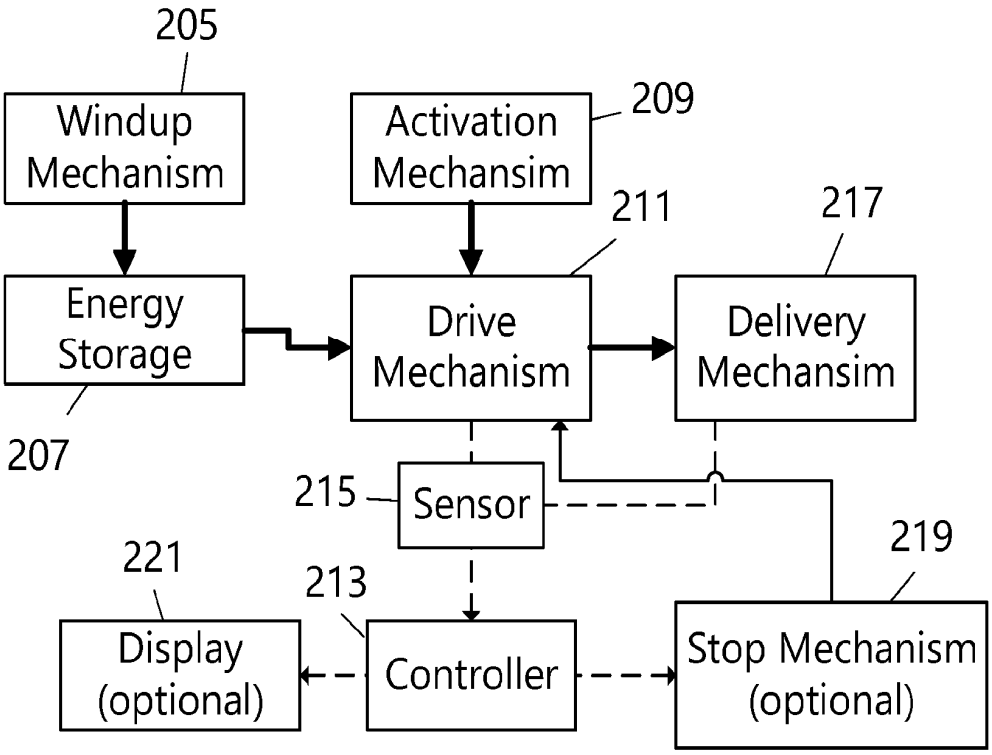

205
Windup Mechanism
Activation Mechansim
209
211
217
Energy Storage
Drive Mechanism
Delivery Mechansim
207
215
Sensor
219
221
213
Display (optional)
Controller
Stop Mechanism (optional)

FIG. 1A

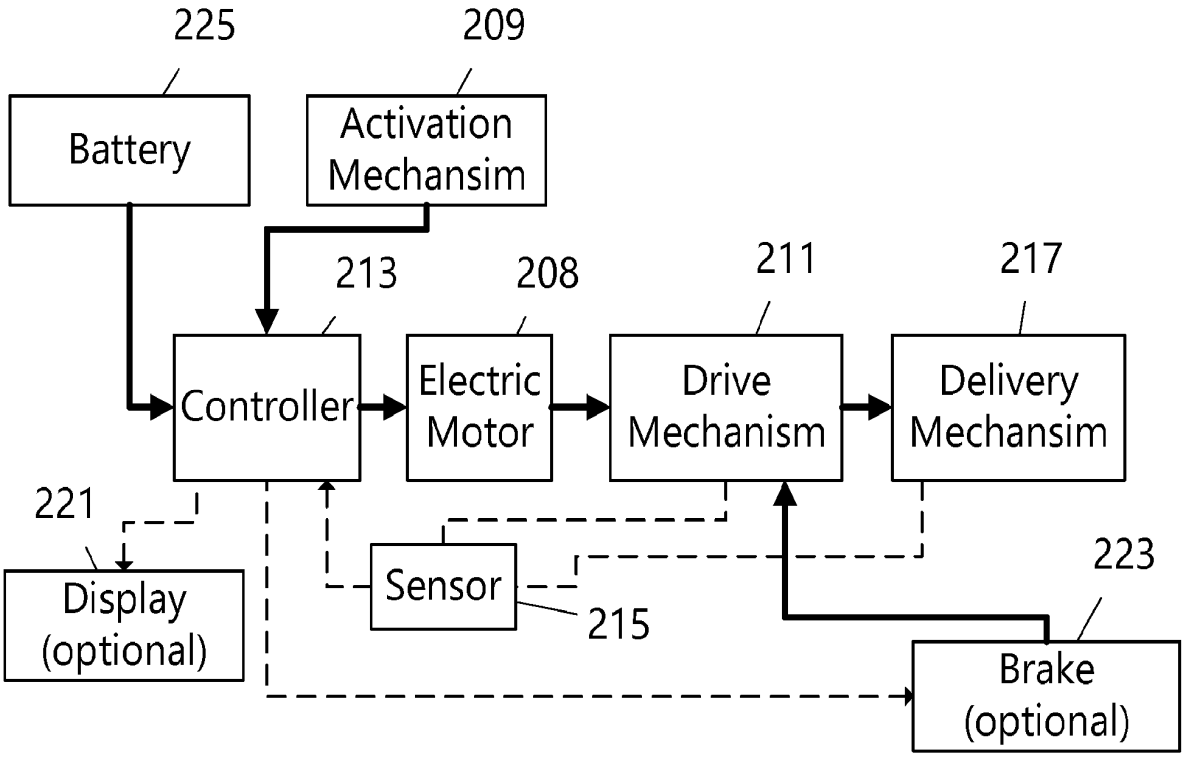

225
209
Battery
Activation Mechansim
213
208
211
217
Controller
Electric Motor
Drive Mechanism
Delivery Mechansim
221
223
Sensor
Display (optional)
215
Brake (optional)

FIG. 1B

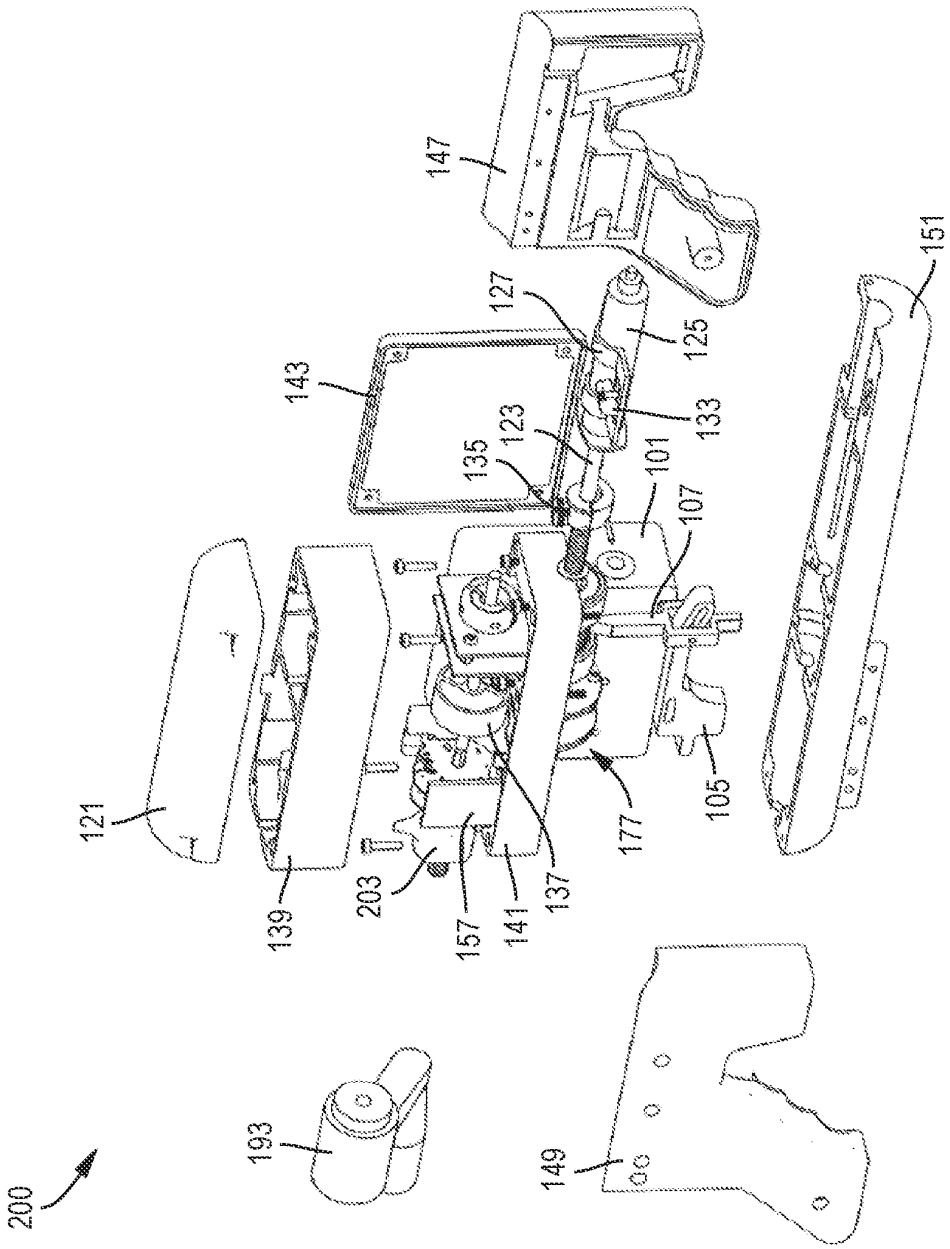

200
193
149
121
139
203
157
141
137
177
105
107
101
135
123
133
125
127
143
147
151

FIG. 2A

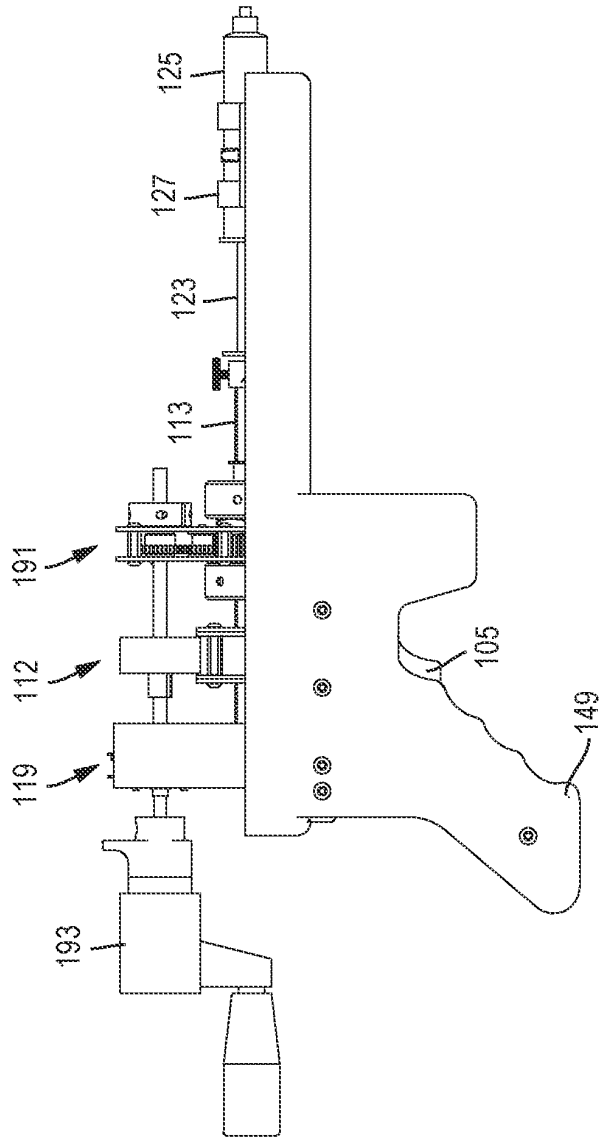


FIG. 2B

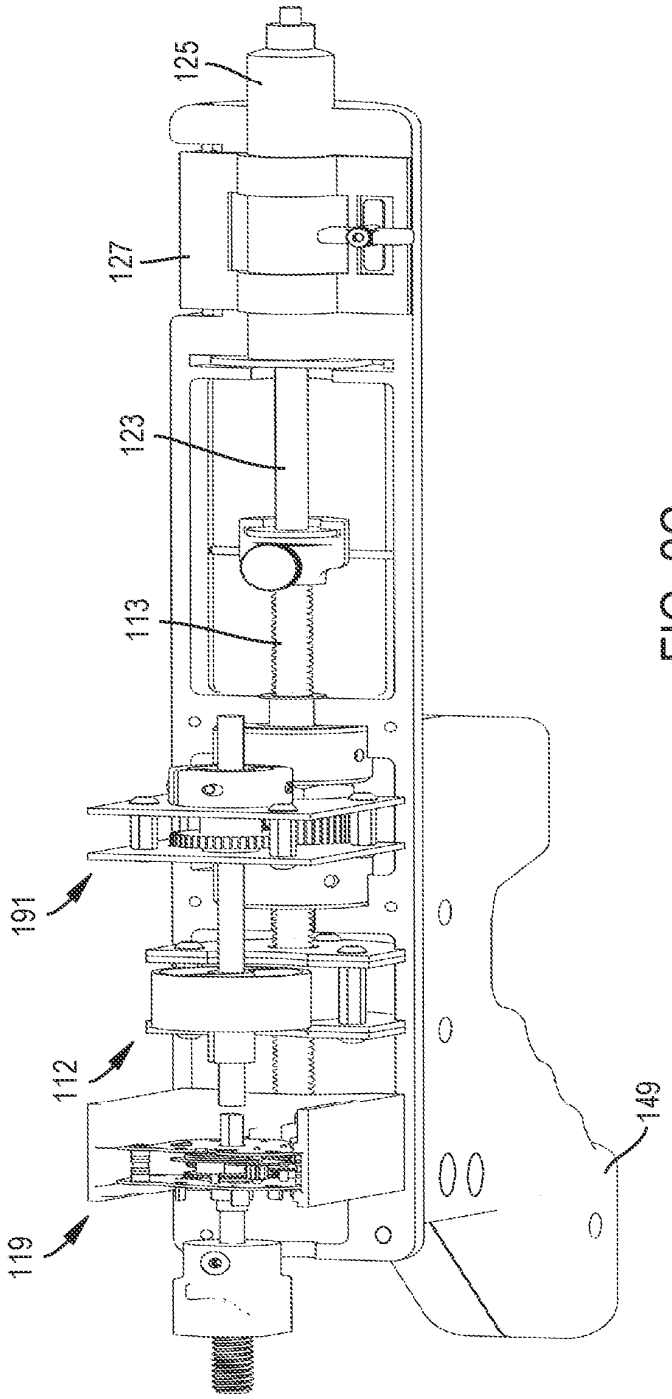


FIG. 2C

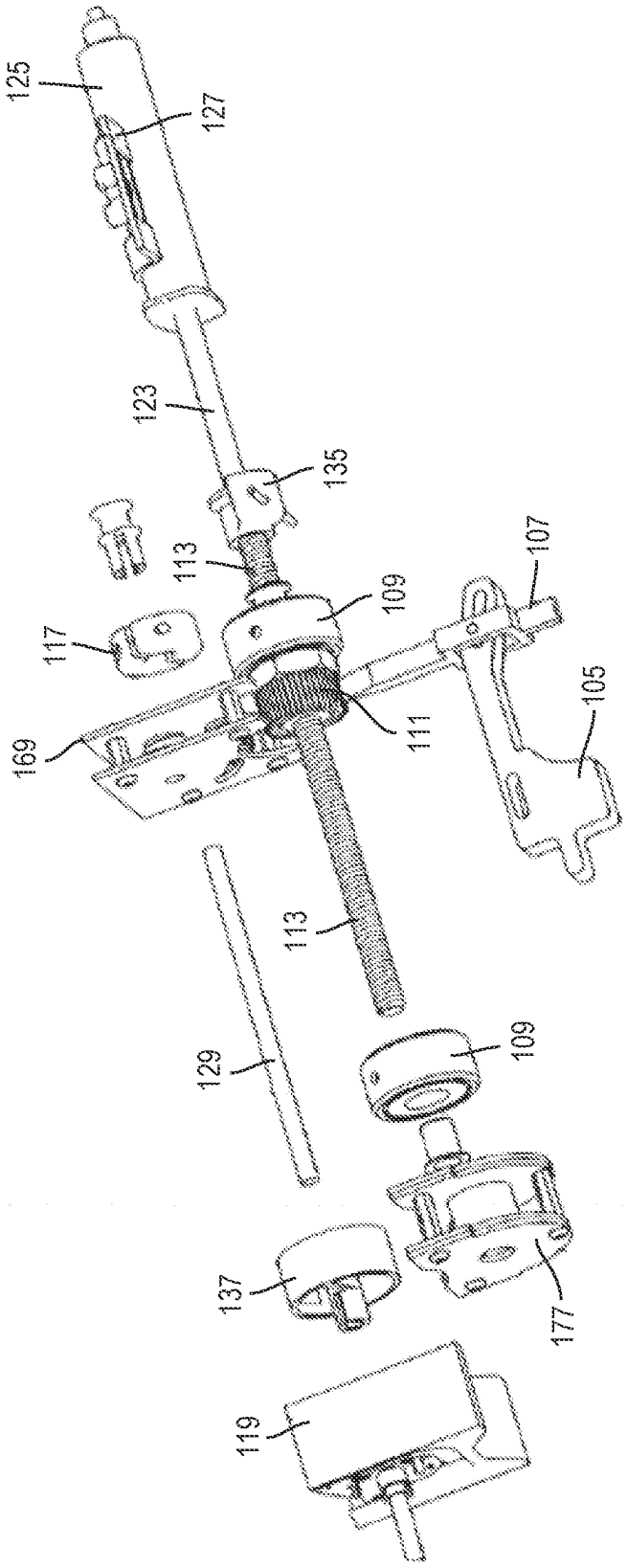

125
127
123
135
113
109
107
117
169
111
105
113
129
109
137
177
119

FIG. 2D

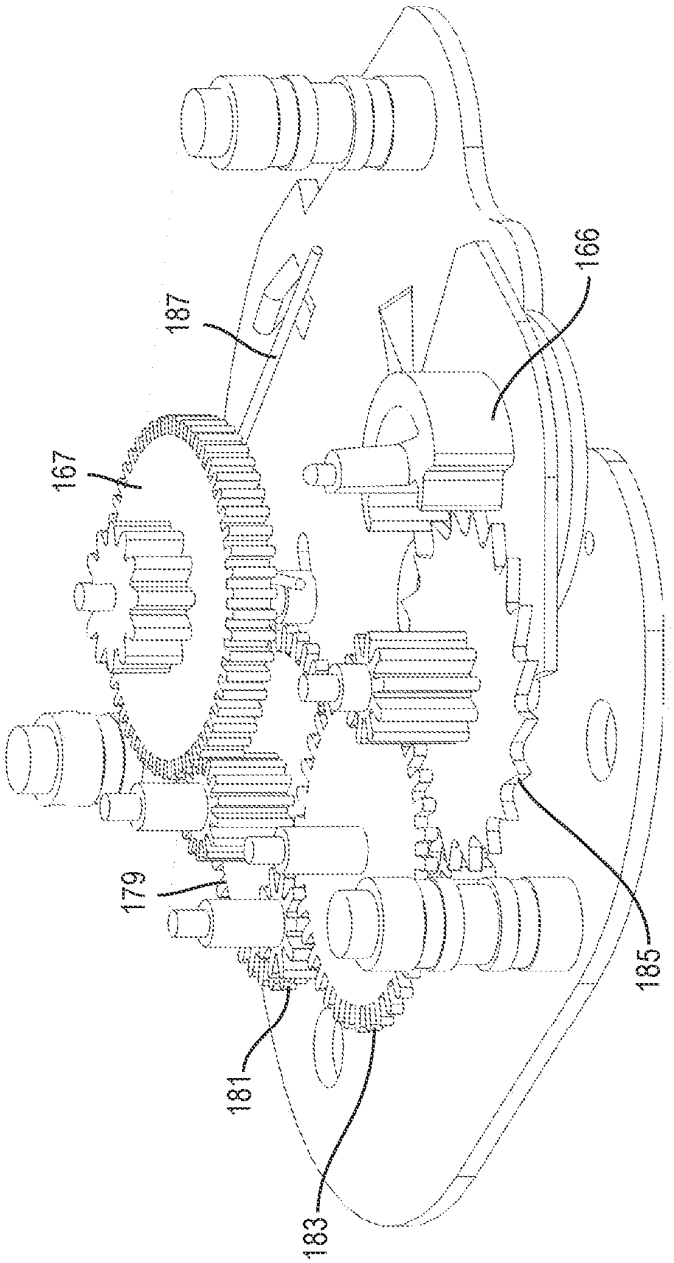


FIG. 2E

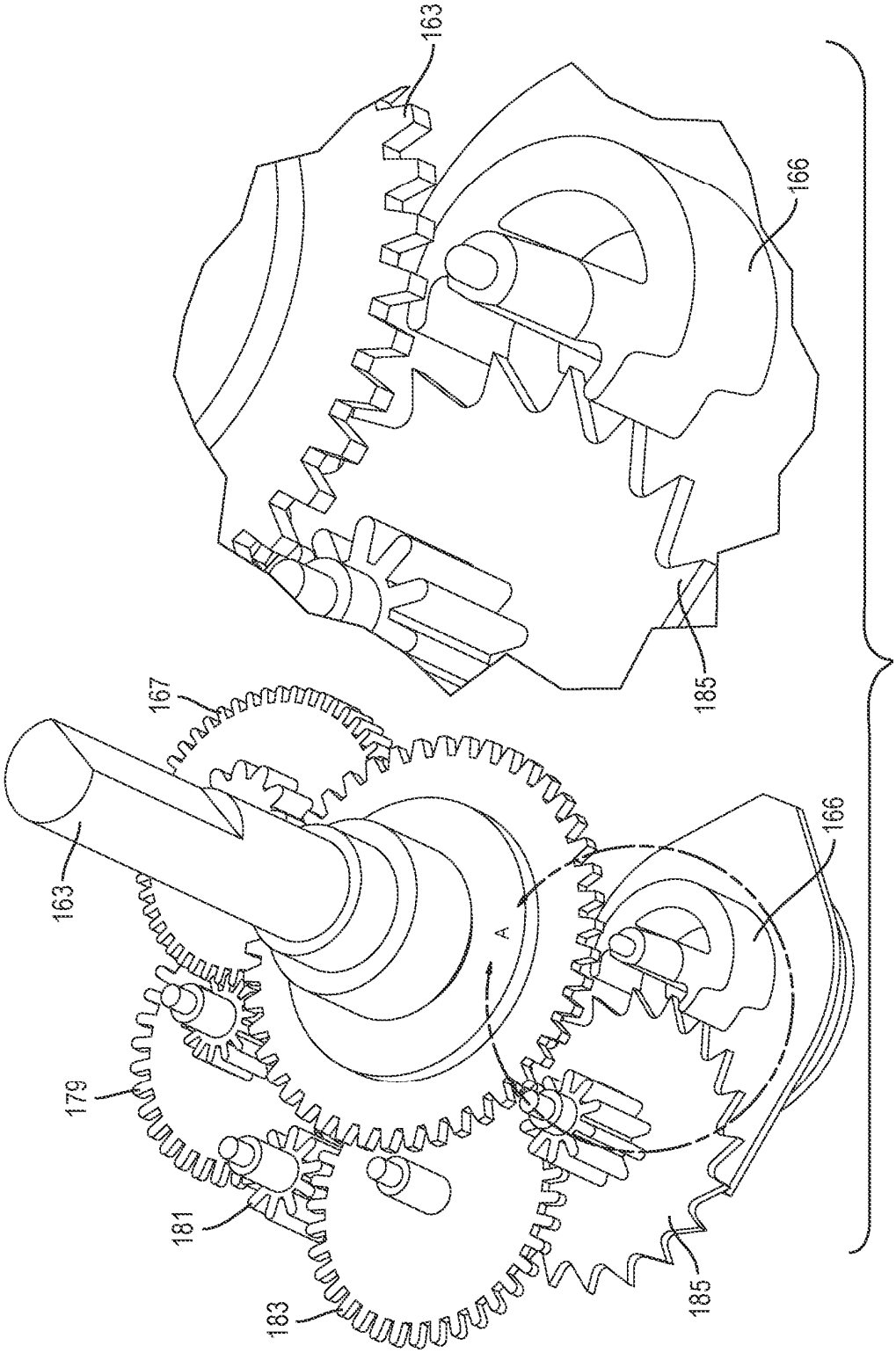


FIG. 2F

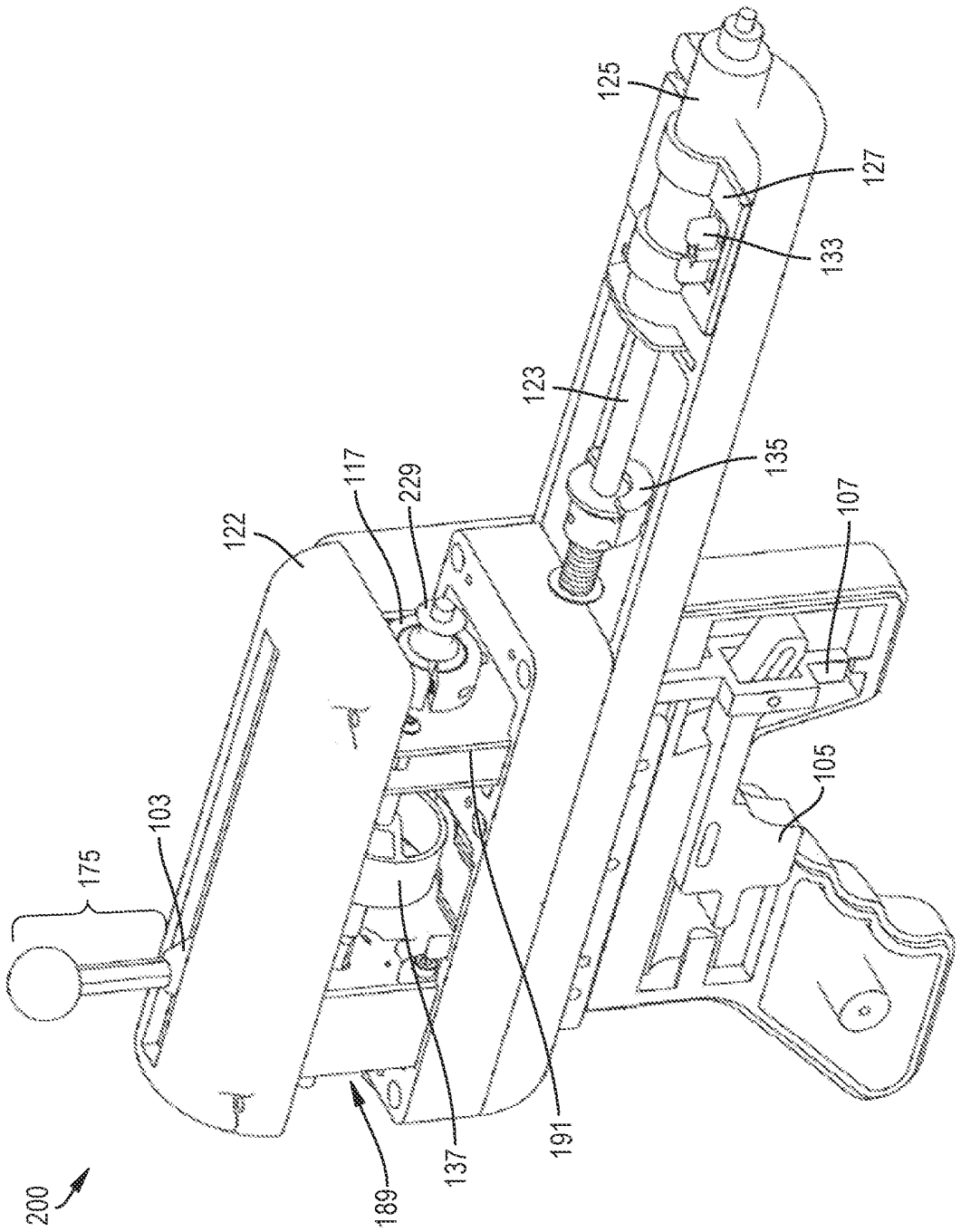


FIG. 2G

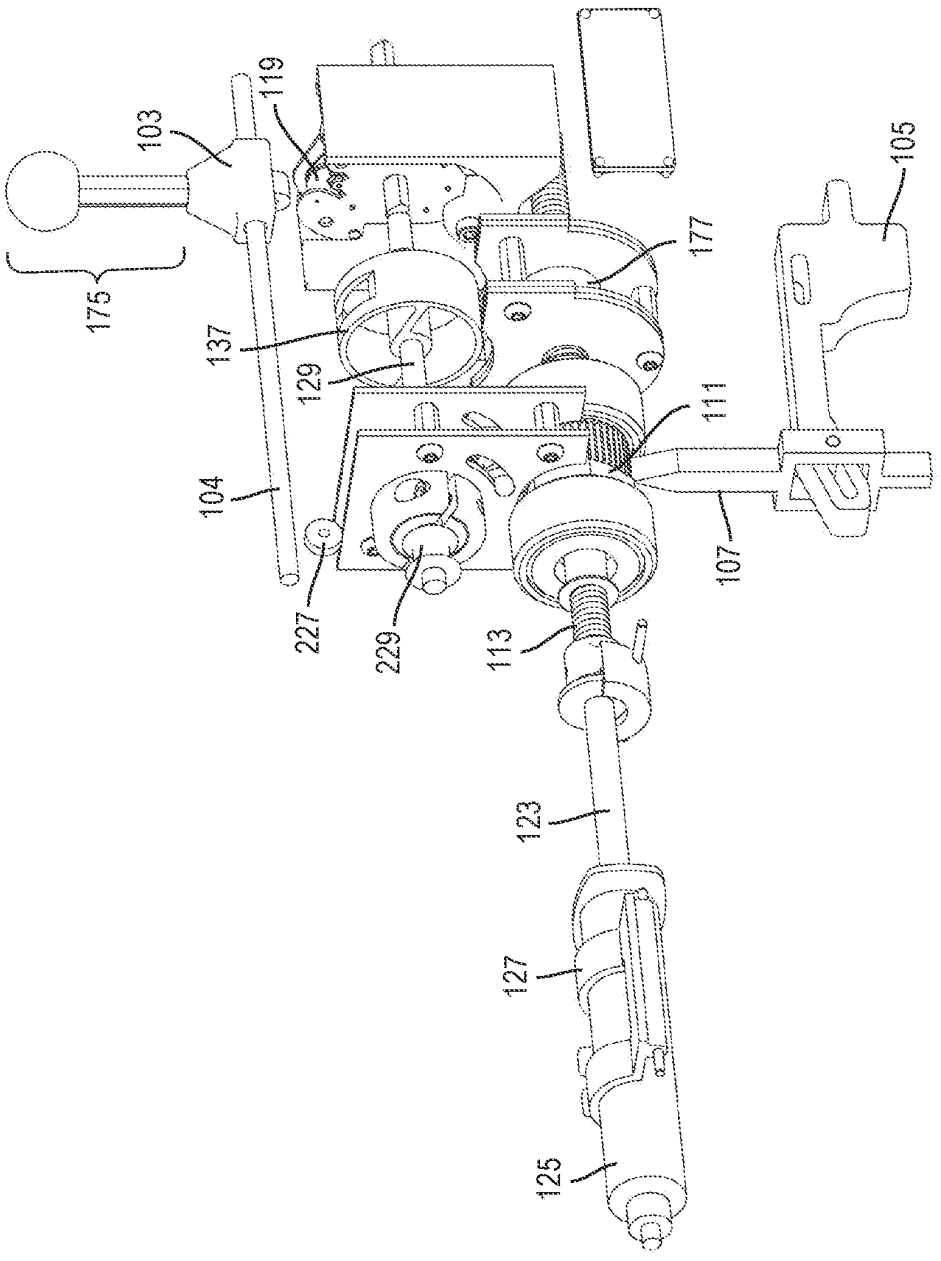


FIG. 2H

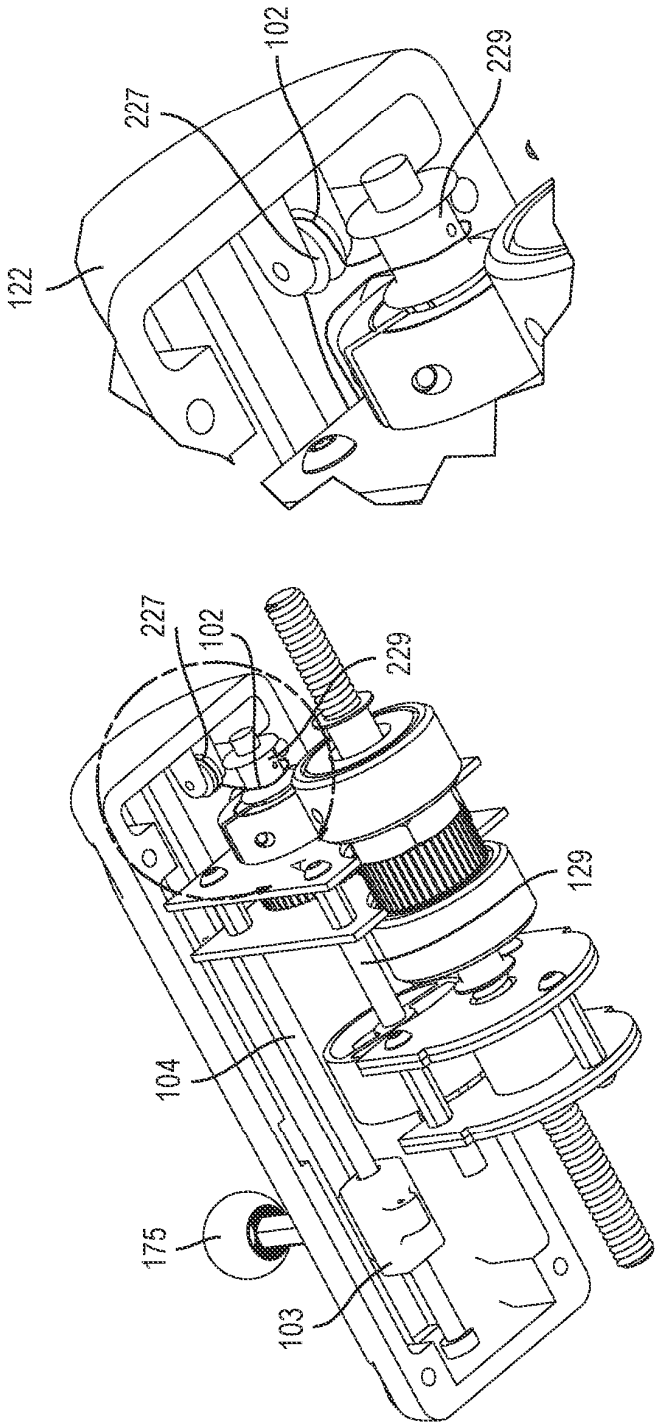


FIG. 2I

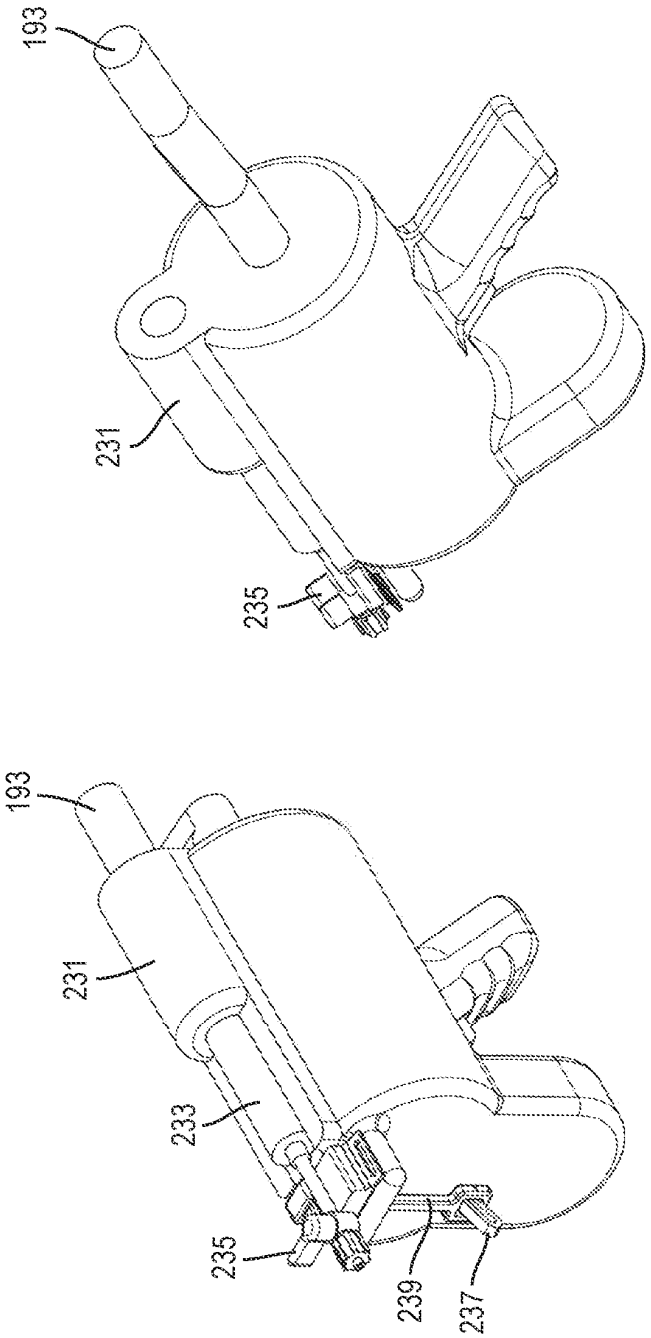


FIG. 2J

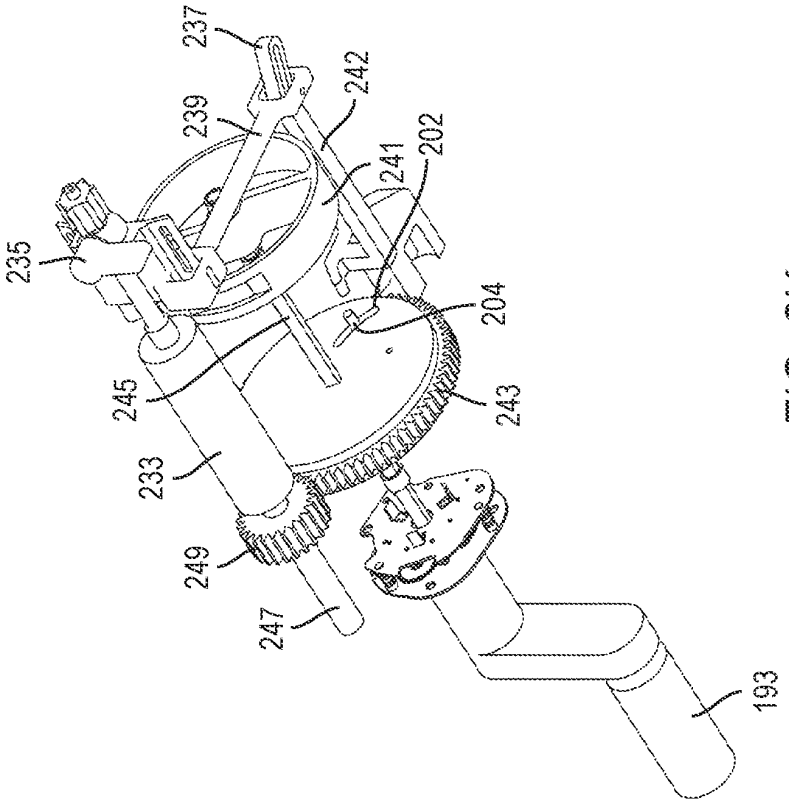


FIG. 2K

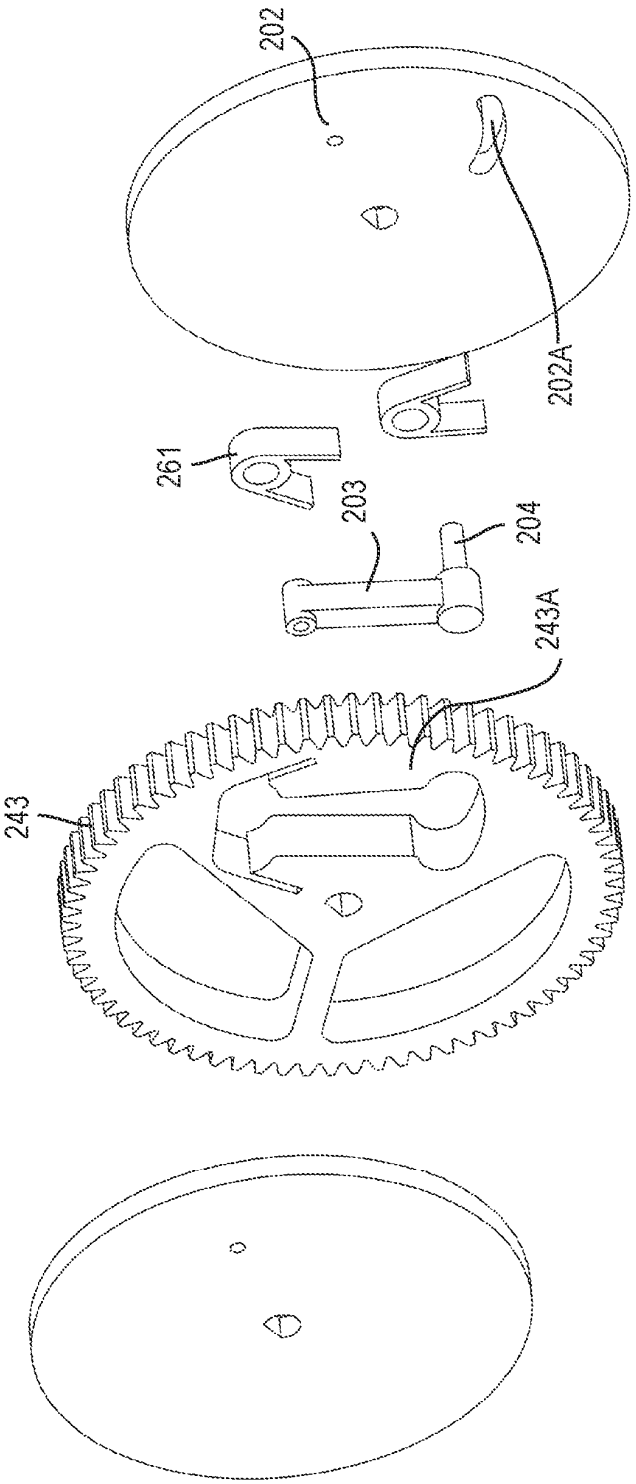


FIG. 2L

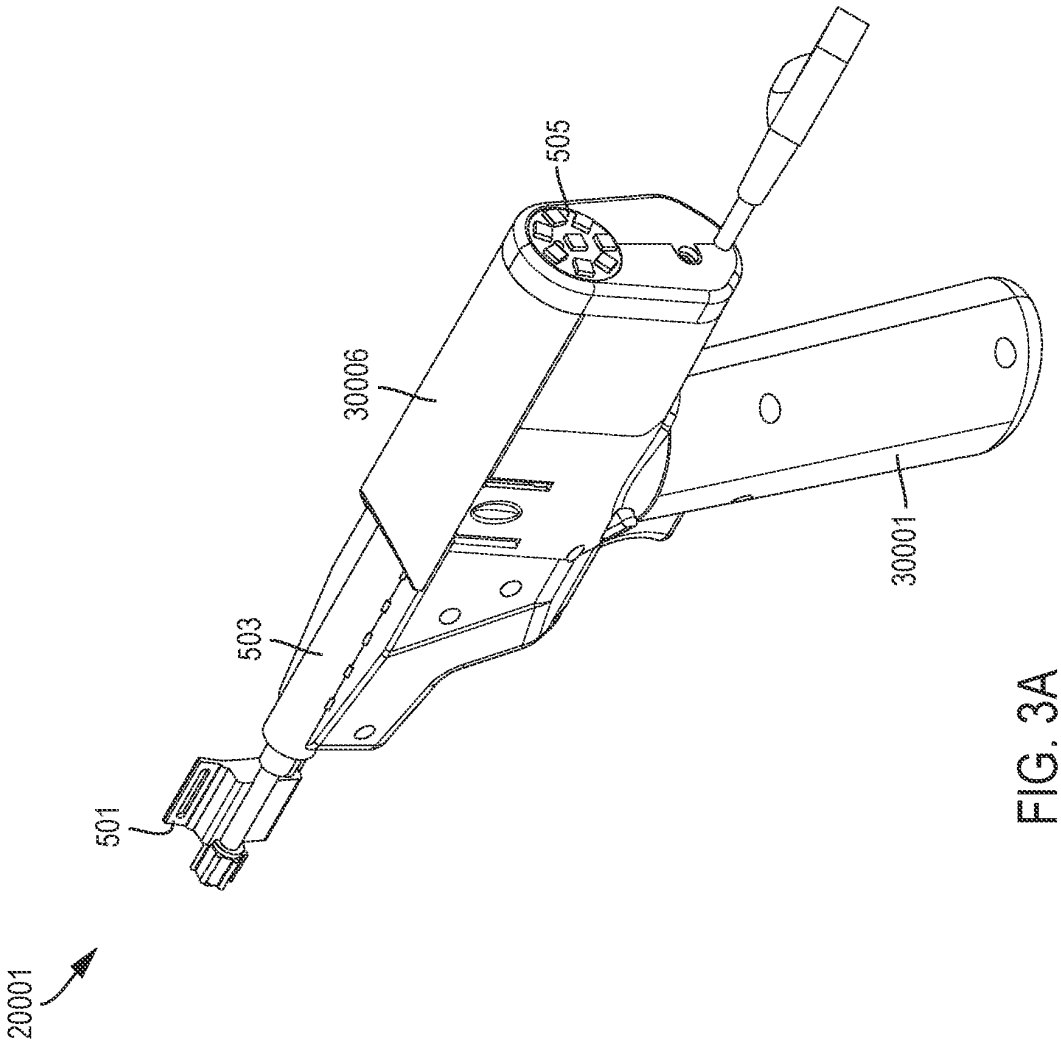


FIG. 3A

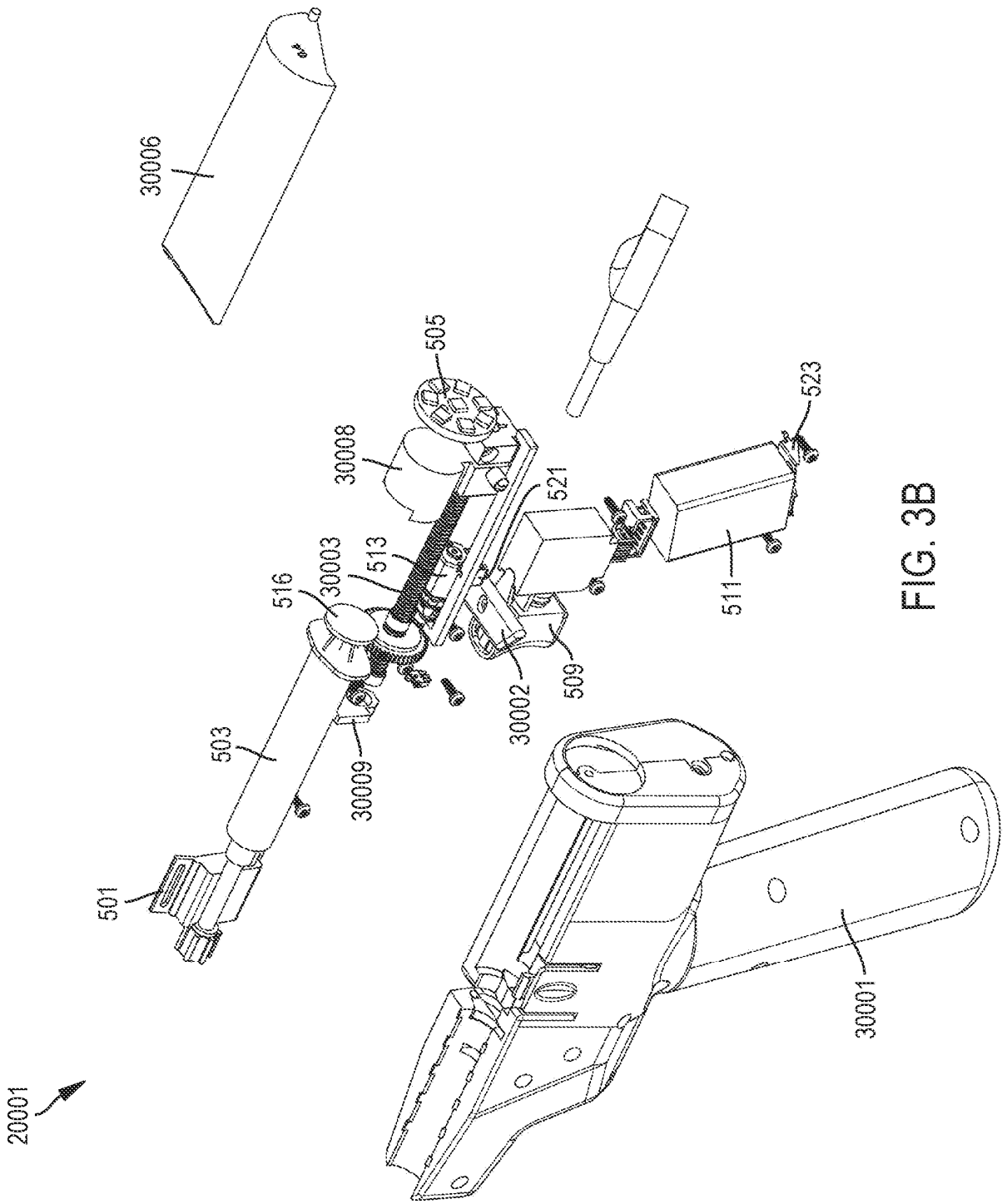

20001
501
503
30009
516
30003
513
30008
505
30006
521
523
511
509
30002
30001

FIG. 3B

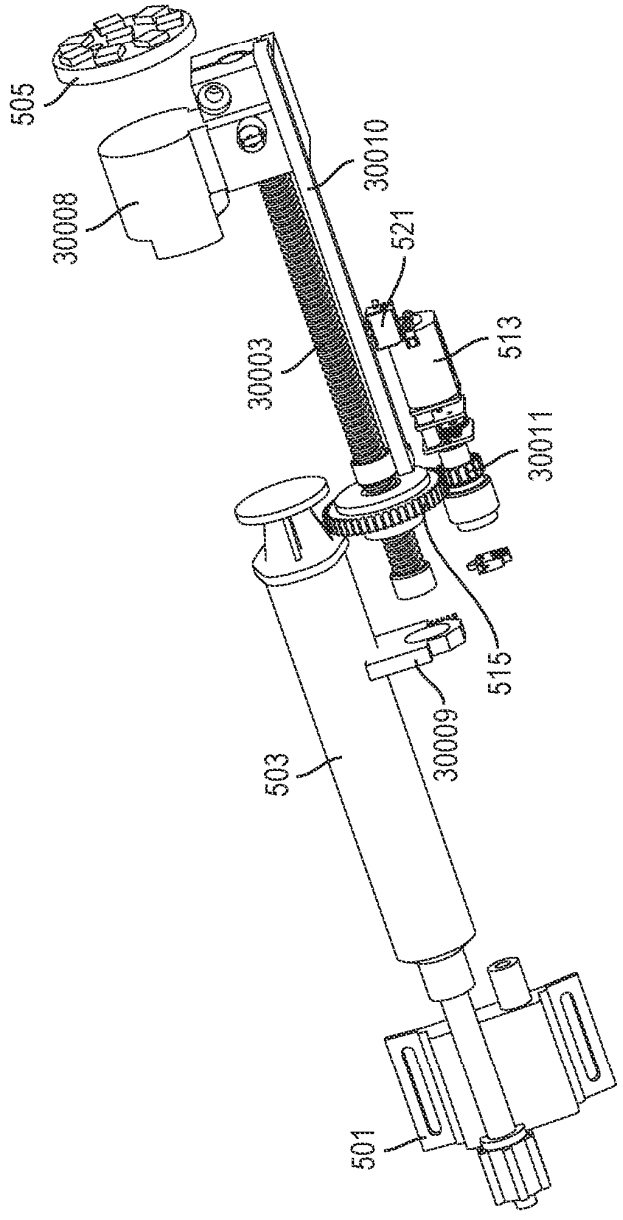


FIG. 3C

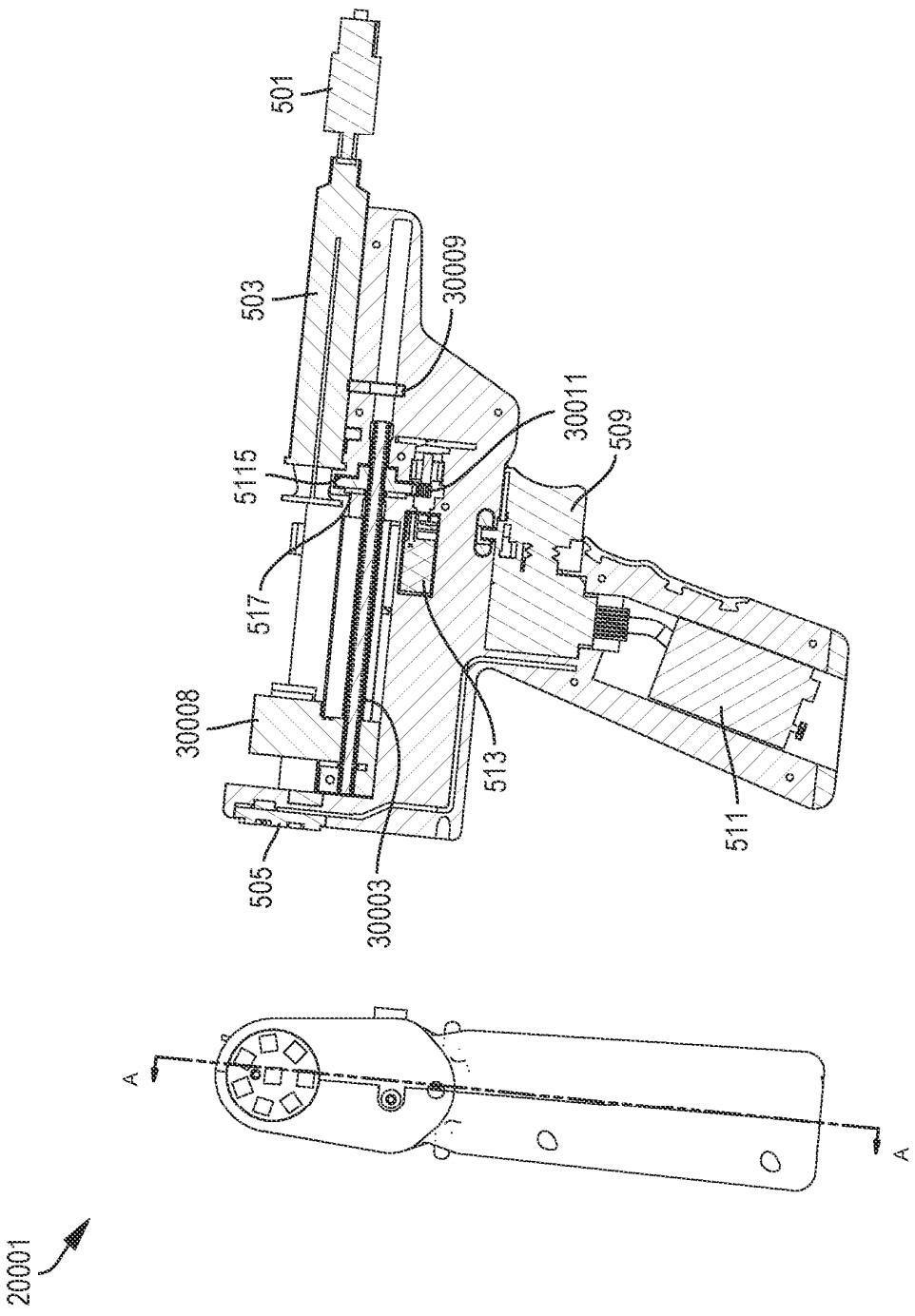

20001
A
A
501
503
30009
30011
509
5115
517
30008
513
505
30003
511

FIG. 3D

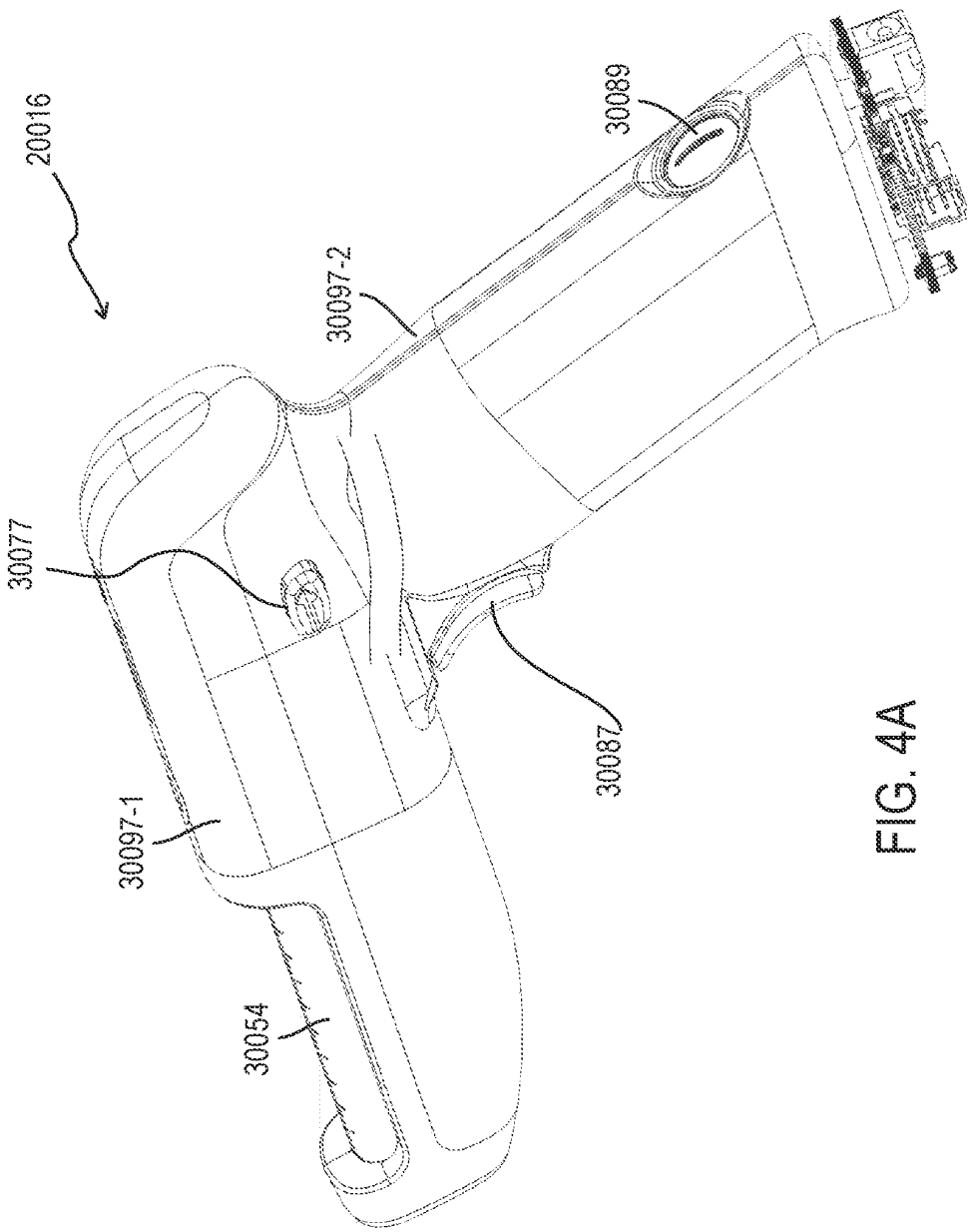


FIG. 4A

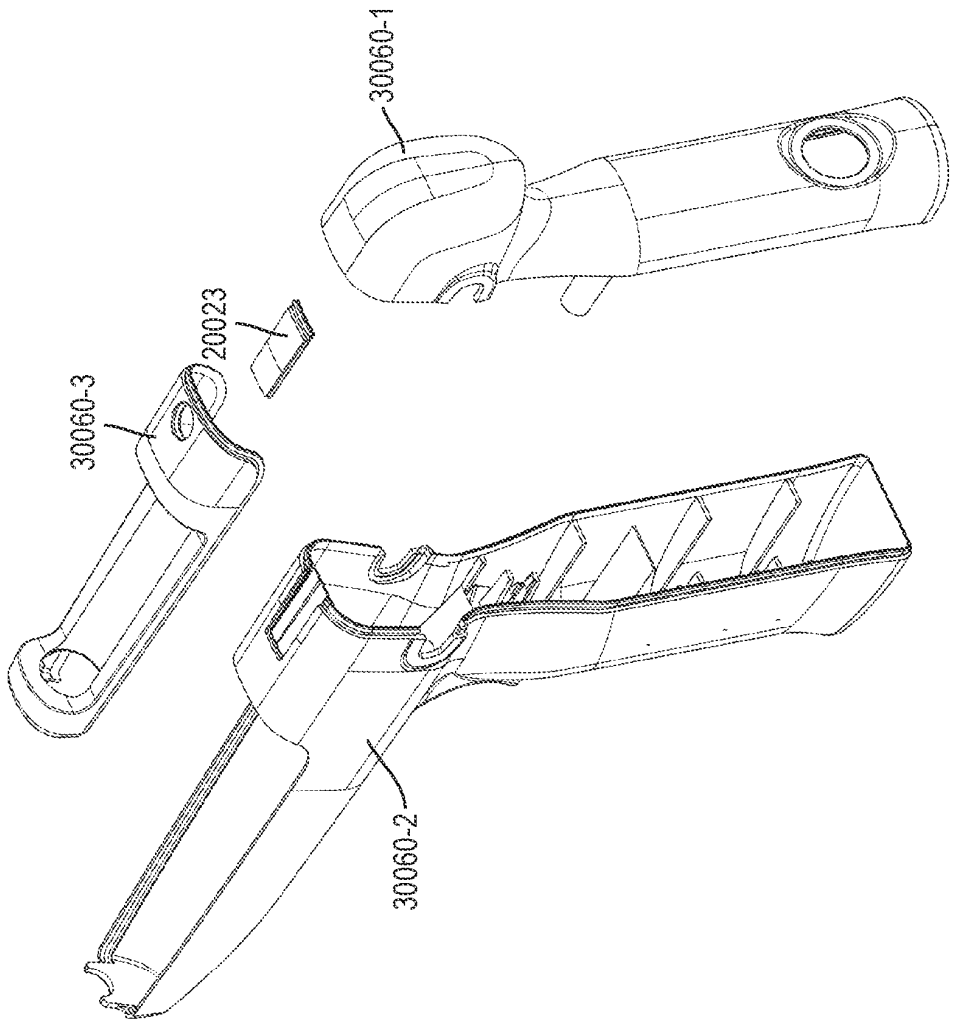


FIG. 4B

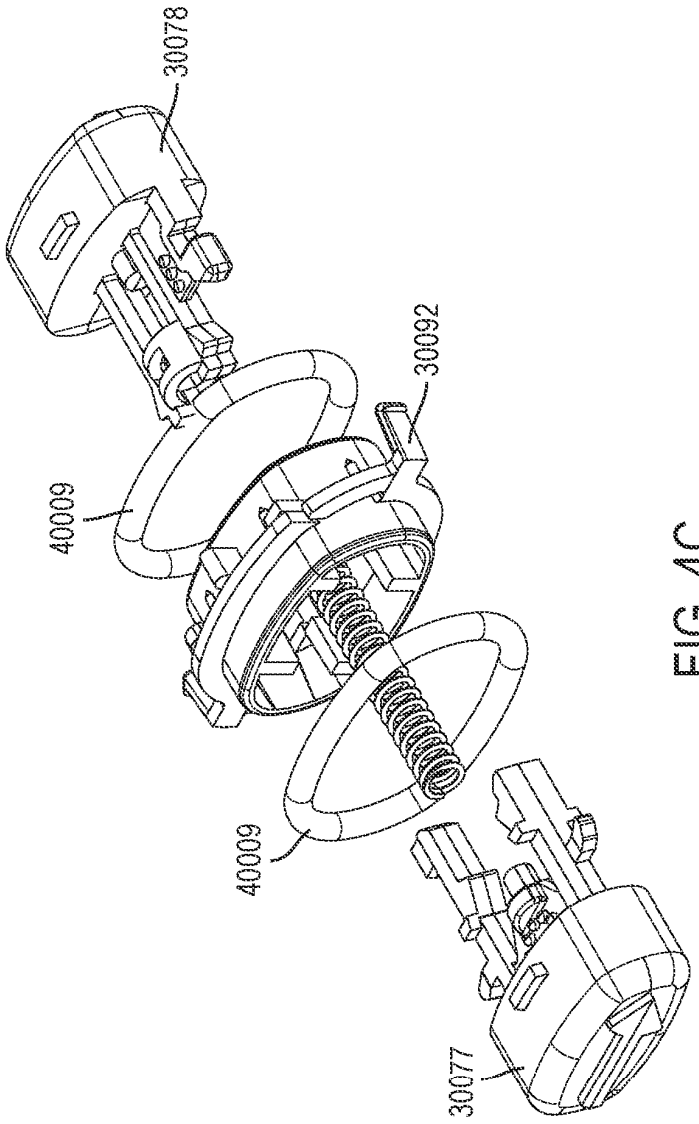


FIG. 4C

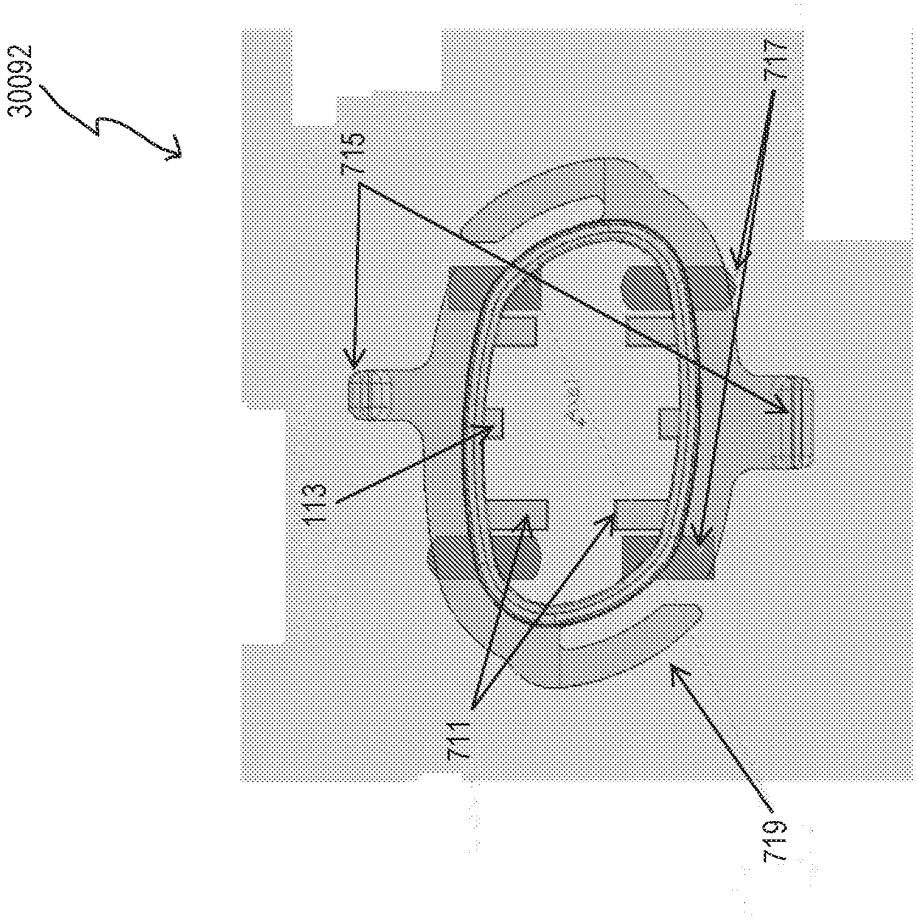


FIG. 4D

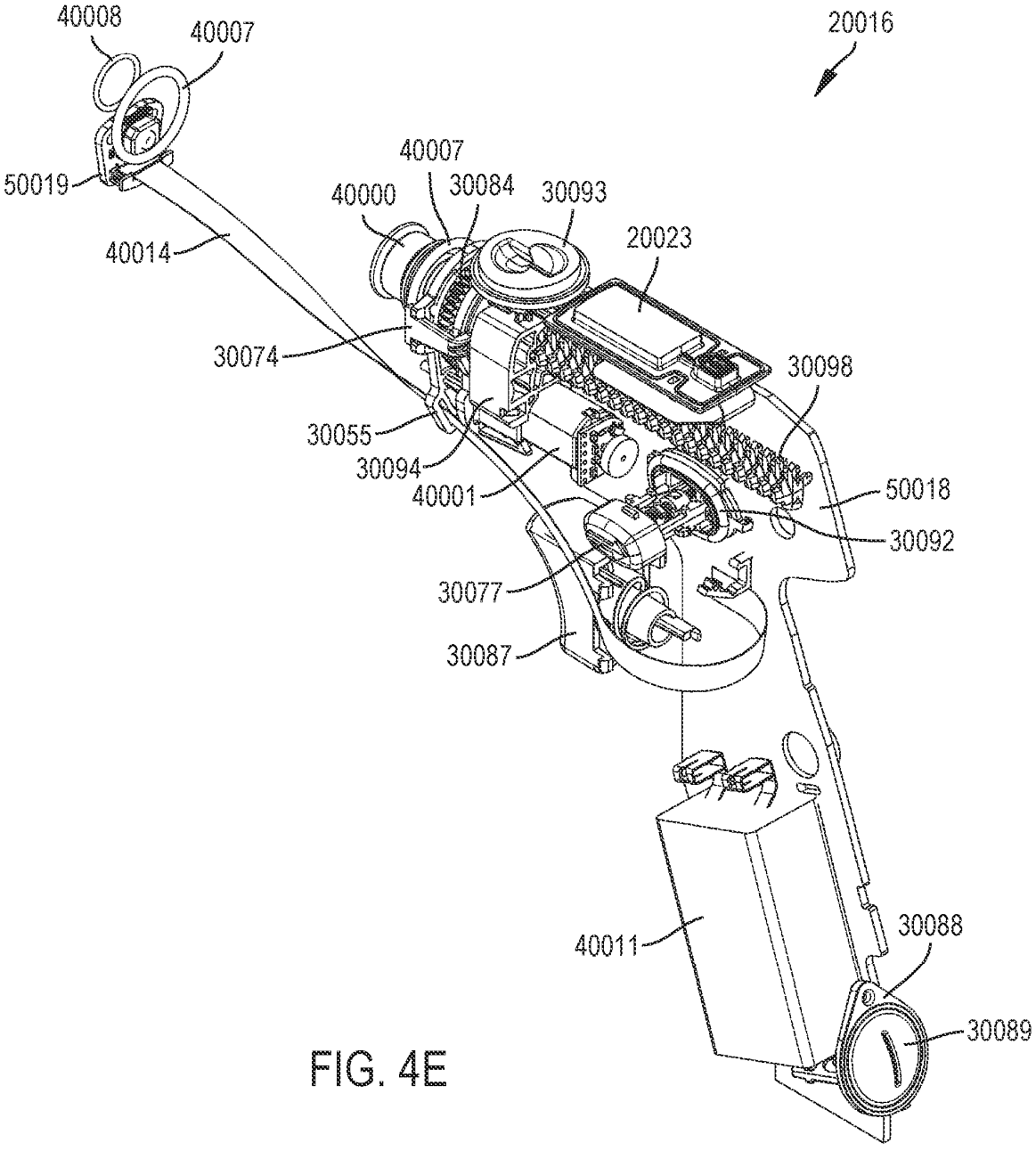

40008
40007
20016
50019
40007
40000
30084
30093
40014
20023
30074
30098
30055
30094
40001
50018
30092
30077
30087
40011
30088
30089

FIG. 4E

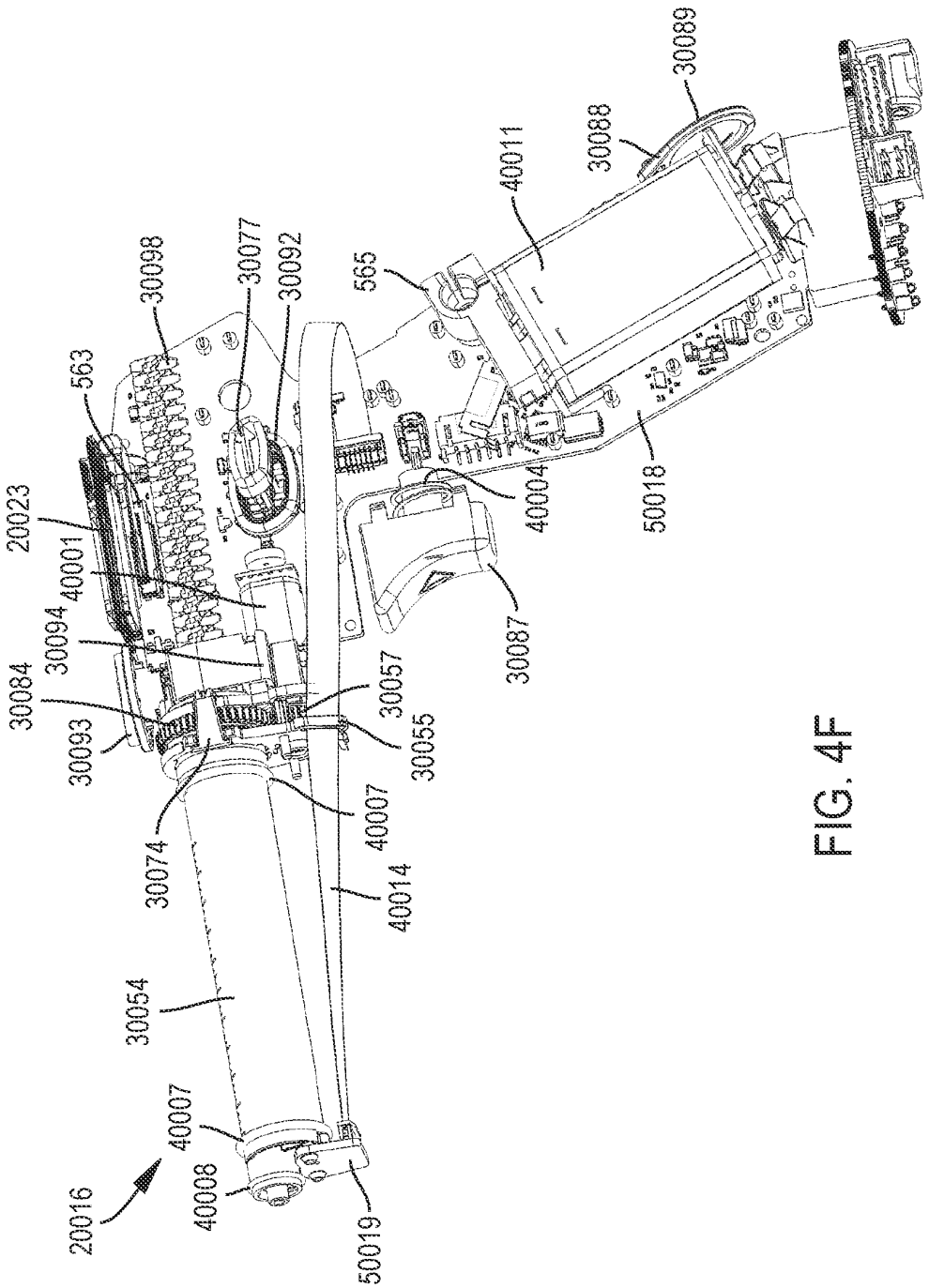

20016
40007
40008
50019
30054
30074
40007
40014
30055
30057
30084
30093
30094
40001
20023
563
30098
30077
30092
565
40011
30088
30089
50018
40004
30087

FIG. 4F

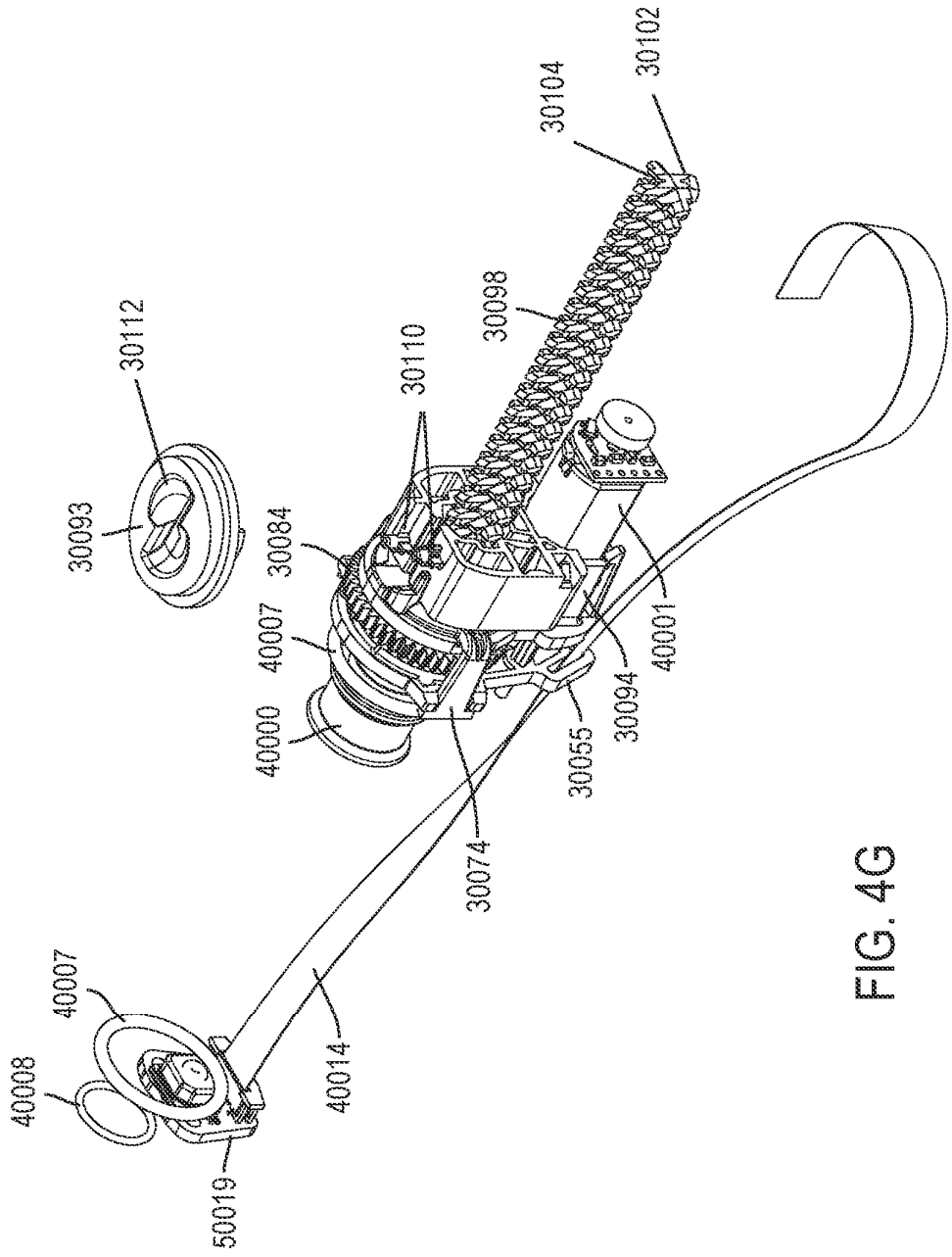

30102
30104
30098
30110
30112
30093
30084
40007
40000
30074
30055
30094
40001
40008
40007
40014
50019

FIG. 4G

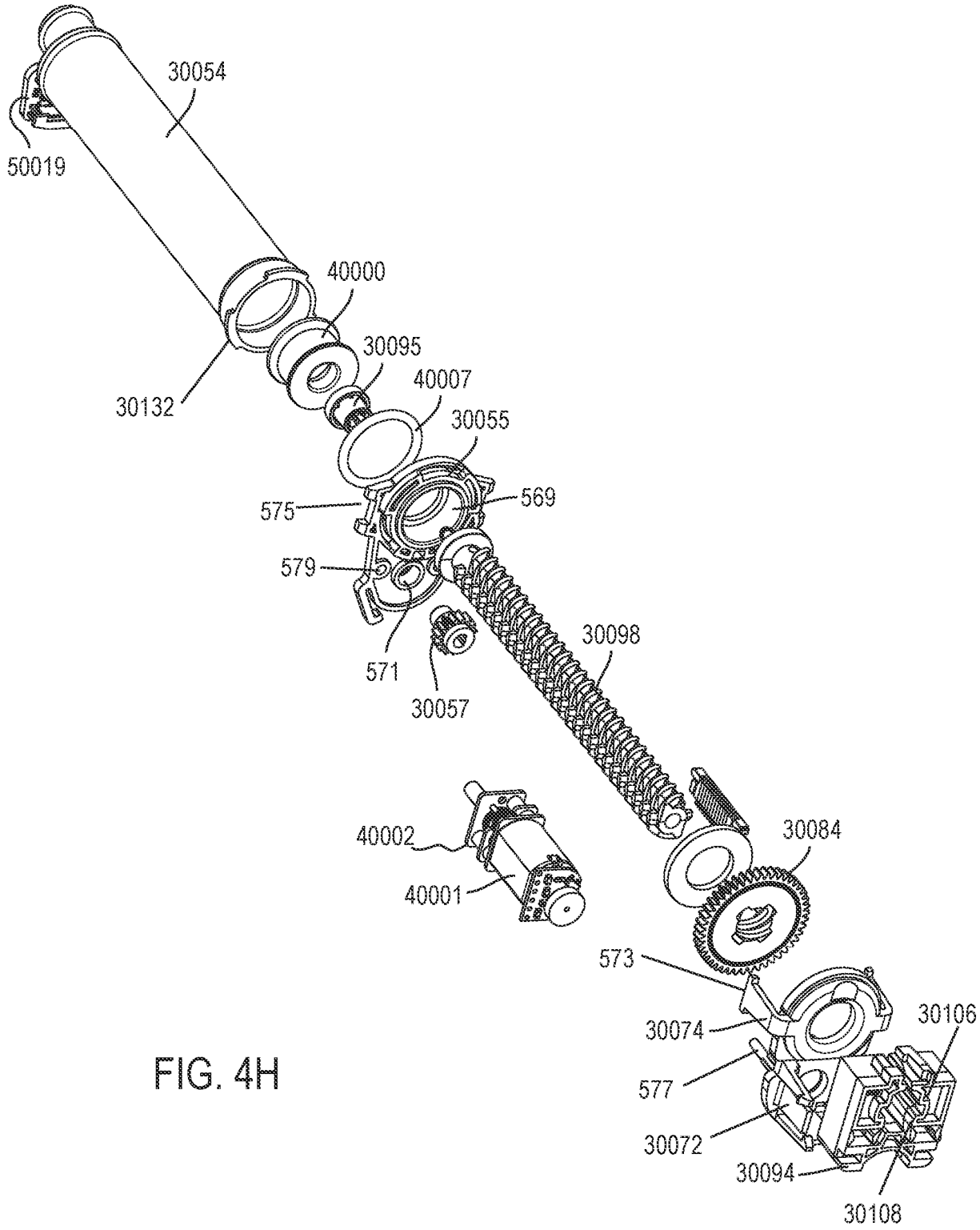

30054
50019
40000
30095
40007
30132
30055
575
569
579
571
30057
30098
40002
40001
30084
573
30074
30106
577
30072
30094
30108

FIG. 4H

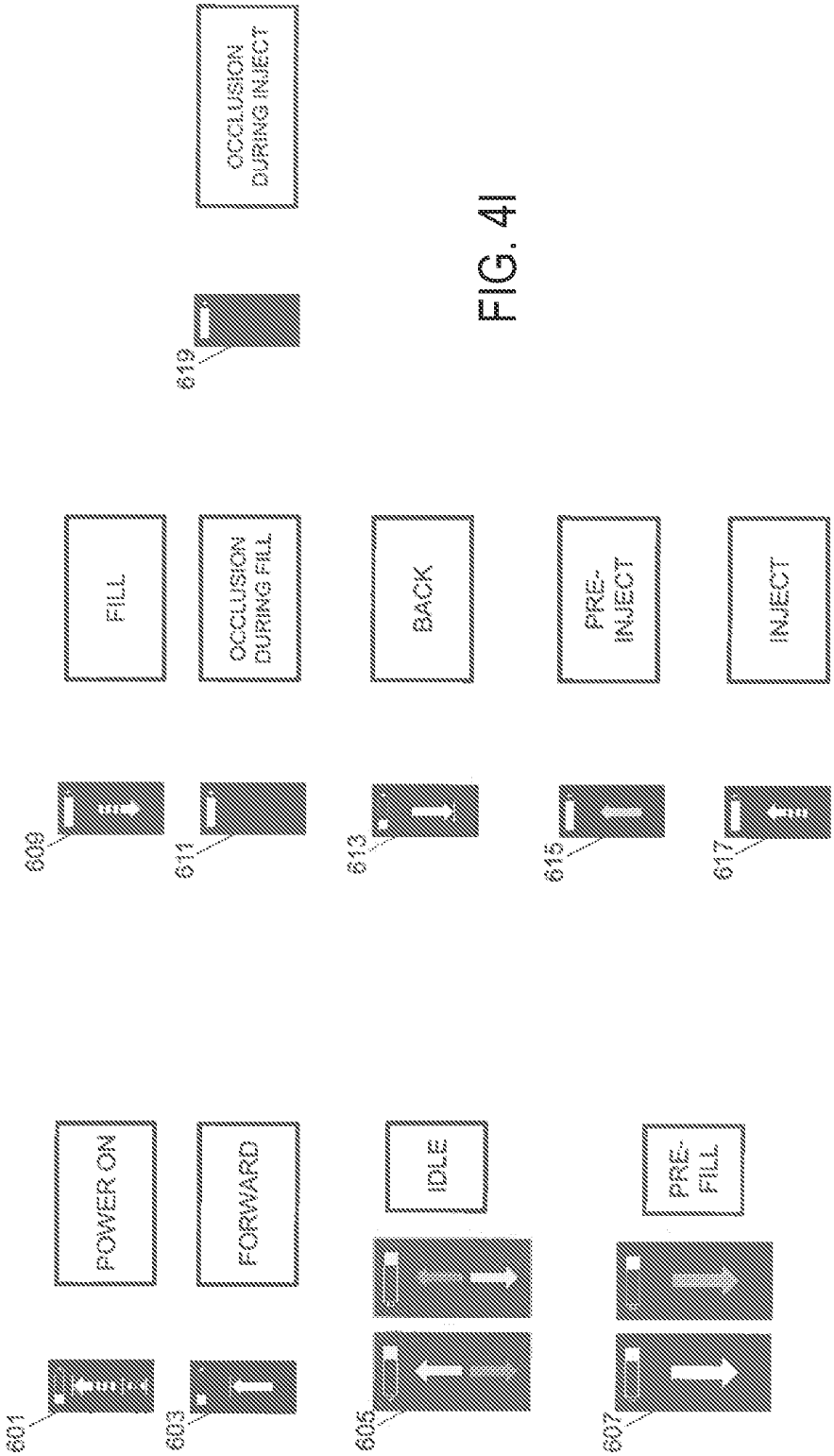

601
POWER ON
603
FORWARD
605
IDLE
607
PRE-FILL
609
FILL
611
OCCLUSION DURING FILL
613
BACK
615
PRE-INJECT
617
INJECT
619
OCCLUSION DURING INJECT

FIG. 4I

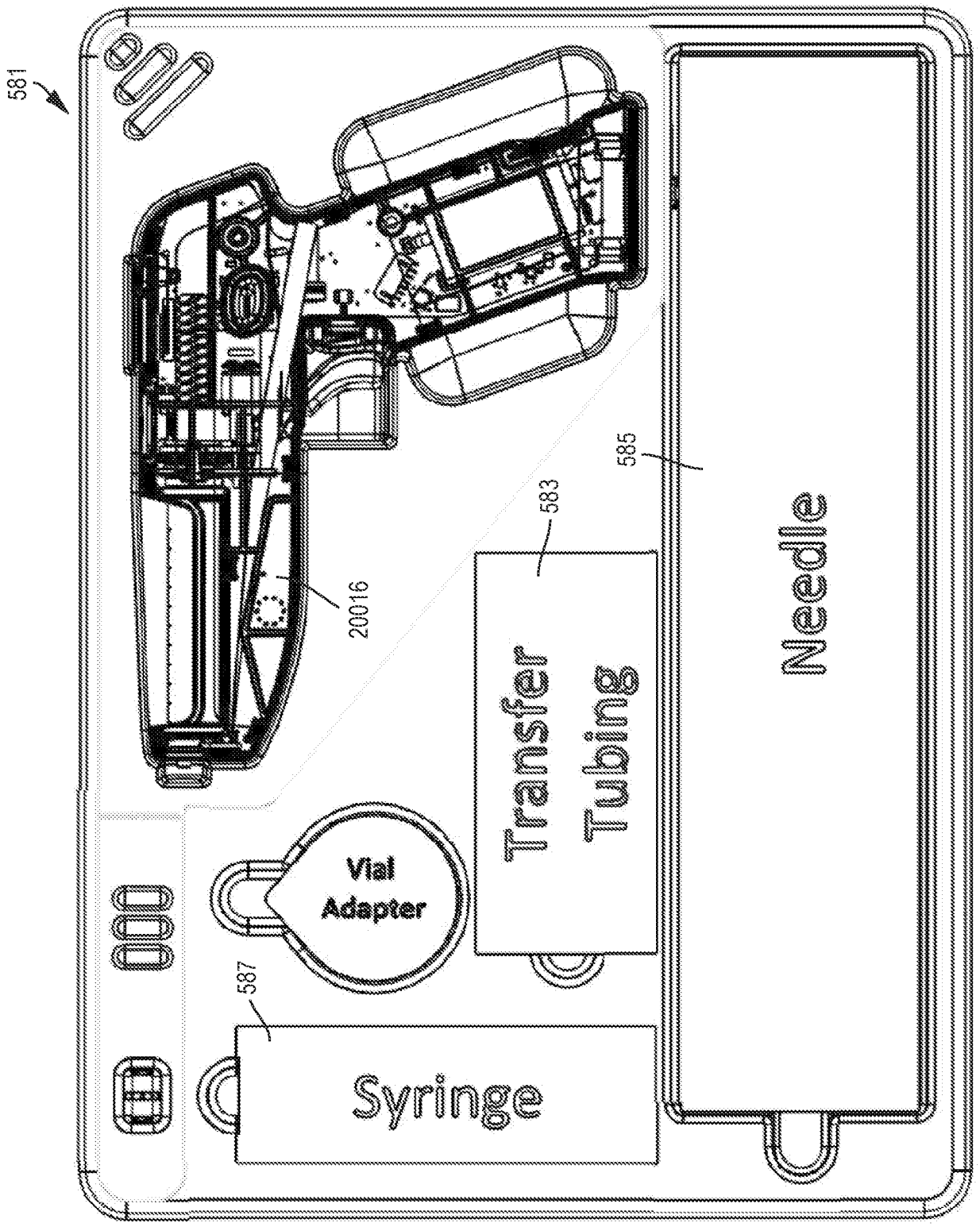

581
20016
585
583
Needle
Transfer Tubing
Vial Adapter
587
Syringe

FIG. 4J

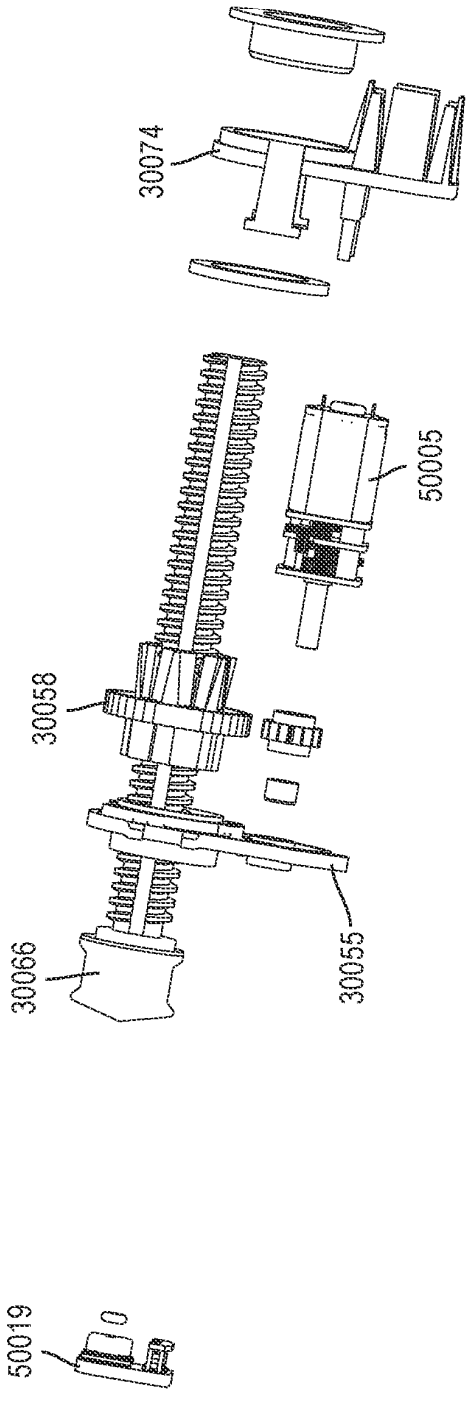


FIG. 4K

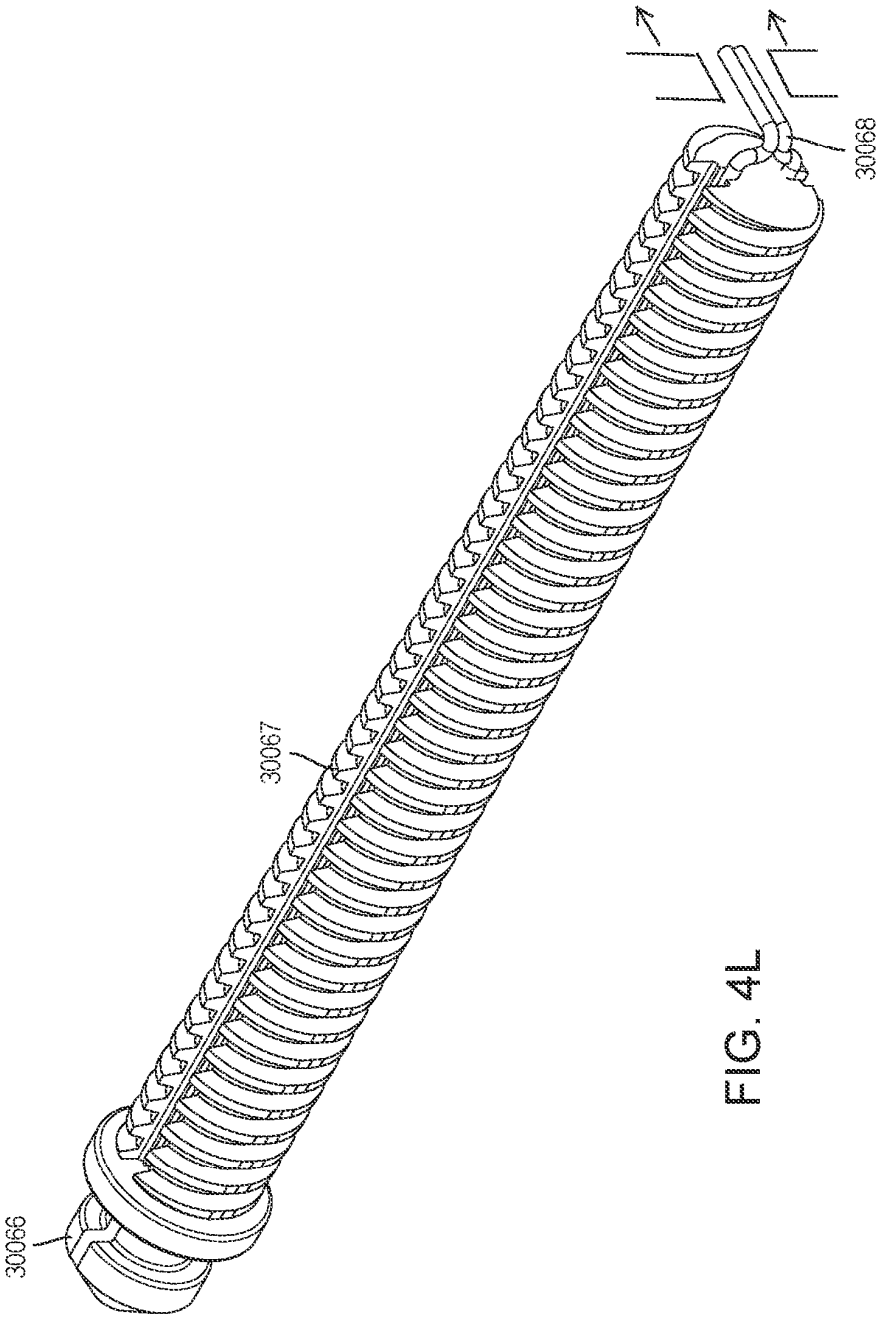


FIG. 4L

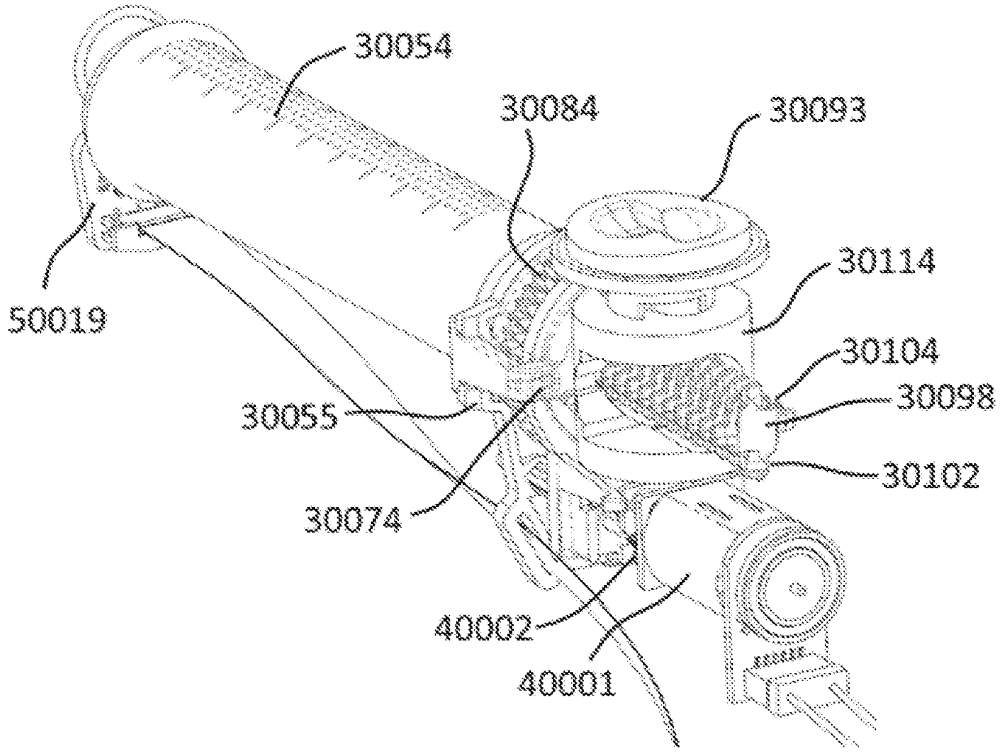

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30084
30093
30114
50019
30104
30098
30055
30102
30074
40002
40001

FIG. 4M

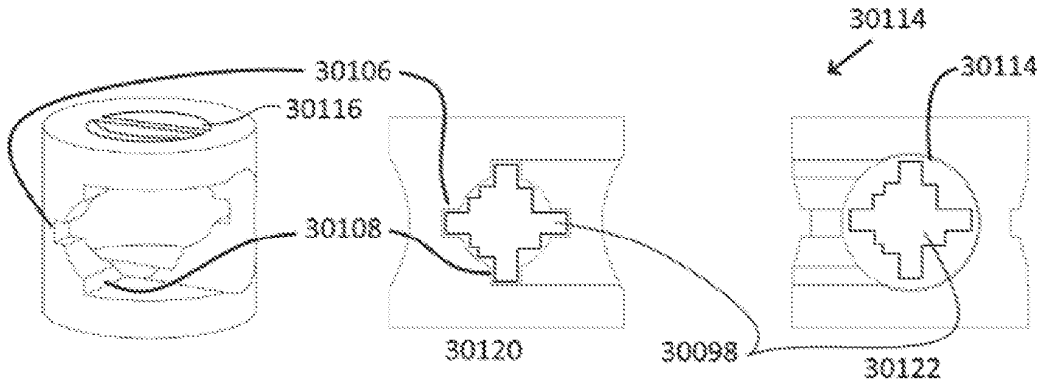

30114
30106
30114
30116
30108
30120
30098
30122

FIG. 4N

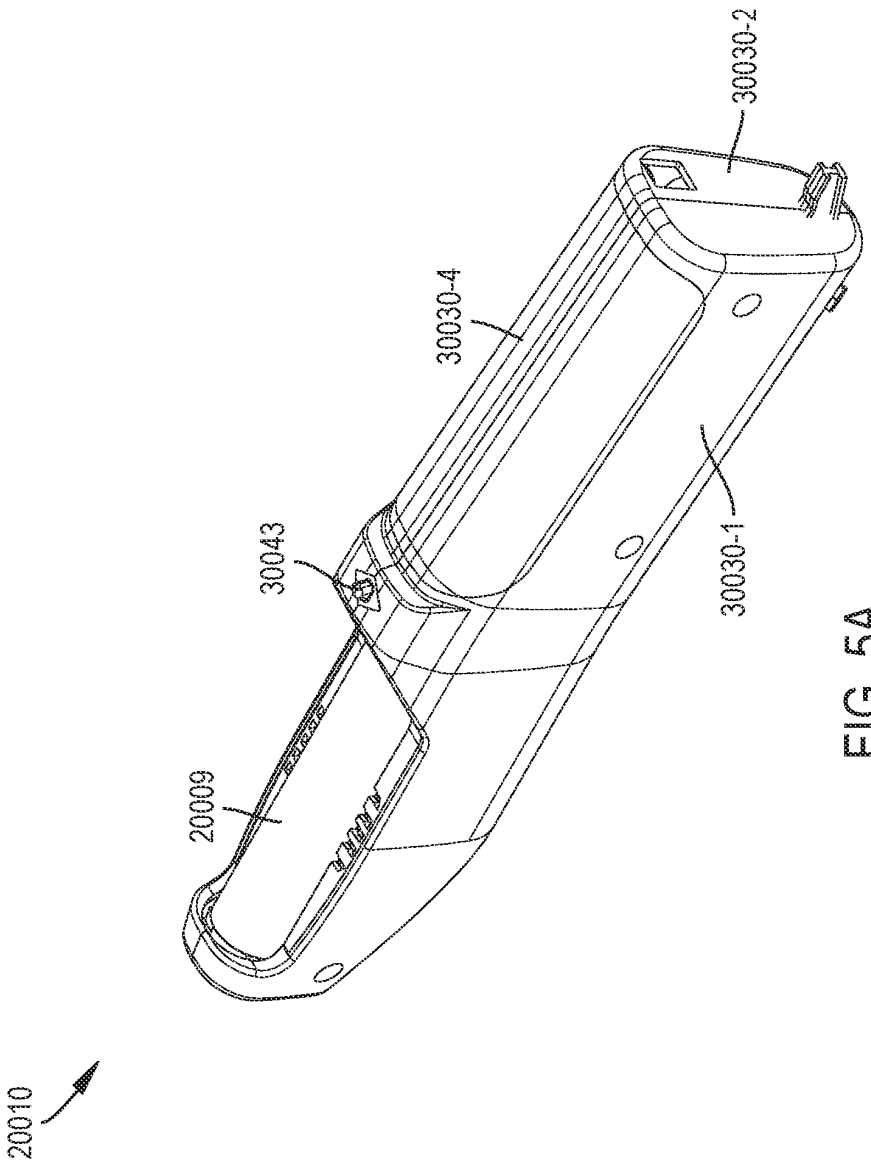


FIG. 5A

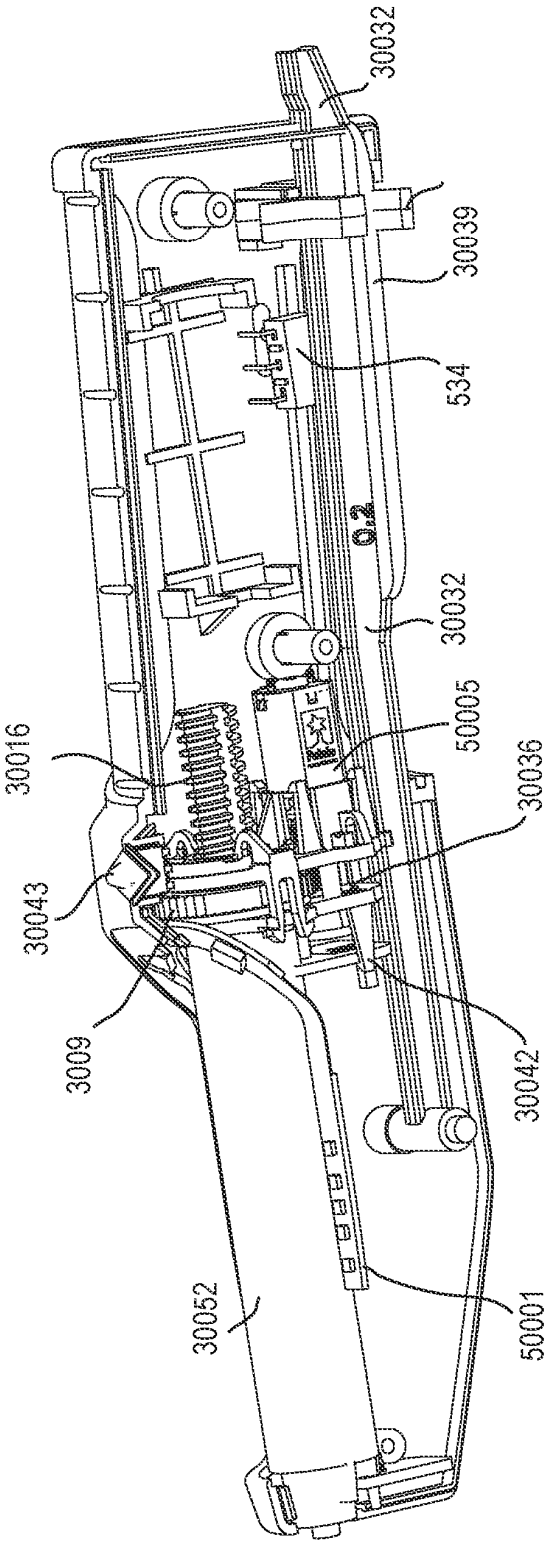

30032
30039
534
0.2
30032
50005
30036
30016
30043
3009
30042
30052
50001

FIG. 5B

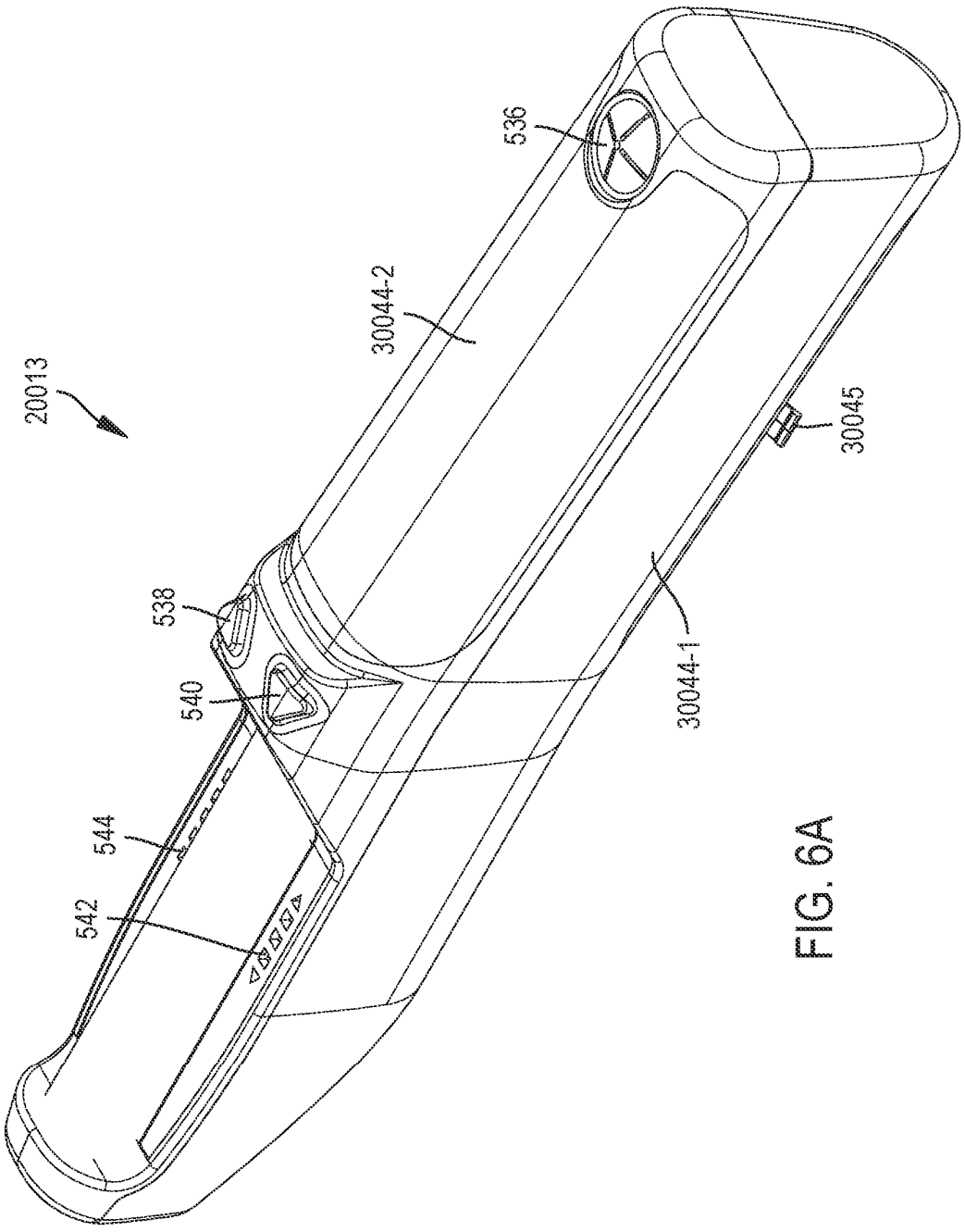


FIG. 6A

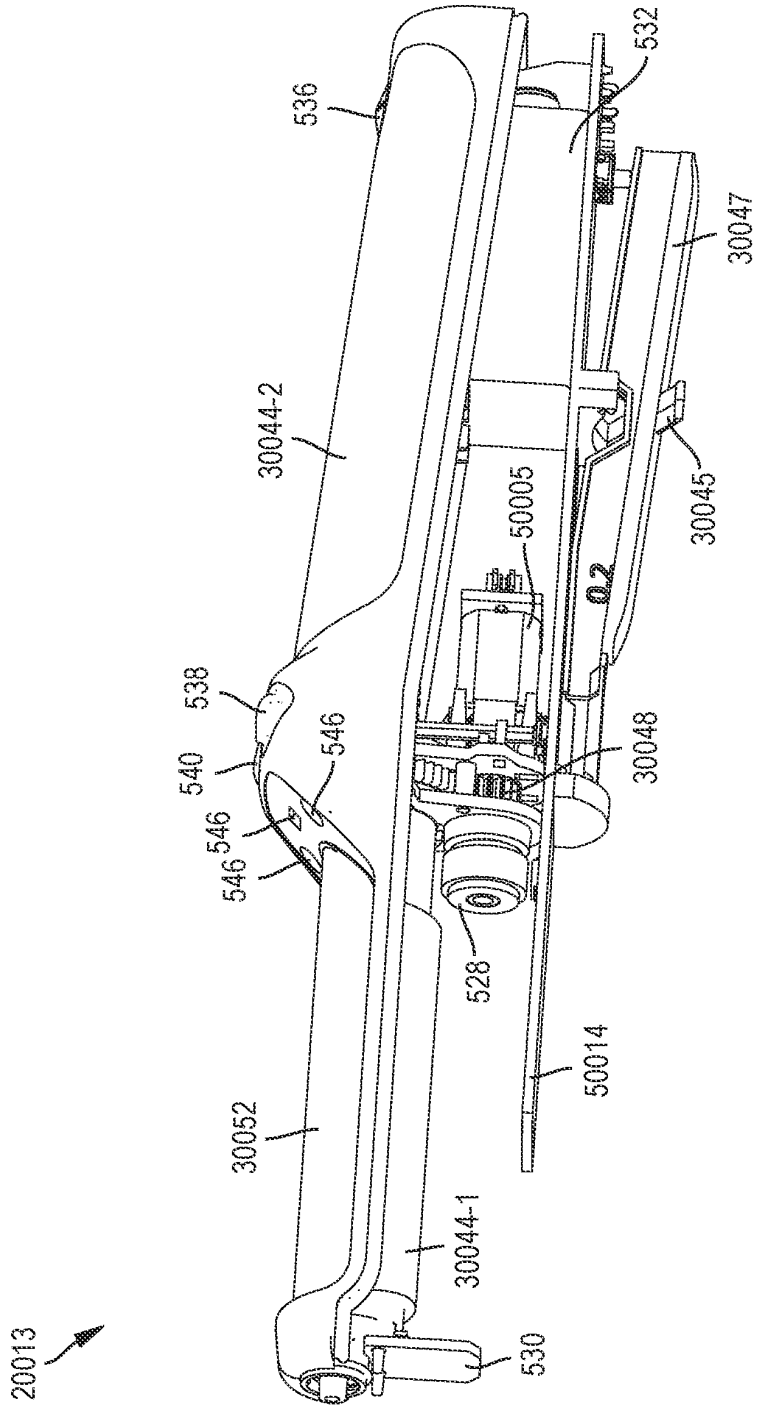

20013
536
532
30047
30044-2
50005
30045
538
540
546
546
546
30048
528
50014
30052
30044-1
530

FIG. 6B

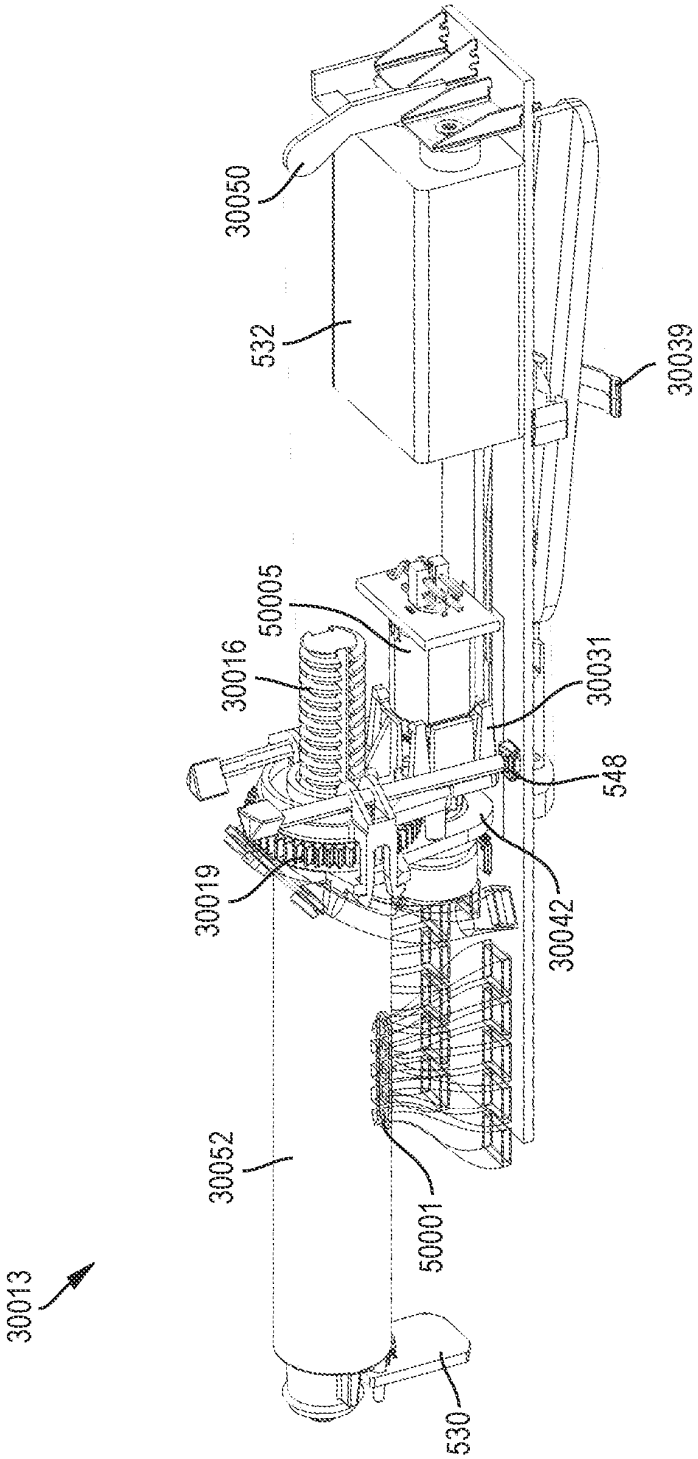

30013
30052
50001
530
30019
30042
548
30031
30016
50005
532
30050
30039

FIG. 6C

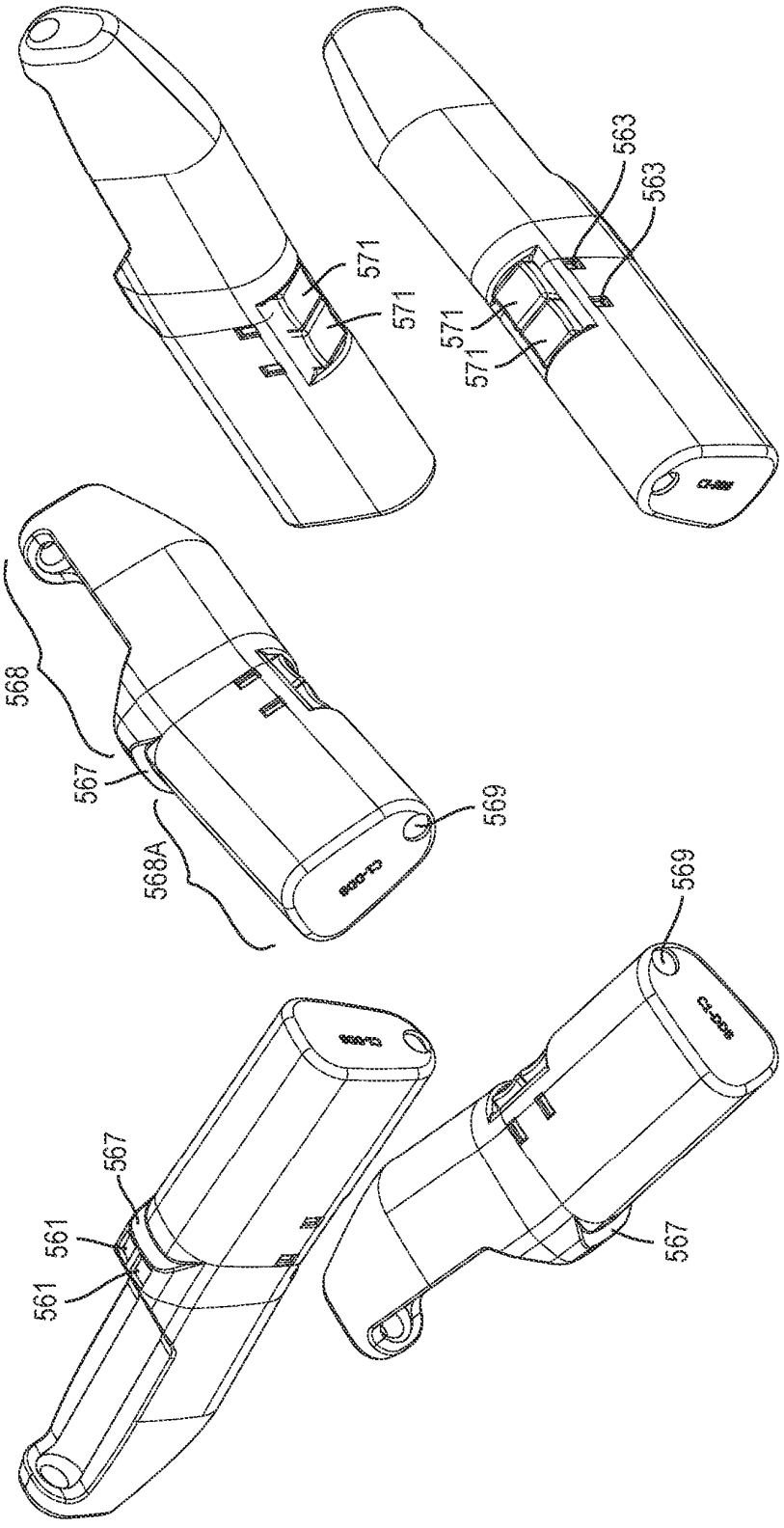


FIG. 7A

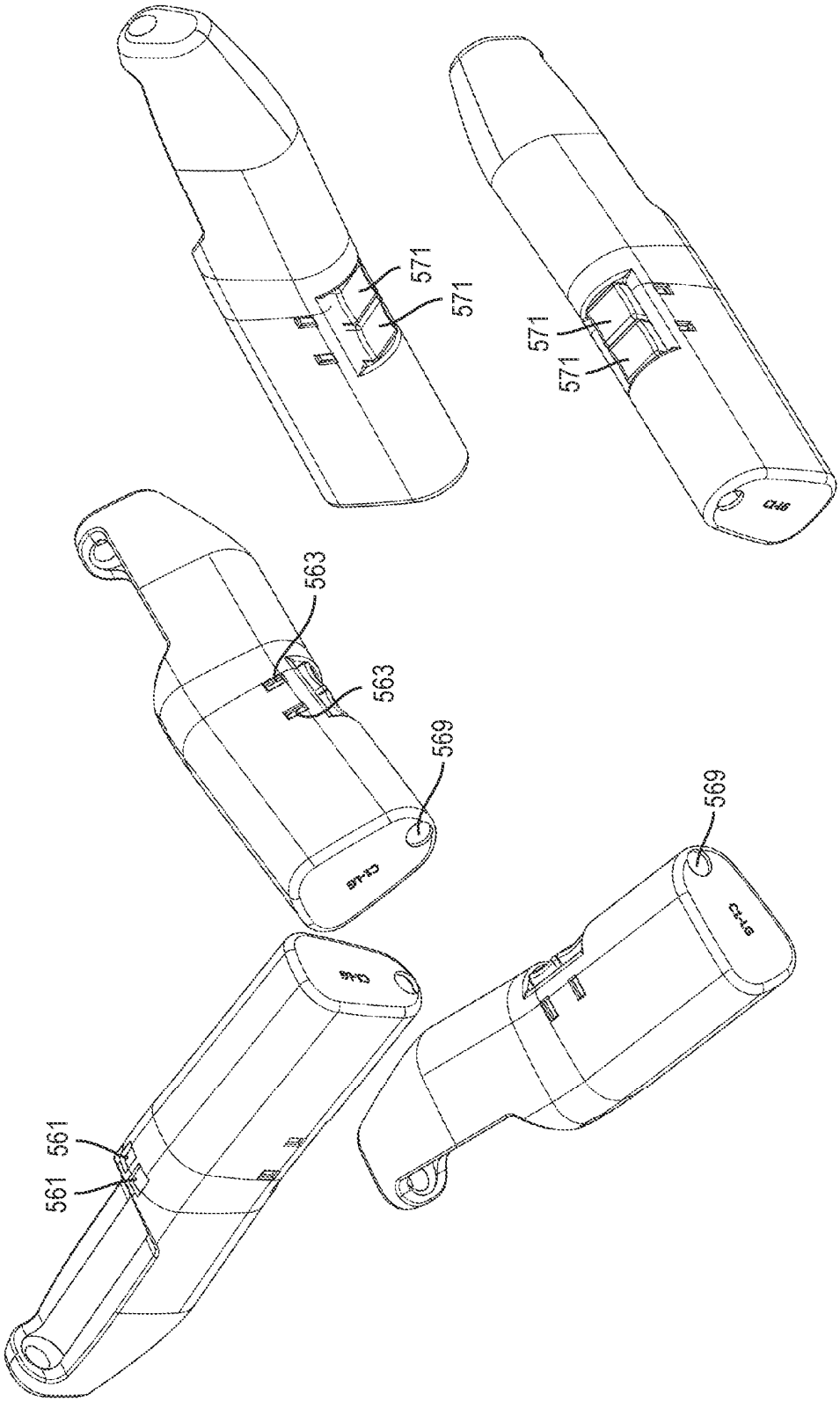


FIG. 7B

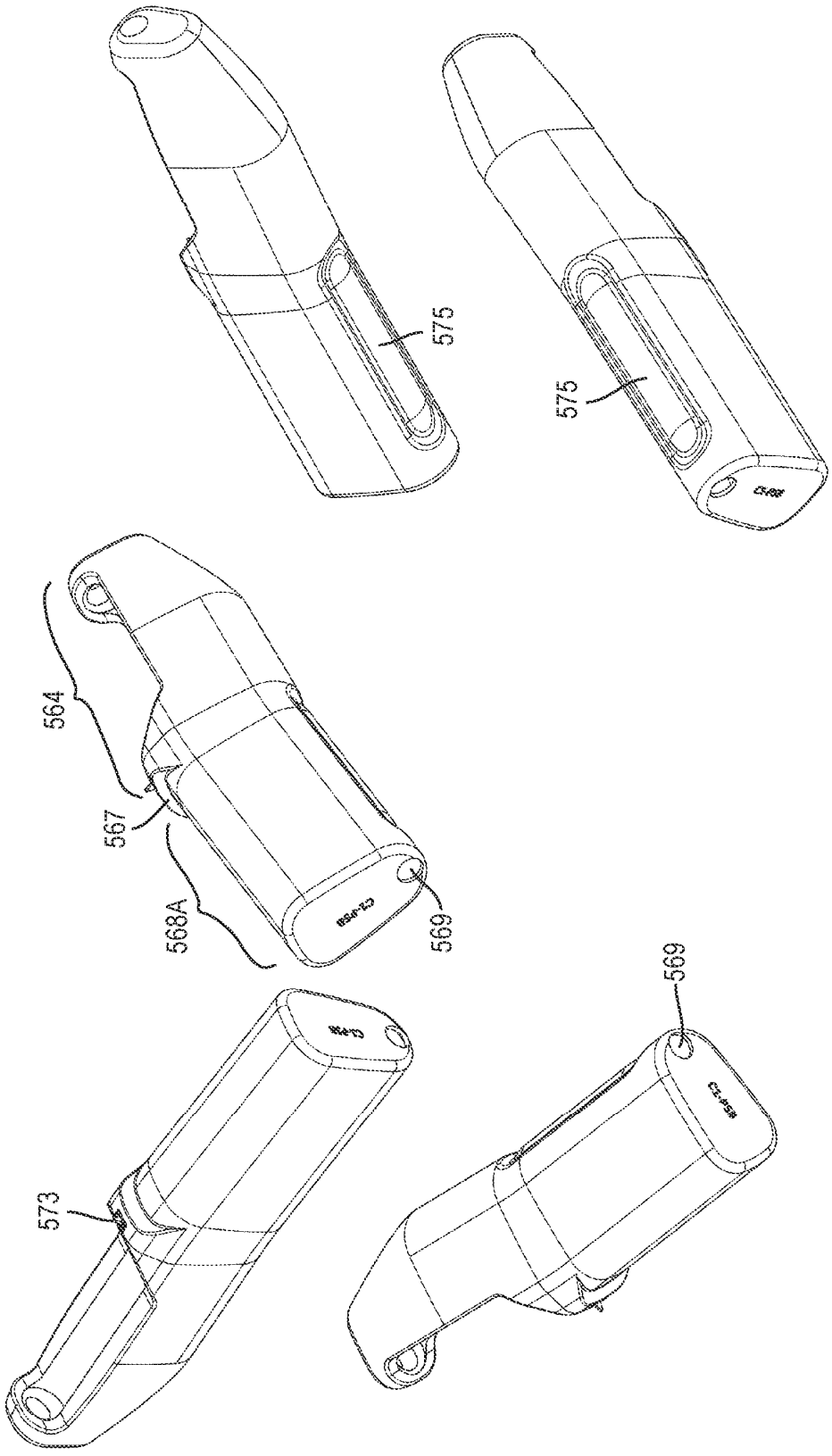


FIG. 7C

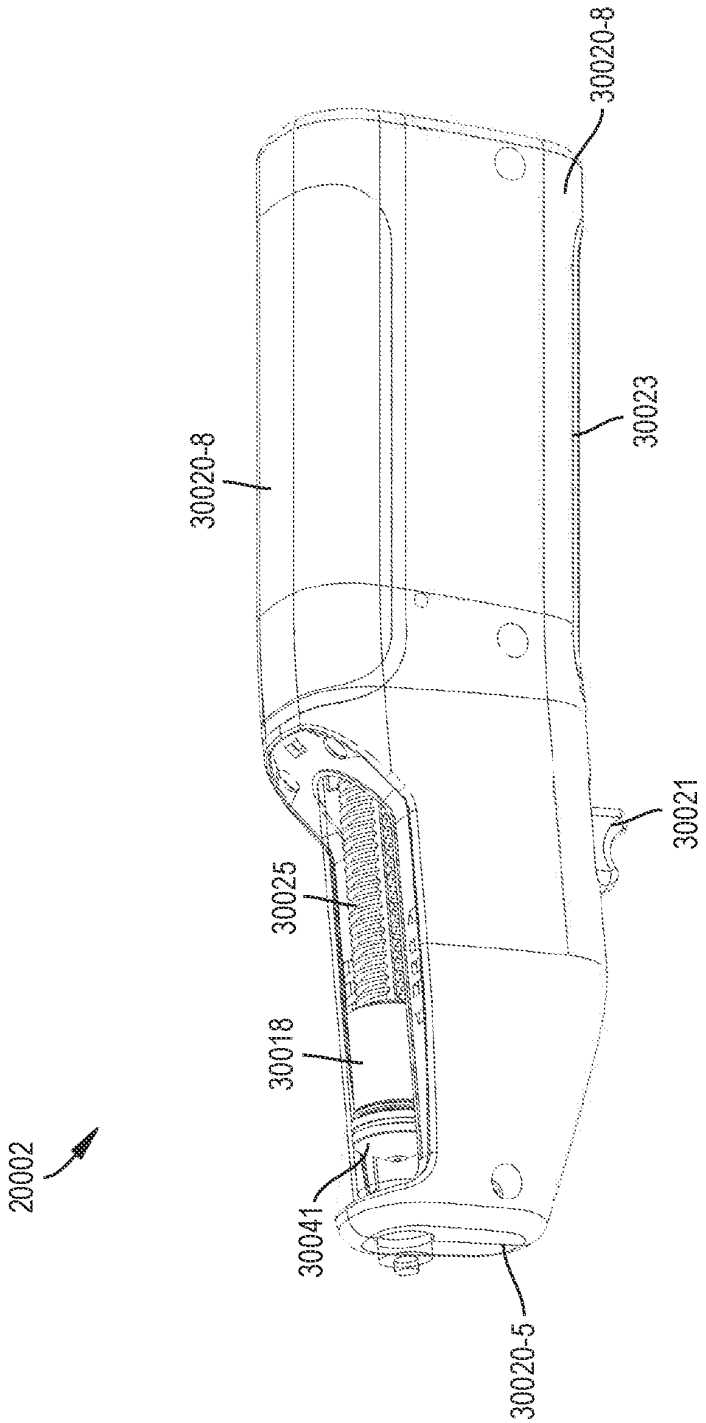


FIG. 8A

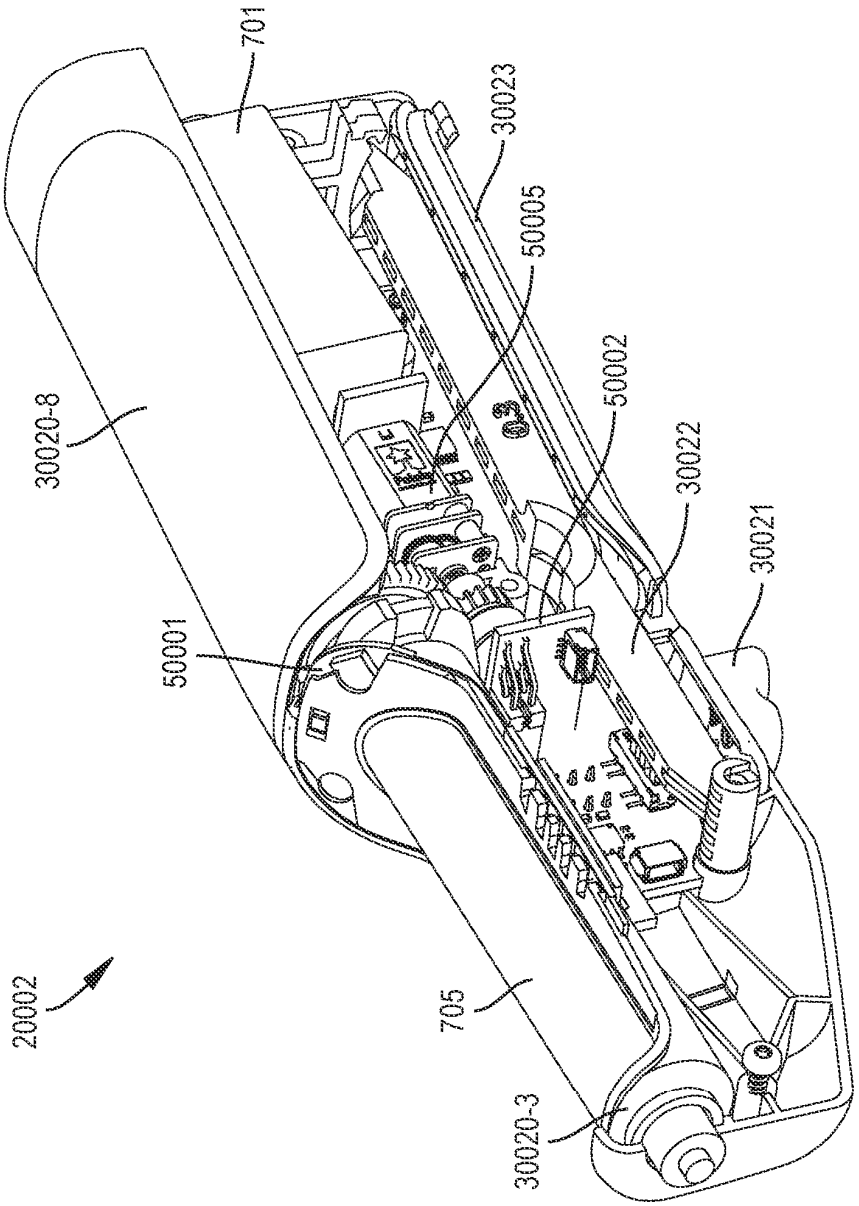

701
30023
50005
50002
30022
30021
30020-8
50001
20002
705
30020-3

FIG. 8B

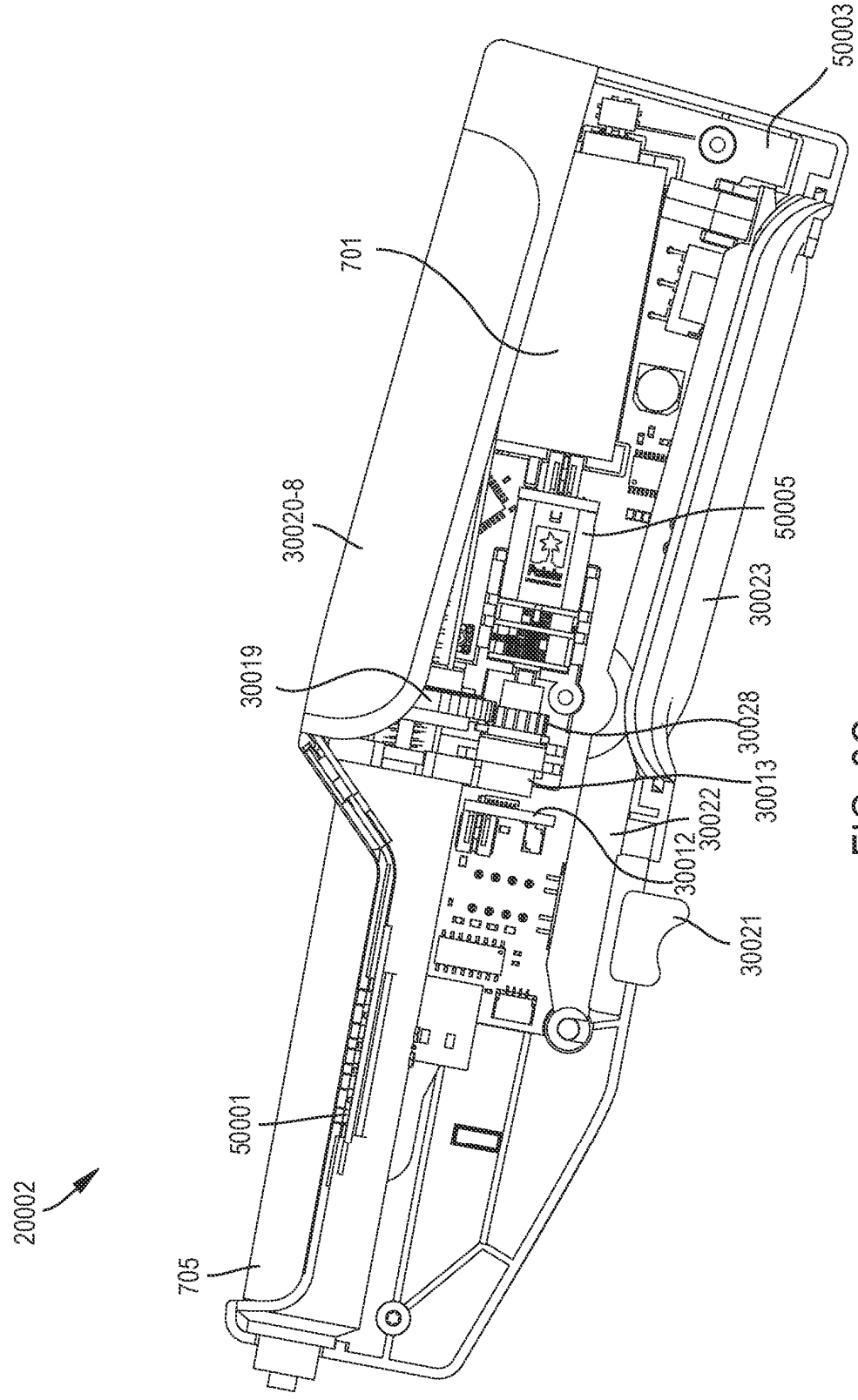

20002
705
50001
30019
30020-8
701
50003
50005
30023
30028
30013
30022
30012
30021

FIG. 8C

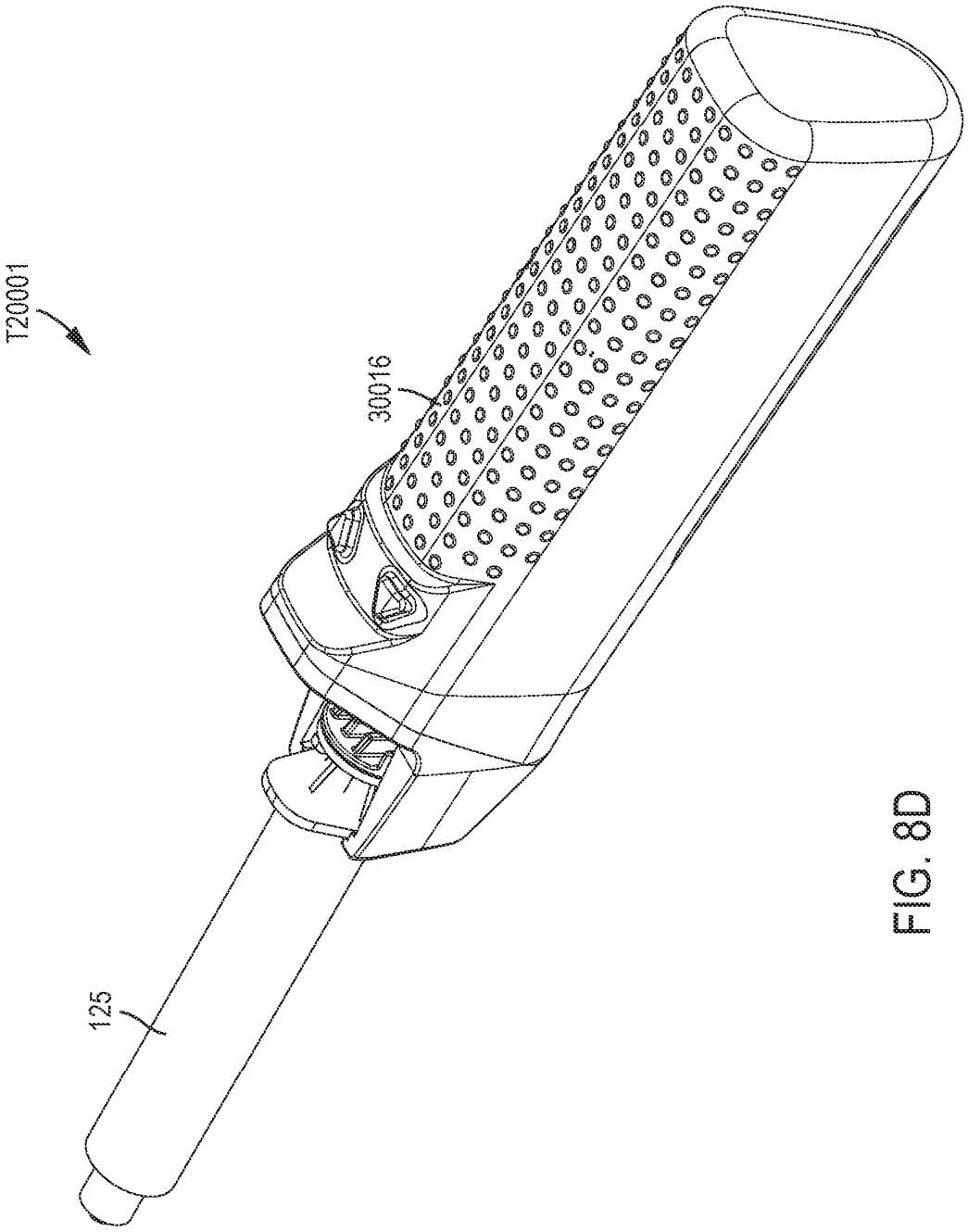


FIG. 8D

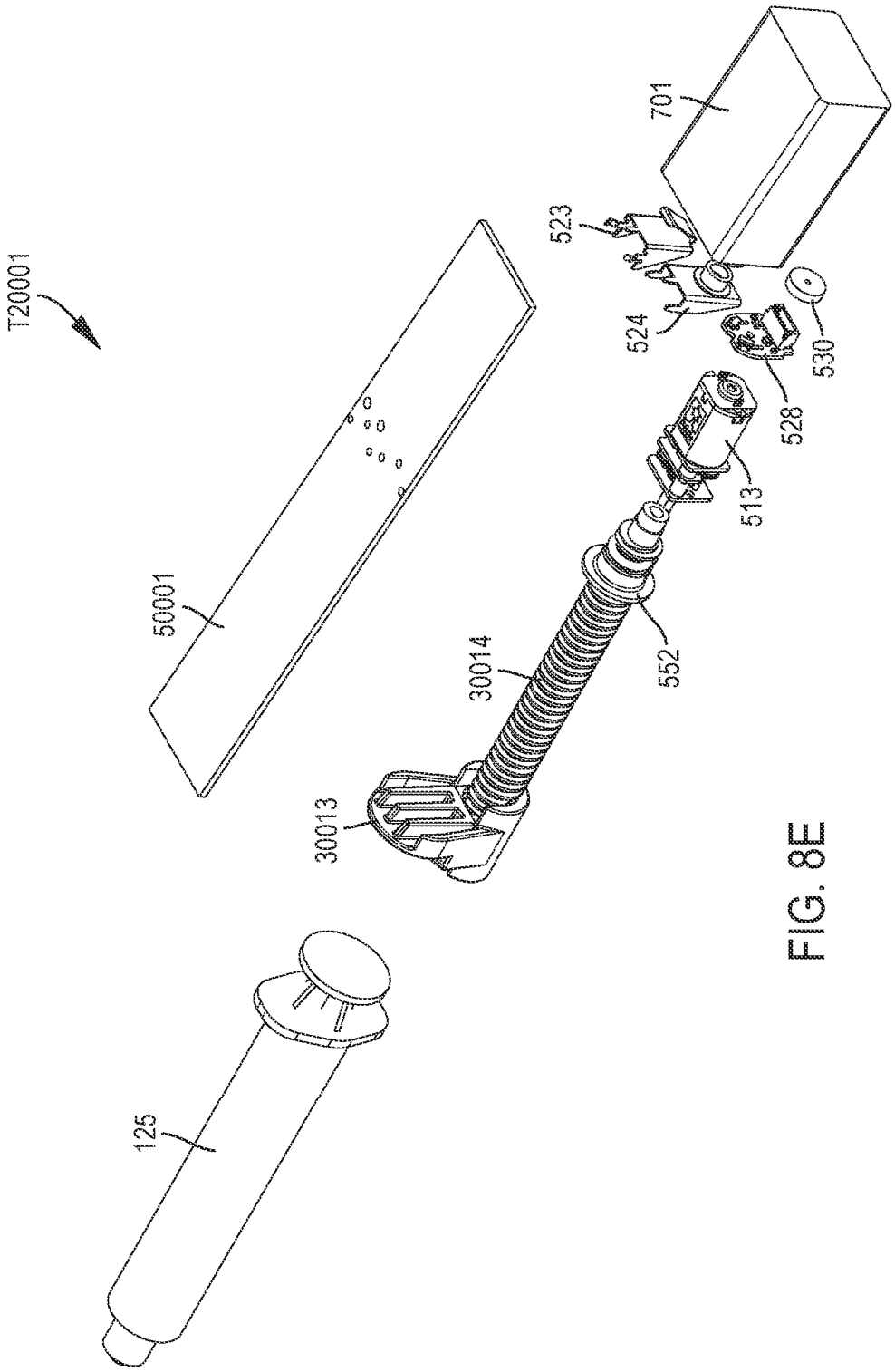


FIG. 8E

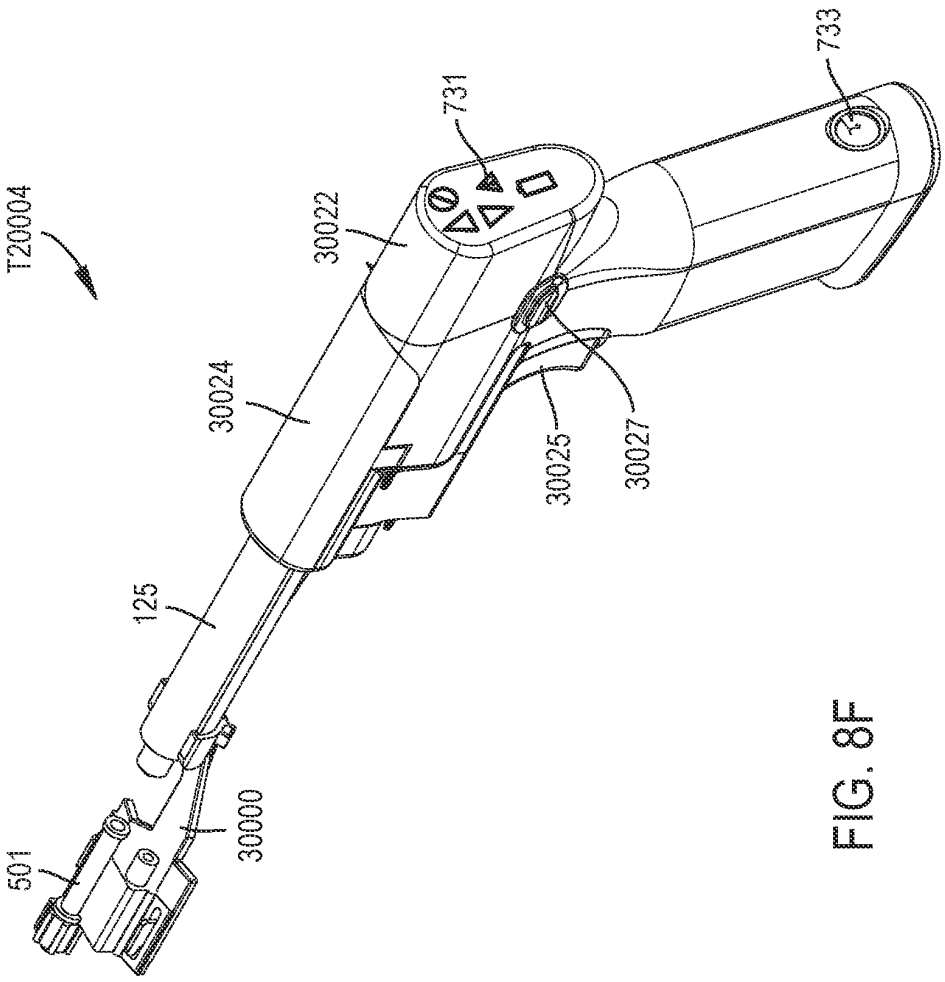


FIG. 8F

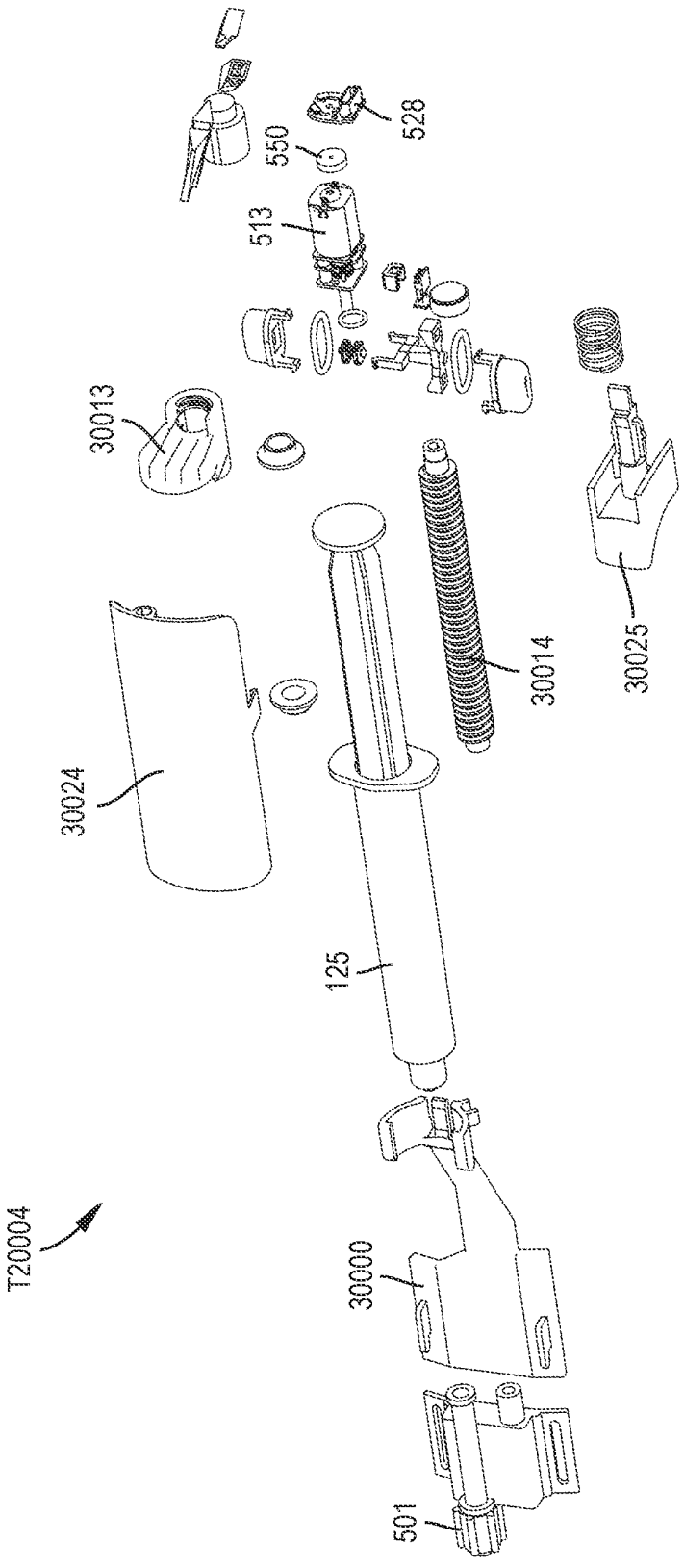


FIG. 8G

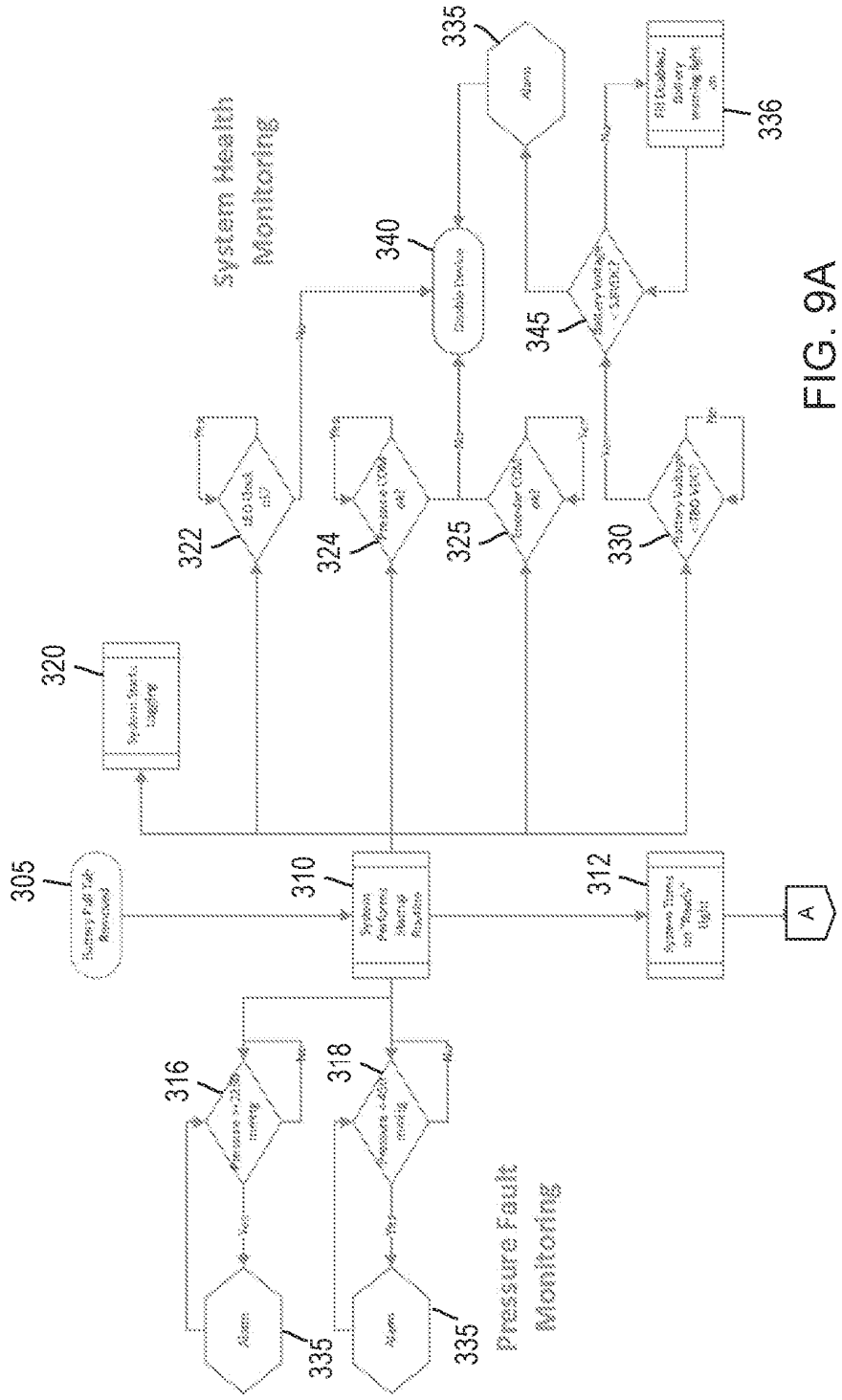

System Health Monitoring
Pressure Fault Monitoring
305
310
312
316
318
320
322
324
325
330
335
336
340
345
A

FIG. 9A

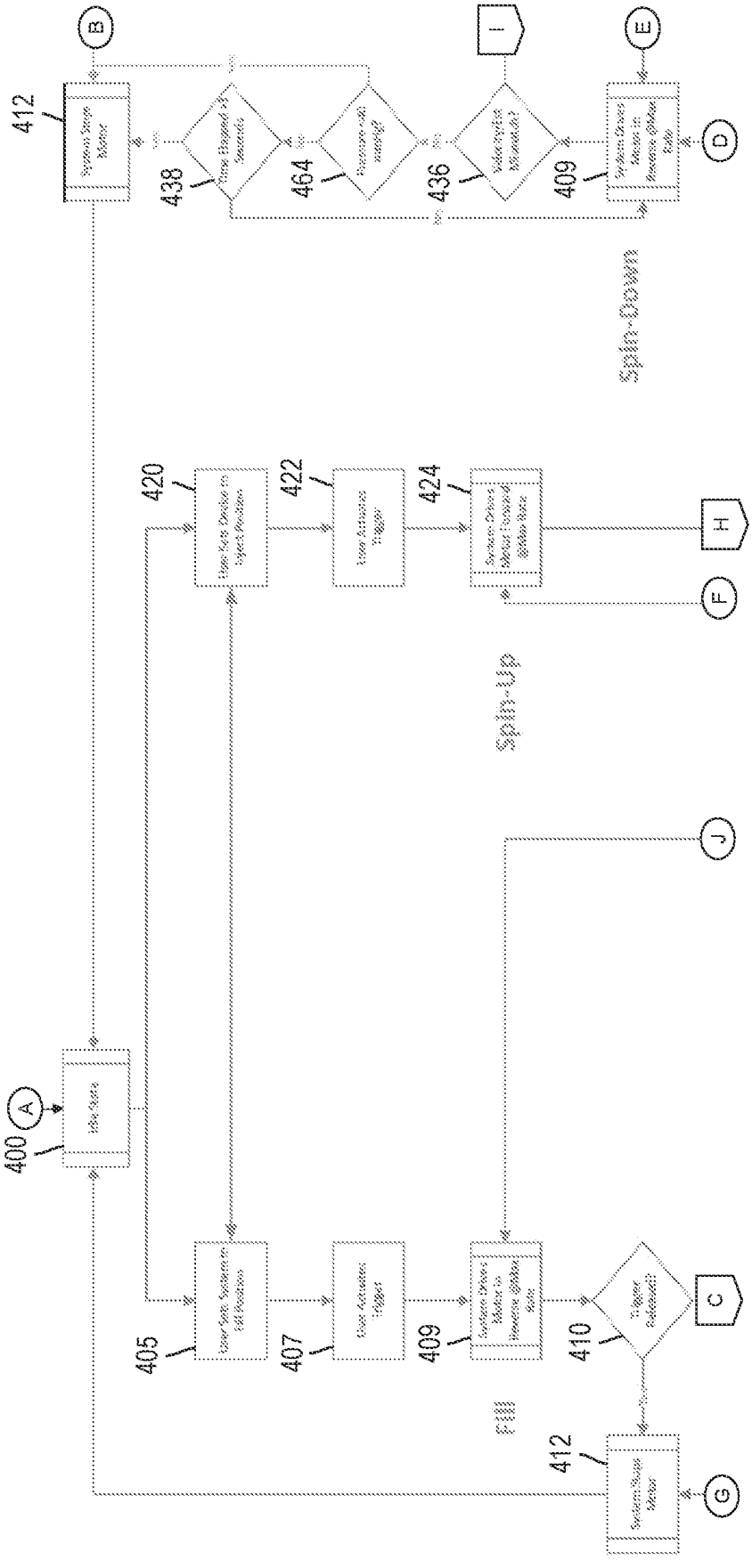

A
B
C
D
E
F
G
H
I
J
400
405
407
409
410
412
420
422
424
436
438
464
Fill
Spin-Up
Spin-Down

FIG. 9B

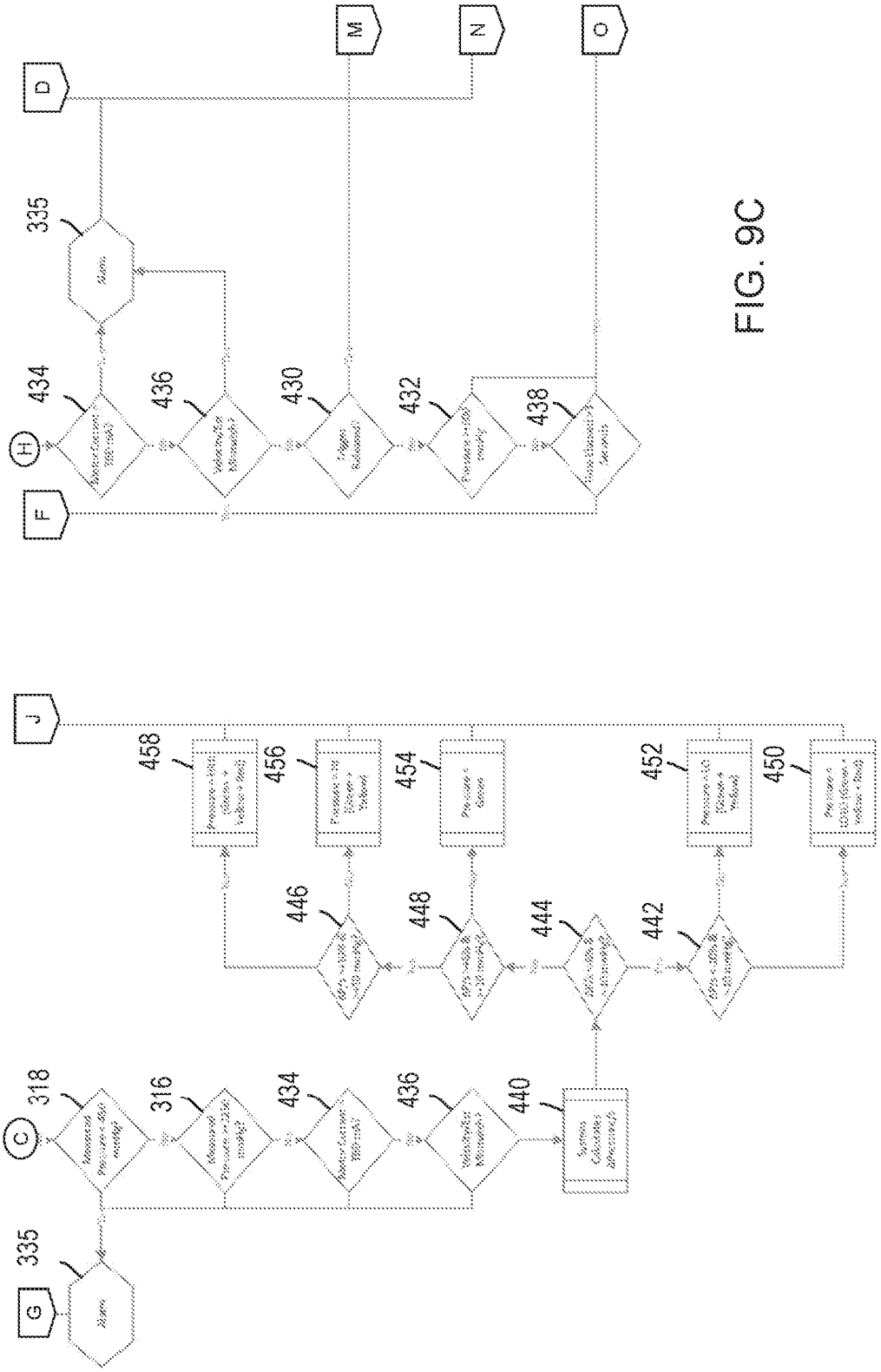

D
M
N
O
335
434
436
430
432
438
H
F
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458
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444
442
C
318
316
434
436
440
G
335

FIG. 9C

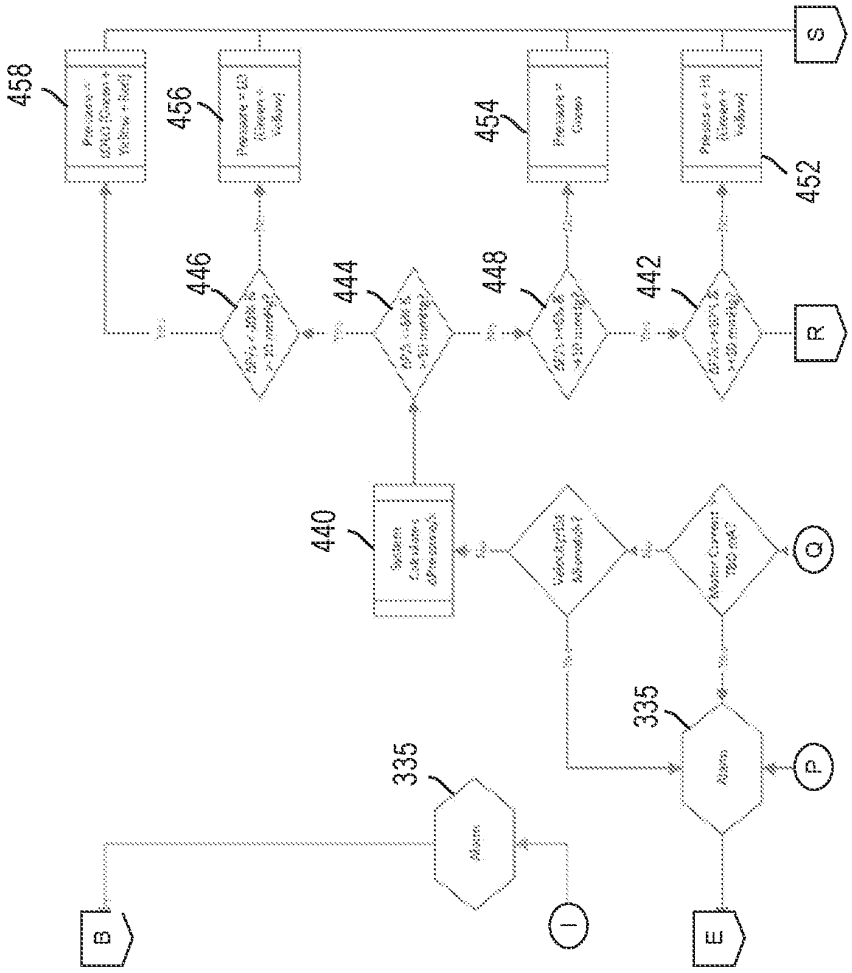


FIG. 9D

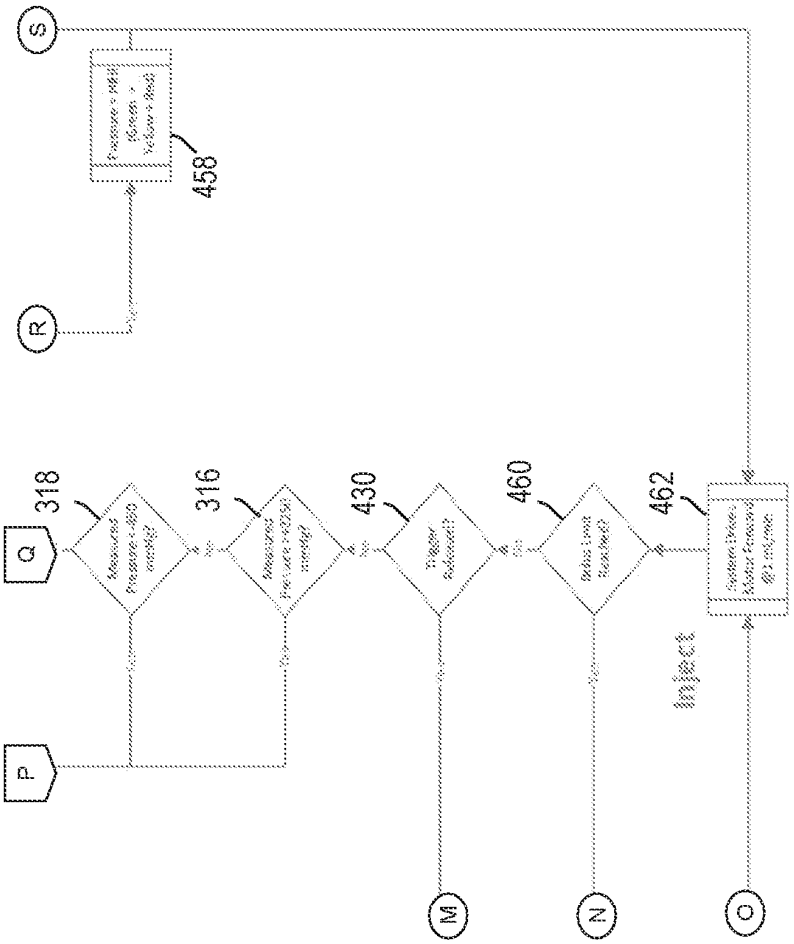


FIG. 9E

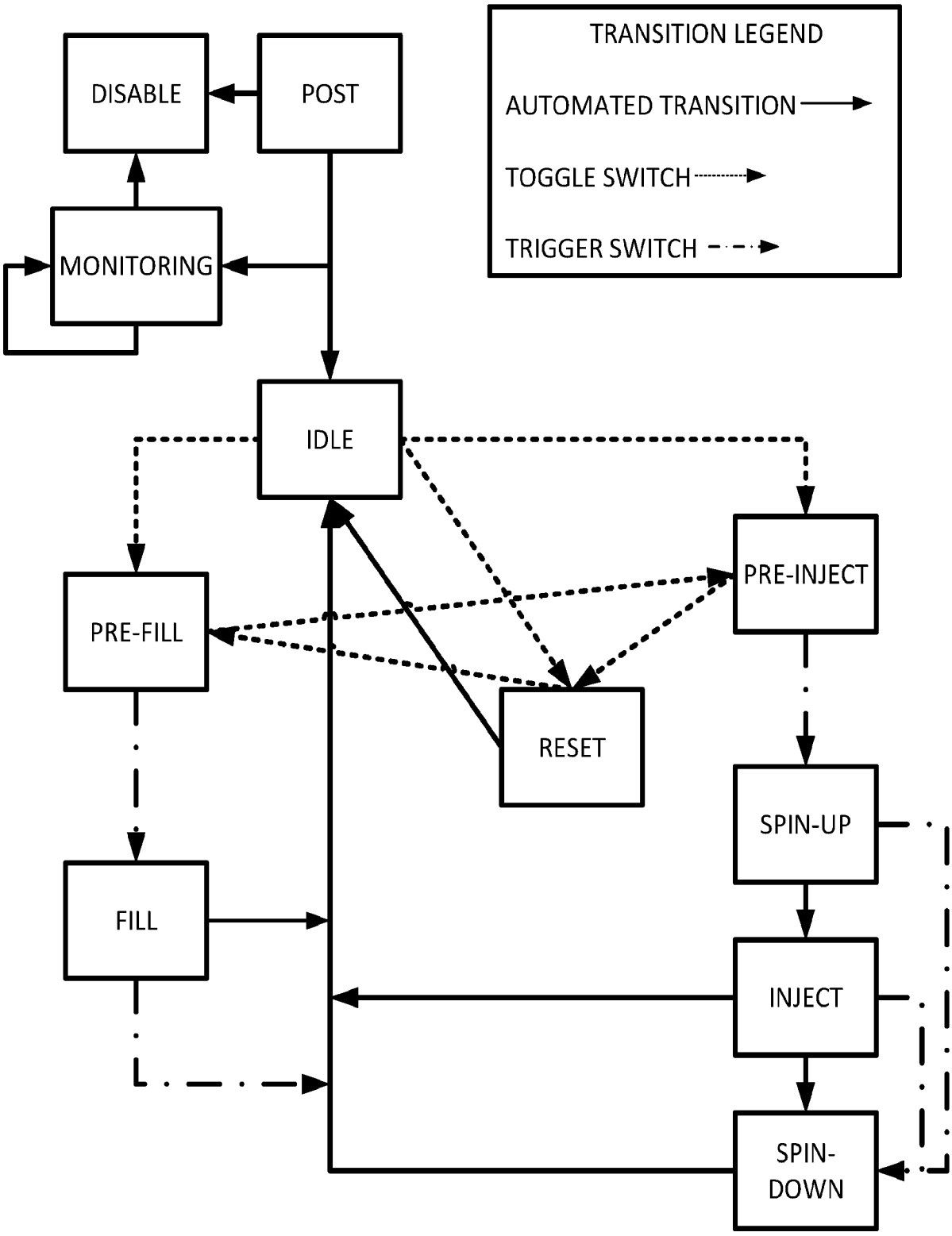

TRANSITION LEGEND
AUTOMATED TRANSITION
TOGGLE SWITCH
TRIGGER SWITCH
DISABLE
POST
MONITORING
IDLE
PRE-FILL
PRE-INJECT
RESET
FILL
SPIN-UP
INJECT
SPIN-DOWN

FIG. 10