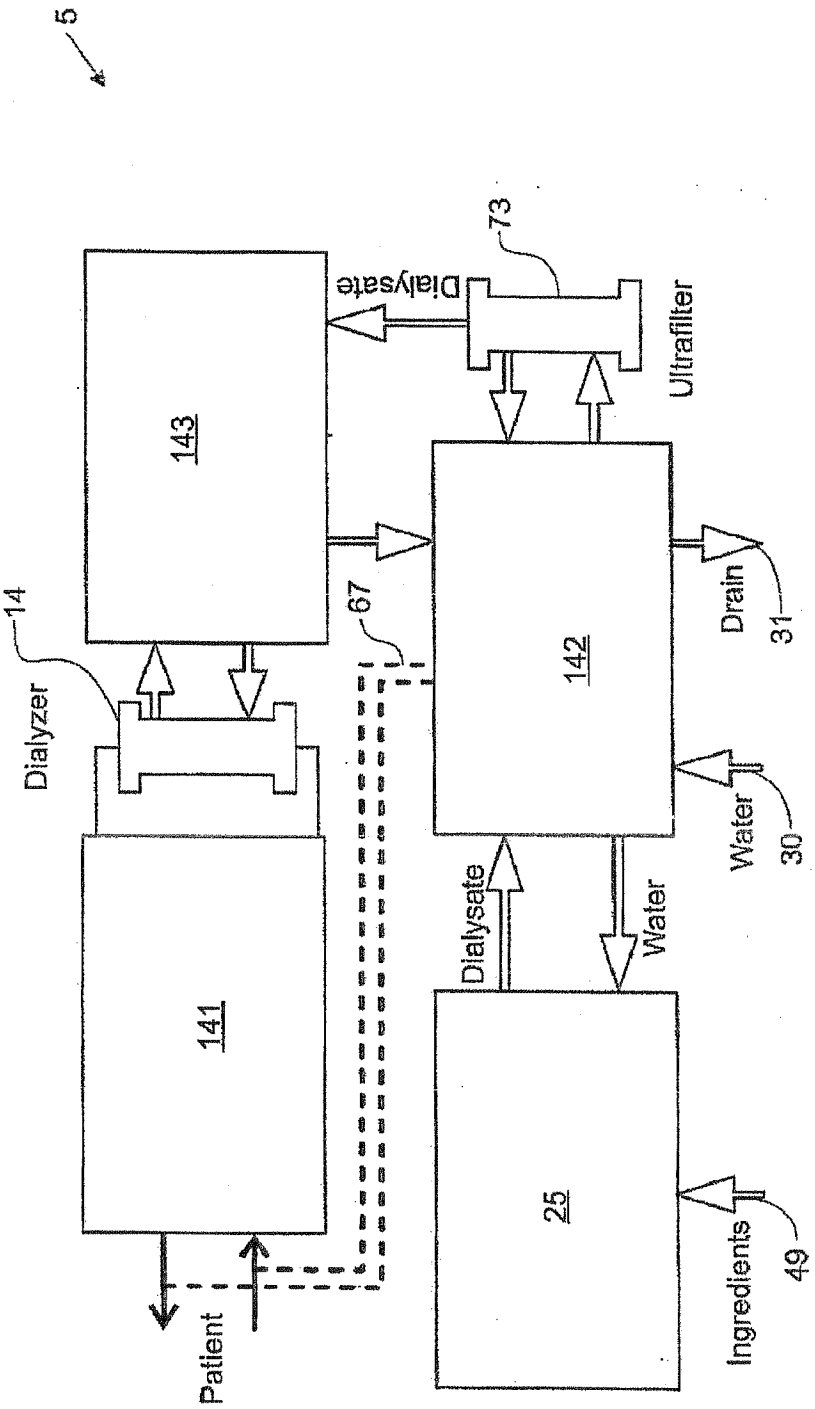

5
73
Dialysate
Ultrafilter
143
14
Dialyzer
67
142
Drain
31
Water
30
Dialysate
Water
141
25
Patient
Ingredients
49

FIG. 1

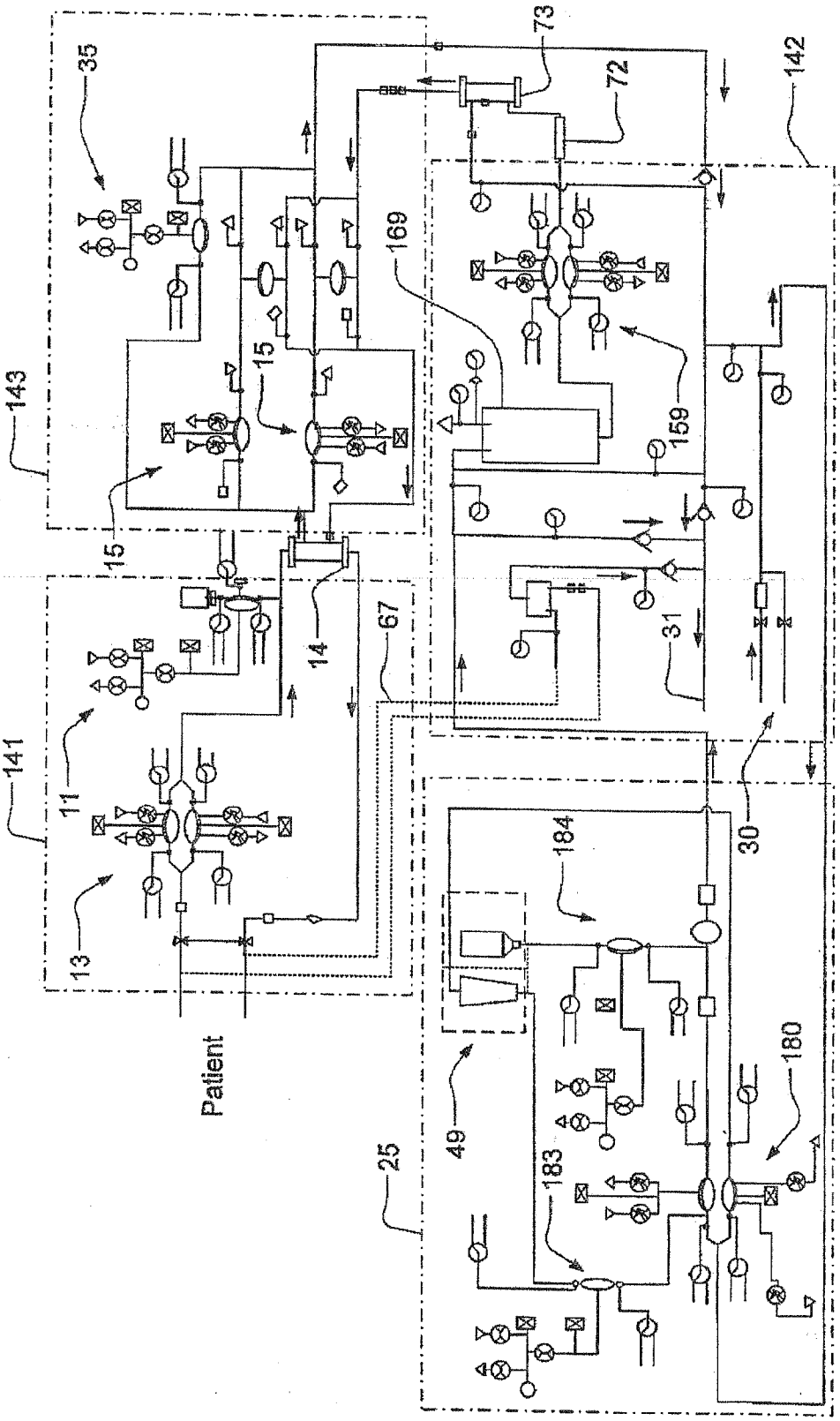

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73
72
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Patient
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183

FIG. 2

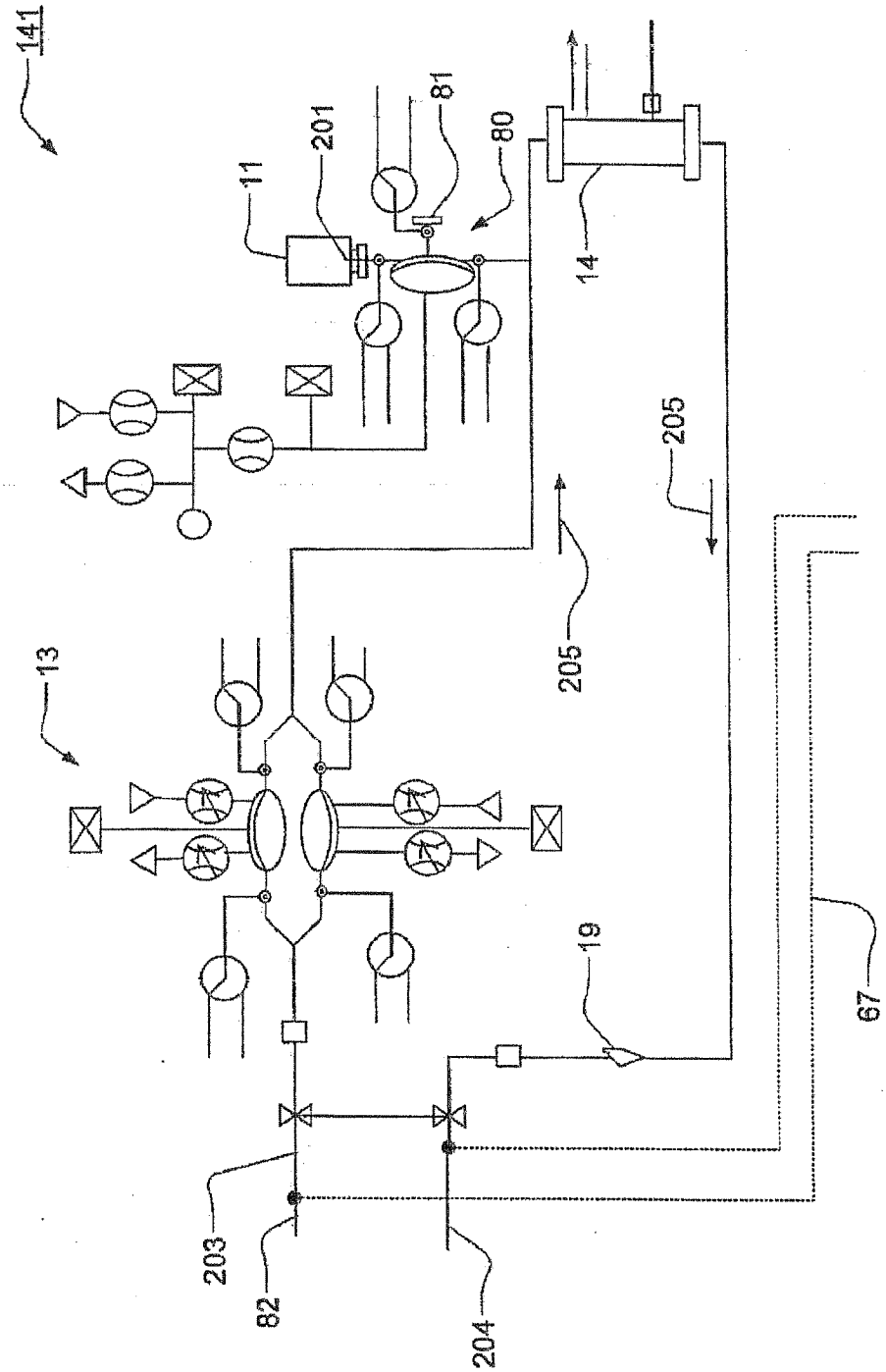


FIG. 3

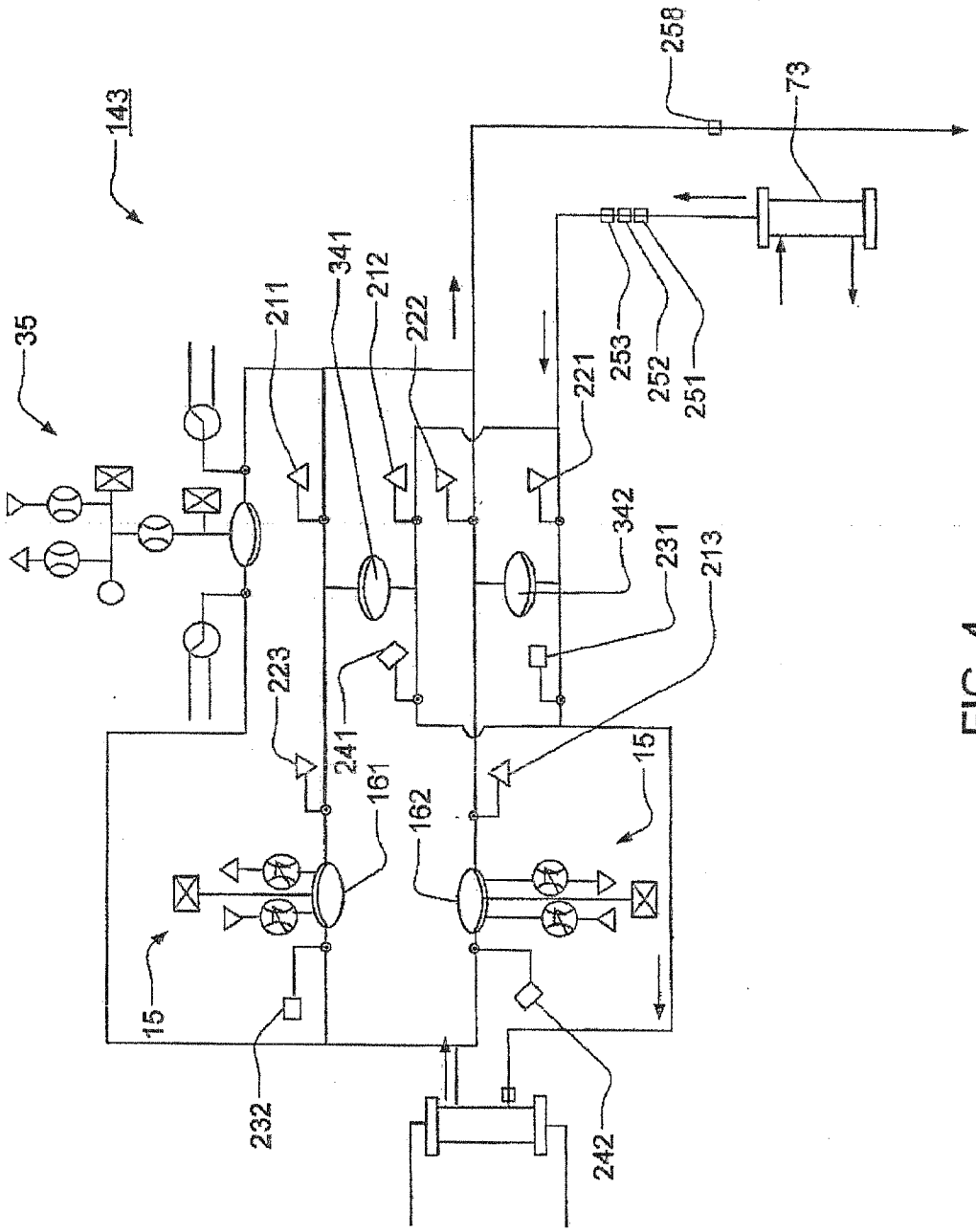

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FIG. 4

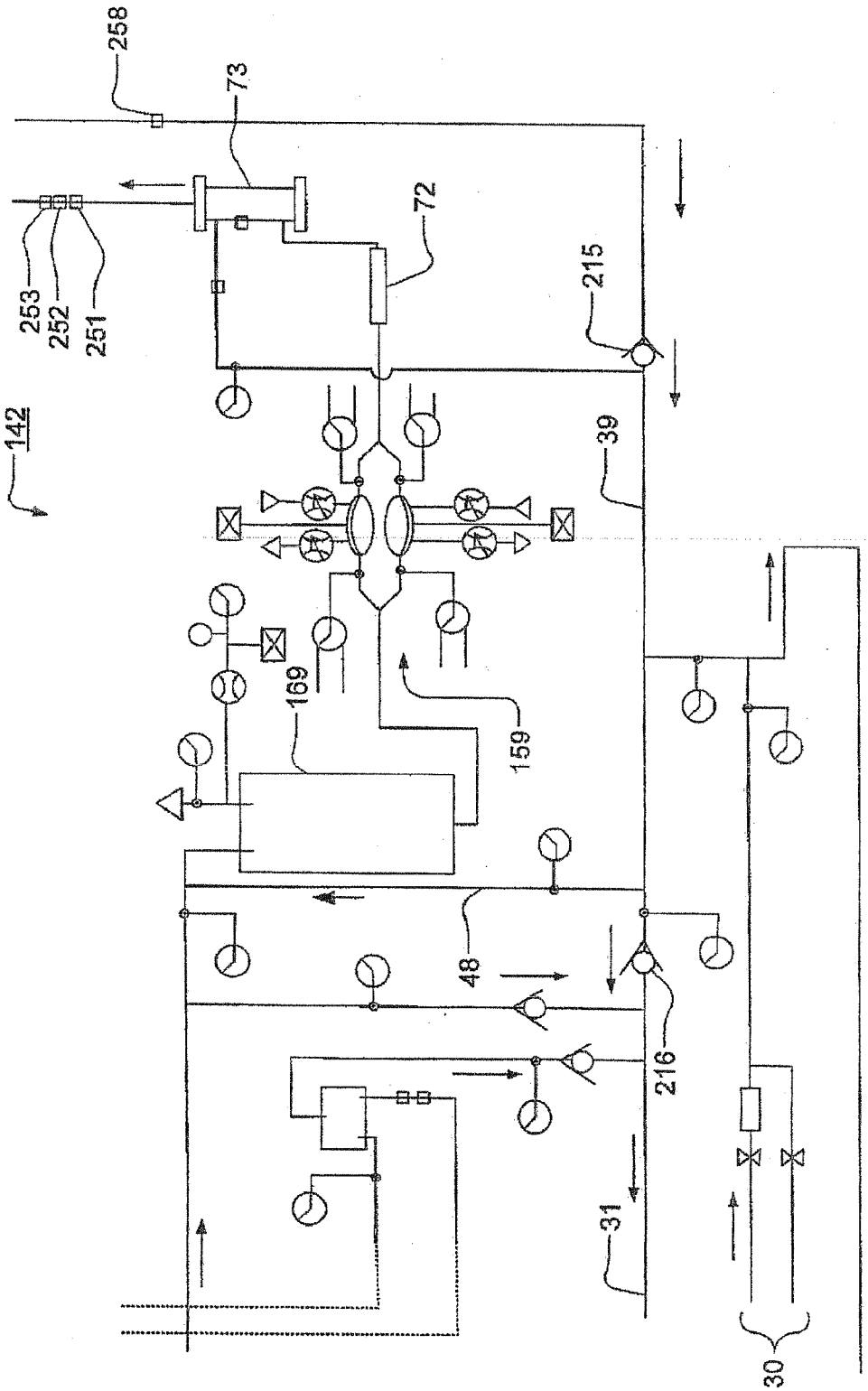


FIG. 5

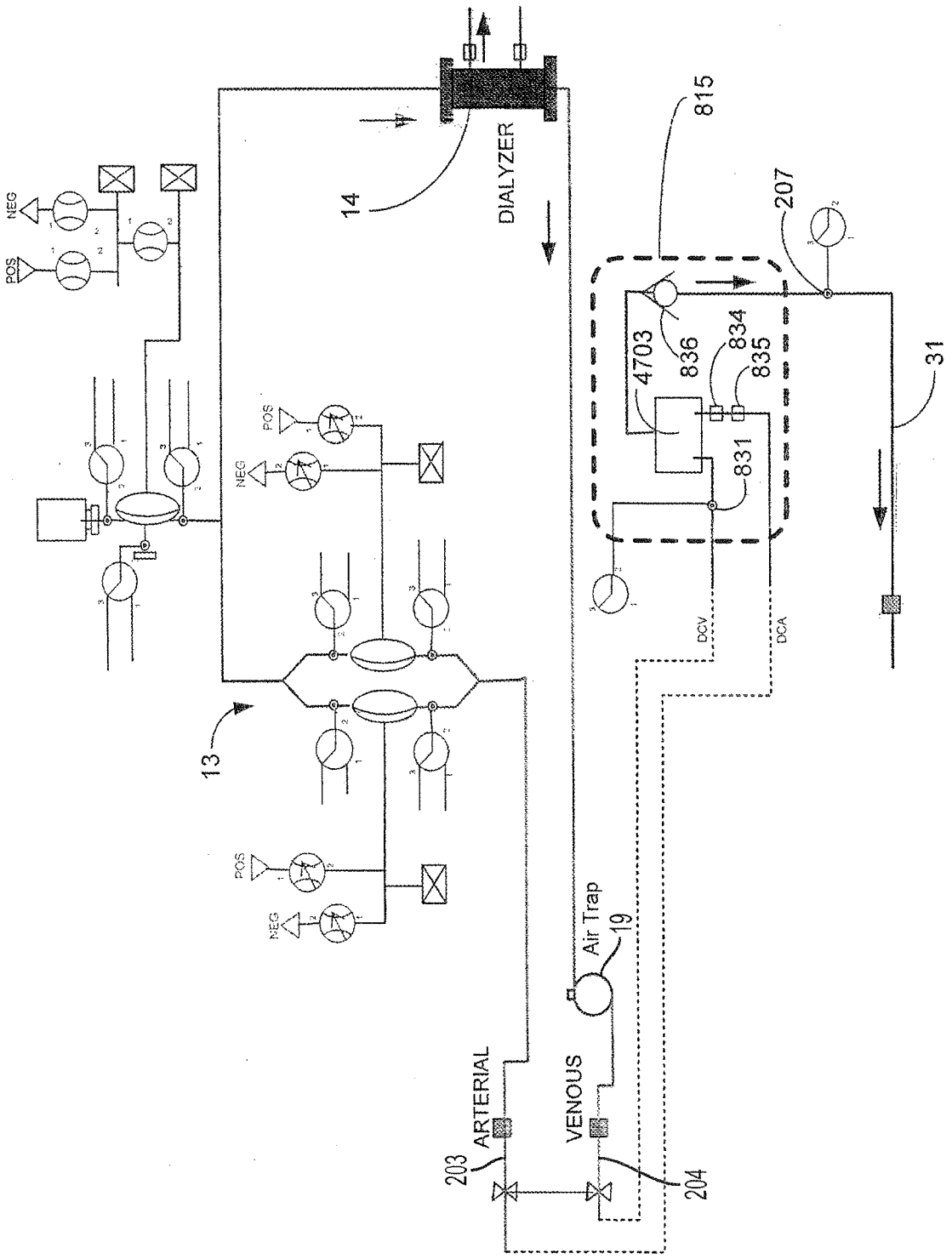

DIALYZER
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DCV
DCA
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POS
NEG
Air Trap
19
ARTERIAL
VENOUS
203
204

FIG. 5A

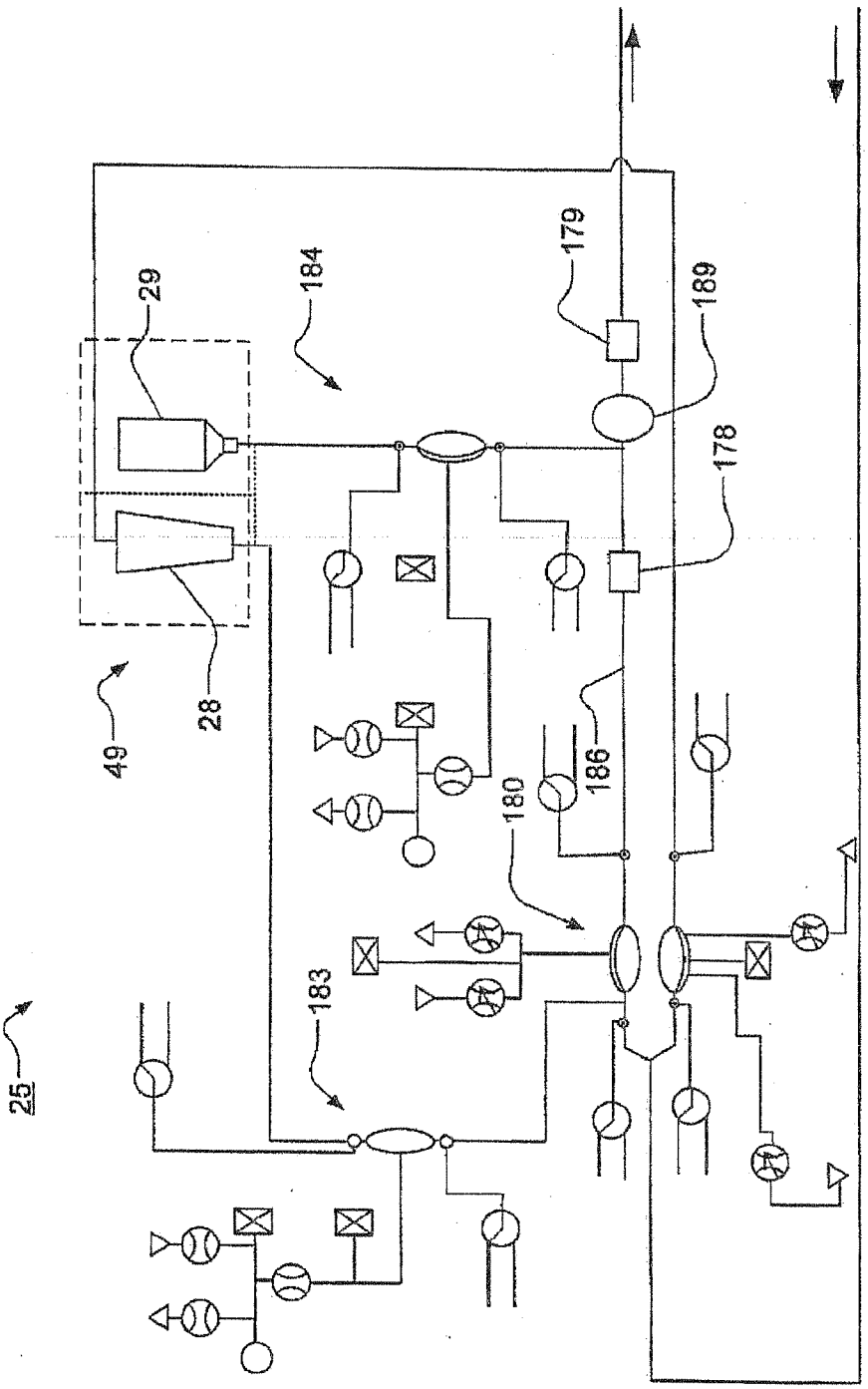


FIG. 6

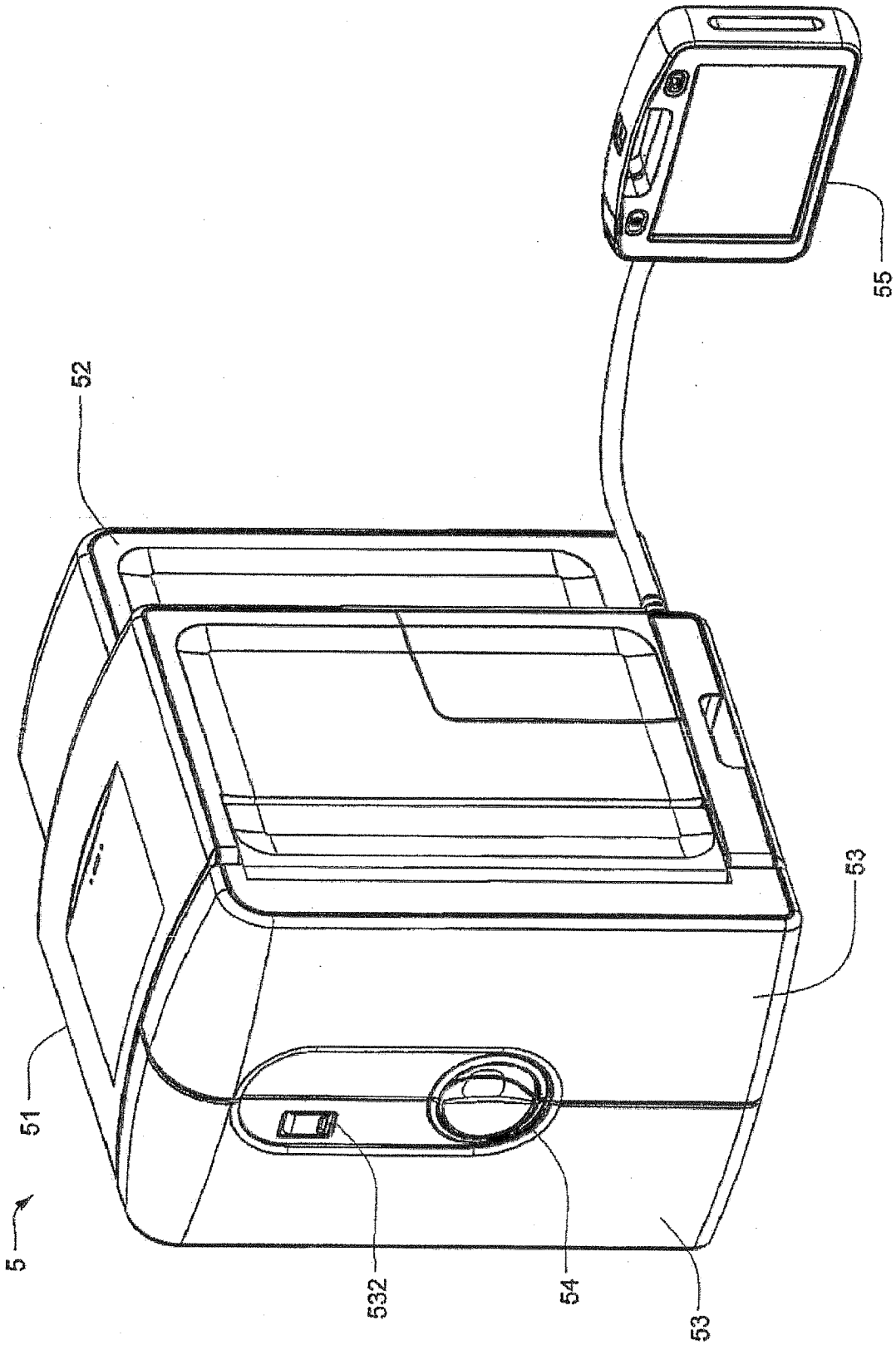


FIG. 7

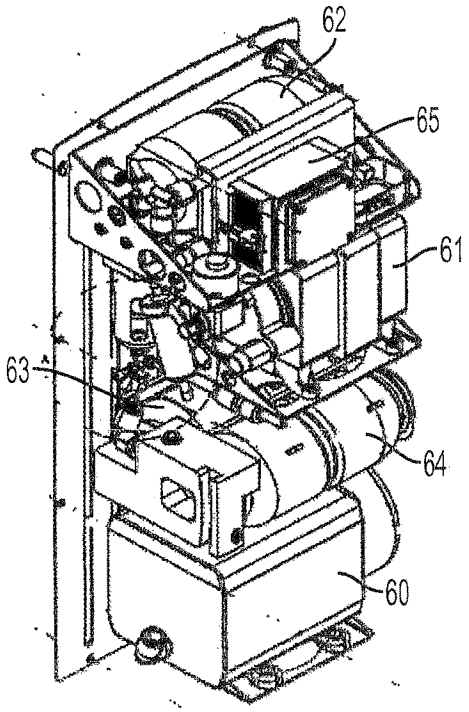


FIG. 7A

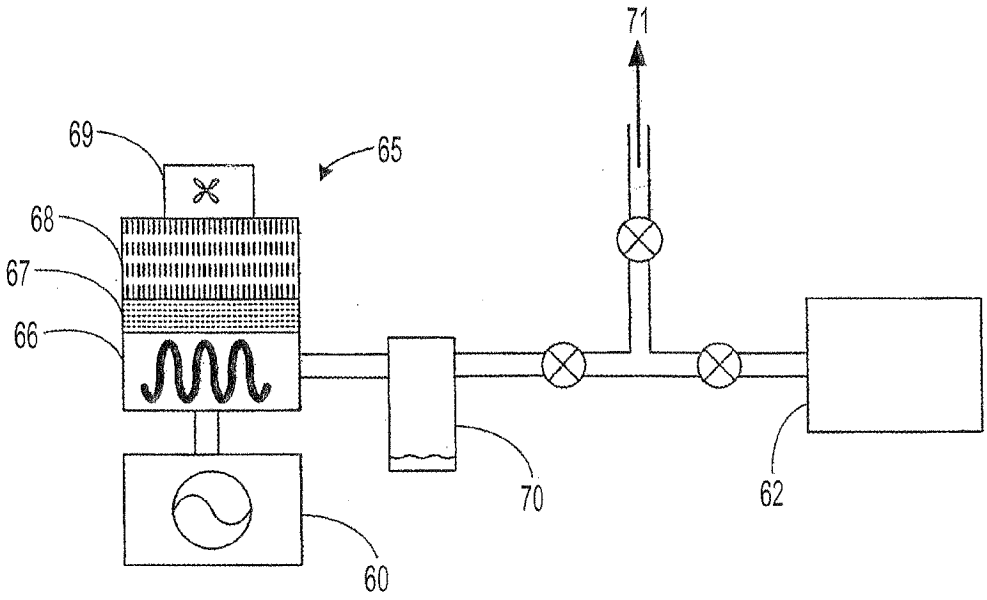


FIG. 7B

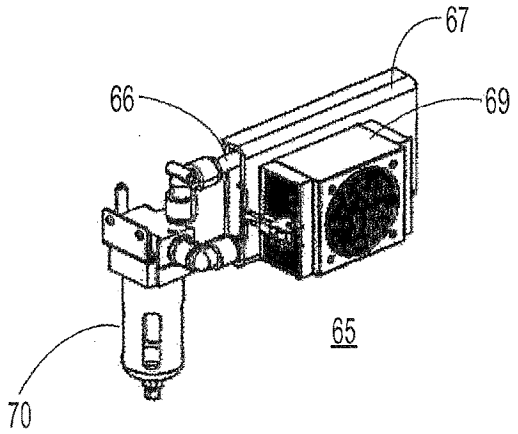


FIG. 7C

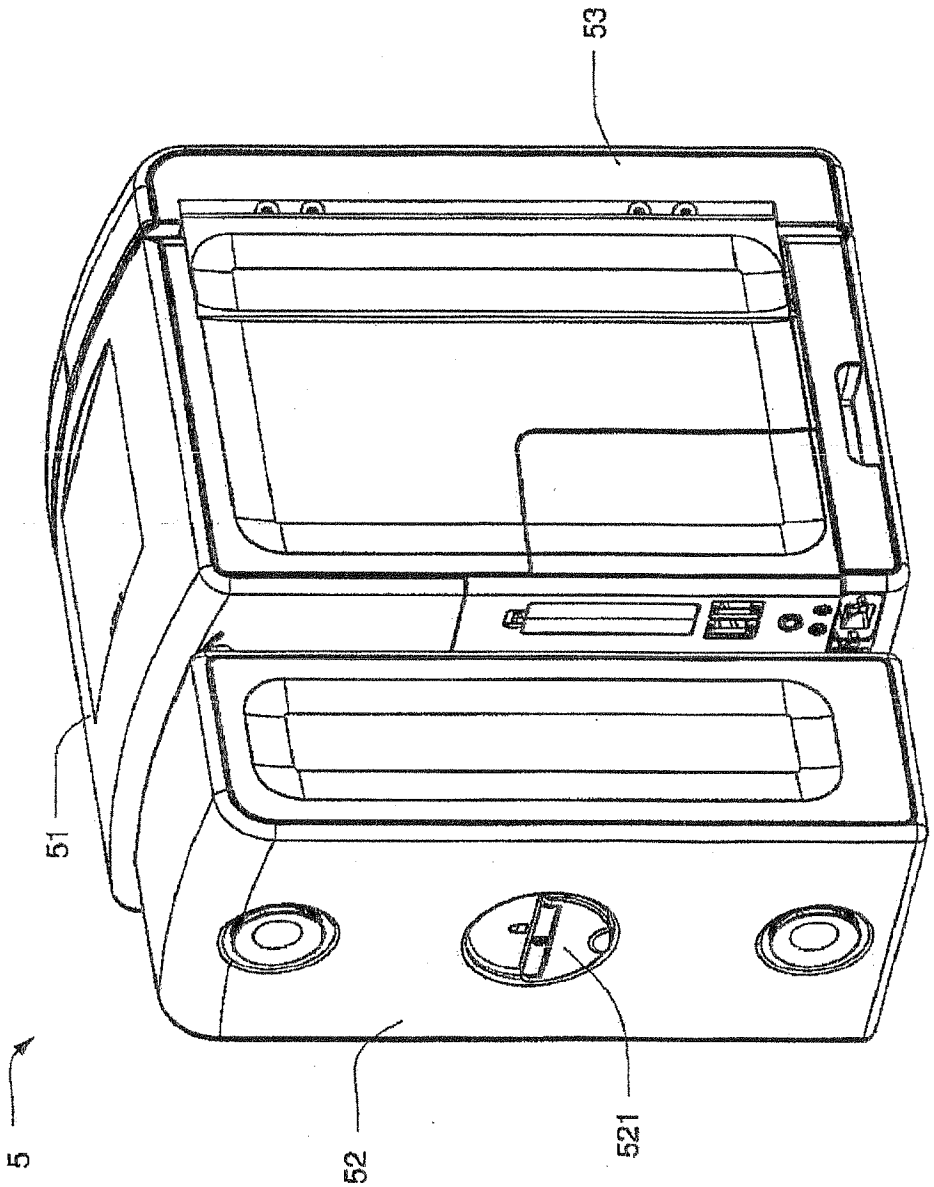


FIG. 8

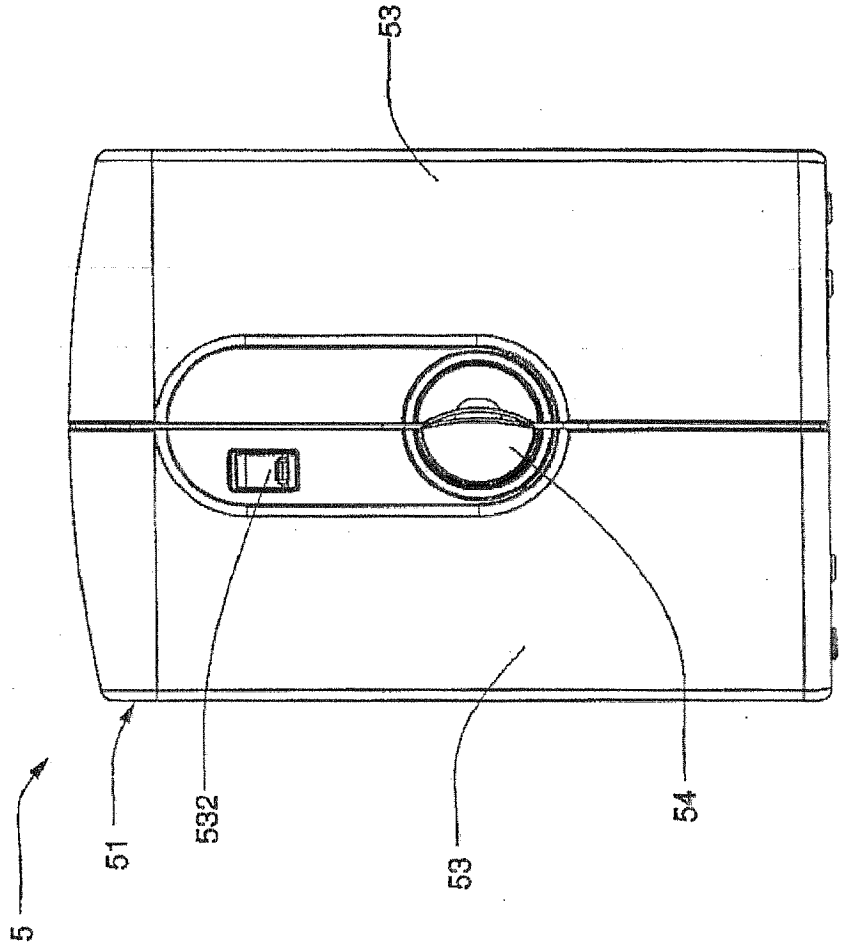


FIG. 9

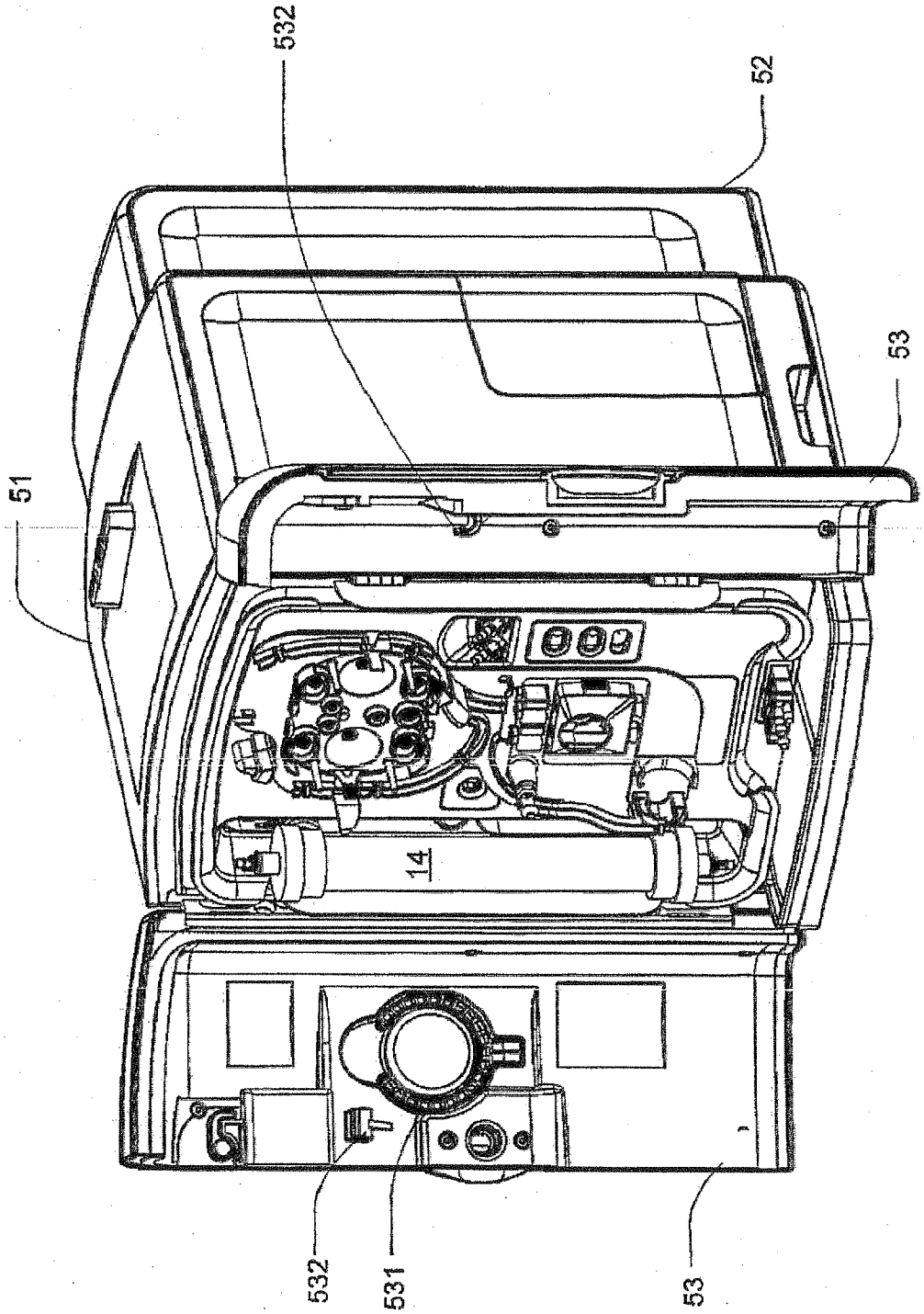


FIG. 10

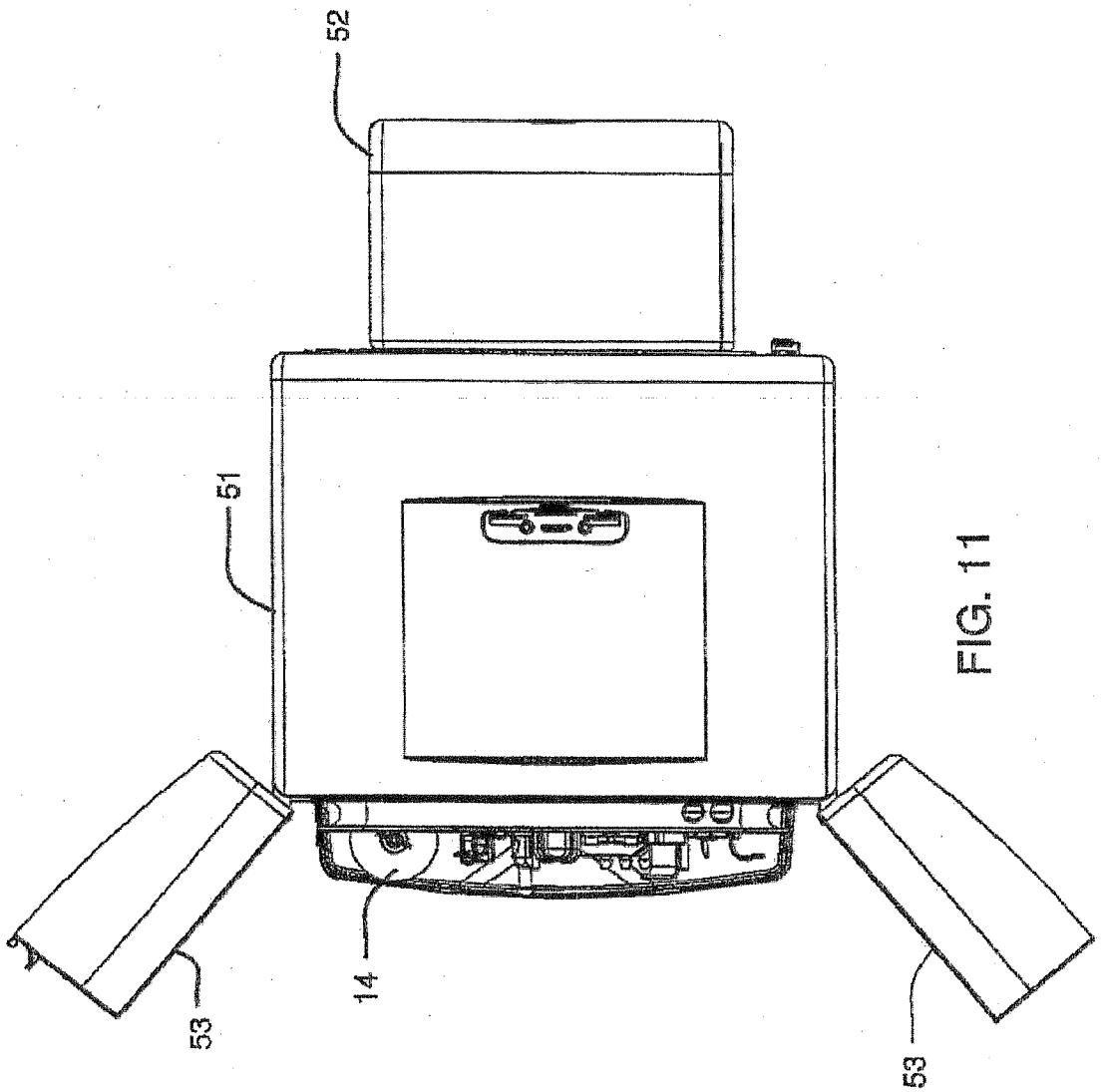


FIG. 11

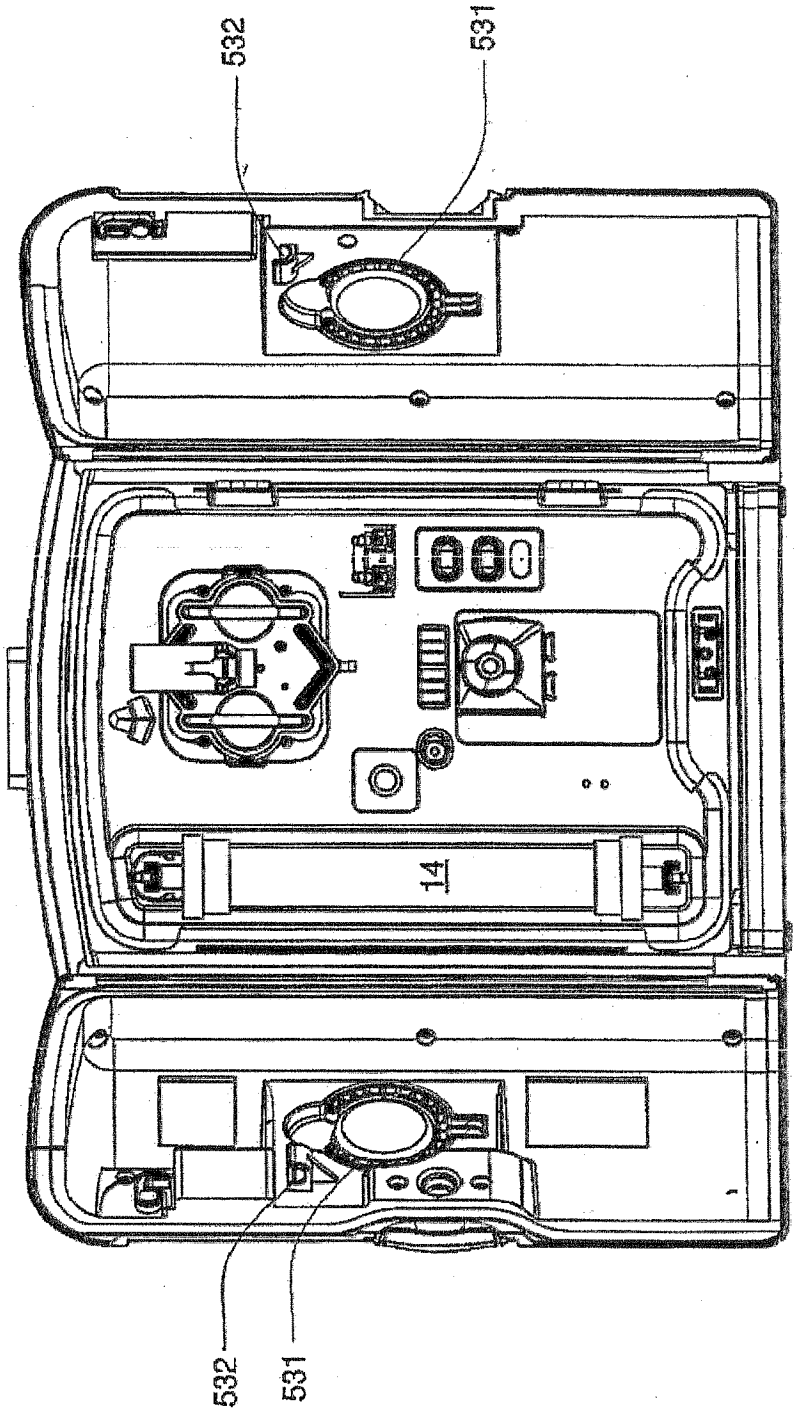


FIG. 12

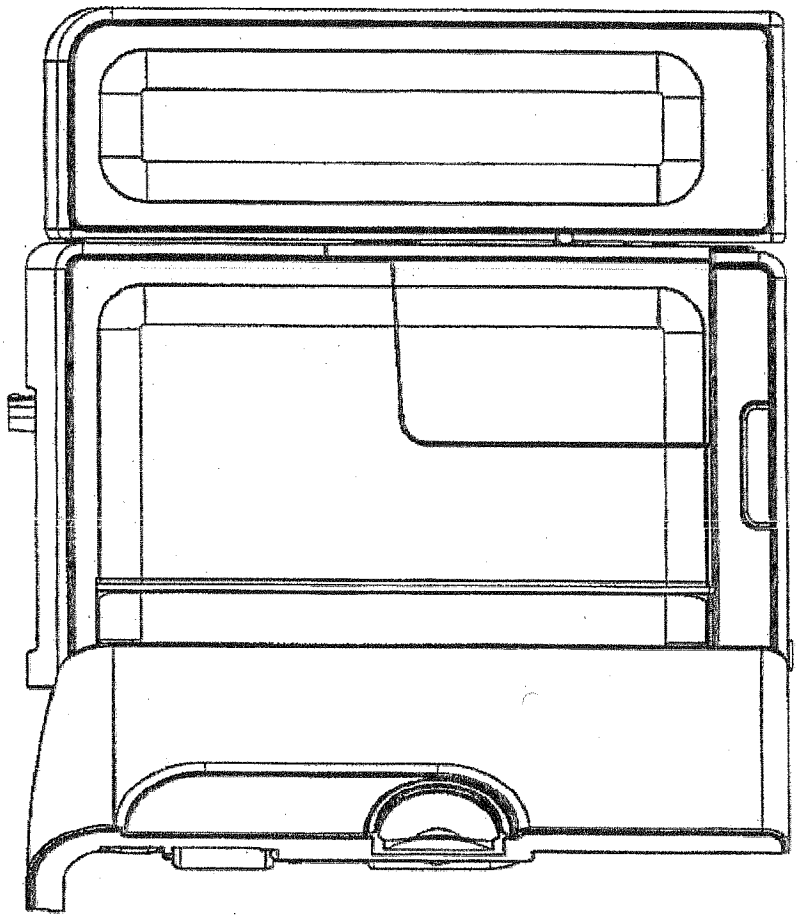


FIG. 13

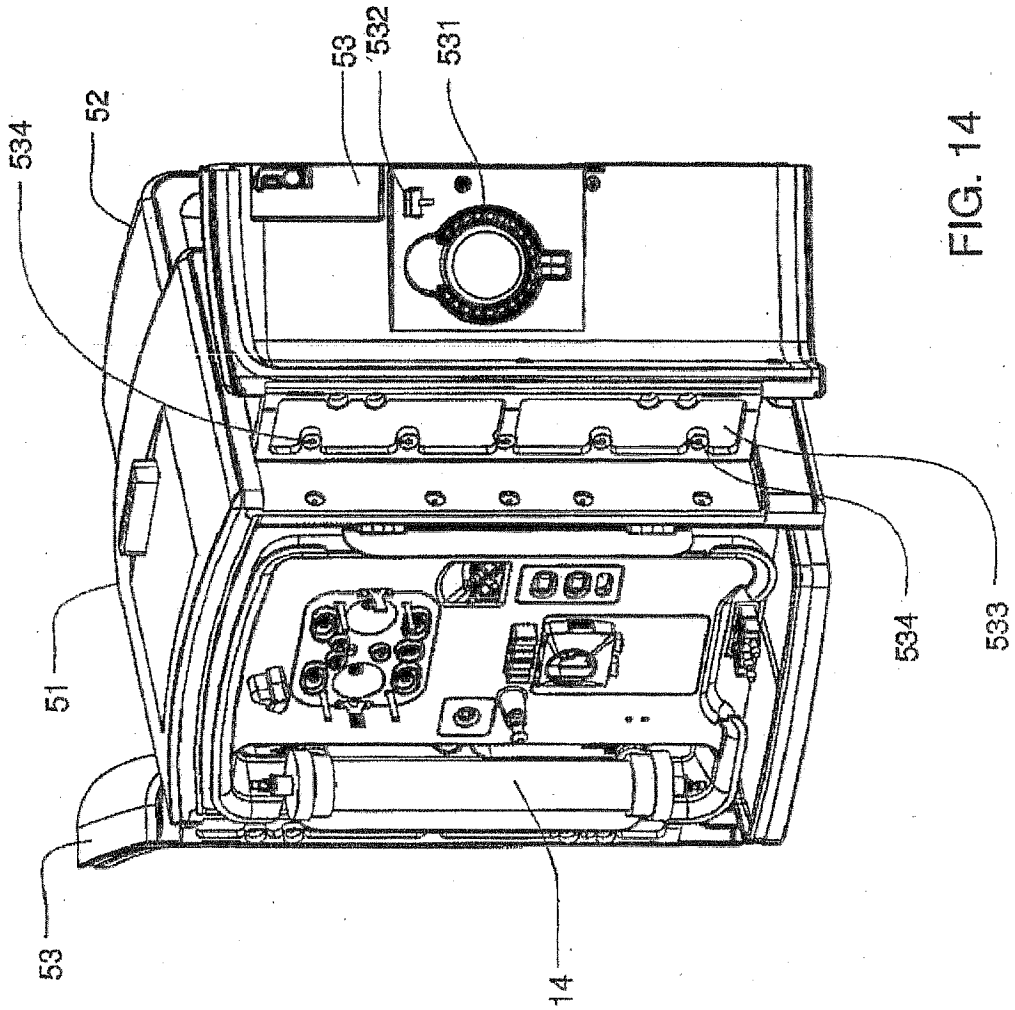


FIG. 14

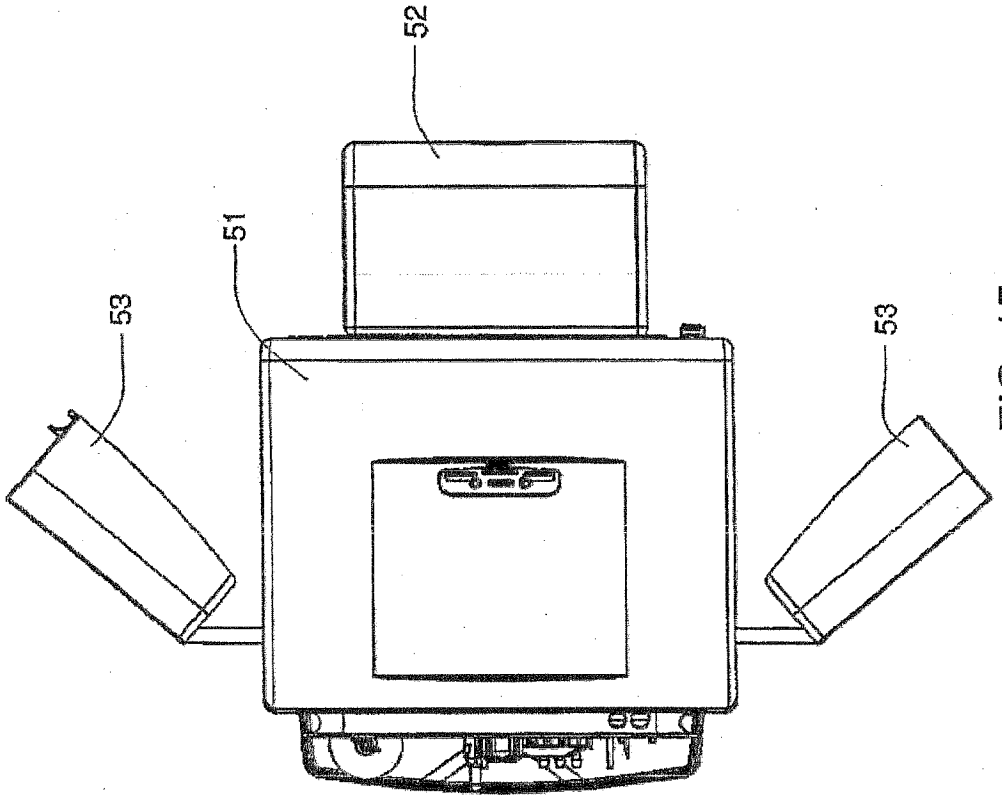


FIG. 15

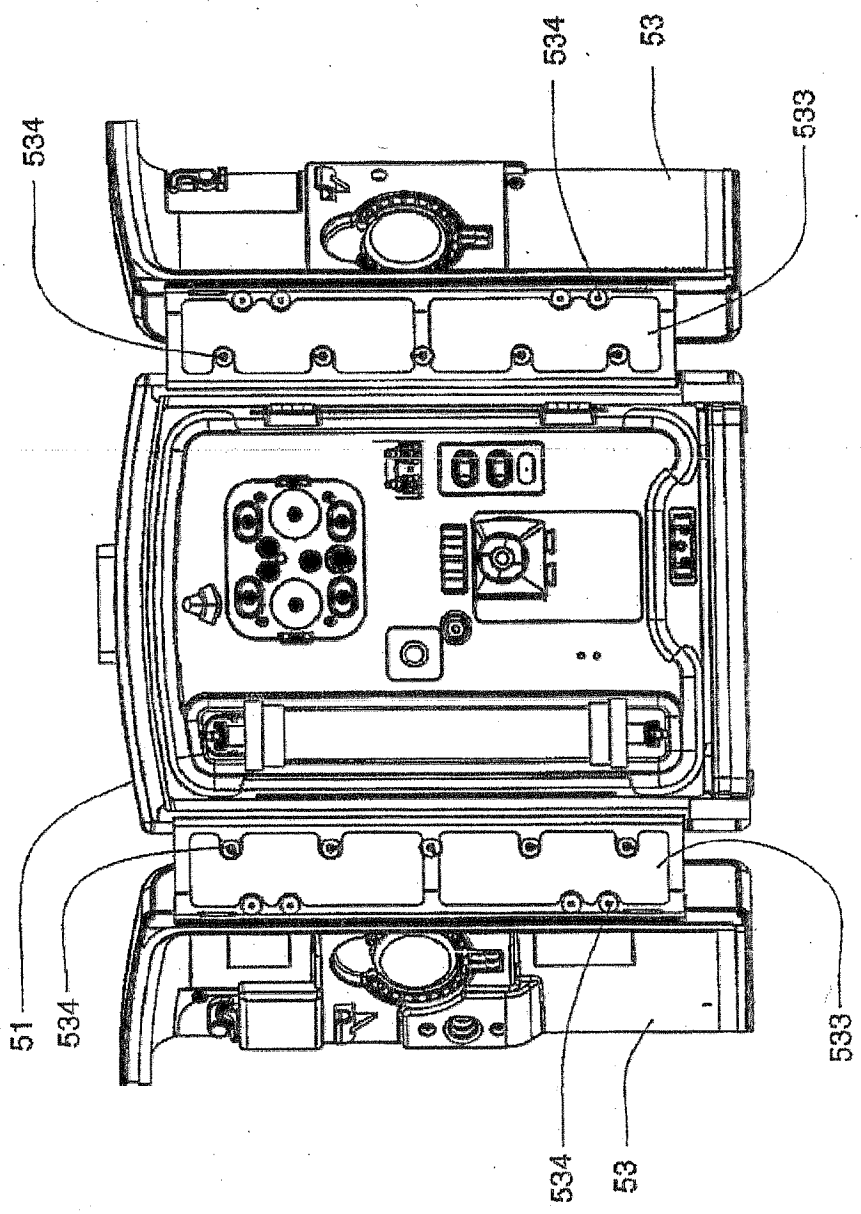


FIG. 16

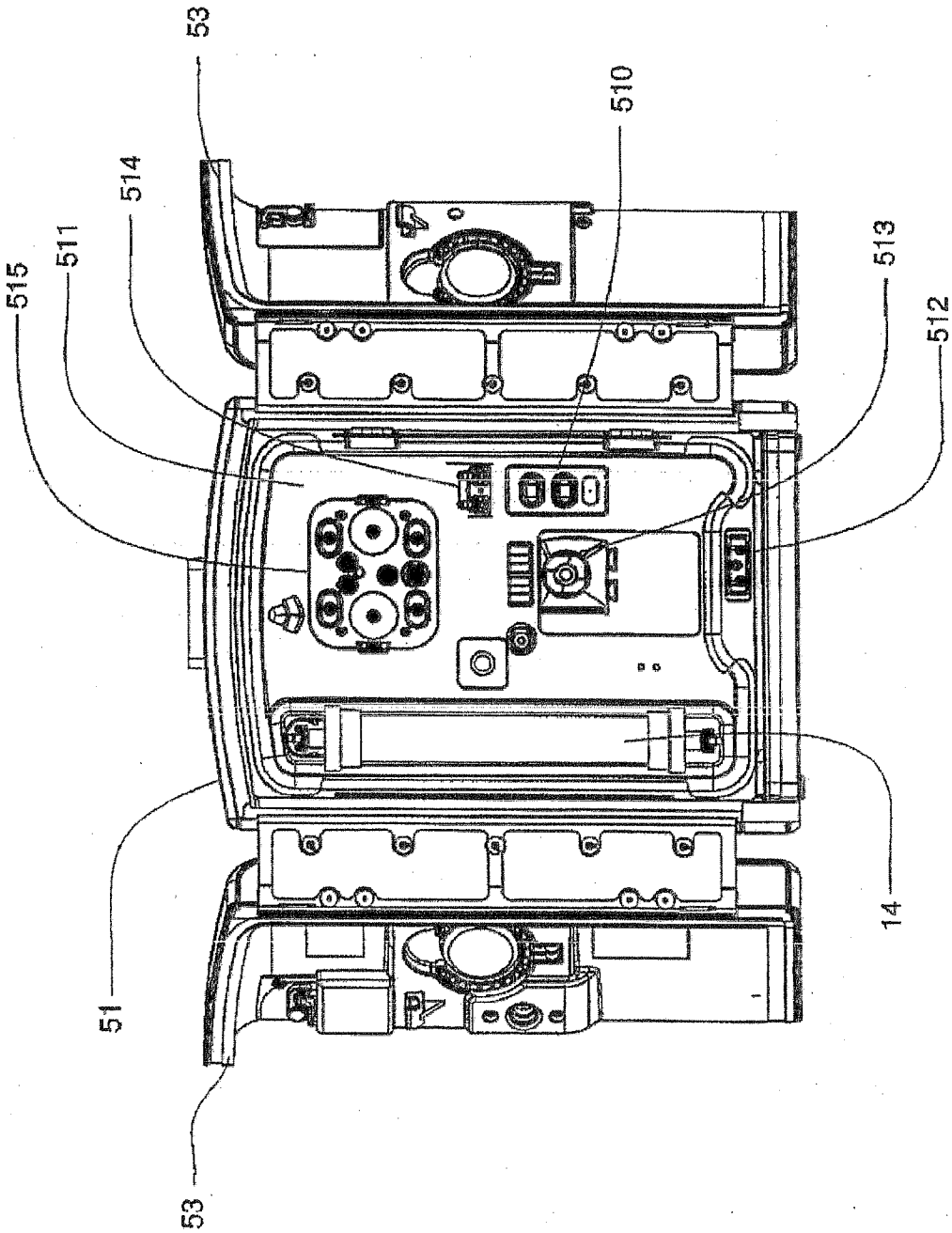


FIG. 17

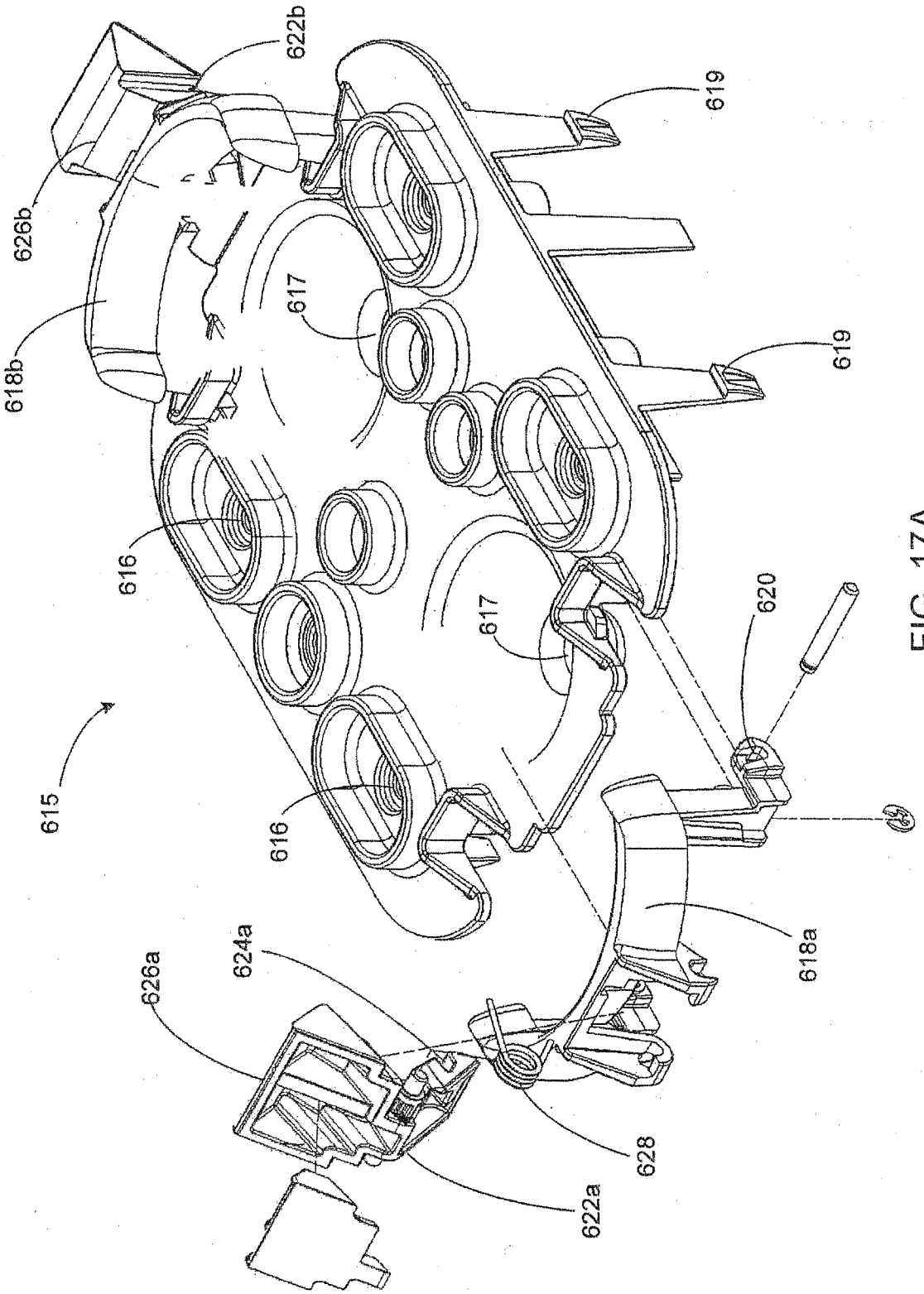

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FIG. 17A

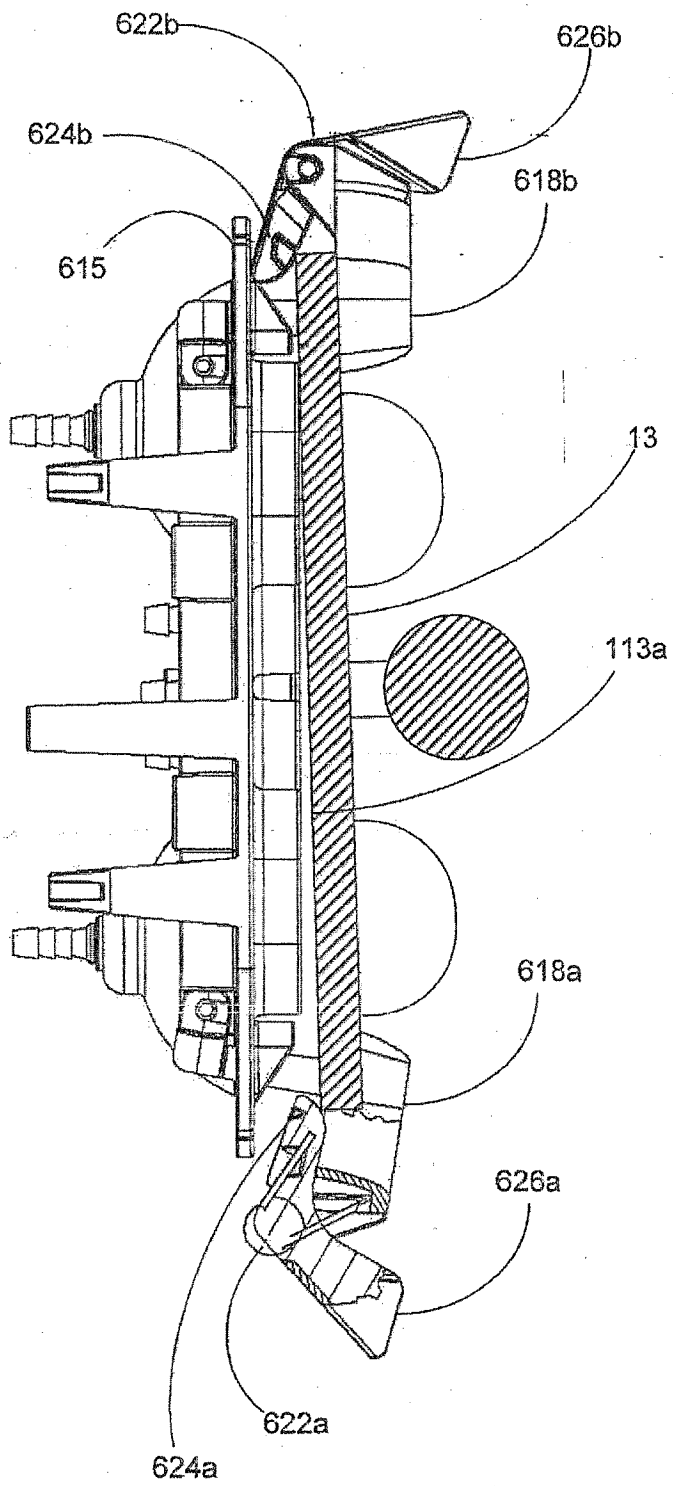


FIG. 17B

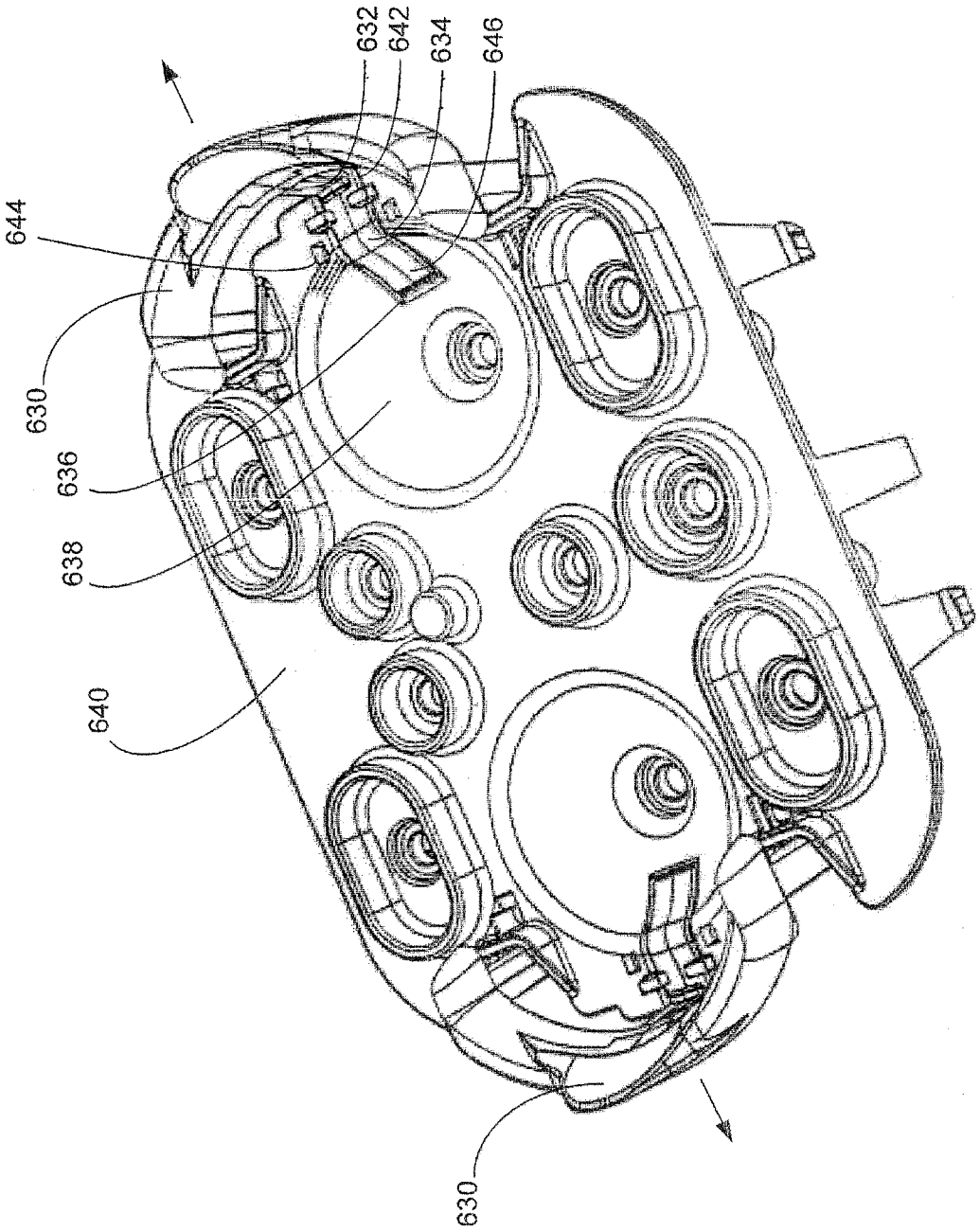


FIG. 17C

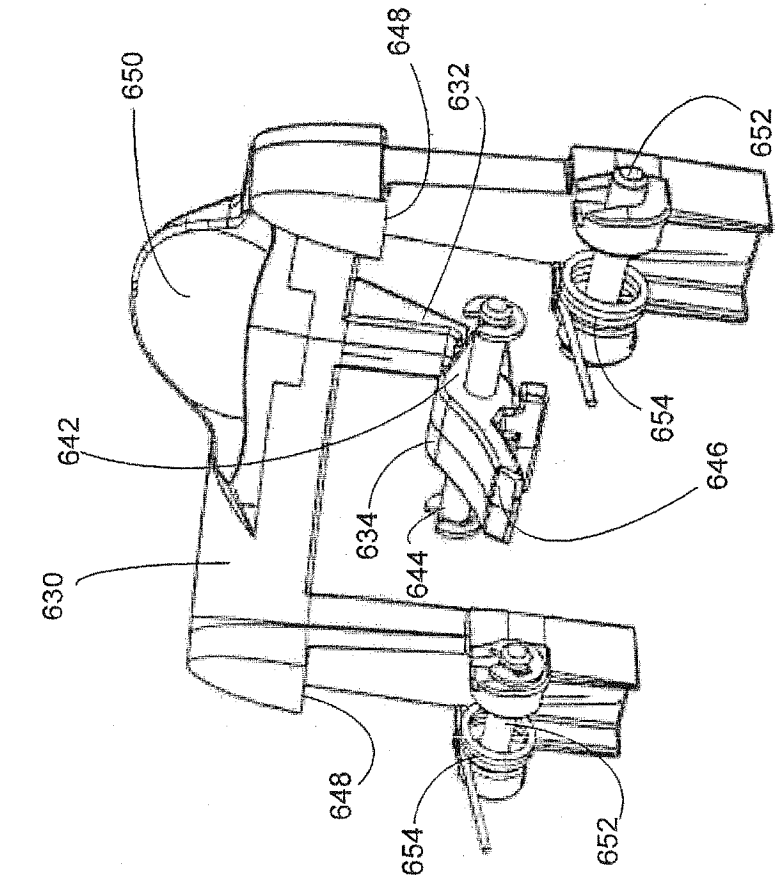


FIG. 17E

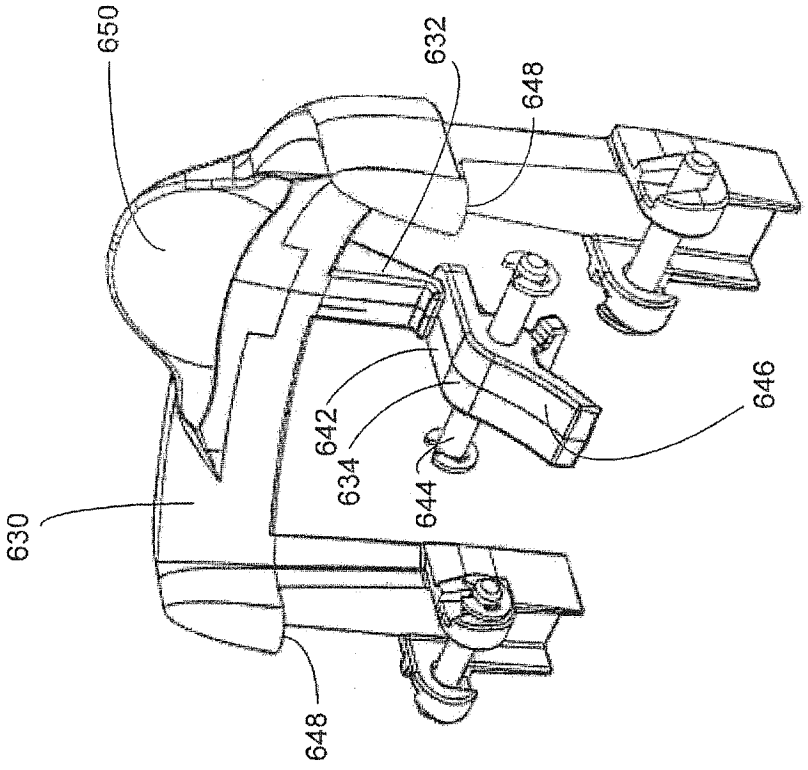


FIG. 17D

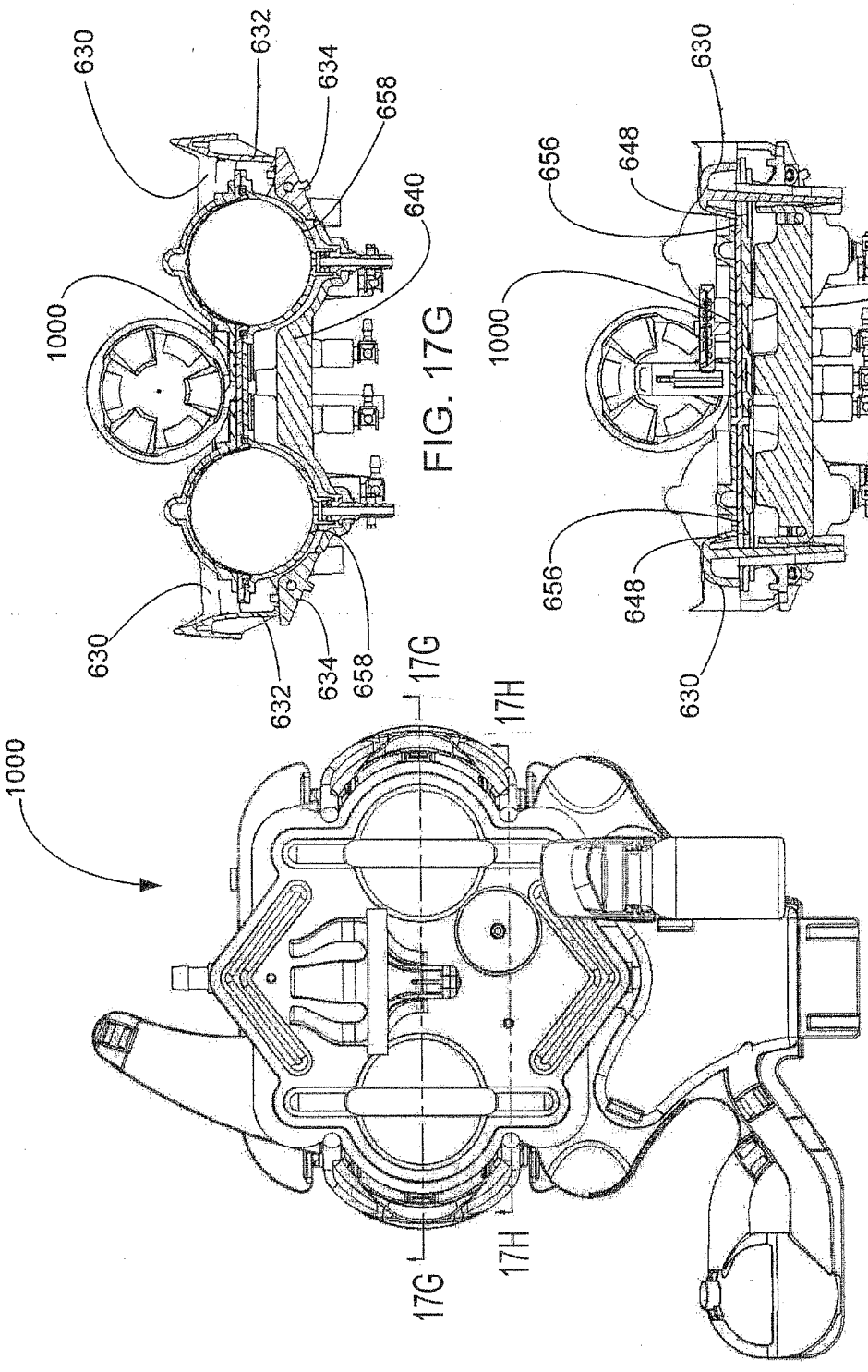


FIG. 17F

FIG. 17G

FIG. 17H

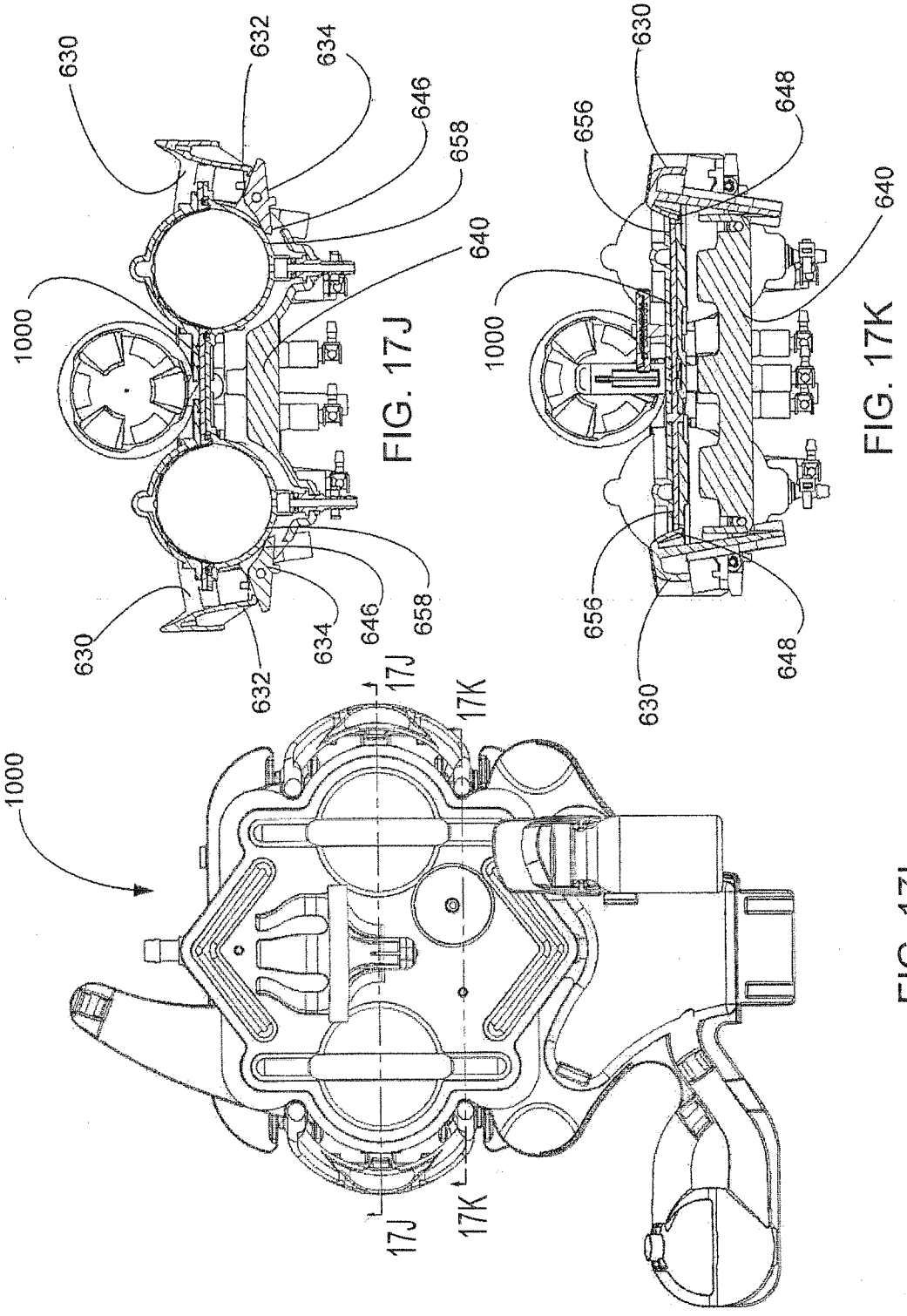


FIG. 17I

FIG. 17J

FIG. 17K

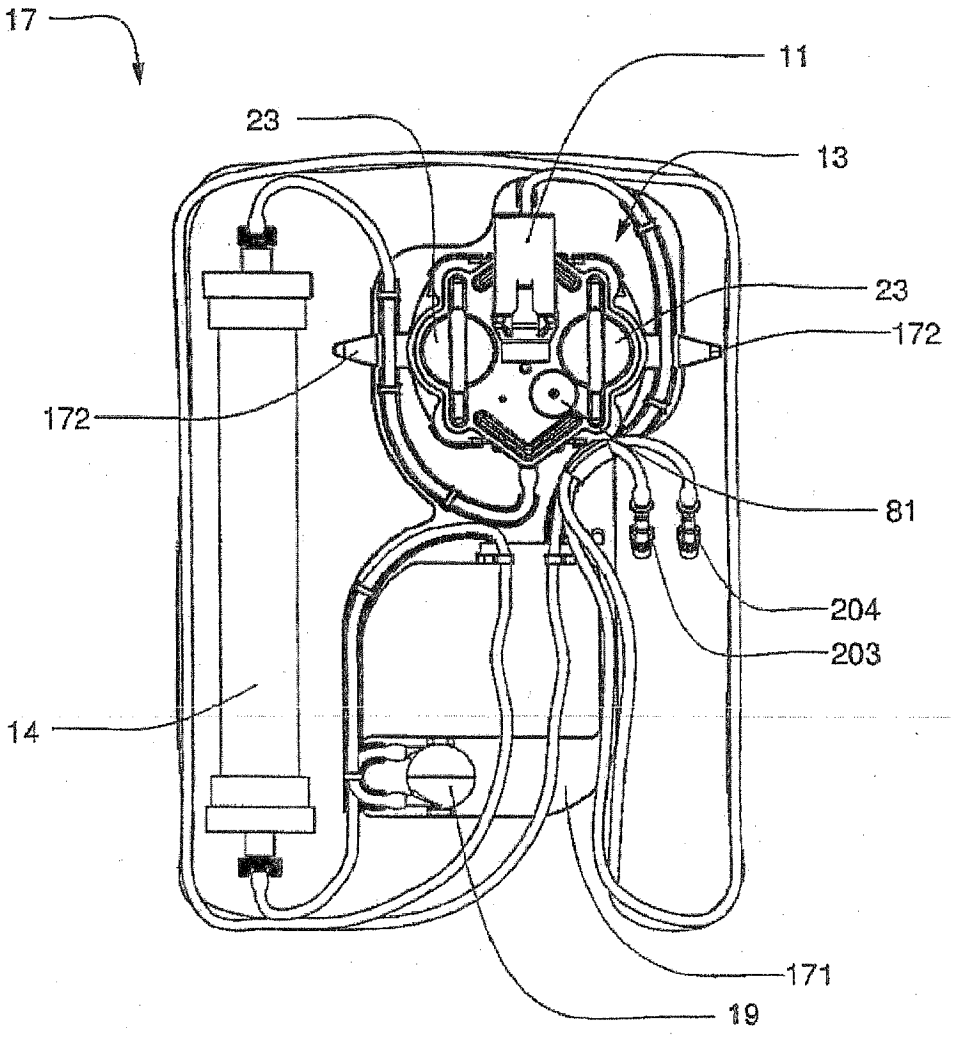


FIG. 18

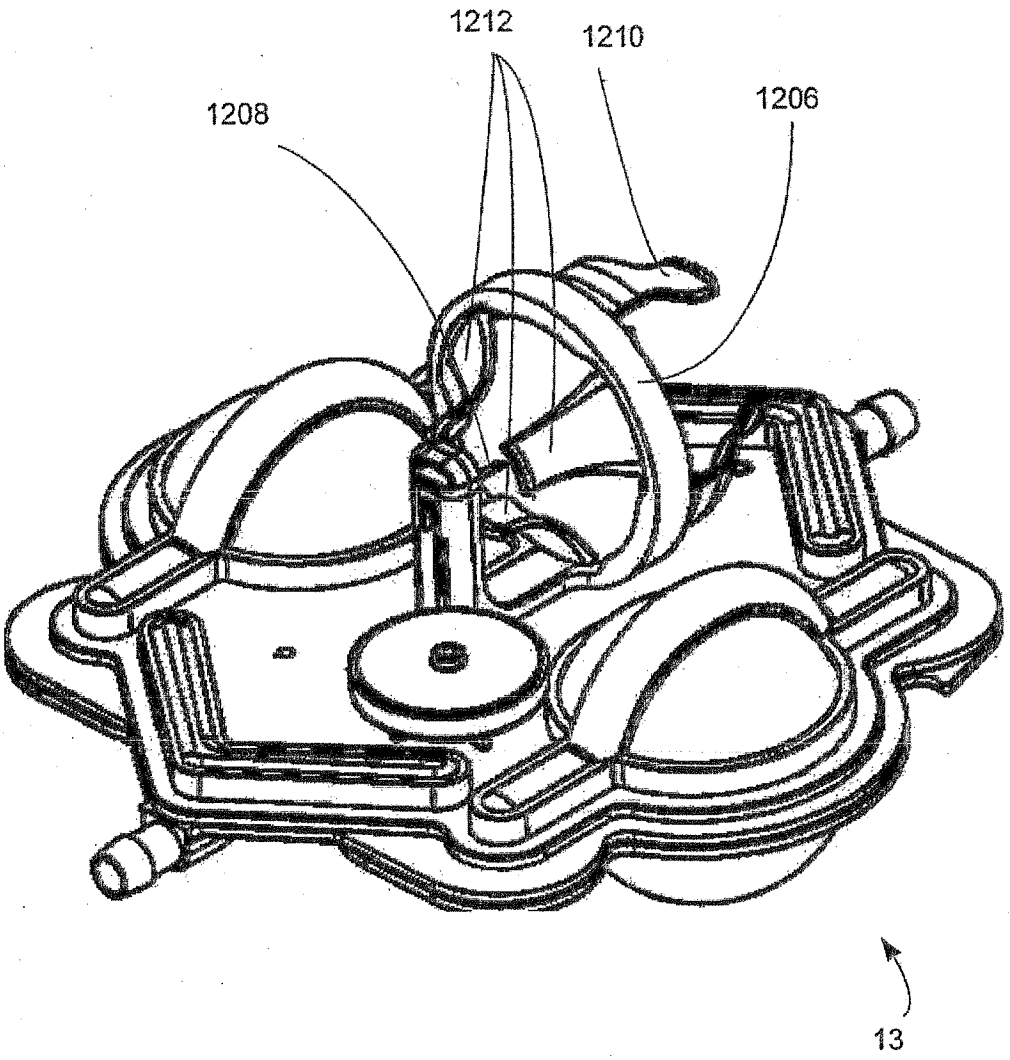


FIG. 18A

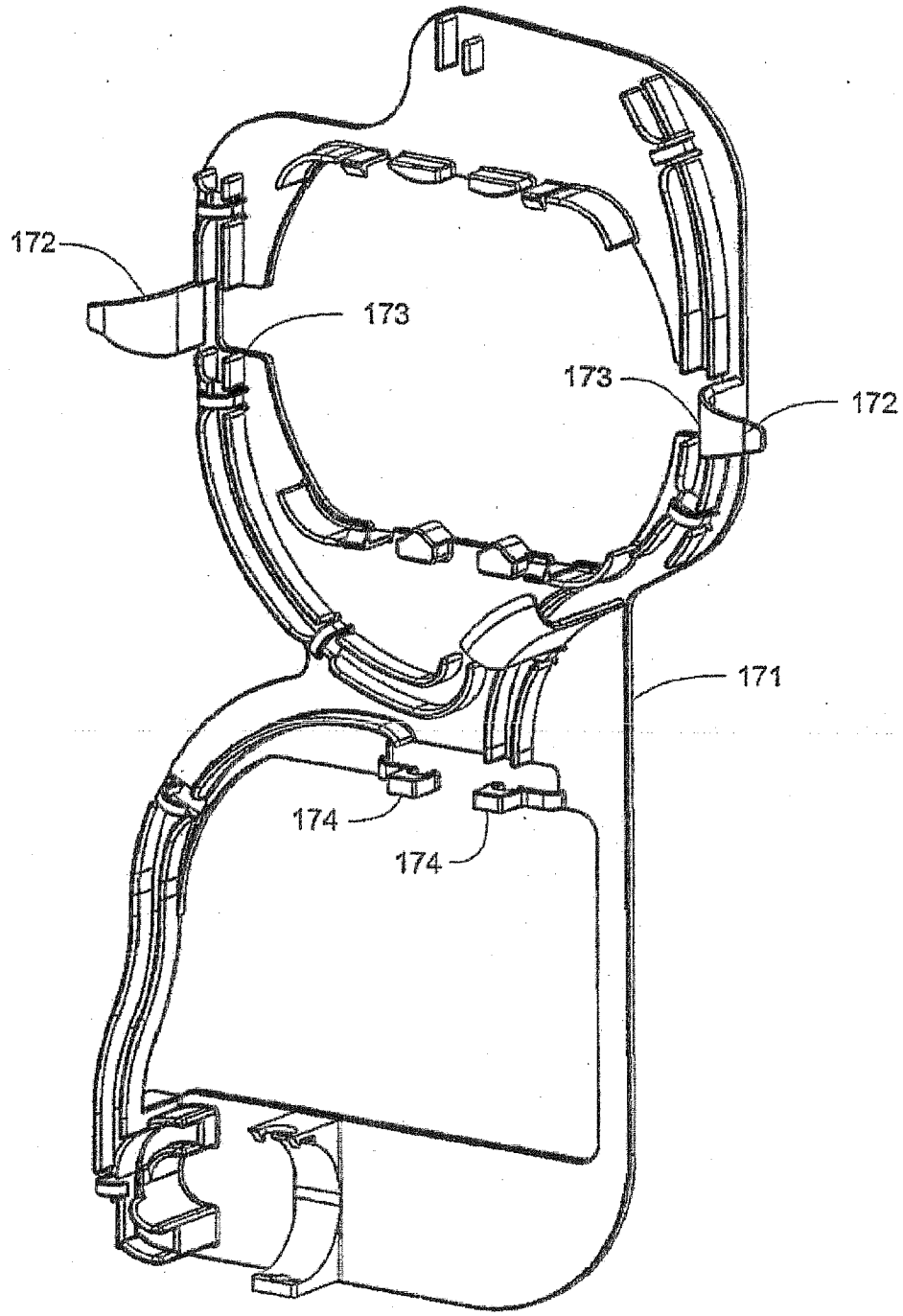


FIG. 19

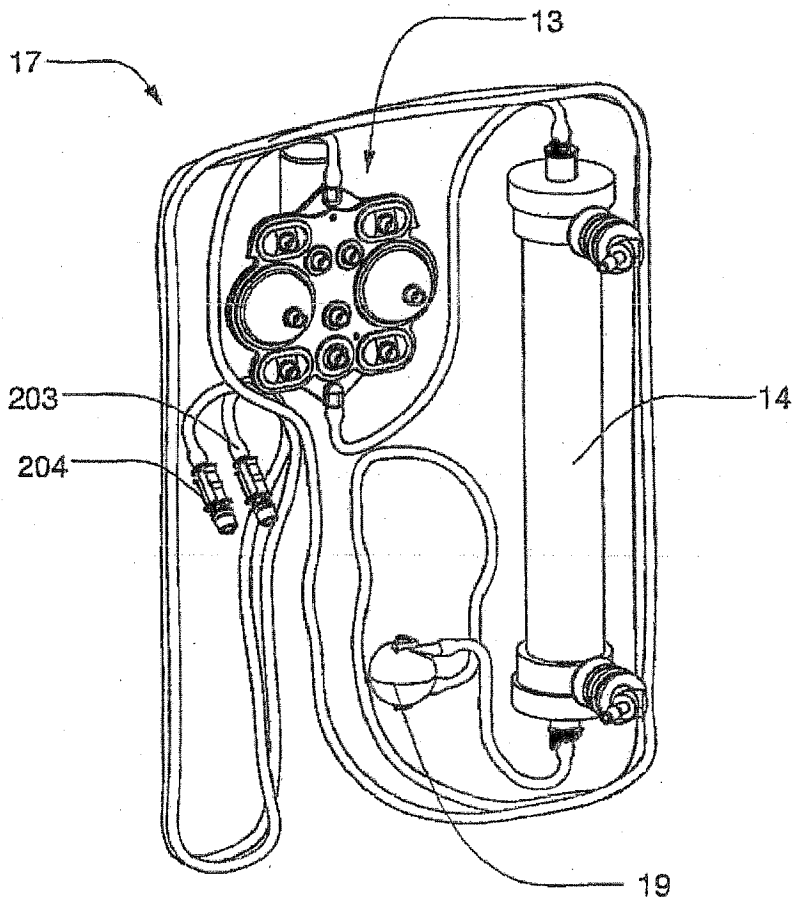


FIG. 20

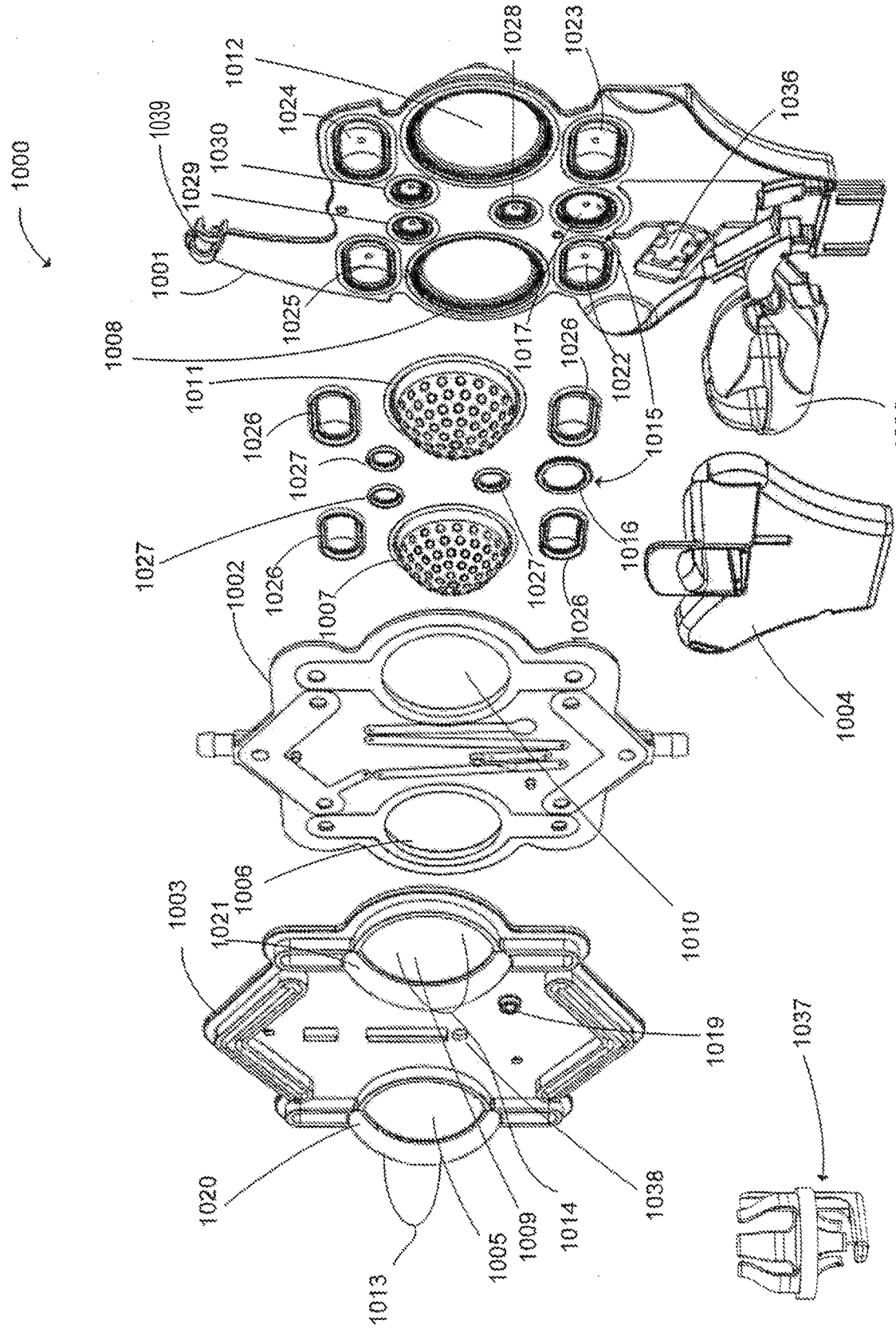

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FIG. 20A

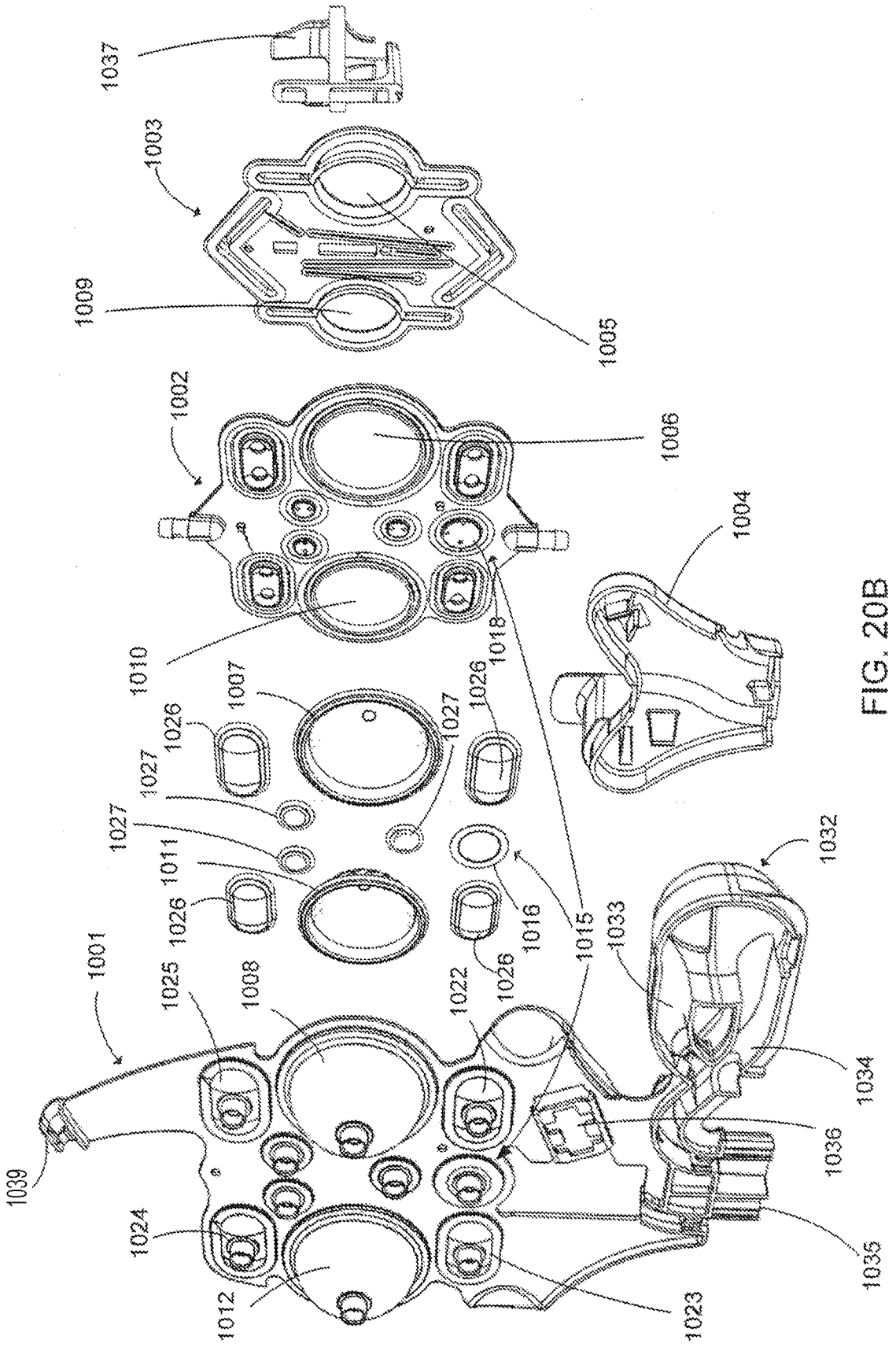

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FIG. 20B

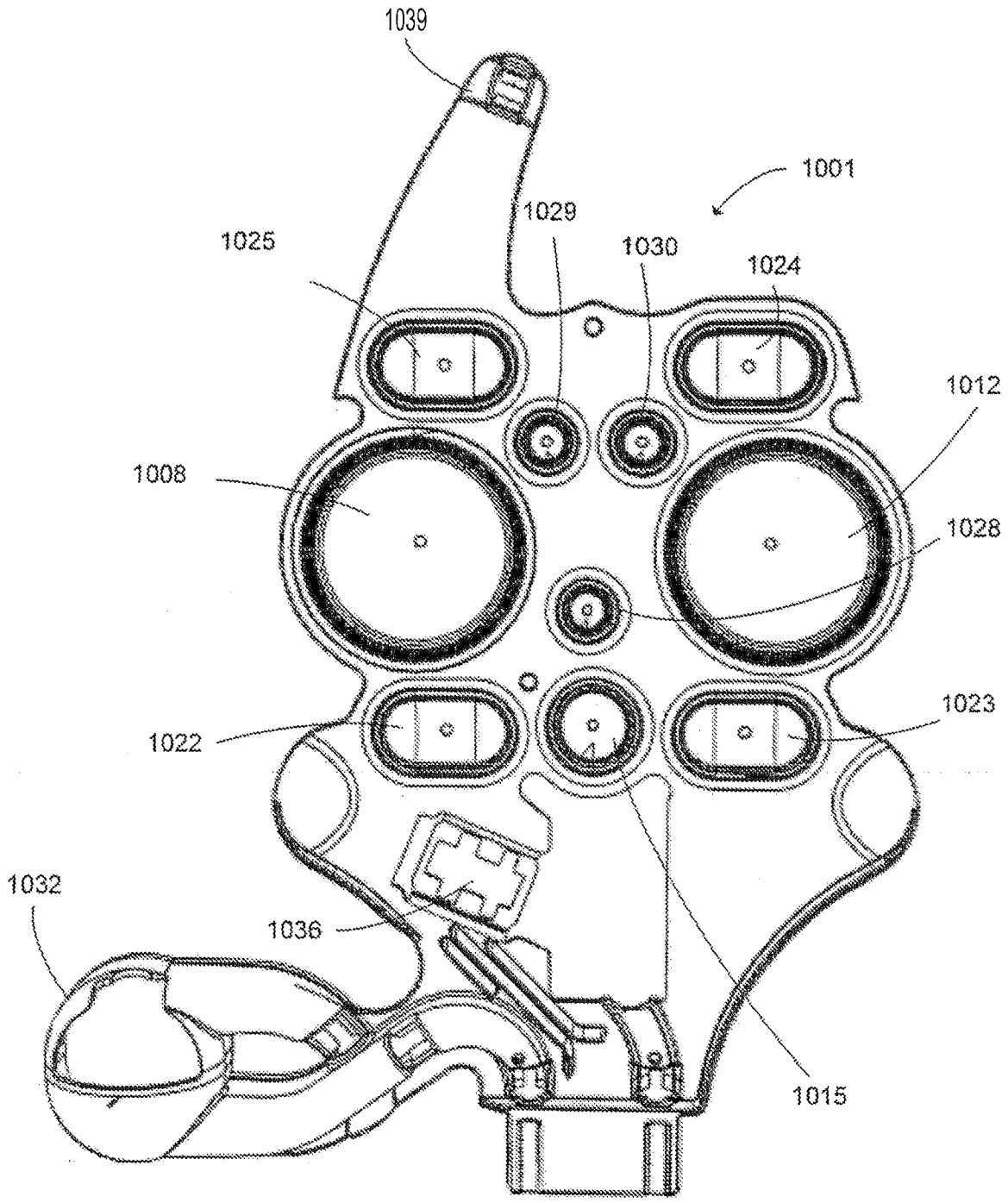

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FIG. 20C

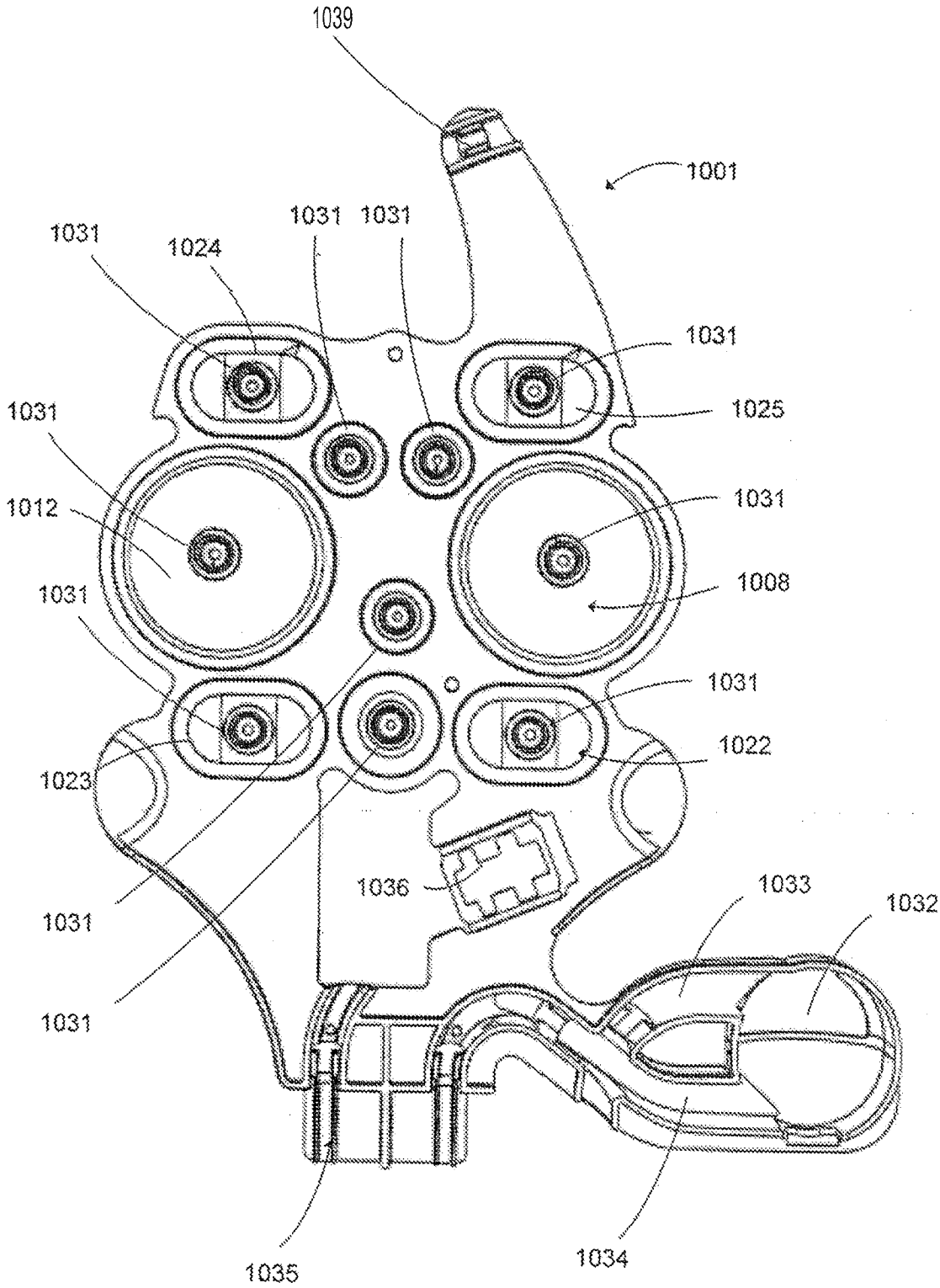

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FIG. 20D

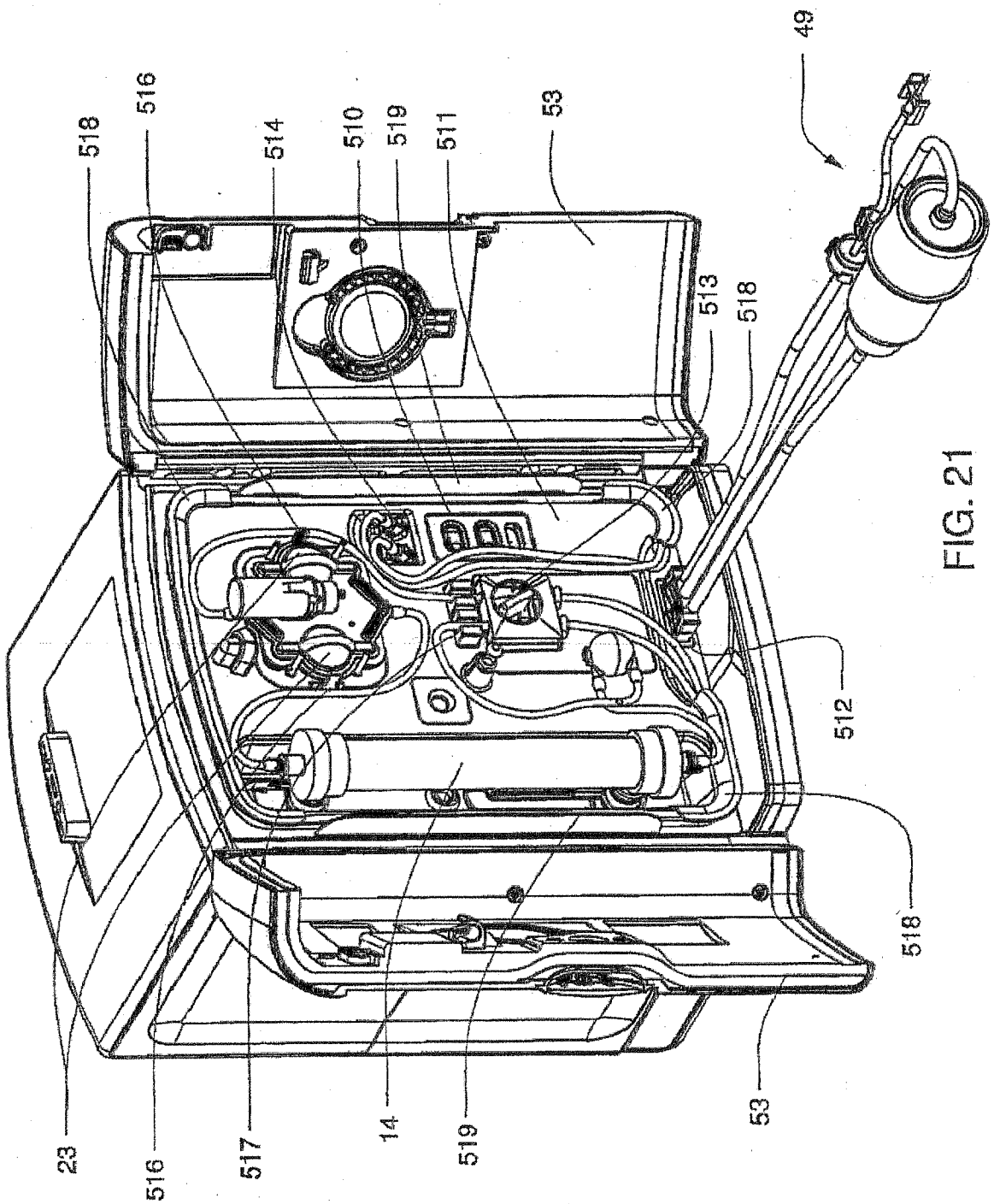


FIG. 21

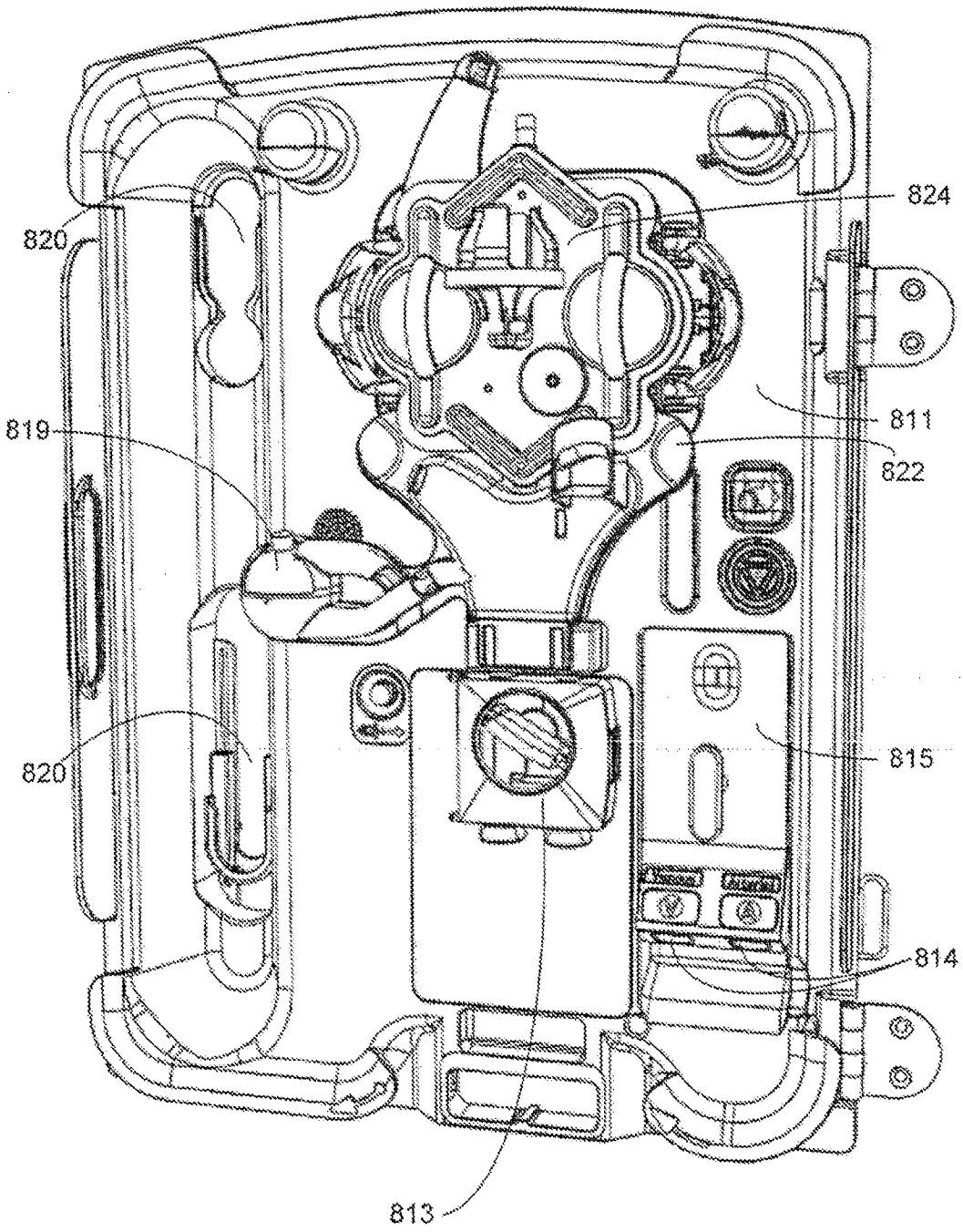


FIG. 21A

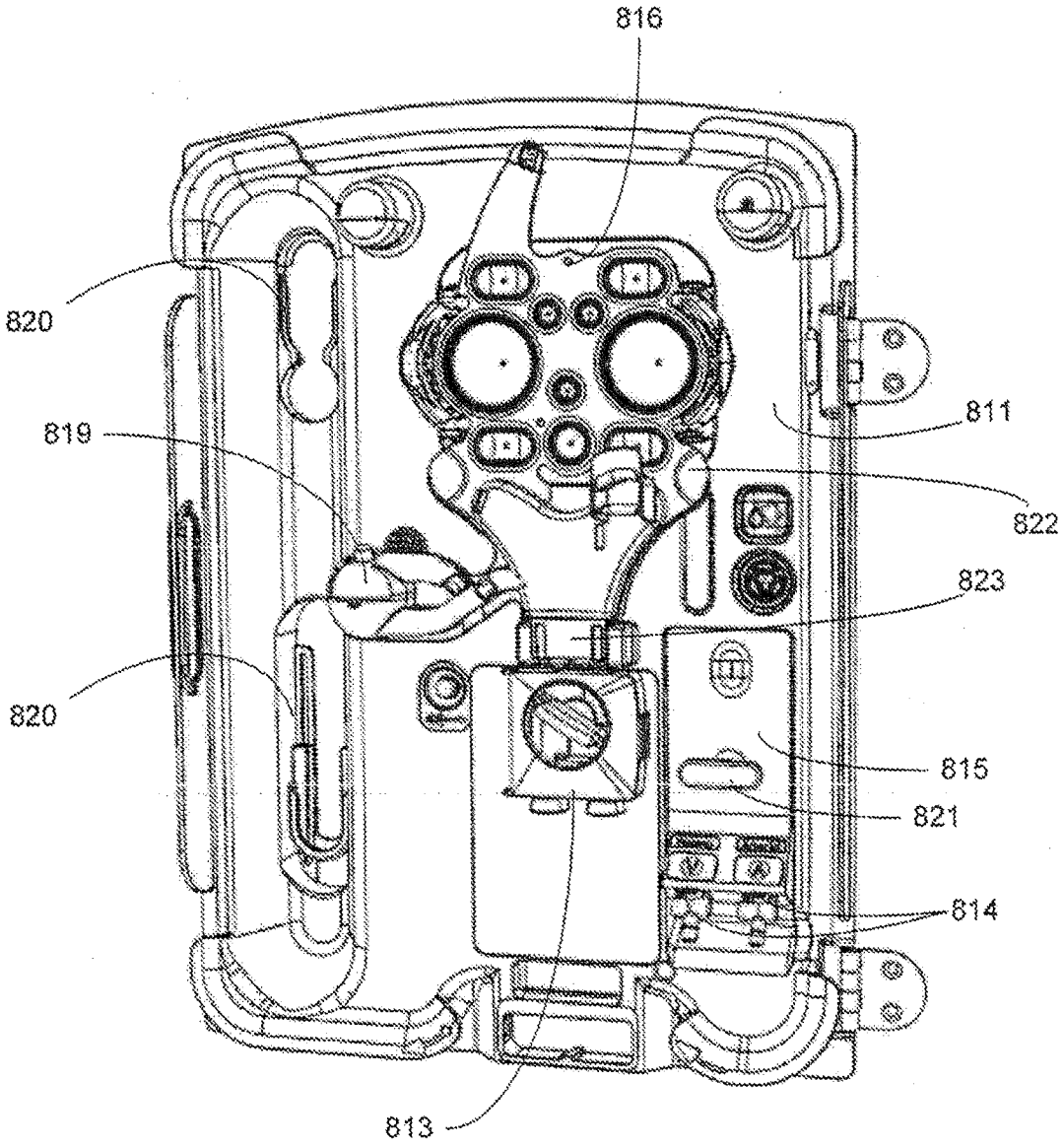


FIG. 21B

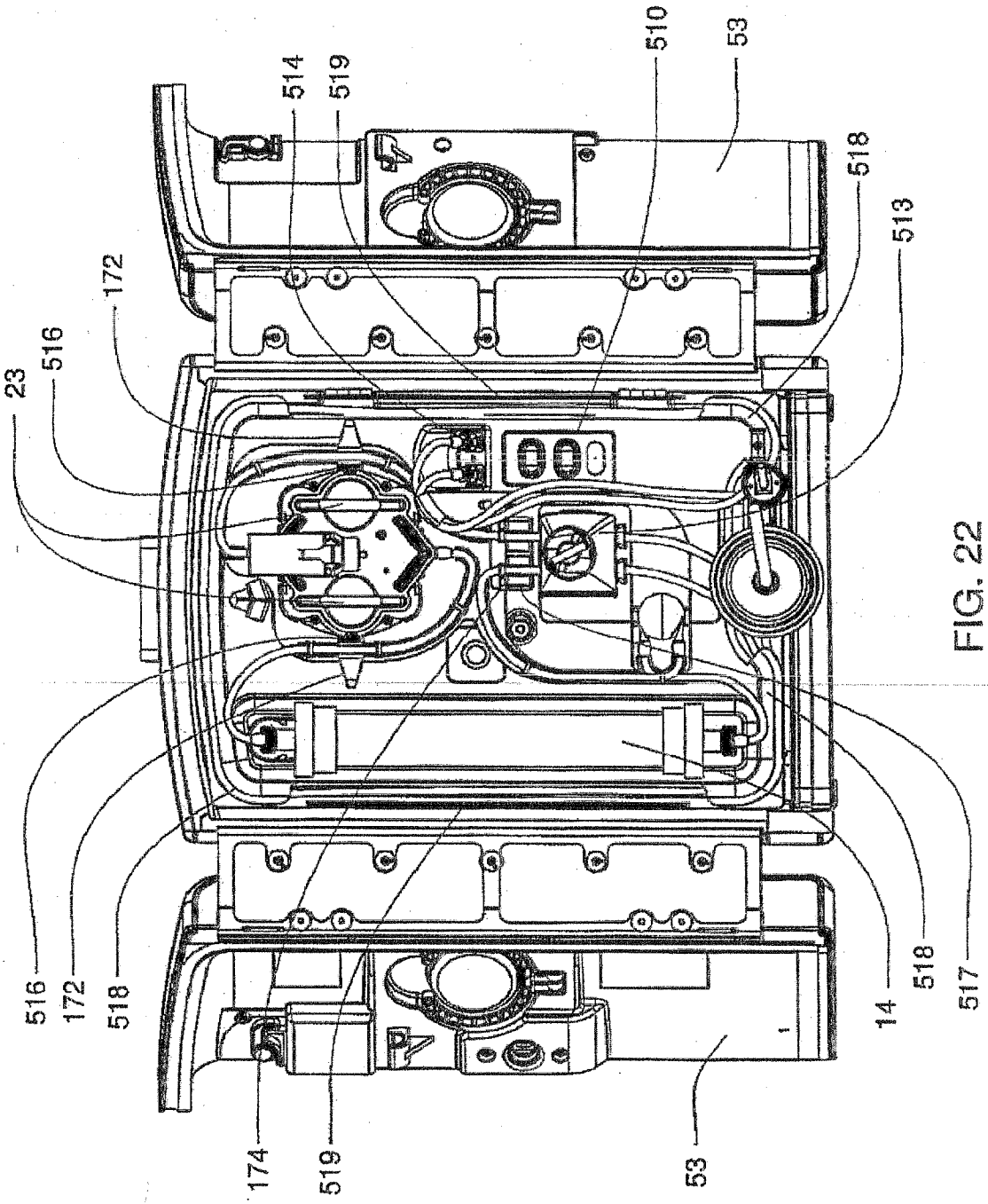

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FIG. 22

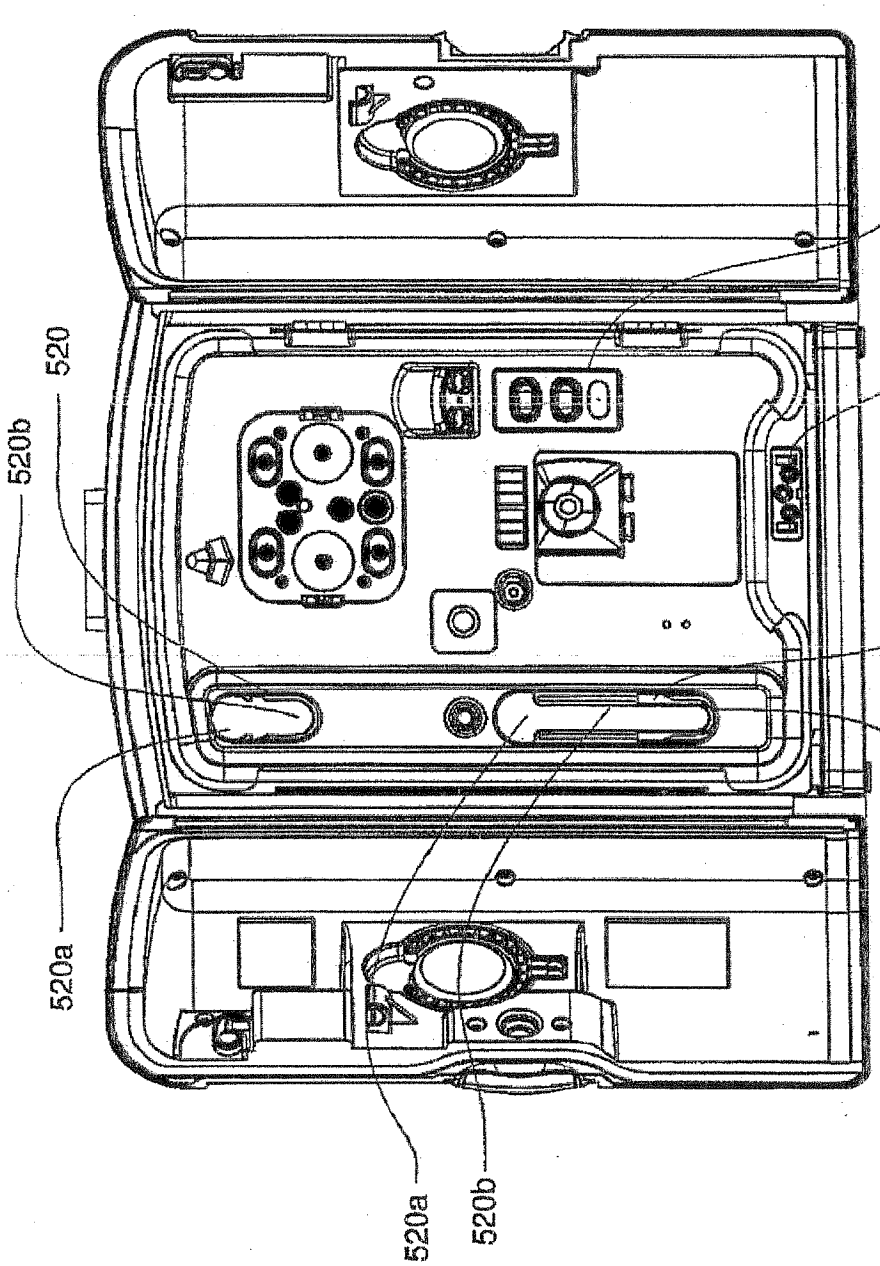


FIG. 23

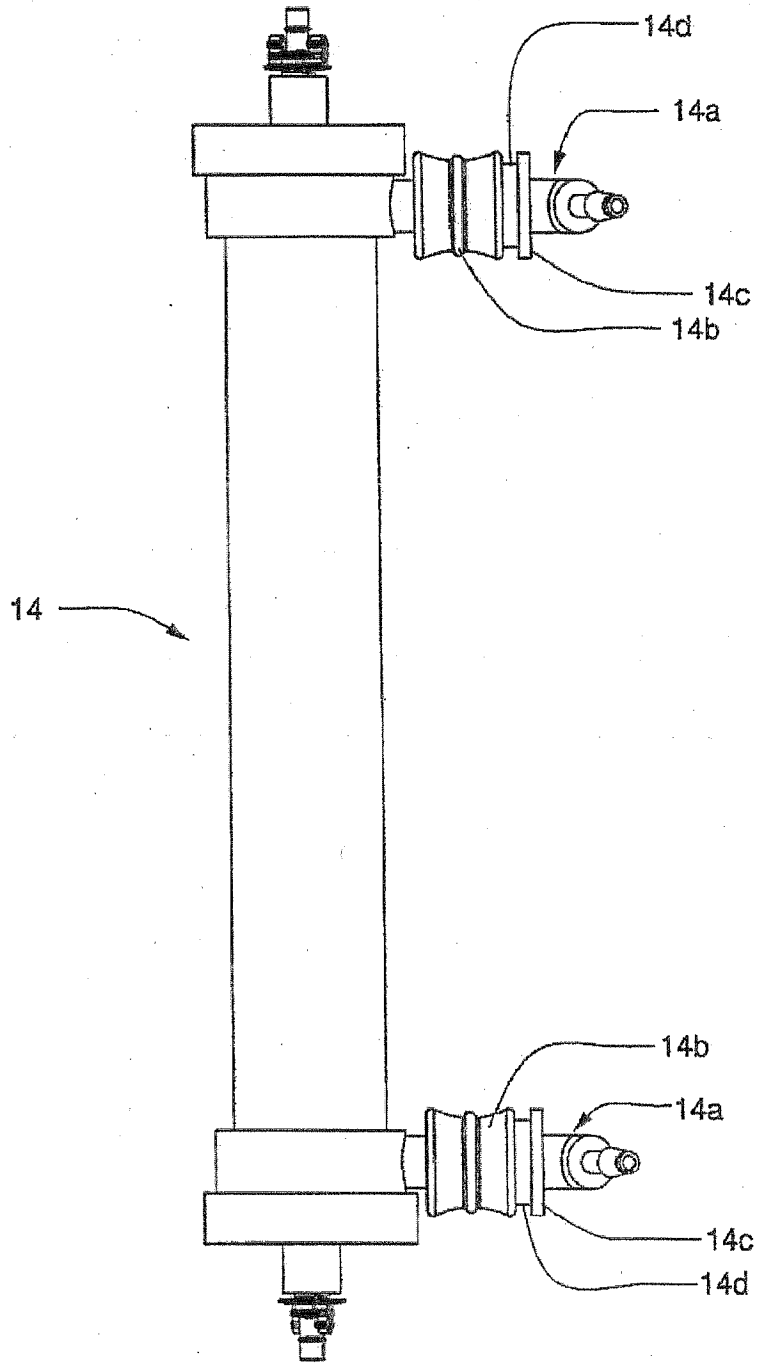


FIG. 24

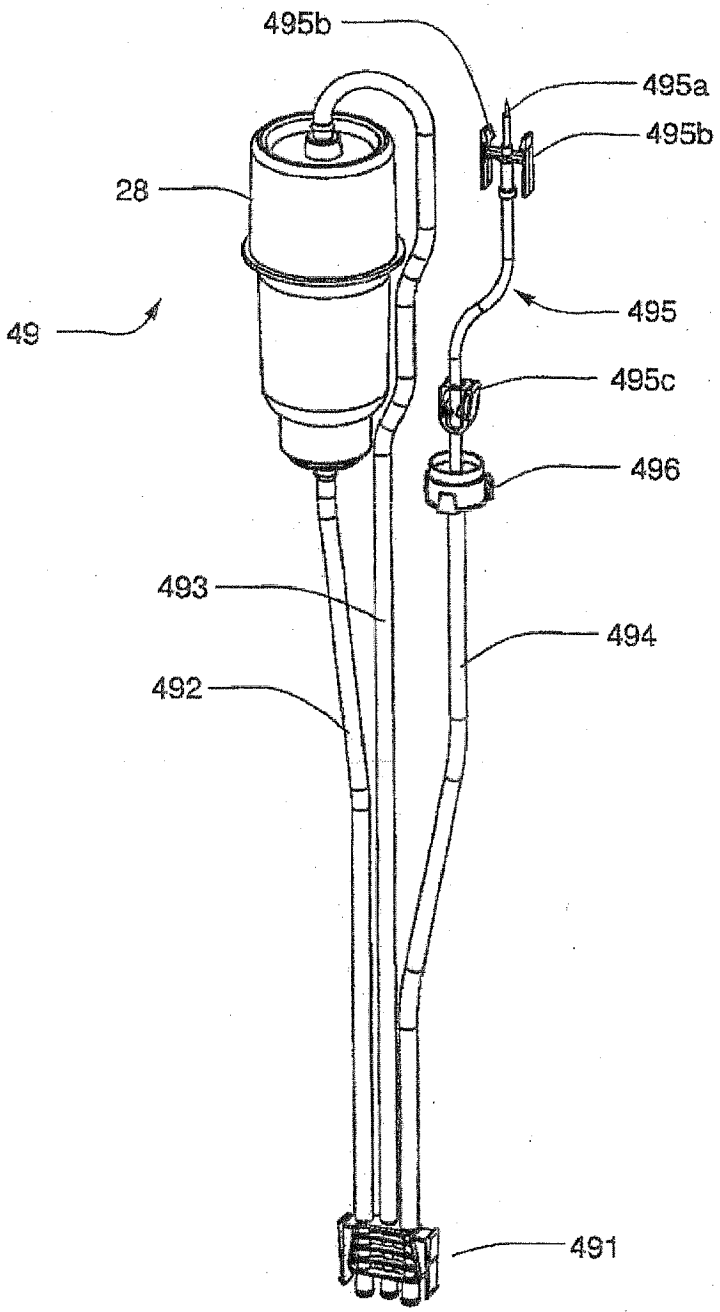


FIG. 25

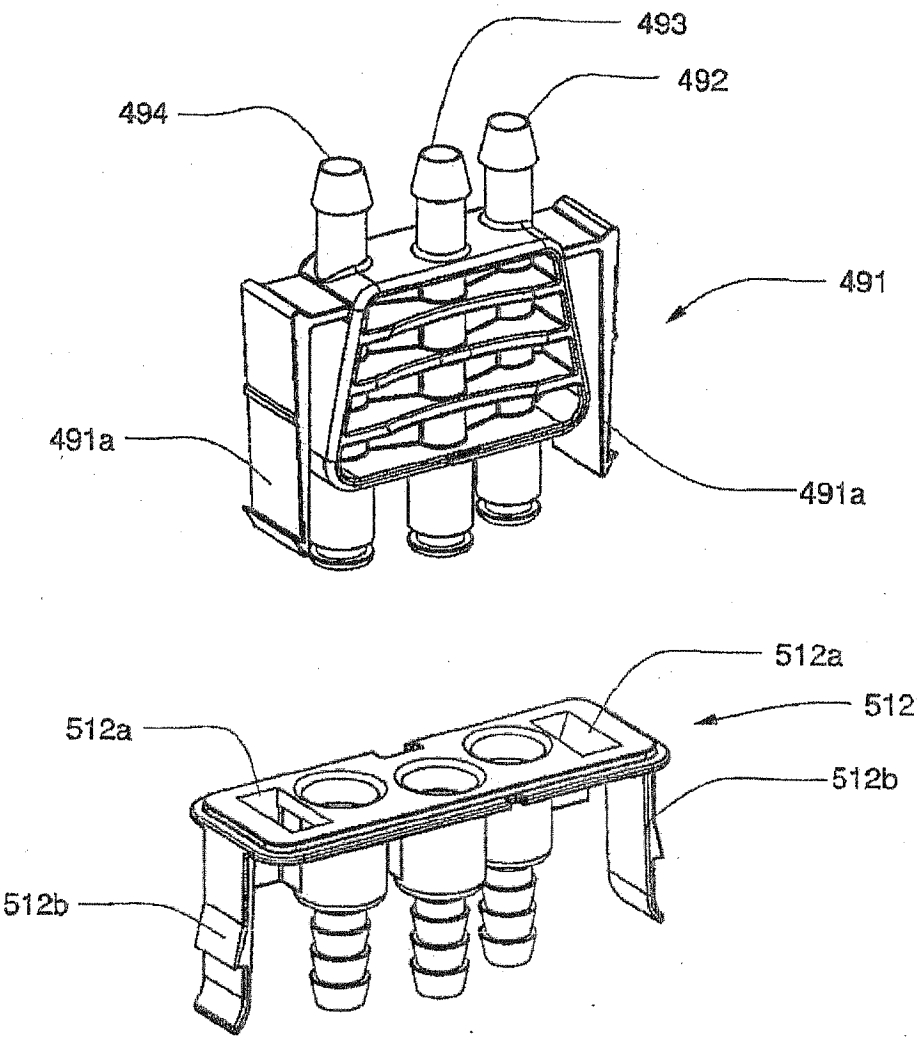


FIG. 26

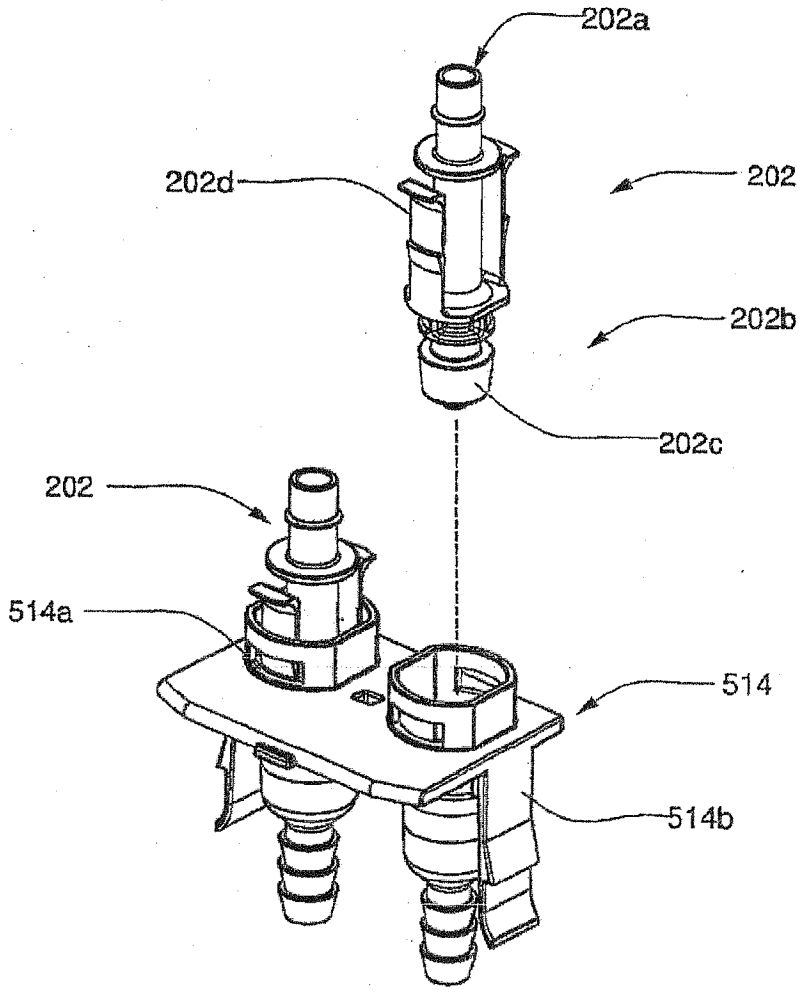


FIG. 27

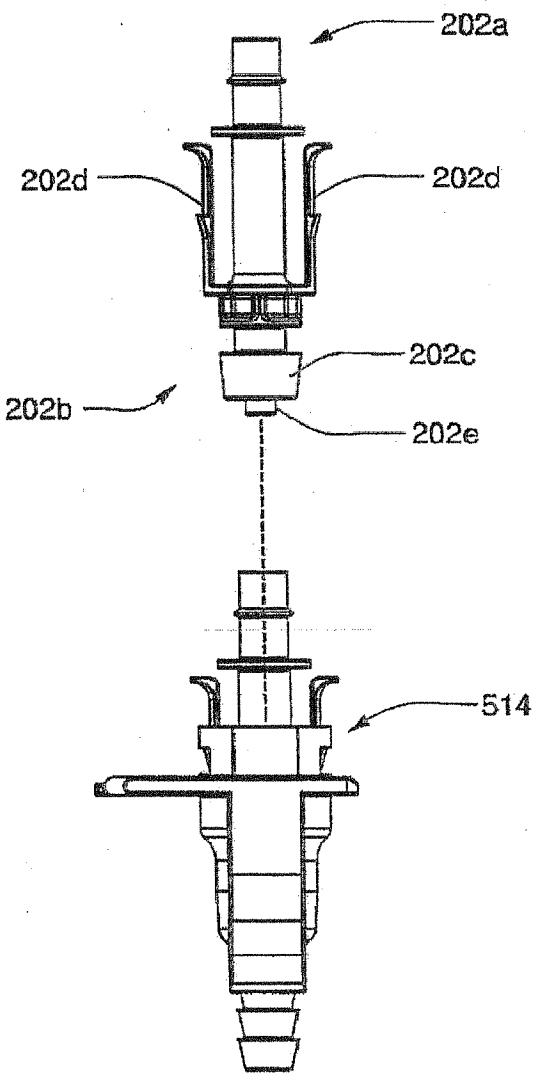


FIG. 28

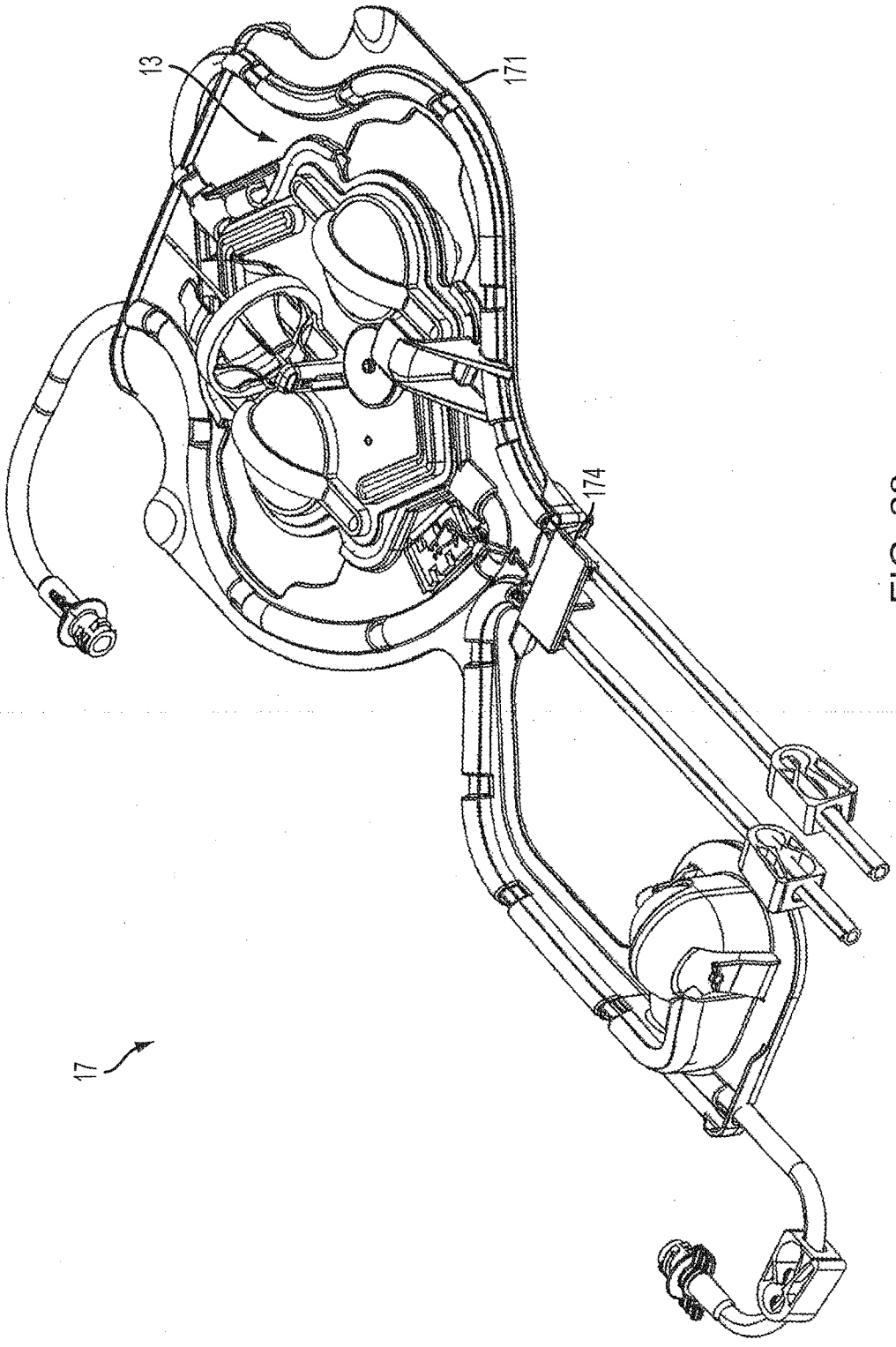


FIG. 29

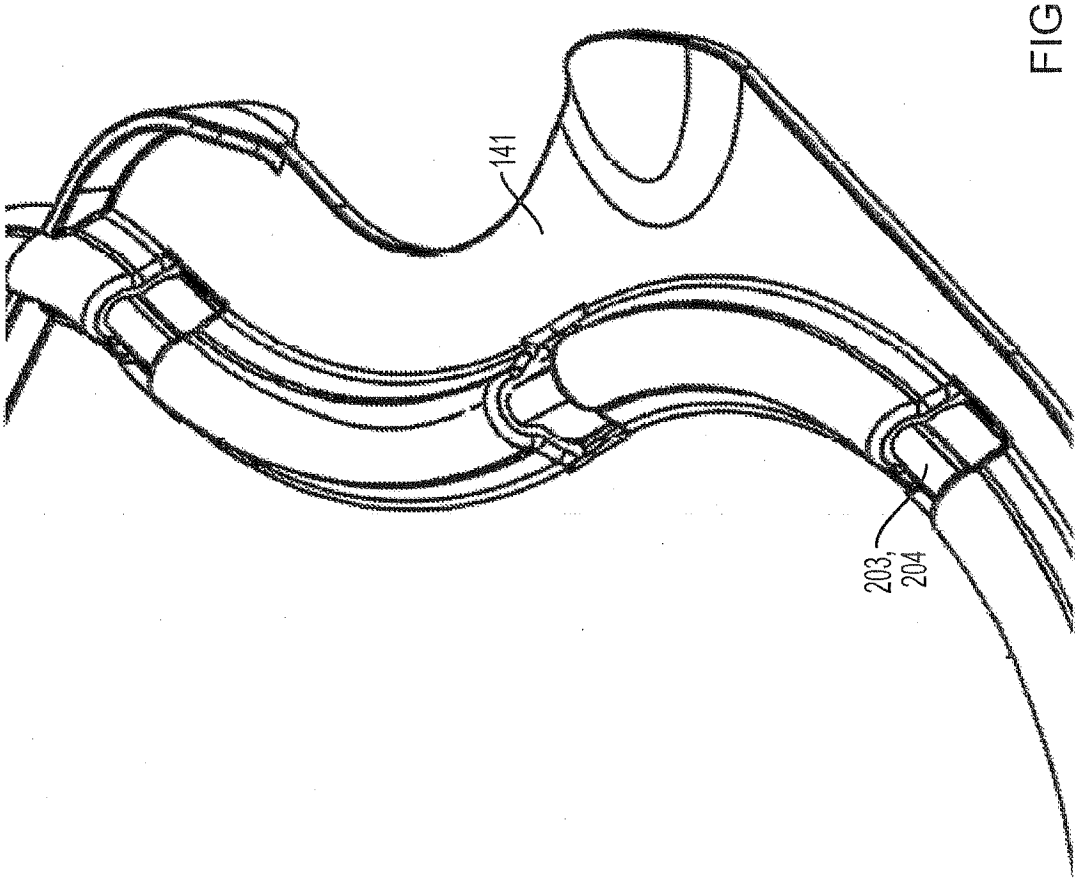


FIG. 30

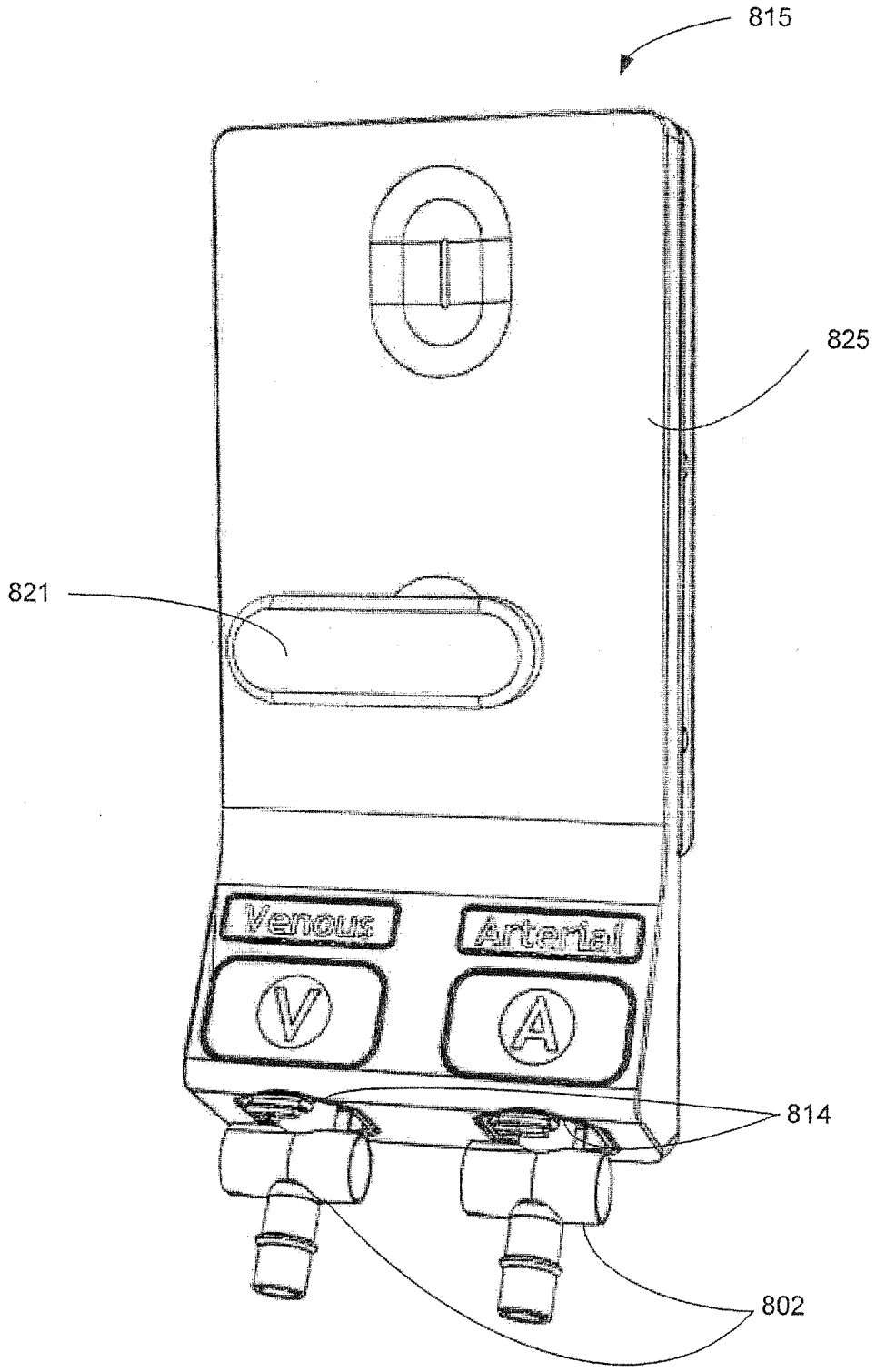


FIG. 31

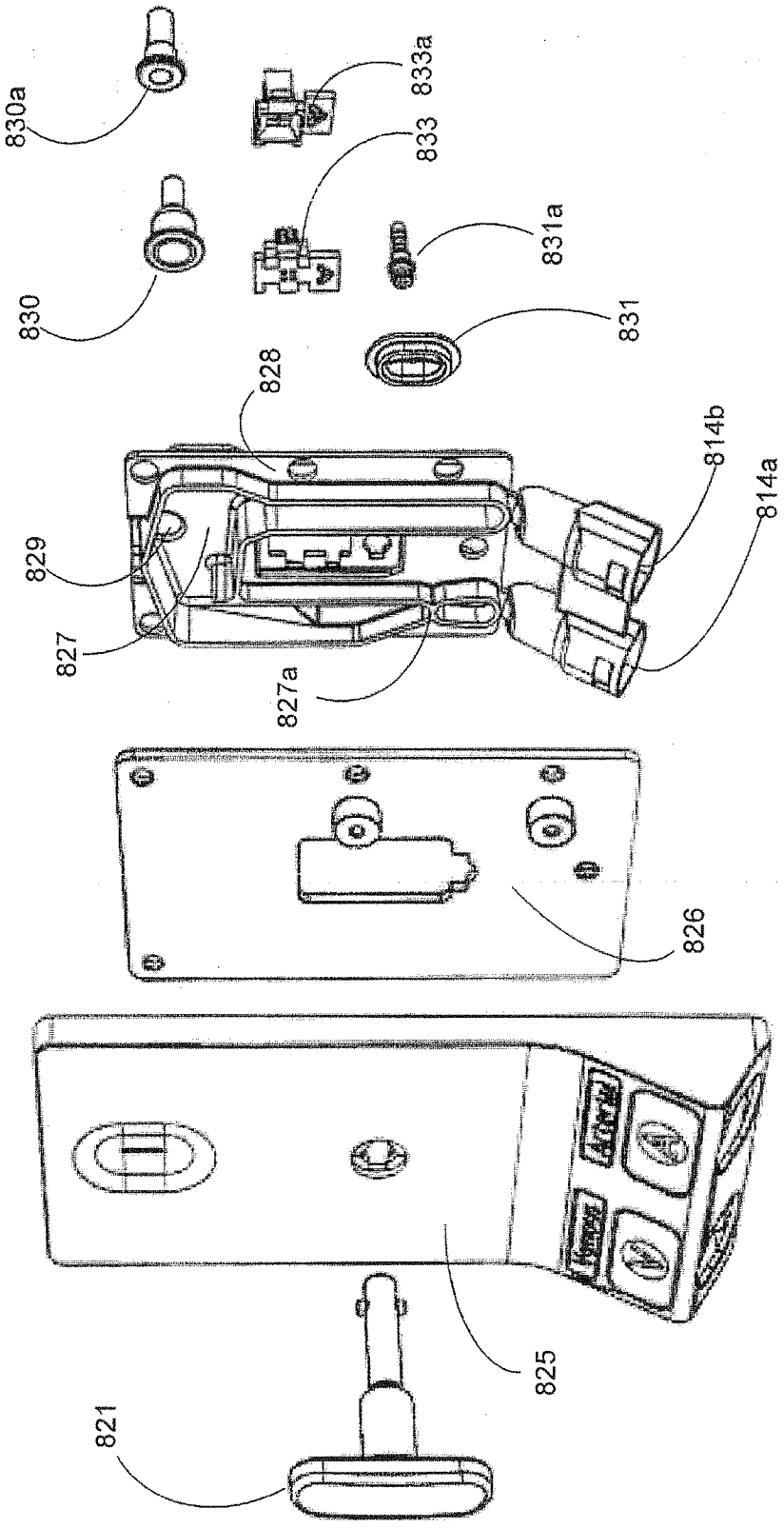

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FIG. 32

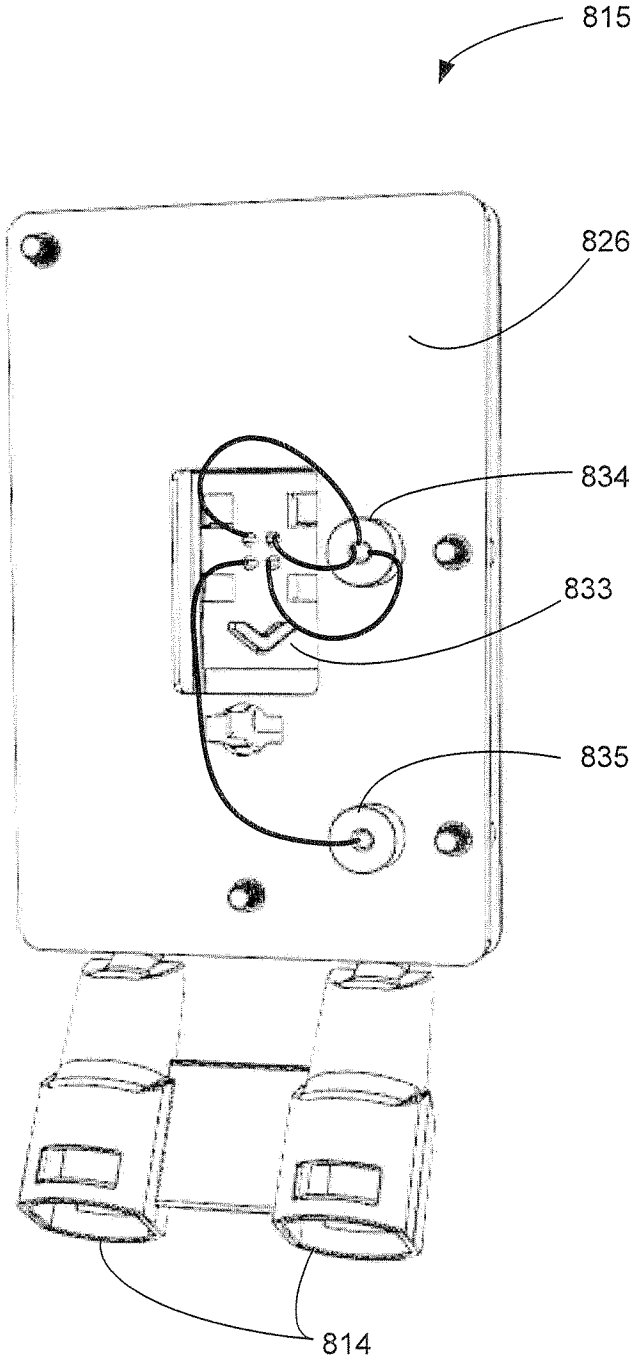


FIG. 33

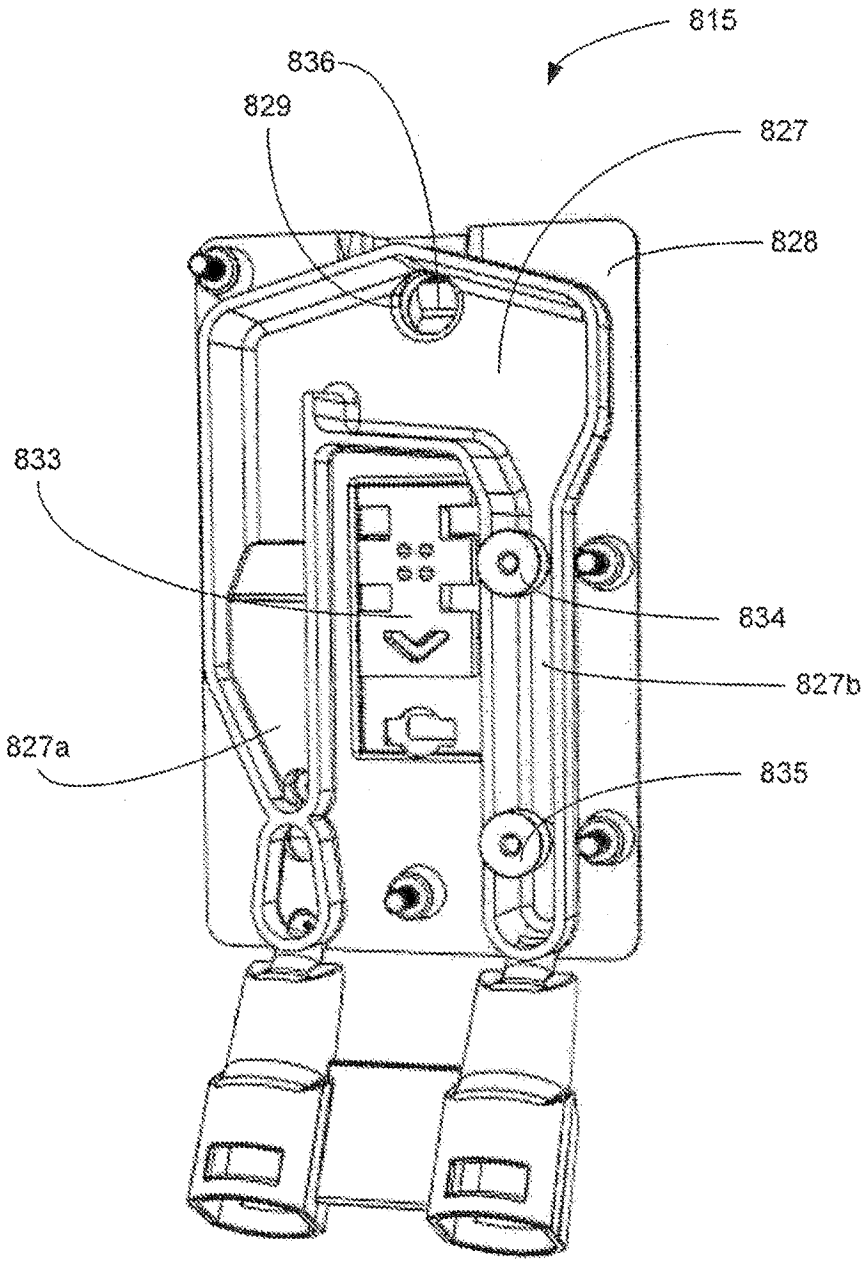


FIG. 34

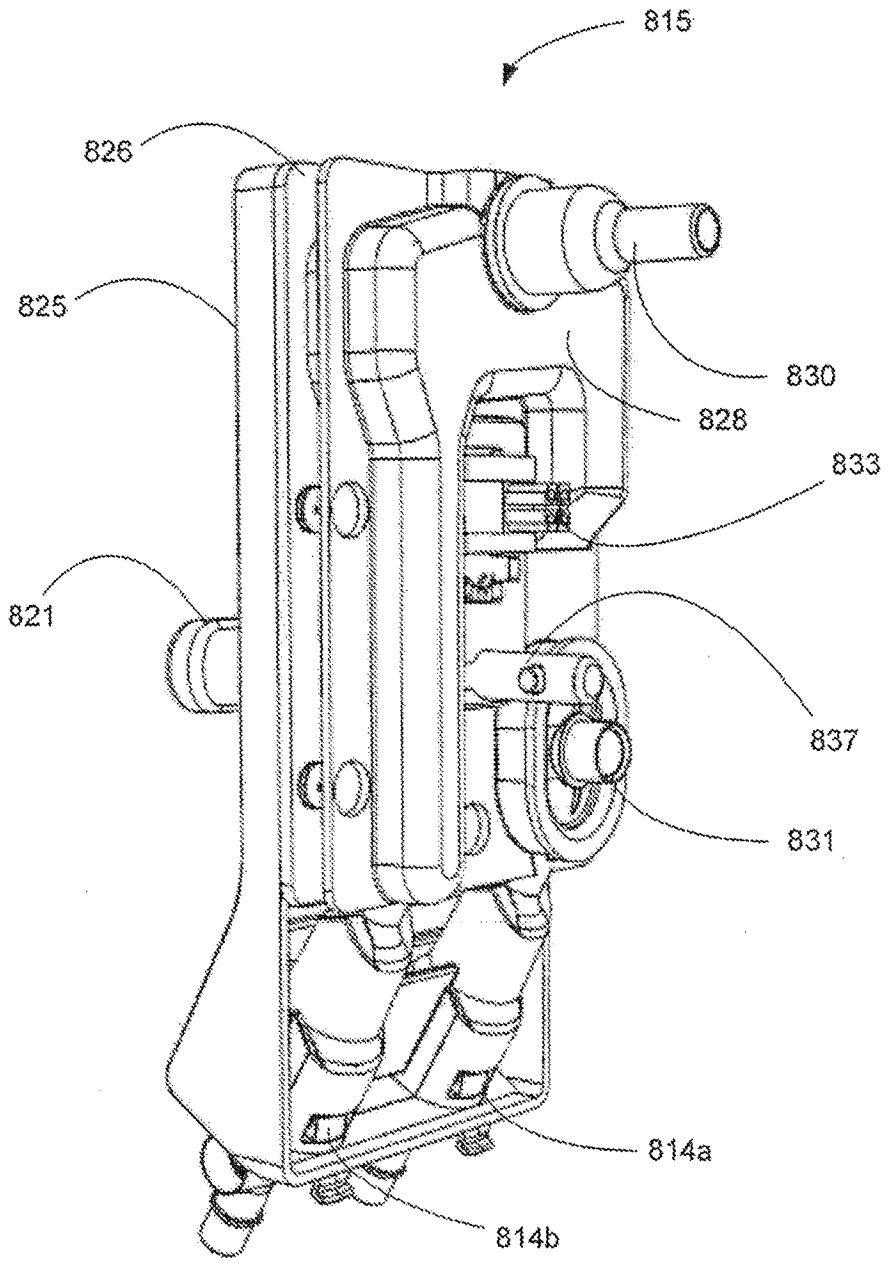


FIG. 35

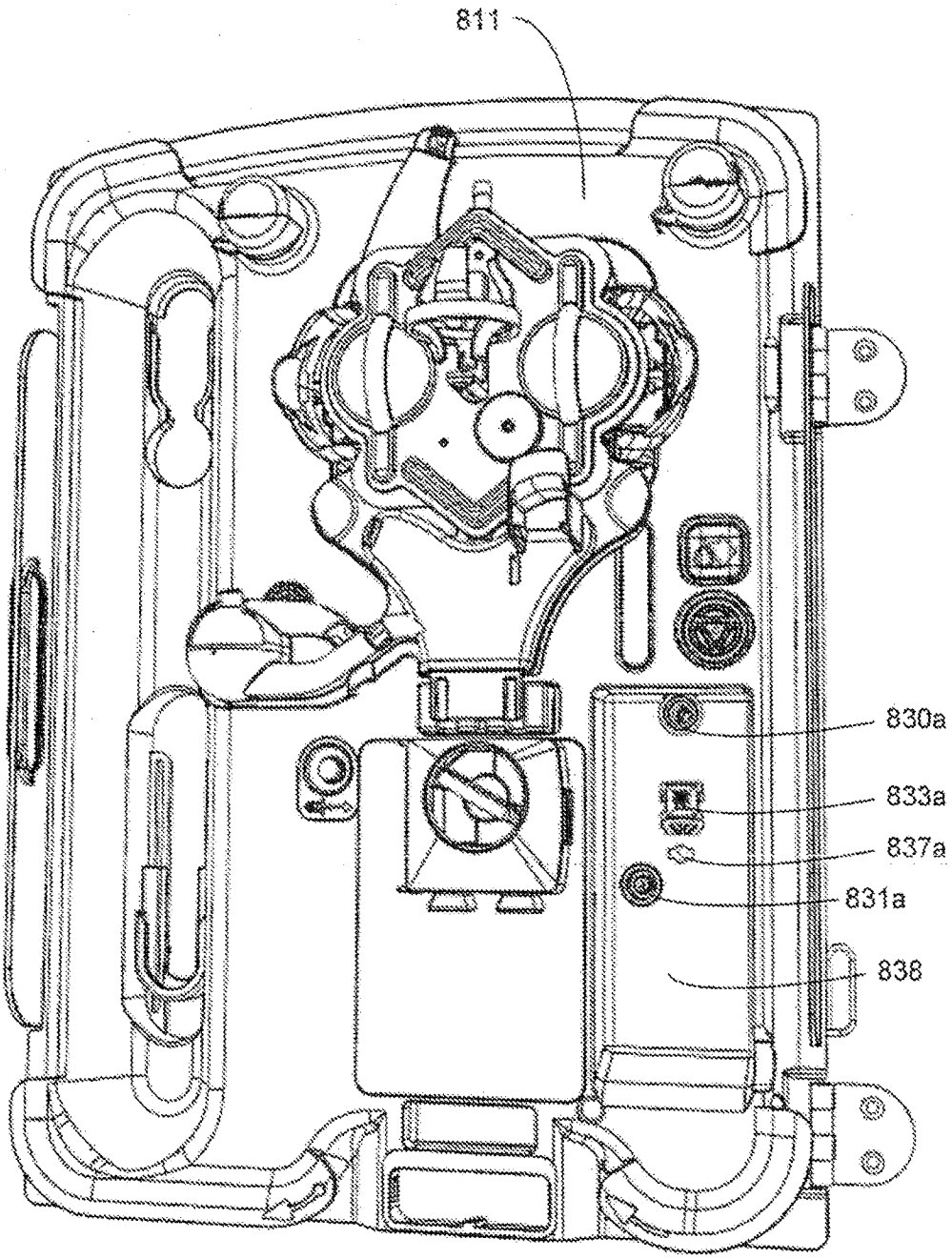


FIG. 36

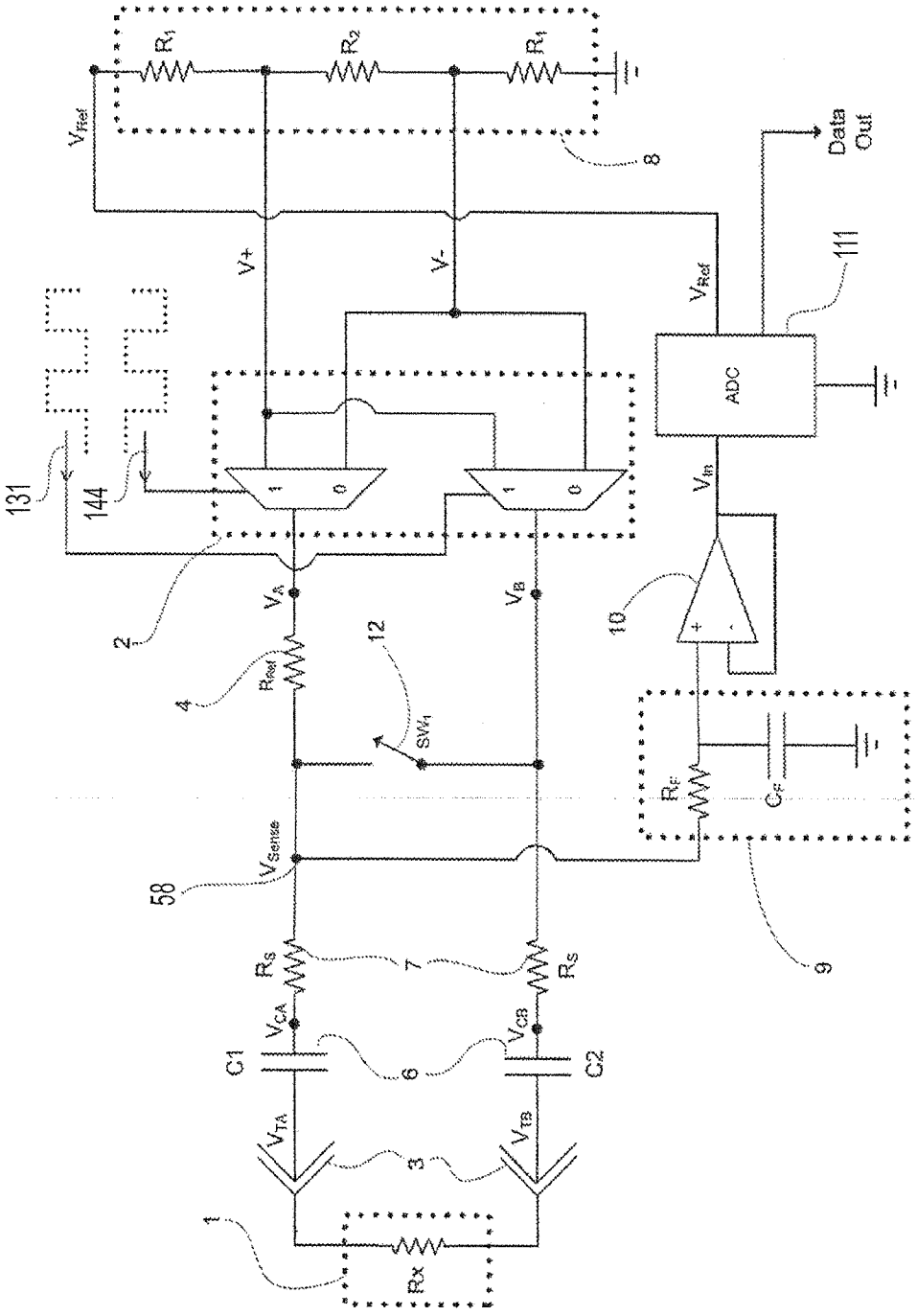

R1
R2
R3
VRef
8
Data Out
V+
V-
VRef
111
ADC
131
144
1
0
VIn
2
VA
VB
10
12
4
Rref
SW1
RF
CF
58
VSense
9
RS
7
VCA
VCB
C1
C2
6
VTA
VTB
3
1
Rx

FIG. 37

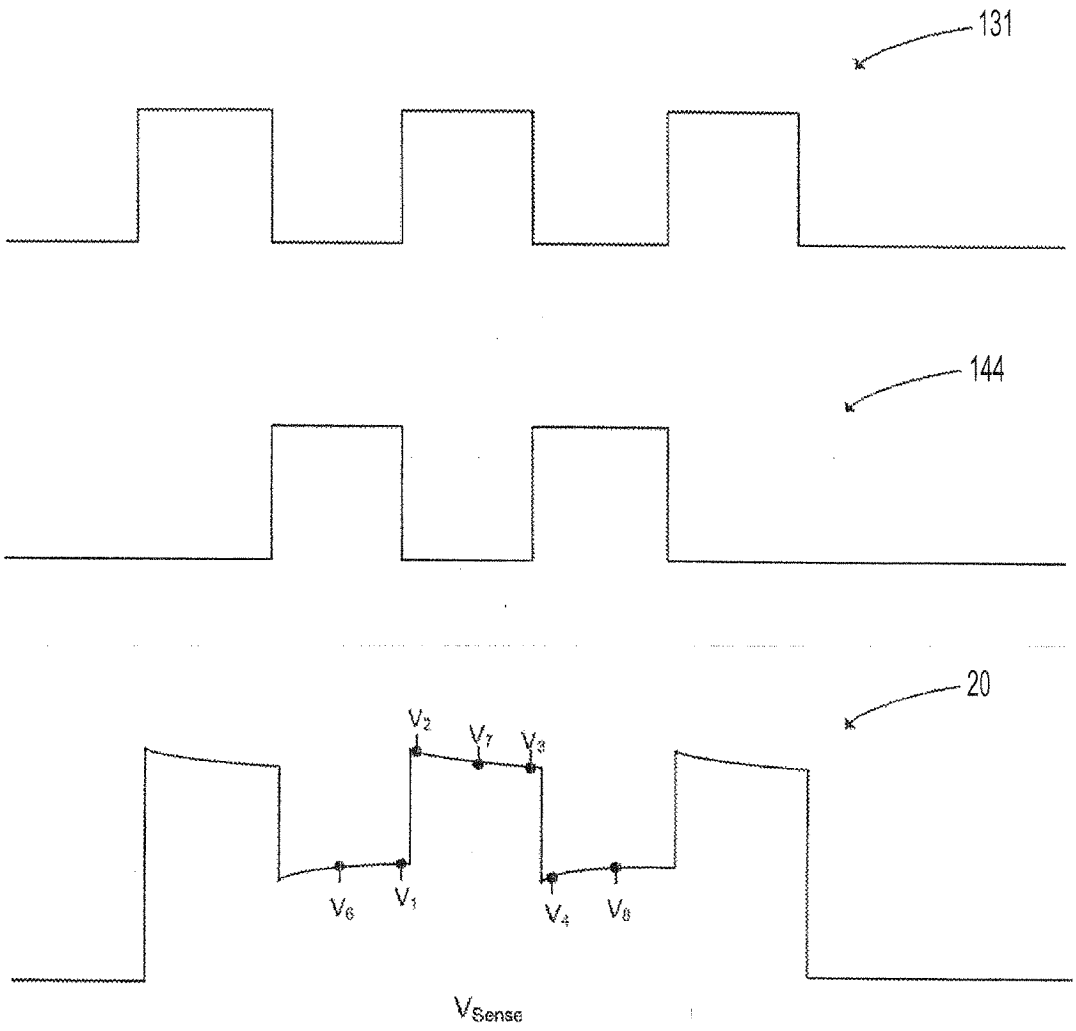


FIG. 38

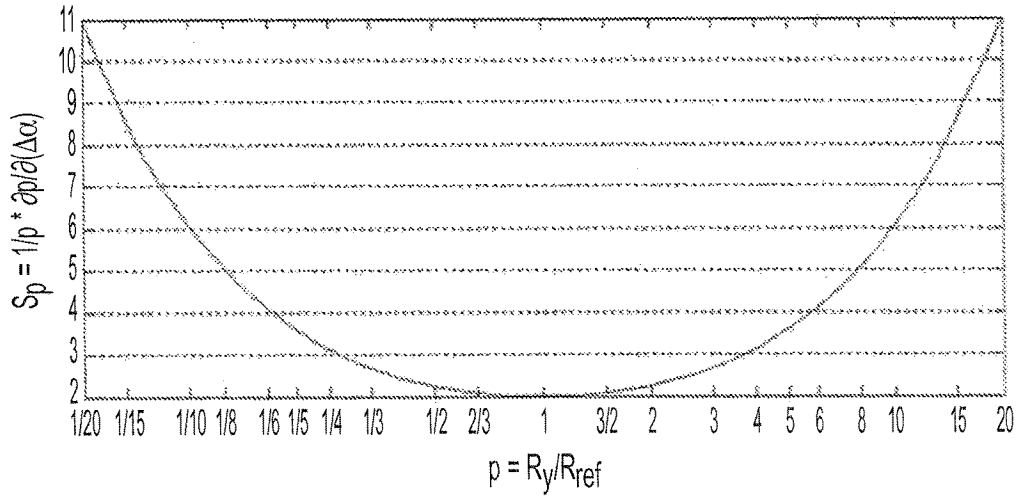

11
10
9
8
7
6
5
4
3
2
$S_p = 1/p * \partial p/\partial(\Delta\alpha)$
1/20 1/15 1/10 1/8 1/6 1/5 1/4 1/3 1/2 2/3 1 3/2 2 3 4 5 6 8 10 15 20
$p = R_y/R_{ref}$

FIG. 39

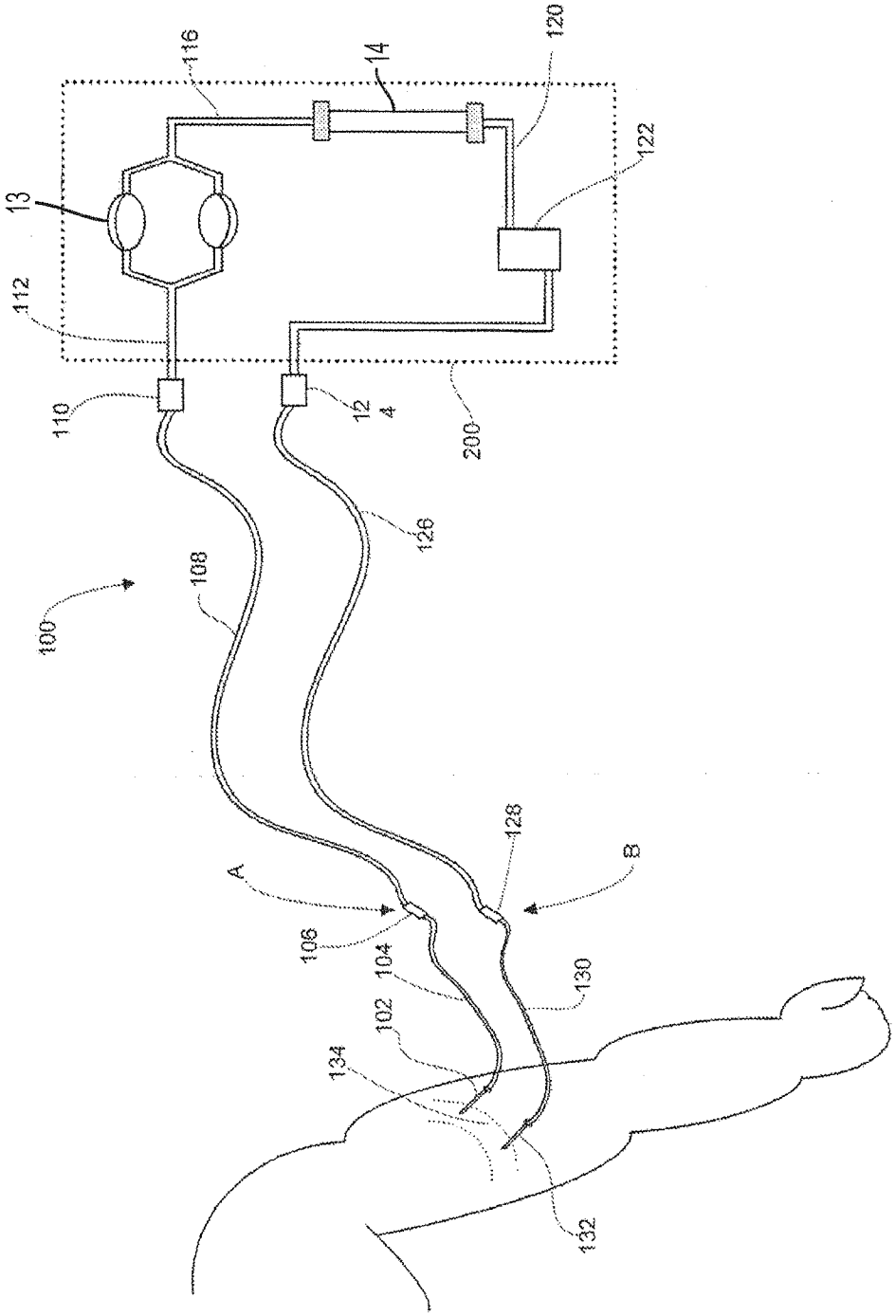

116
14
120
122
13
112
110
124
200
126
108
100
128
A
B
106
104
102
130
134
132

FIG. 40

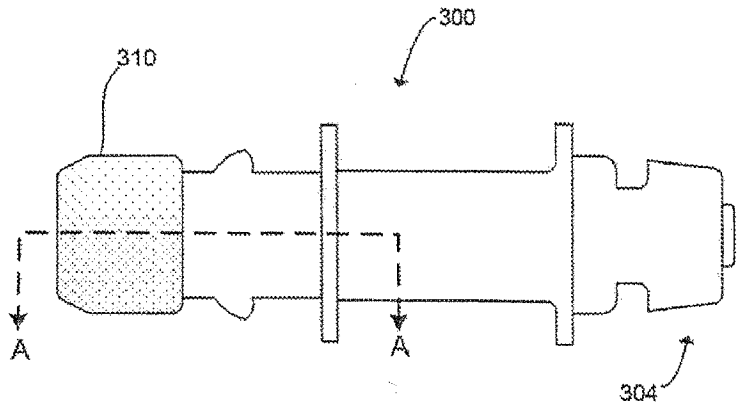


FIG. 41A

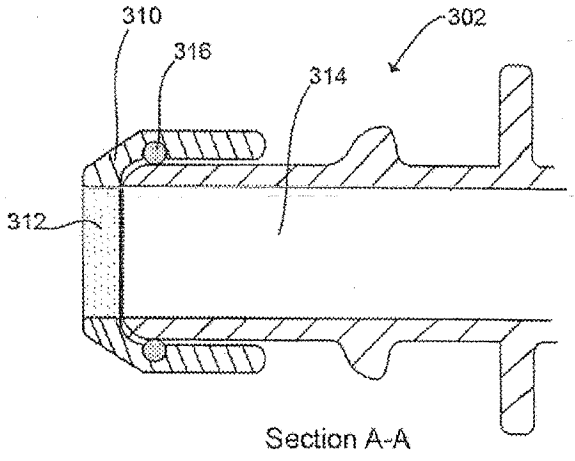


FIG. 41B

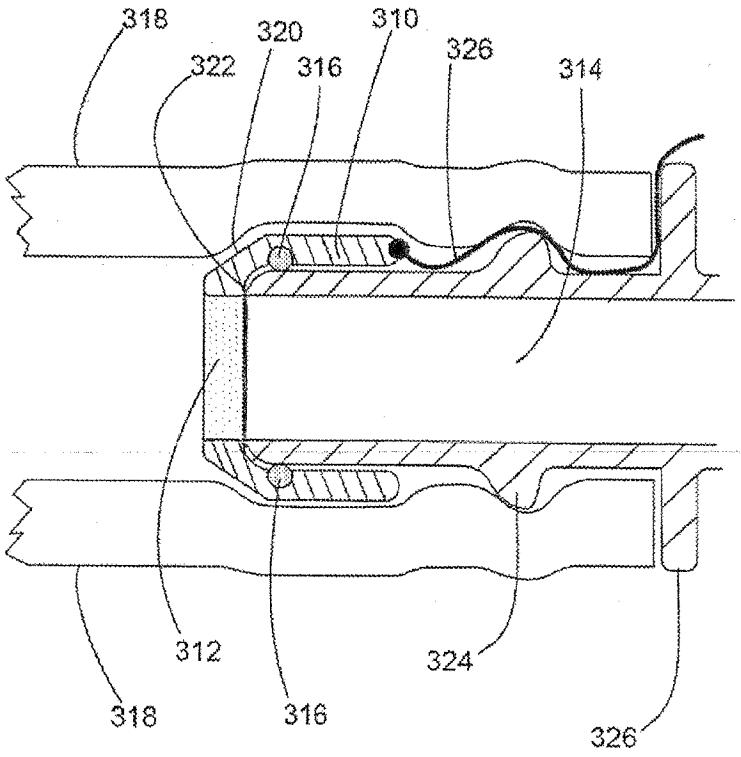


FIG. 42

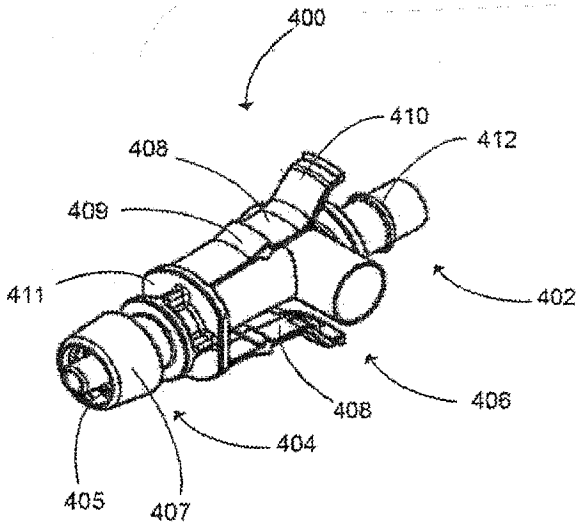


FIG. 43A

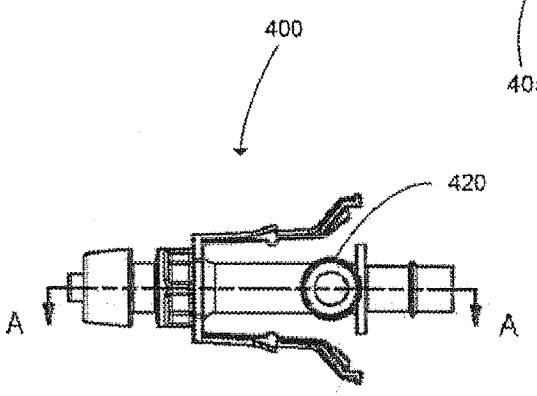


FIG. 43B

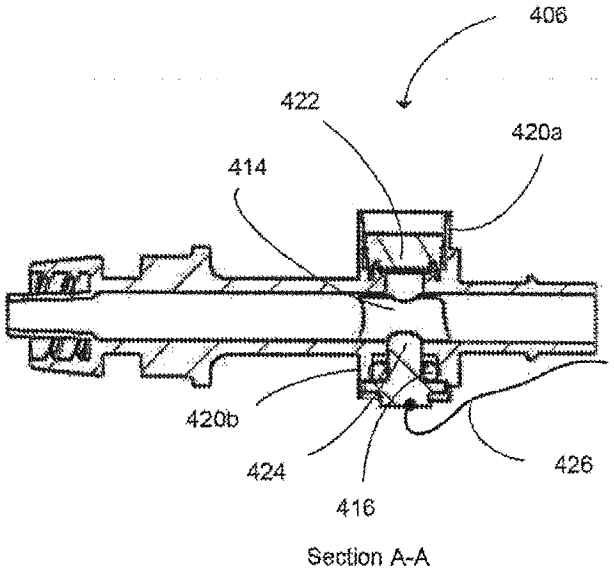


FIG. 43C

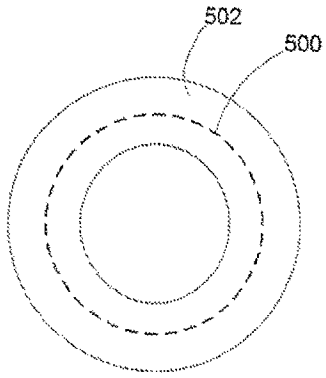


FIG. 44A

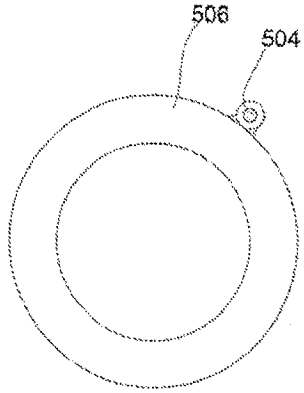


FIG. 44B

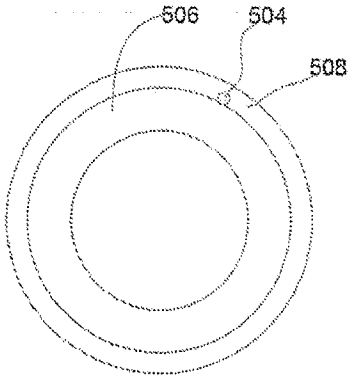


FIG. 44C

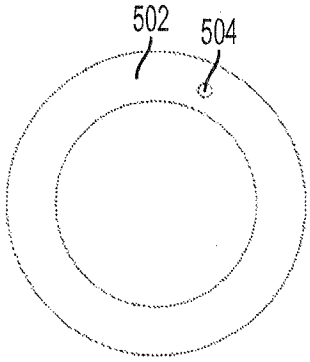


FIG. 44D

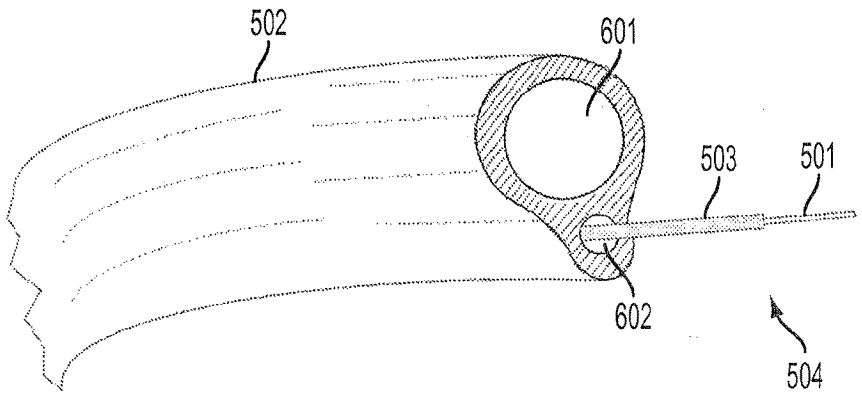


FIG. 45

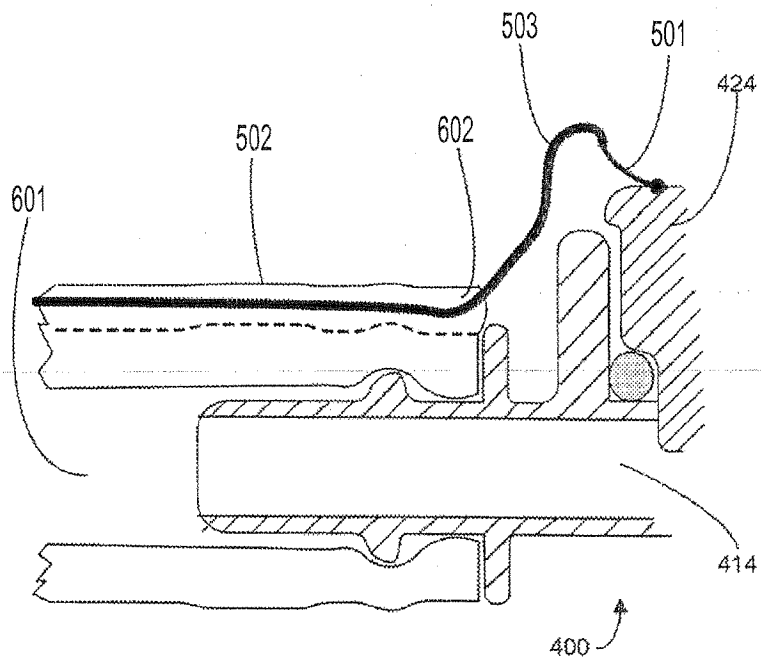


FIG. 46

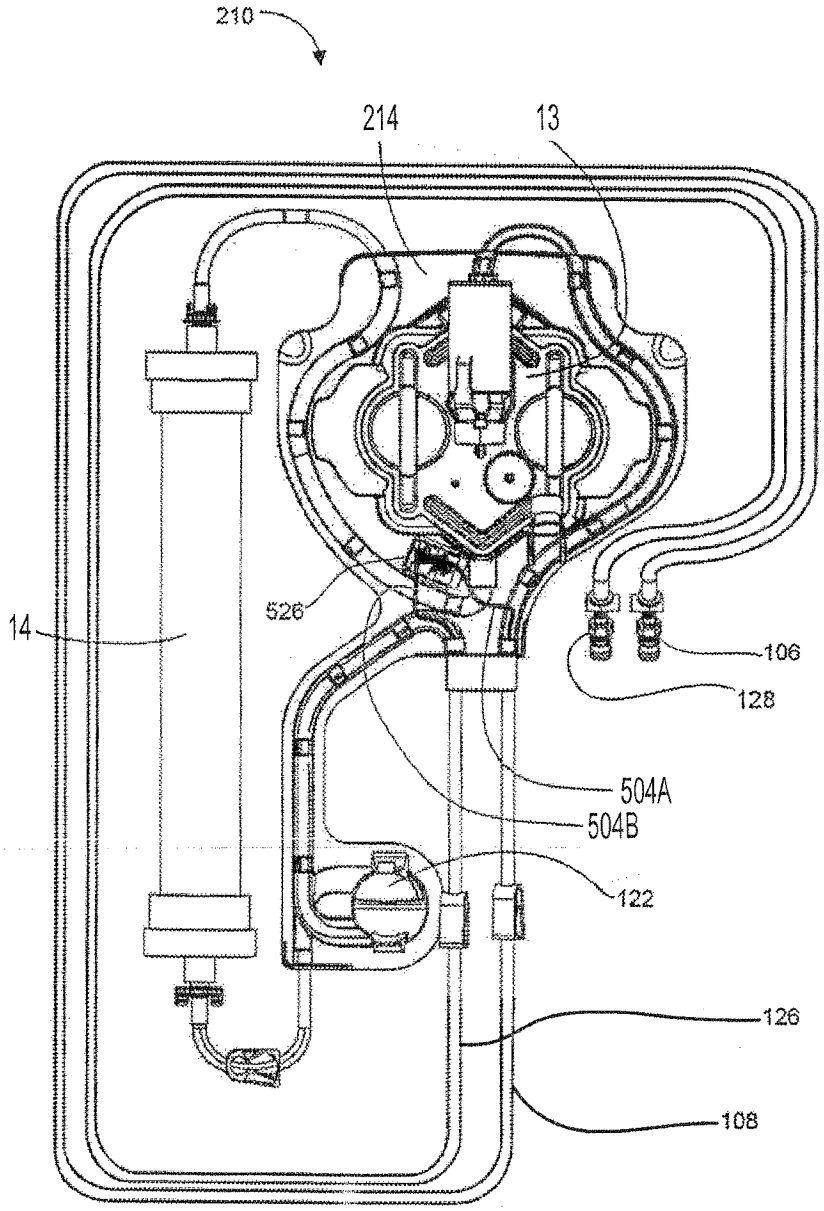


FIG. 47

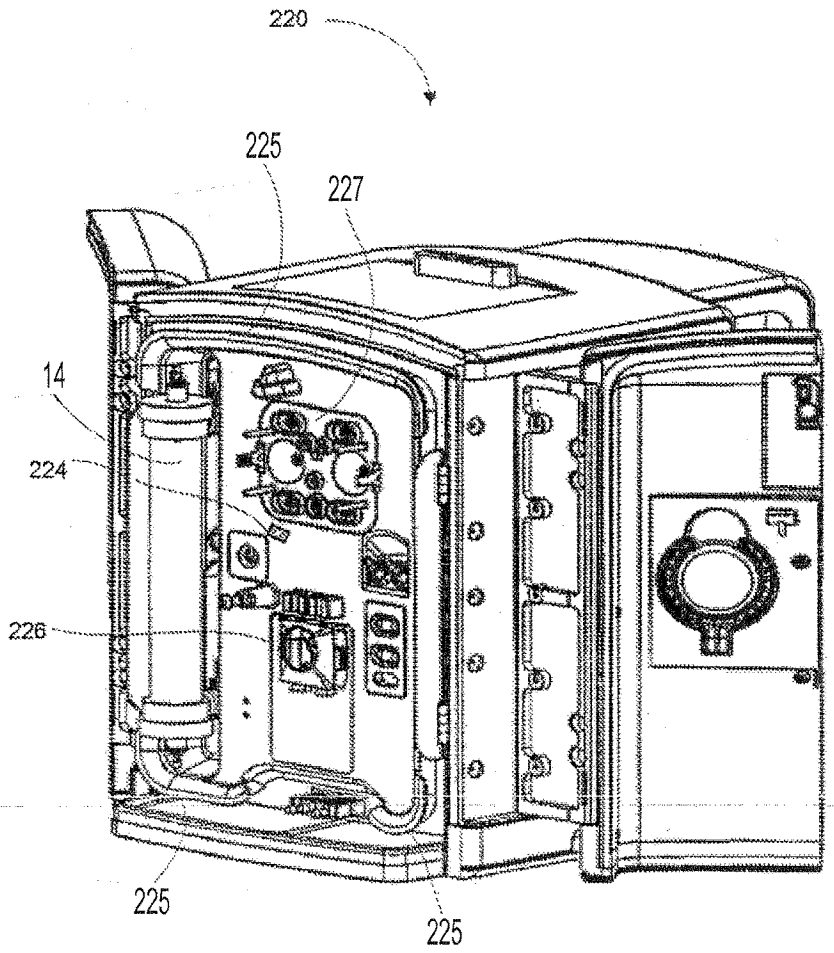


FIG. 48

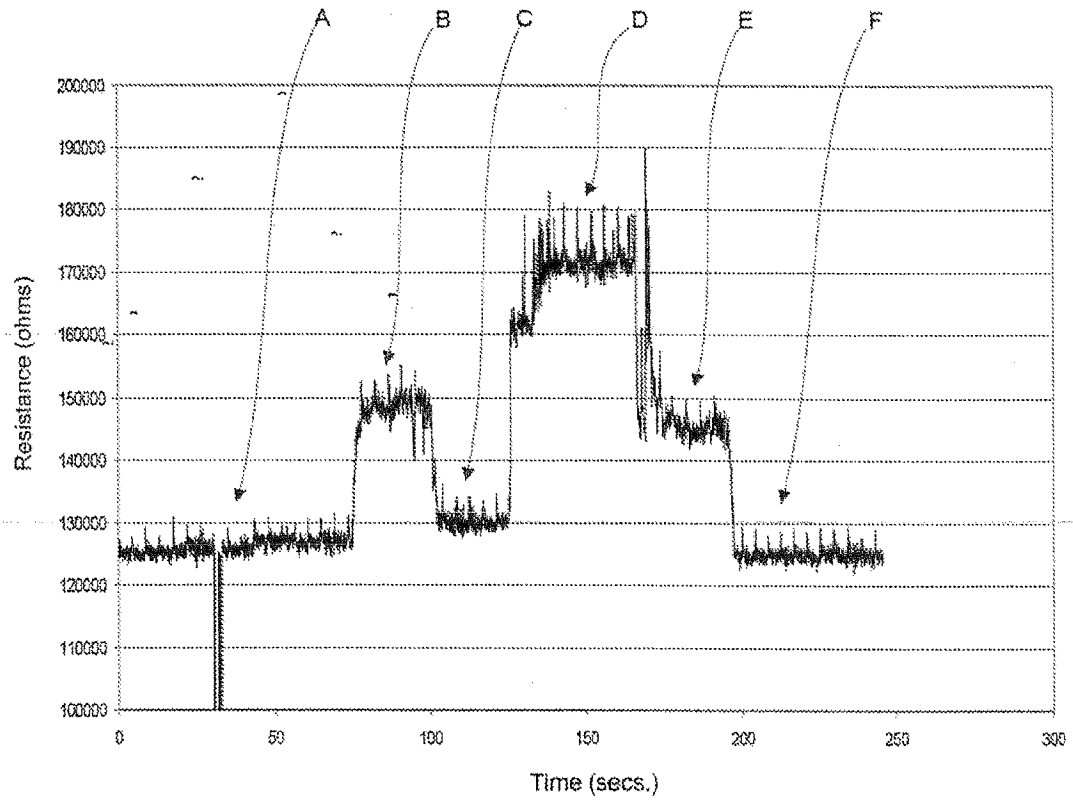

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160000
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140000
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120000
110000
100000
Resistance (ohms)
0
50
100
150
200
250
300
Time (secs.)

FIG. 49

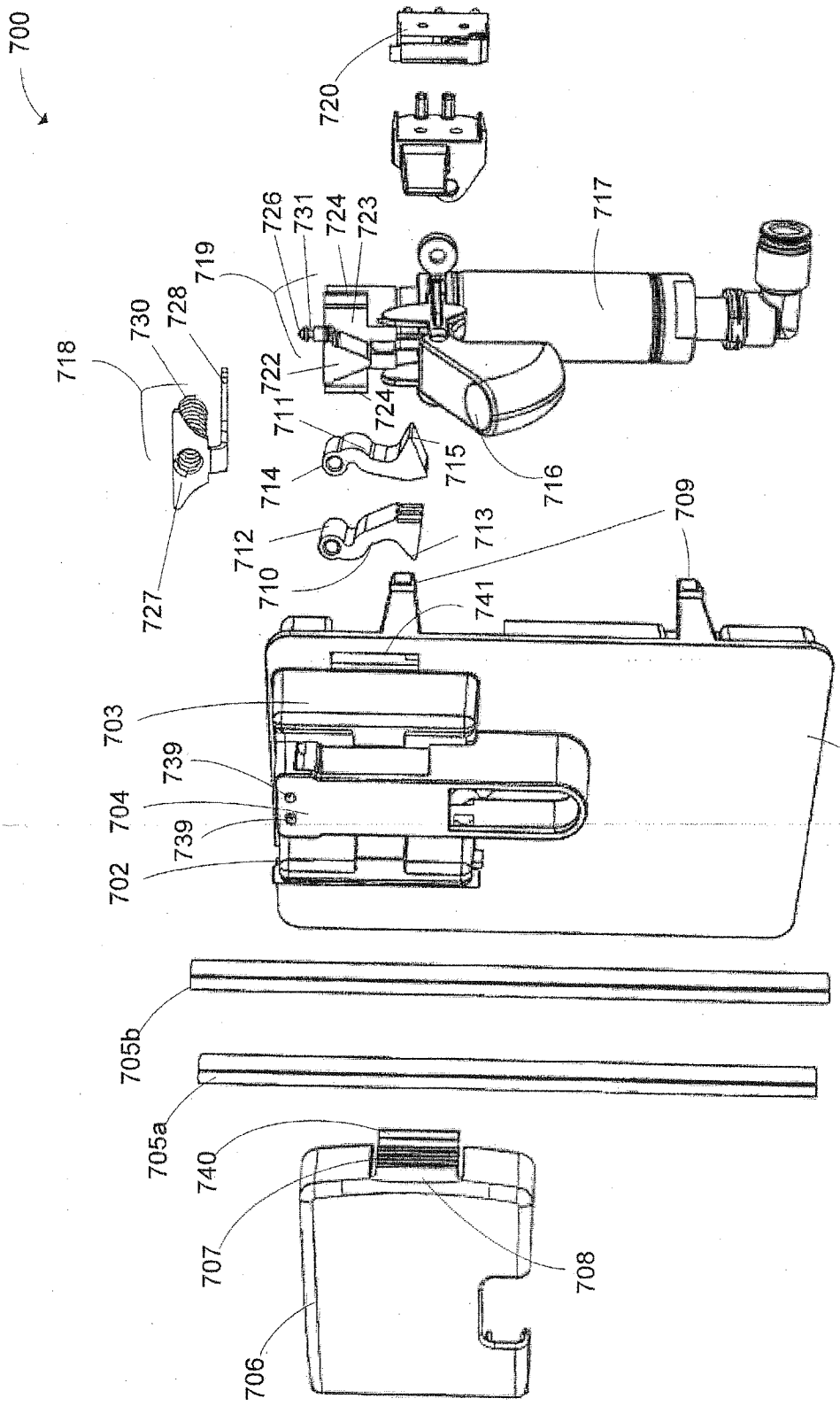

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FIG. 50

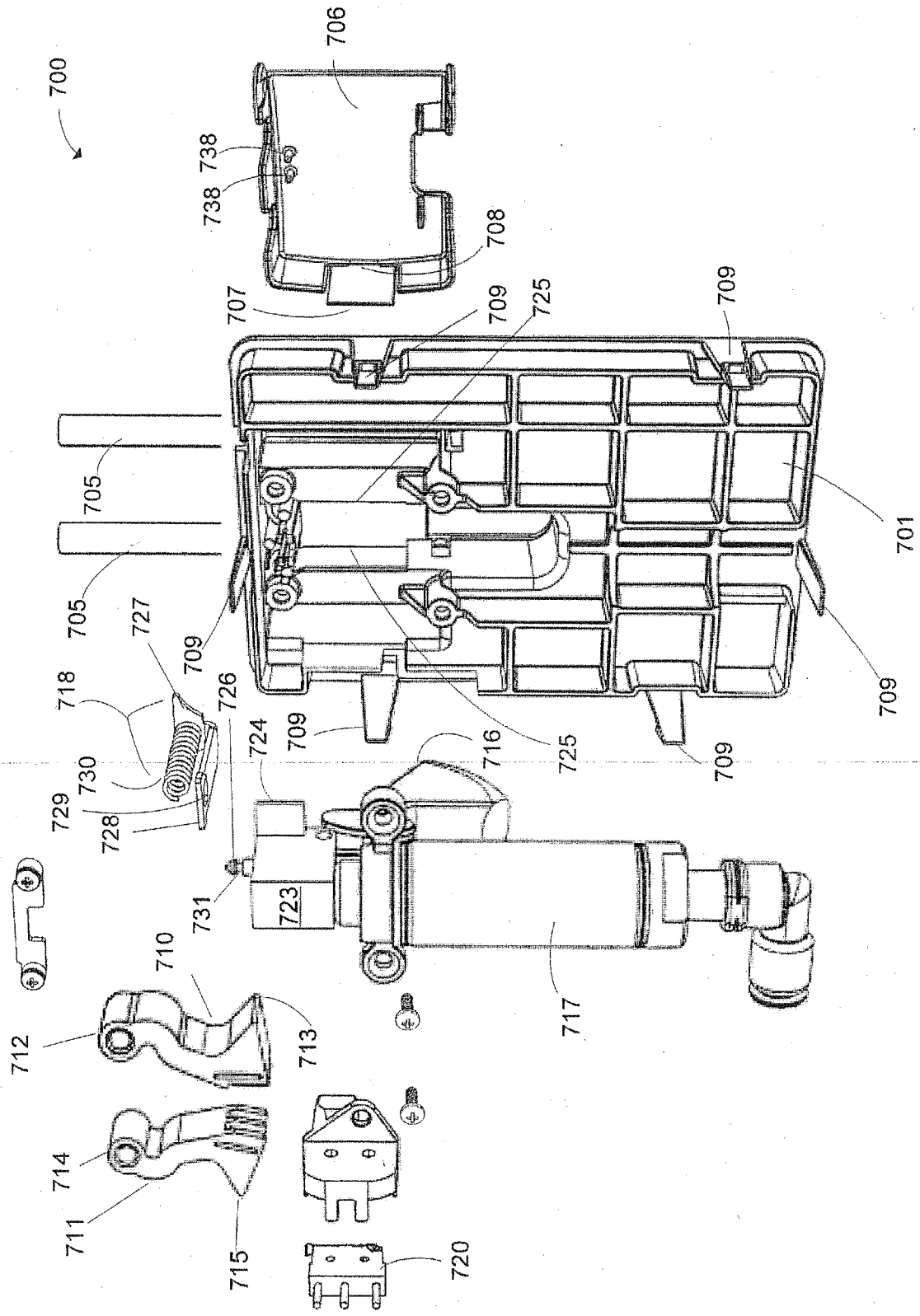

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FIG. 51

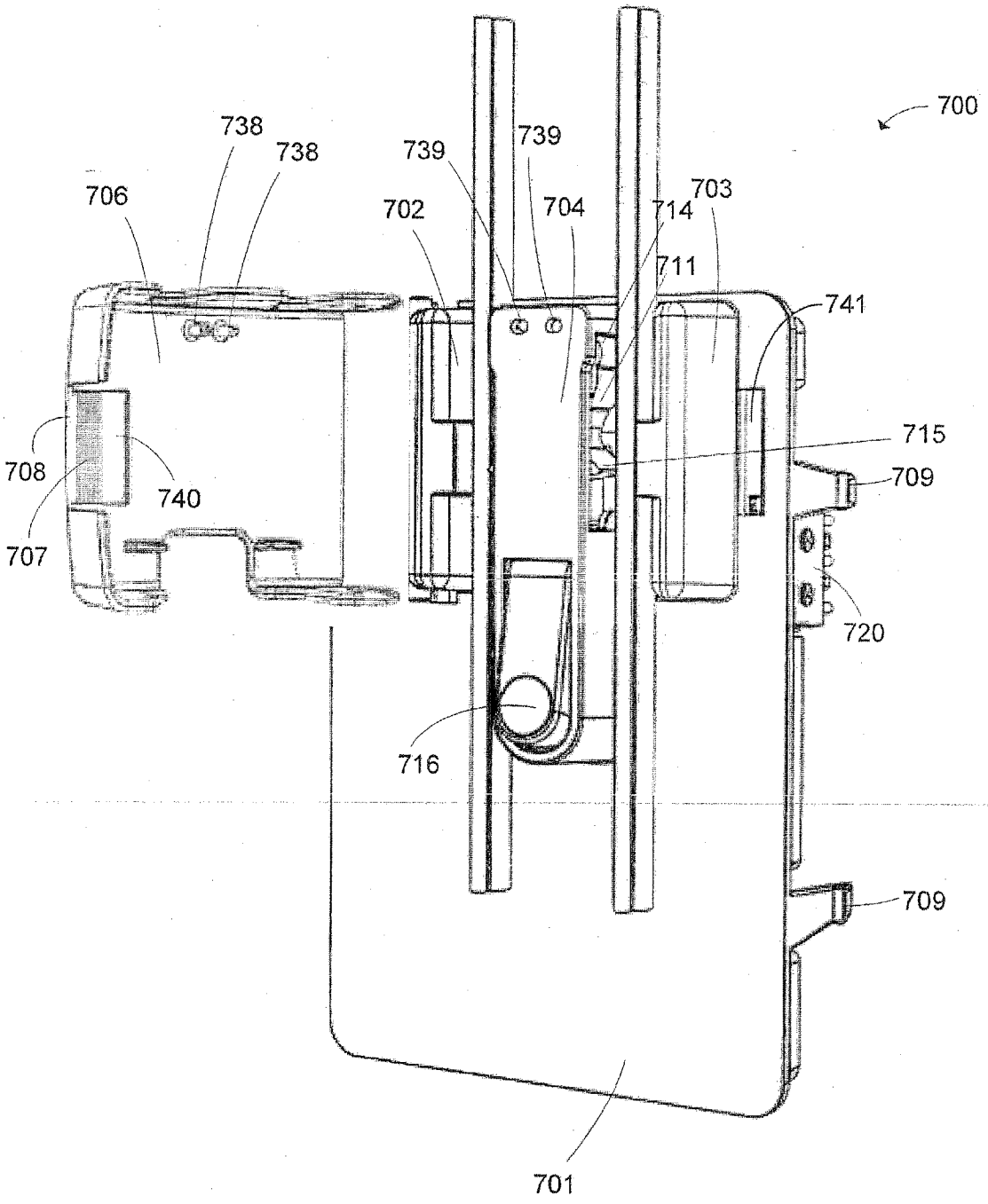

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FIG. 52

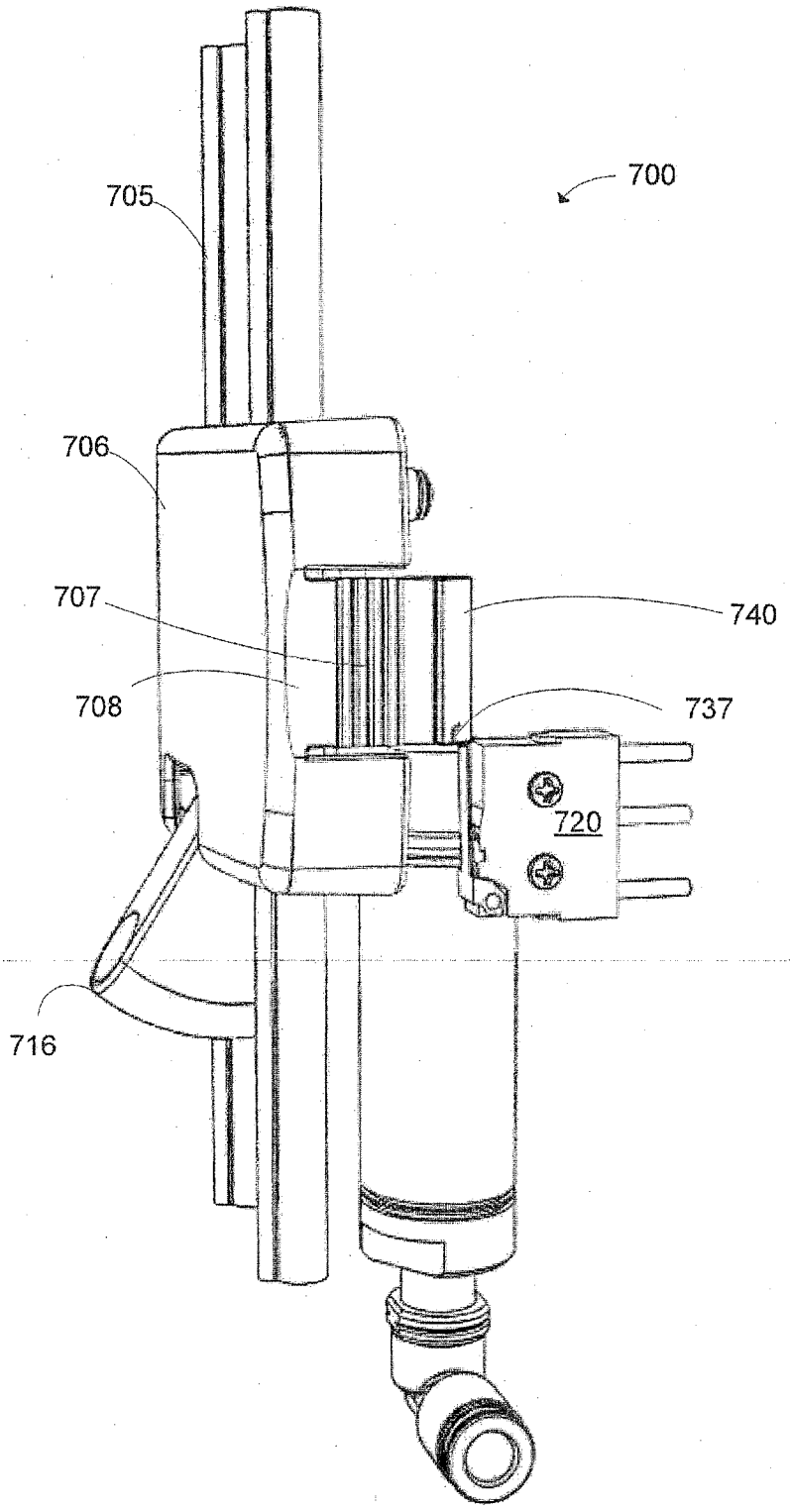


FIG. 53

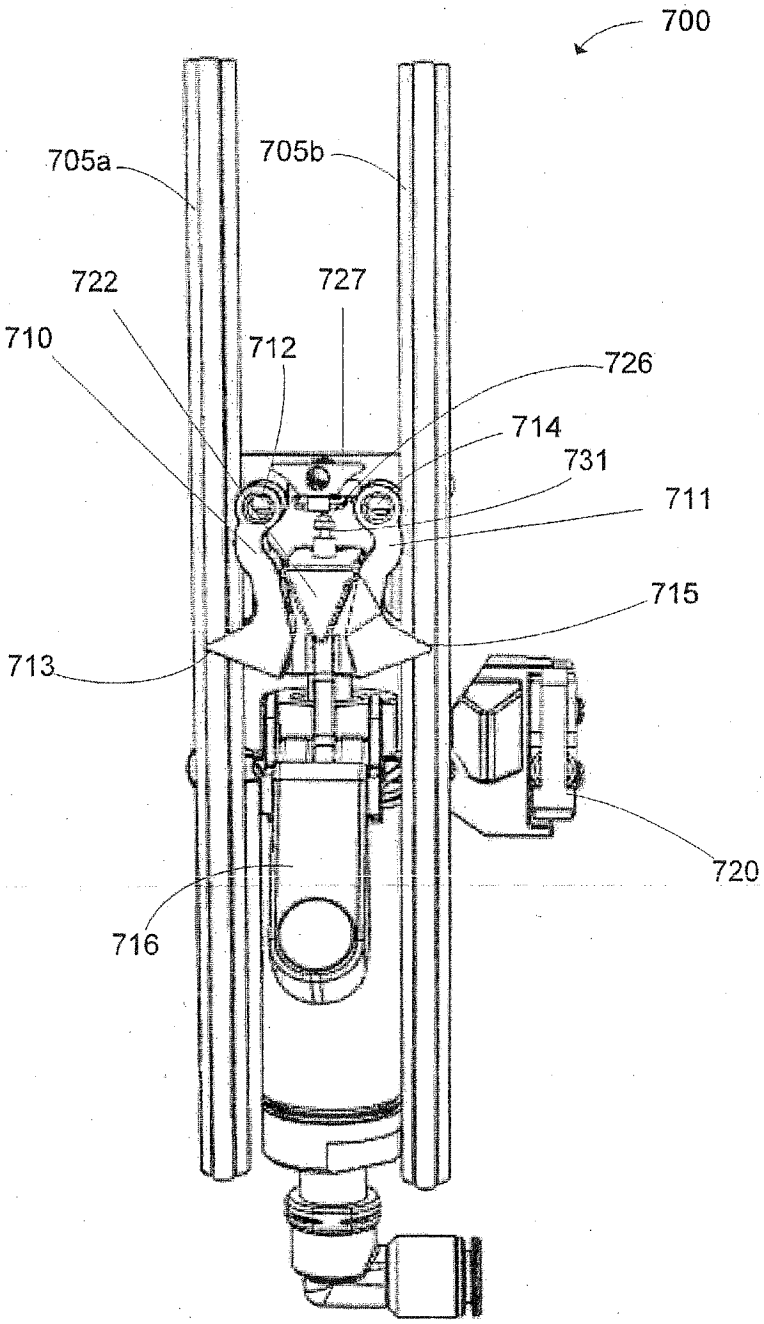


FIG. 54

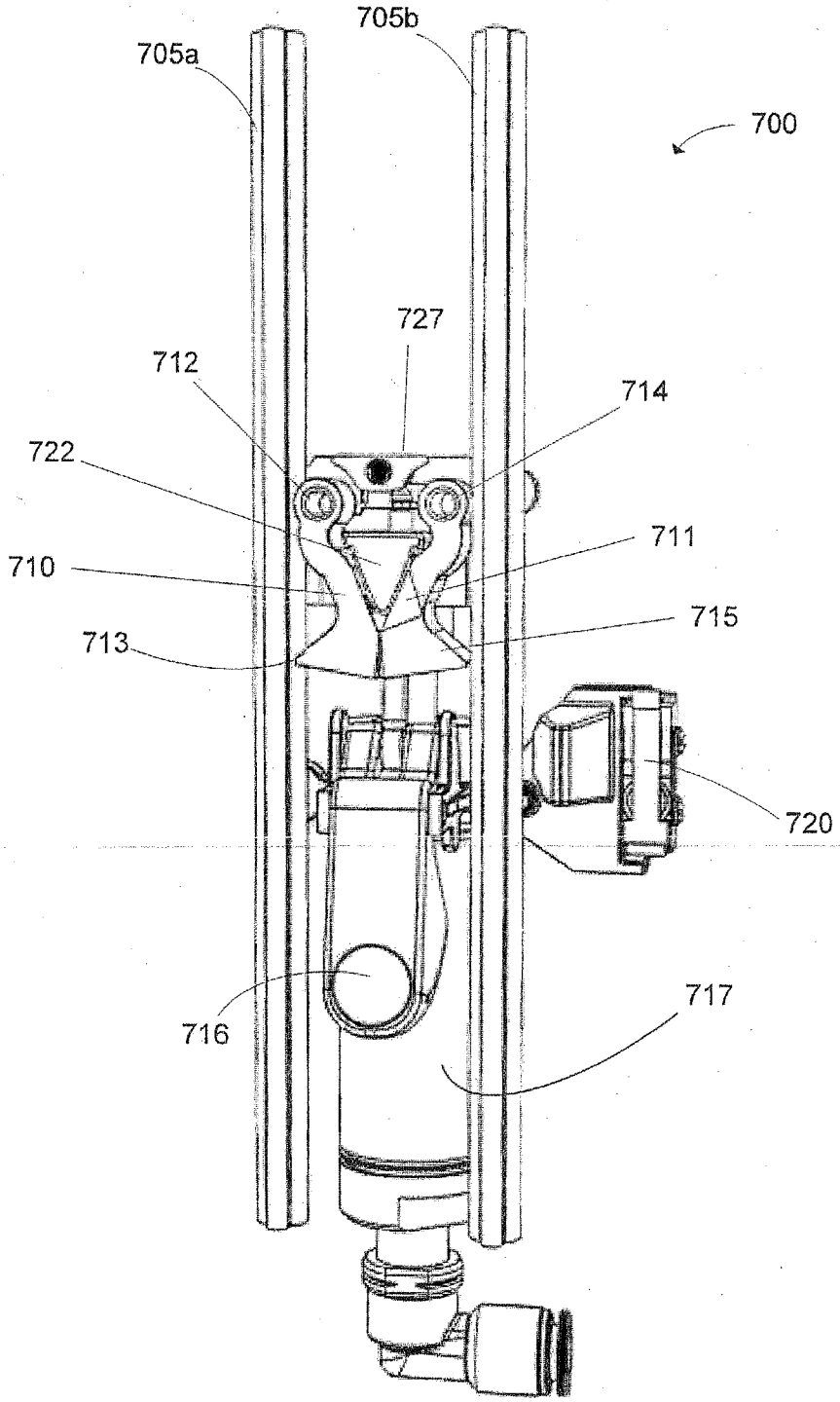


FIG. 55

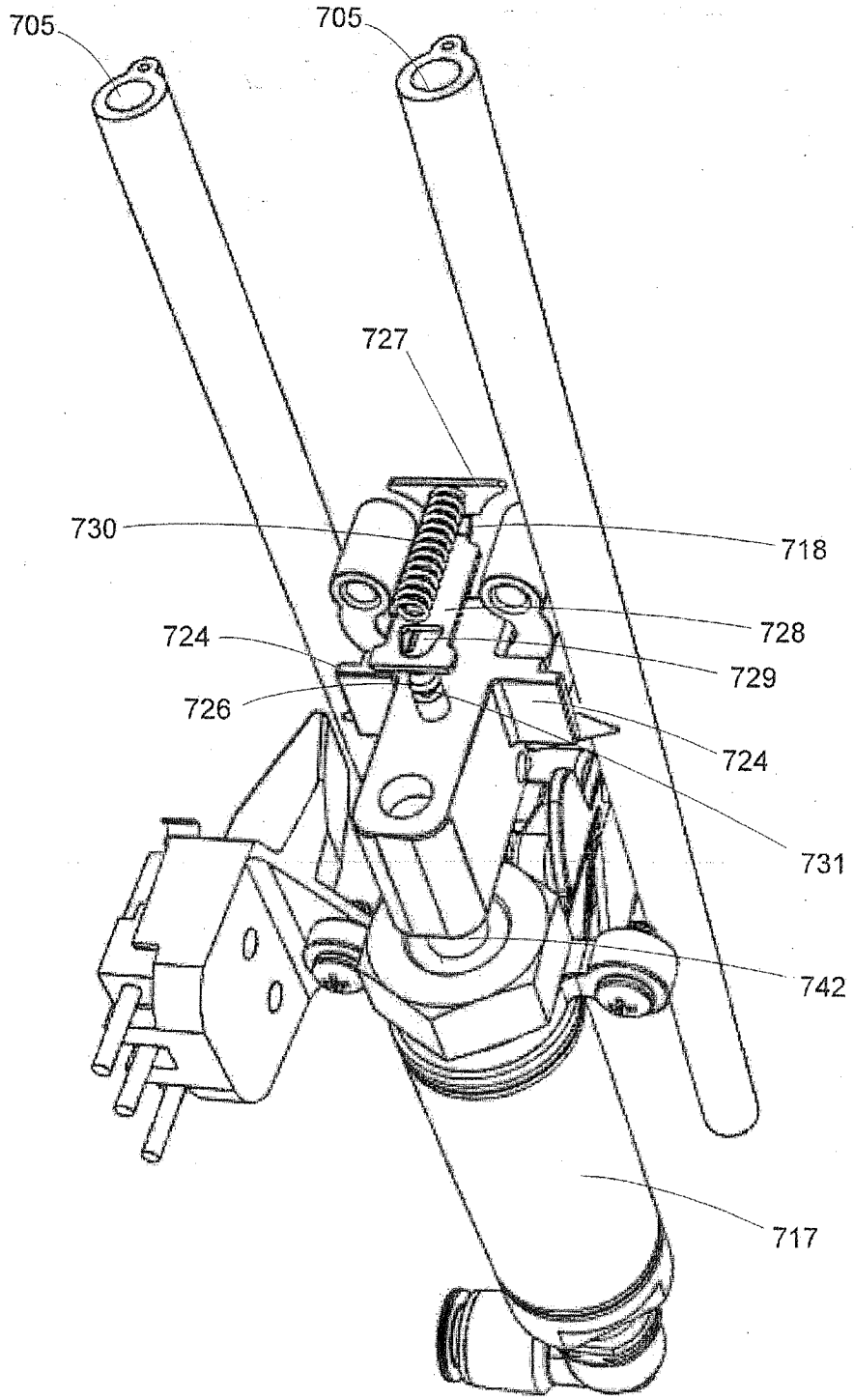


FIG. 56

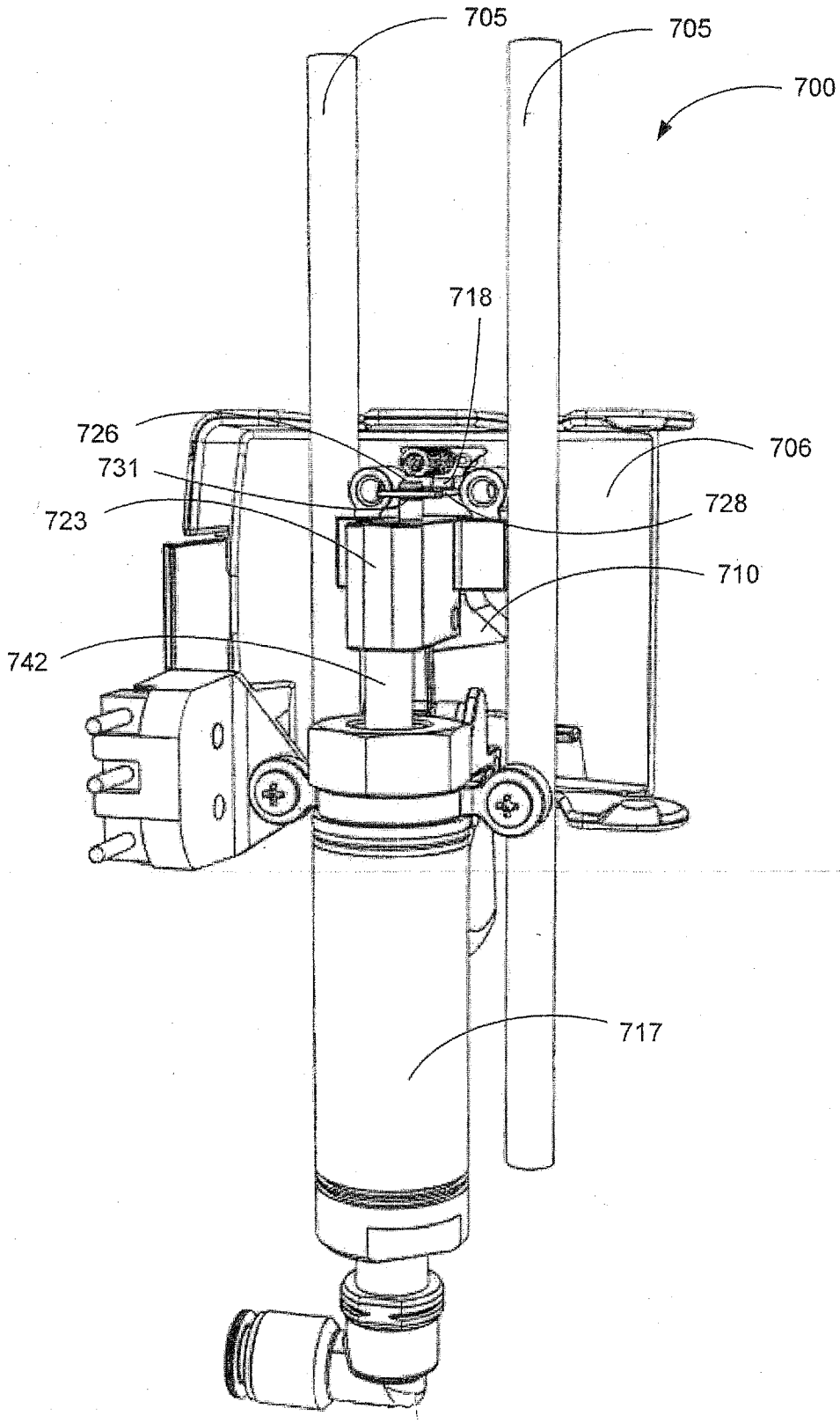


FIG. 57

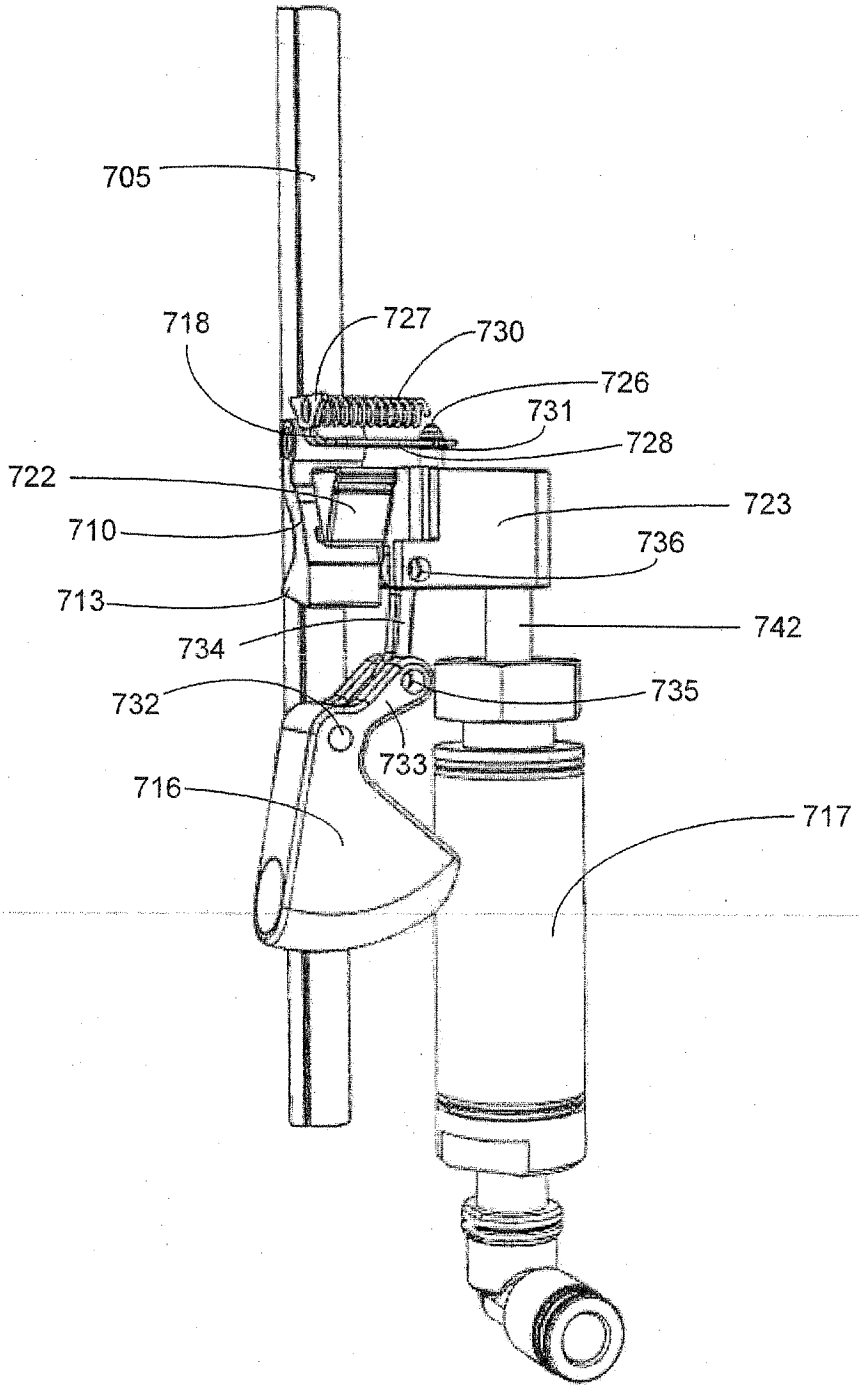

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FIG. 58

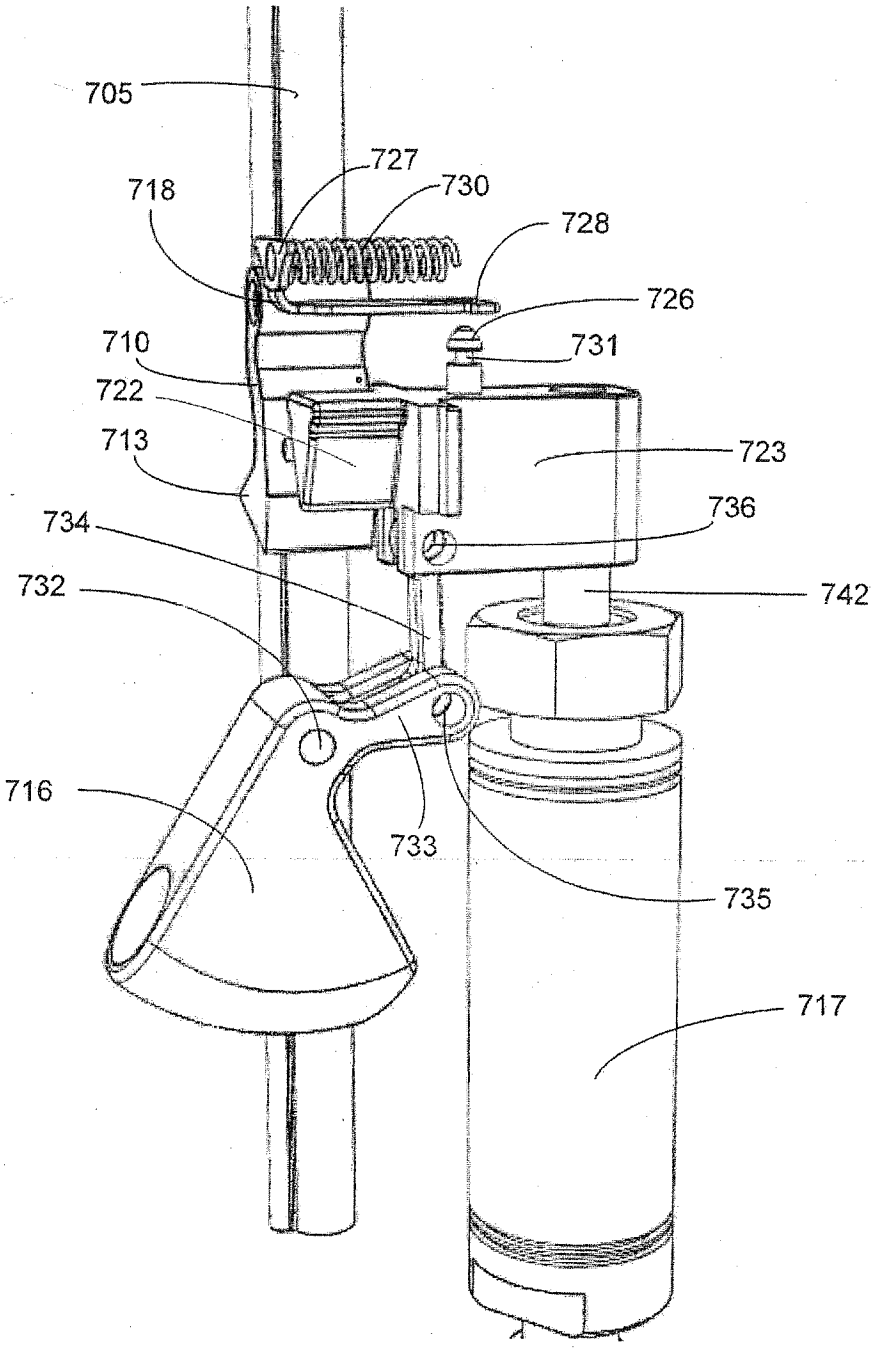

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FIG. 59

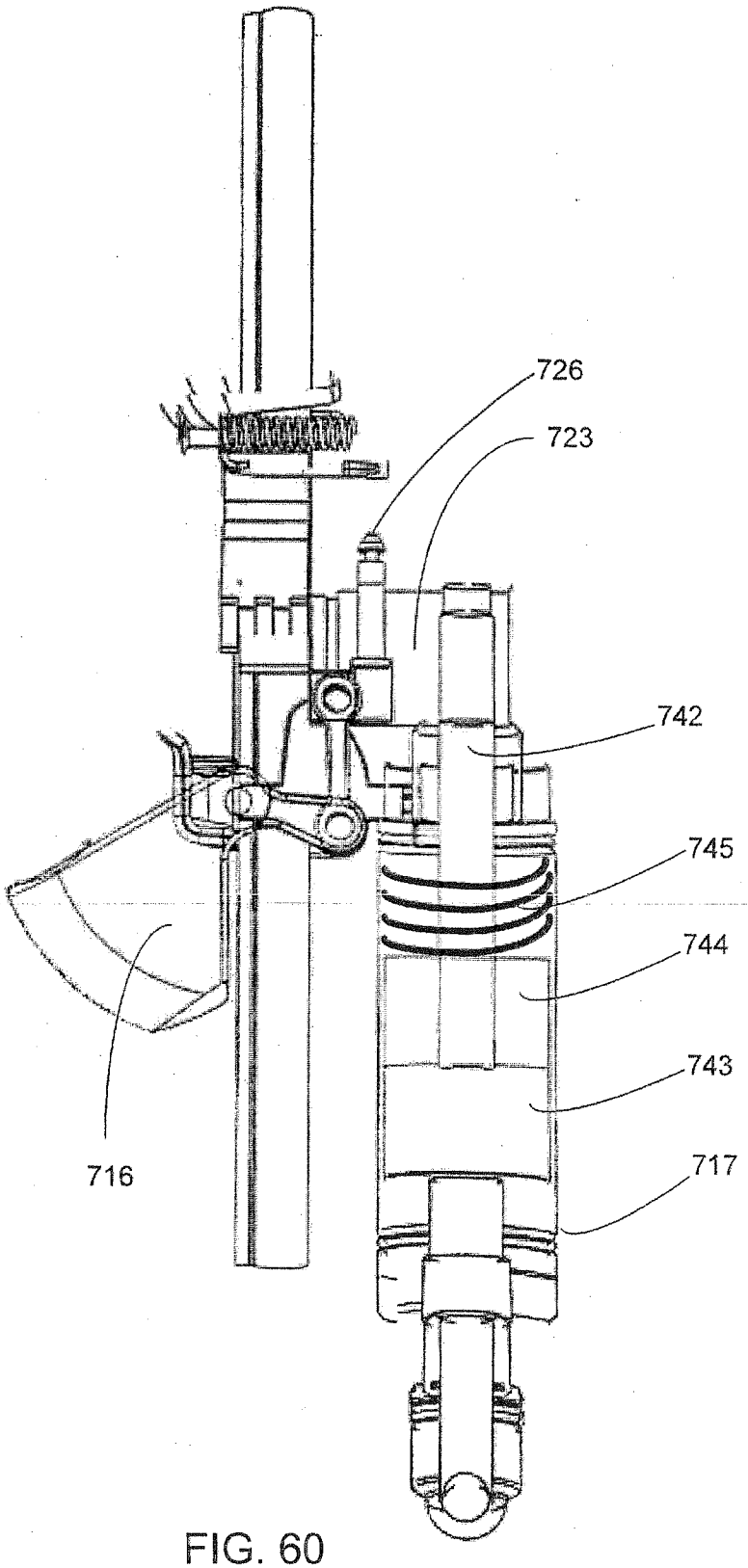


FIG. 60

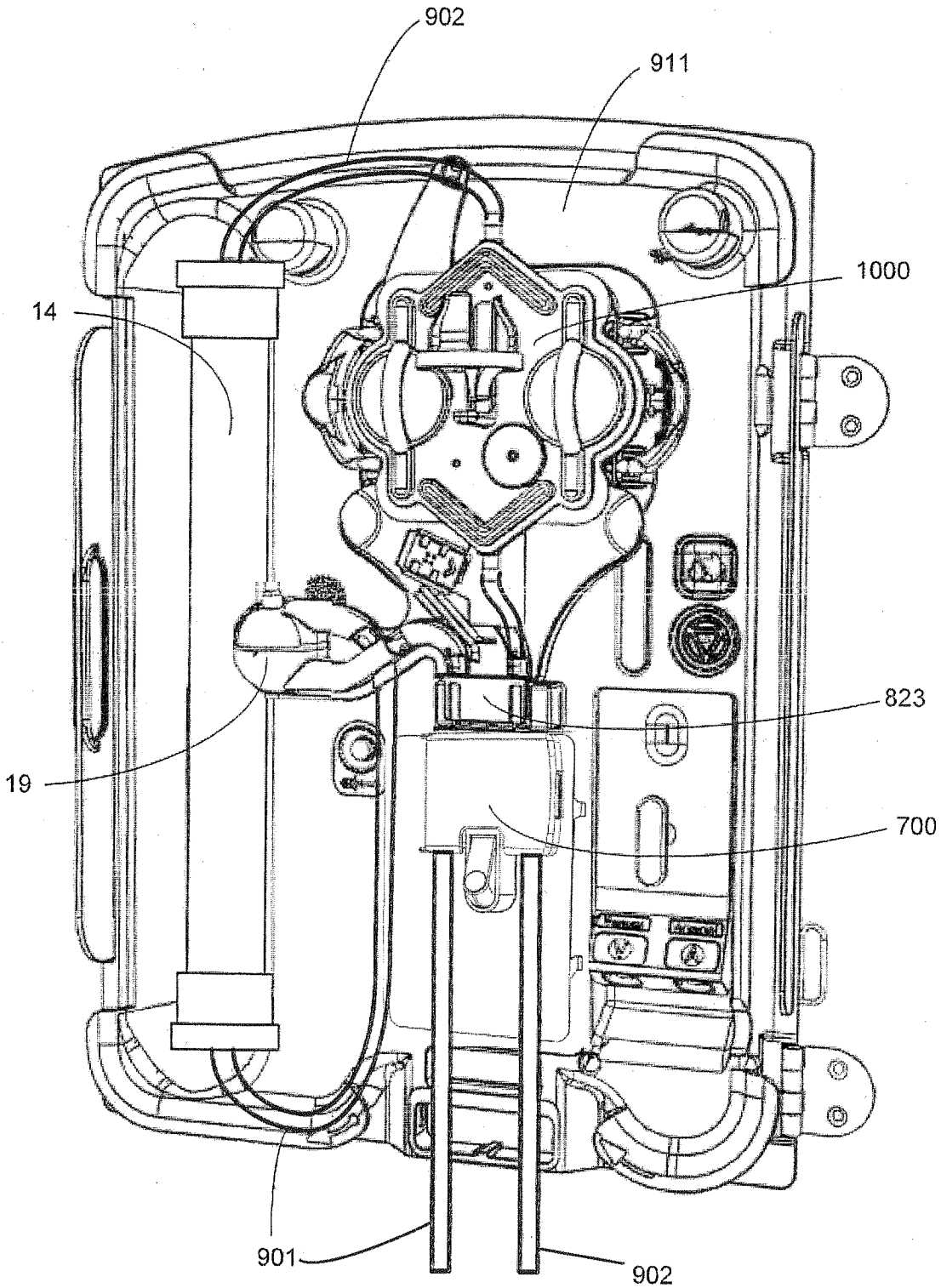


FIG. 61