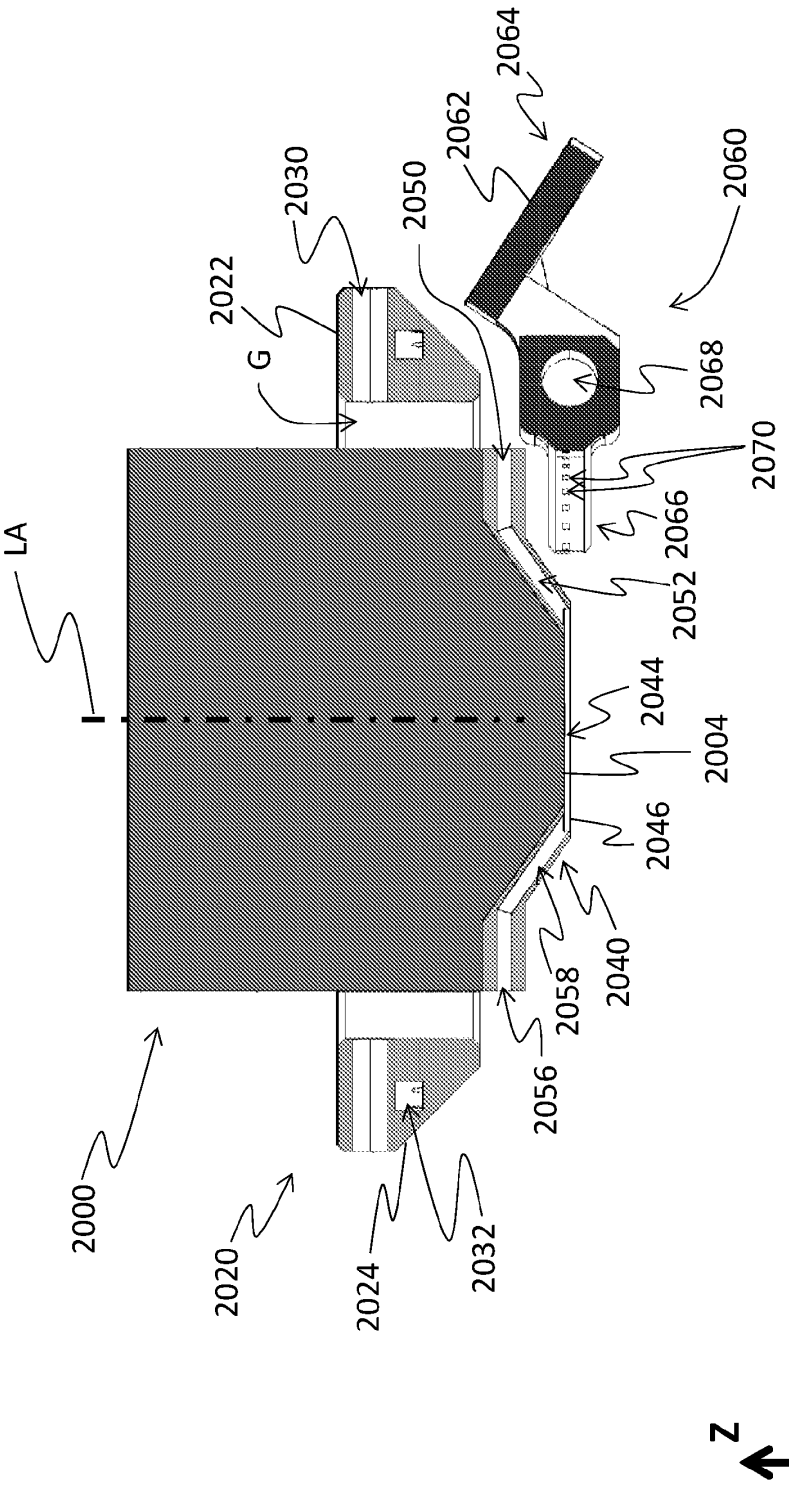

2064
2062
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G
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LA
2052
2044
2004
2046
2040
2058
2056
2000
2020
2024
2032
X
Z

FIG. 38G