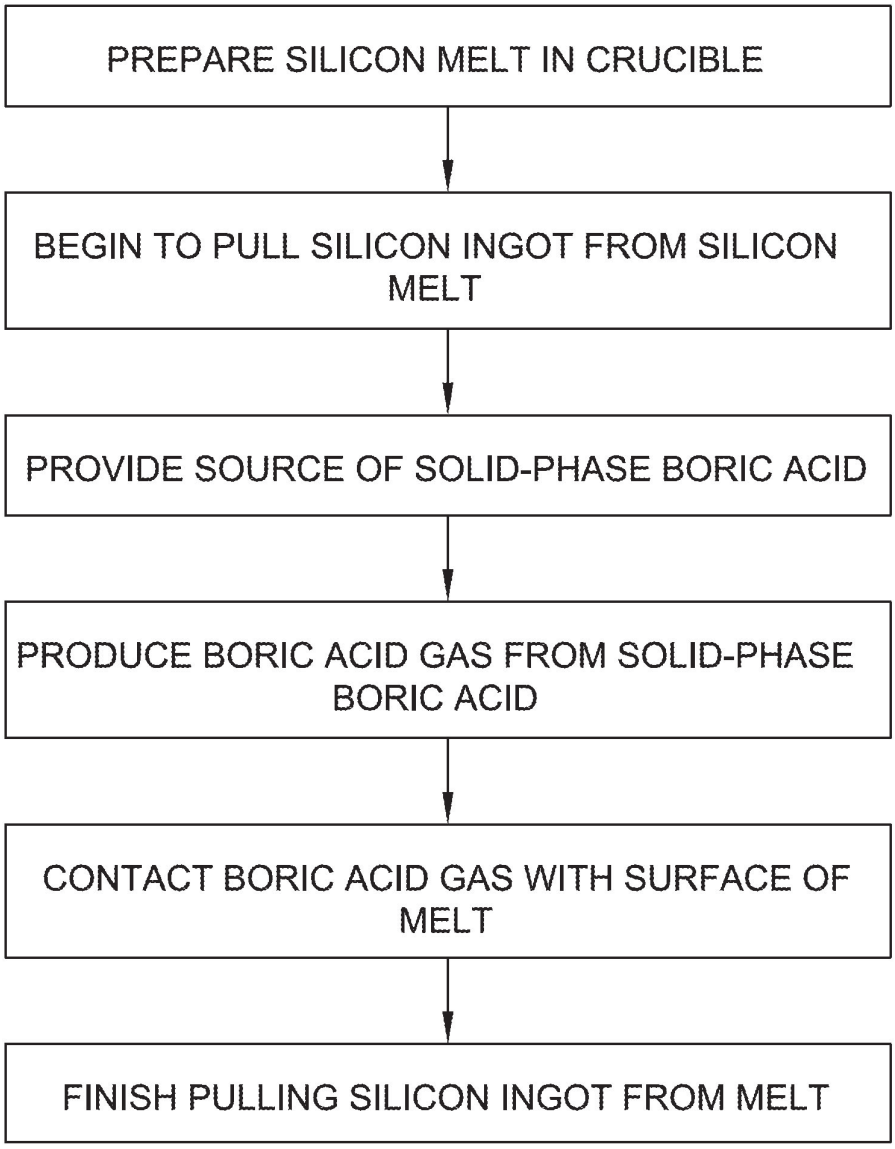

PREPARE SILICON MELT IN CRUCIBLE
BEGIN TO PULL SILICON INGOT FROM SILICON MELT
PROVIDE SOURCE OF SOLID-PHASE BORIC ACID
PRODUCE BORIC ACID GAS FROM SOLID-PHASE BORIC ACID
CONTACT BORIC ACID GAS WITH SURFACE OF MELT
FINISH PULLING SILICON INGOT FROM MELT

FIG. 1

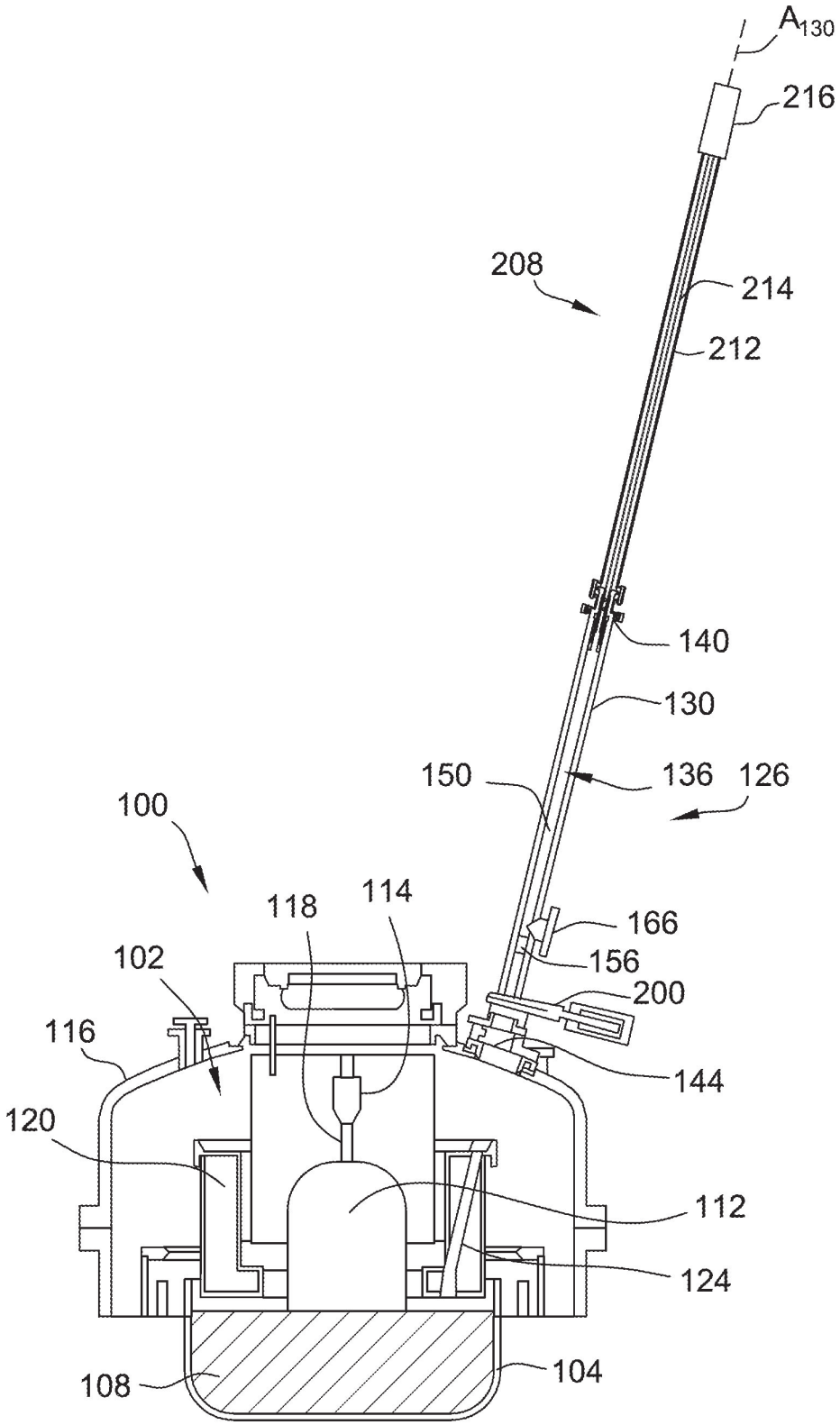

A130
216
208
214
212
140
130
150
136
126
100
118
114
166
102
156
200
116
144
120
112
124
108
104

FIG. 2

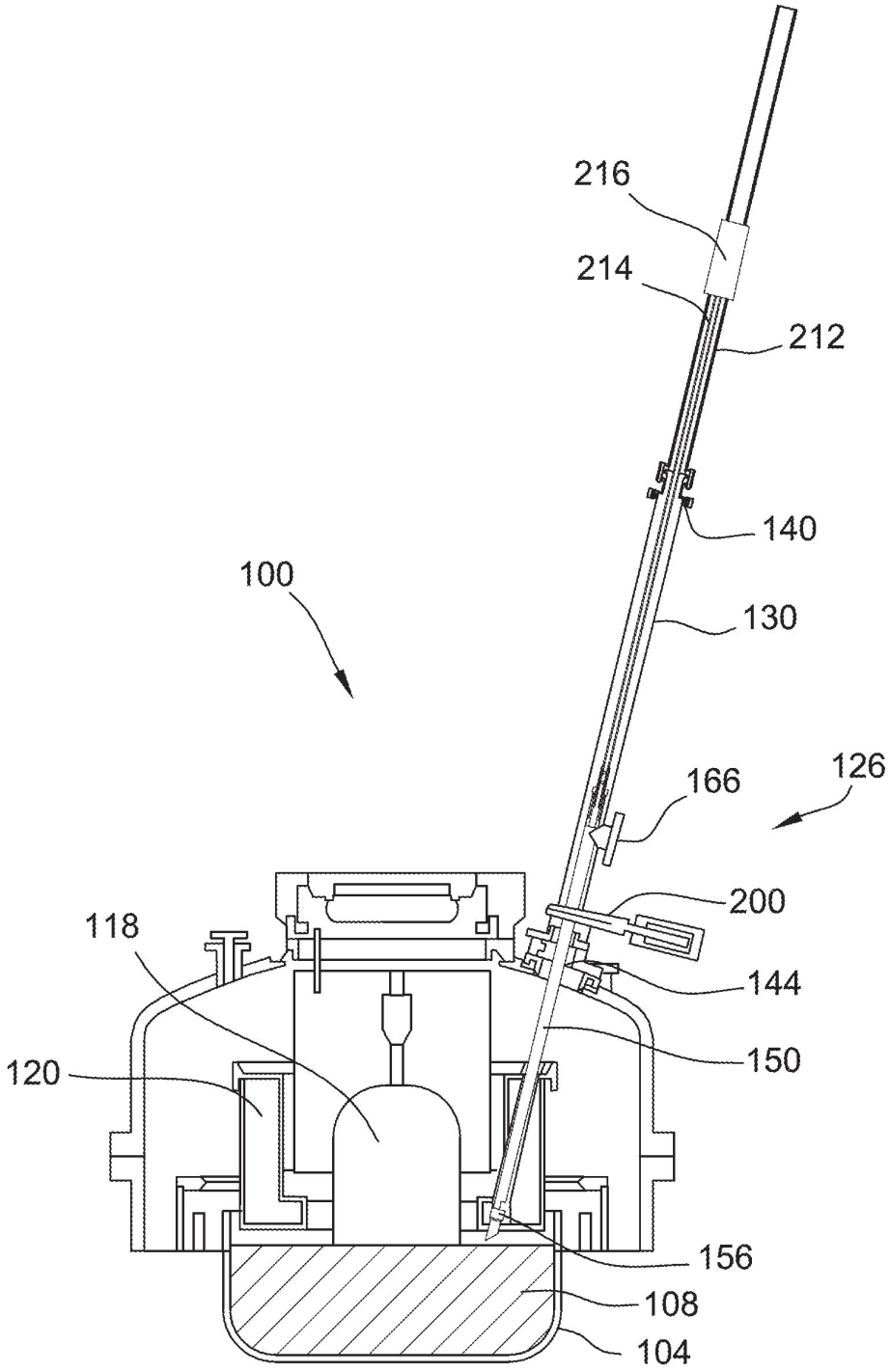


FIG. 3

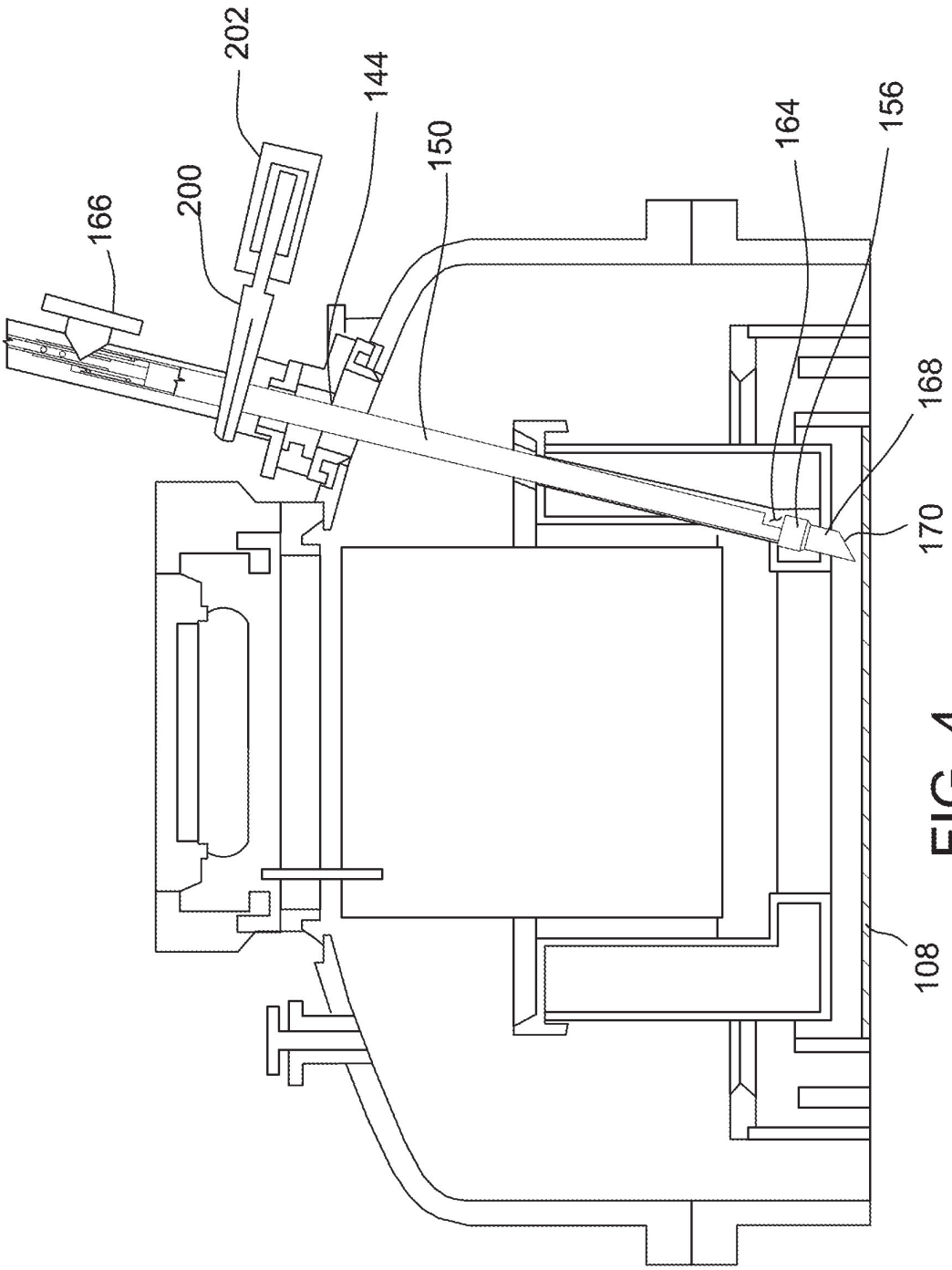


FIG. 4

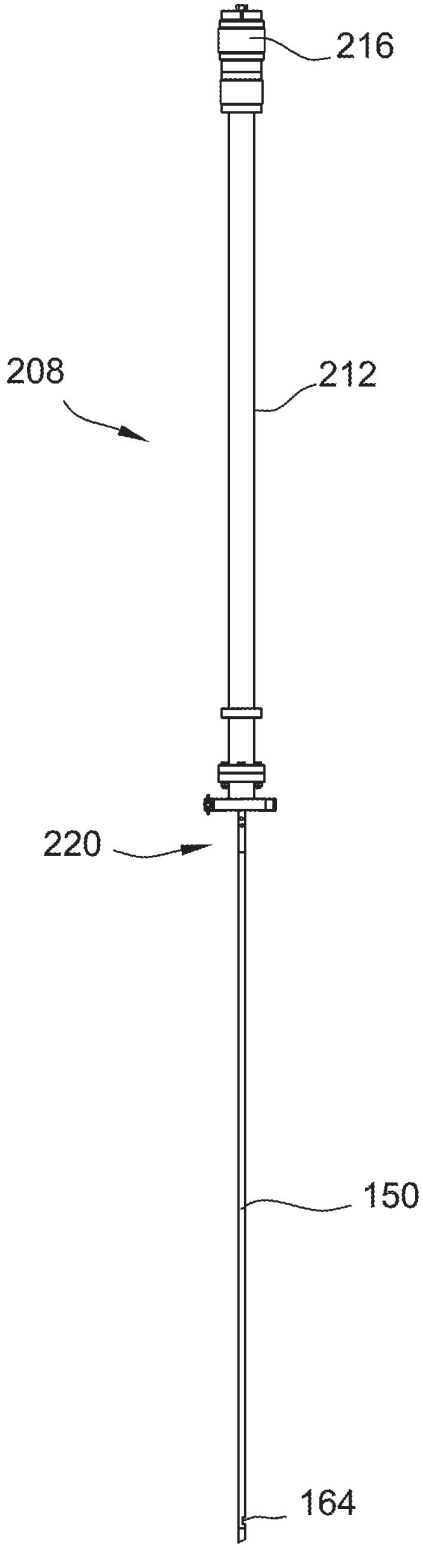


FIG. 5

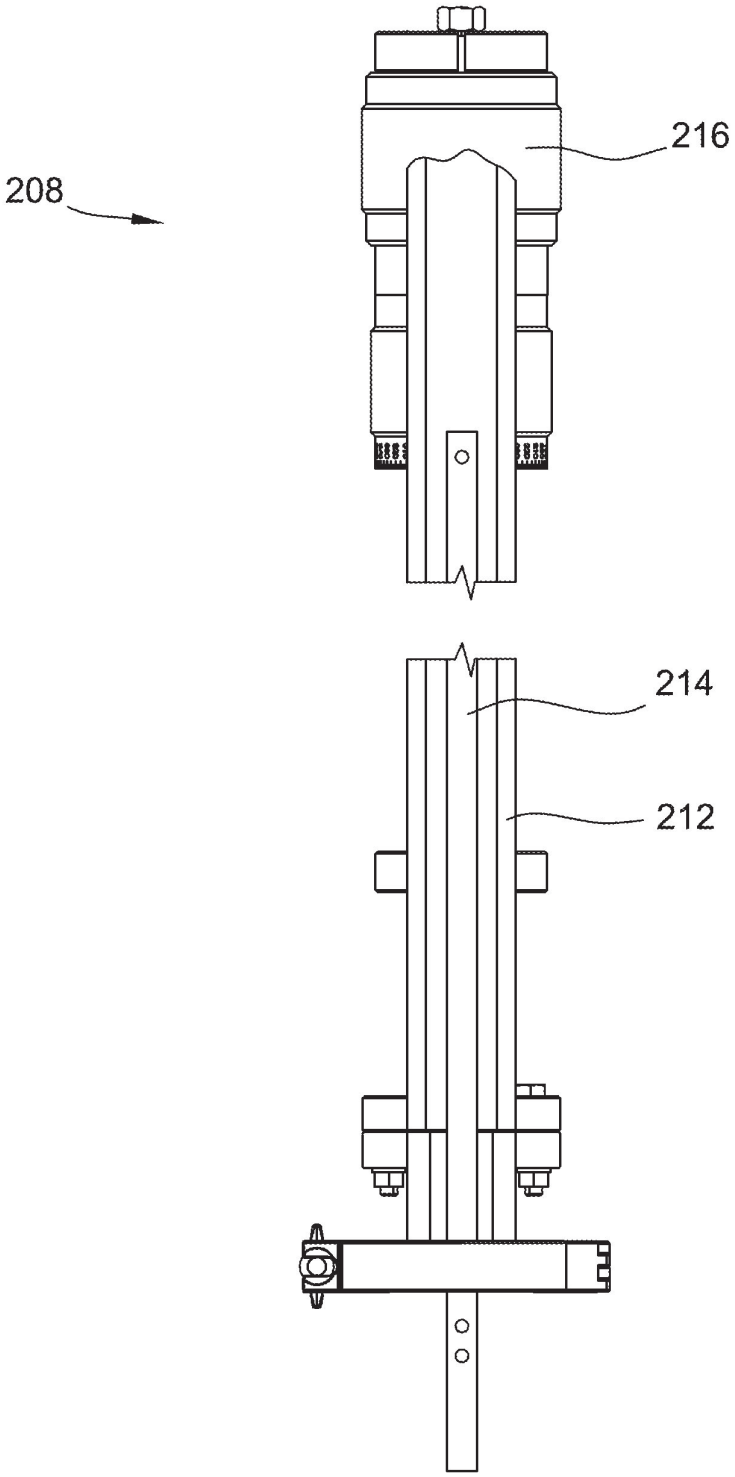


FIG. 6

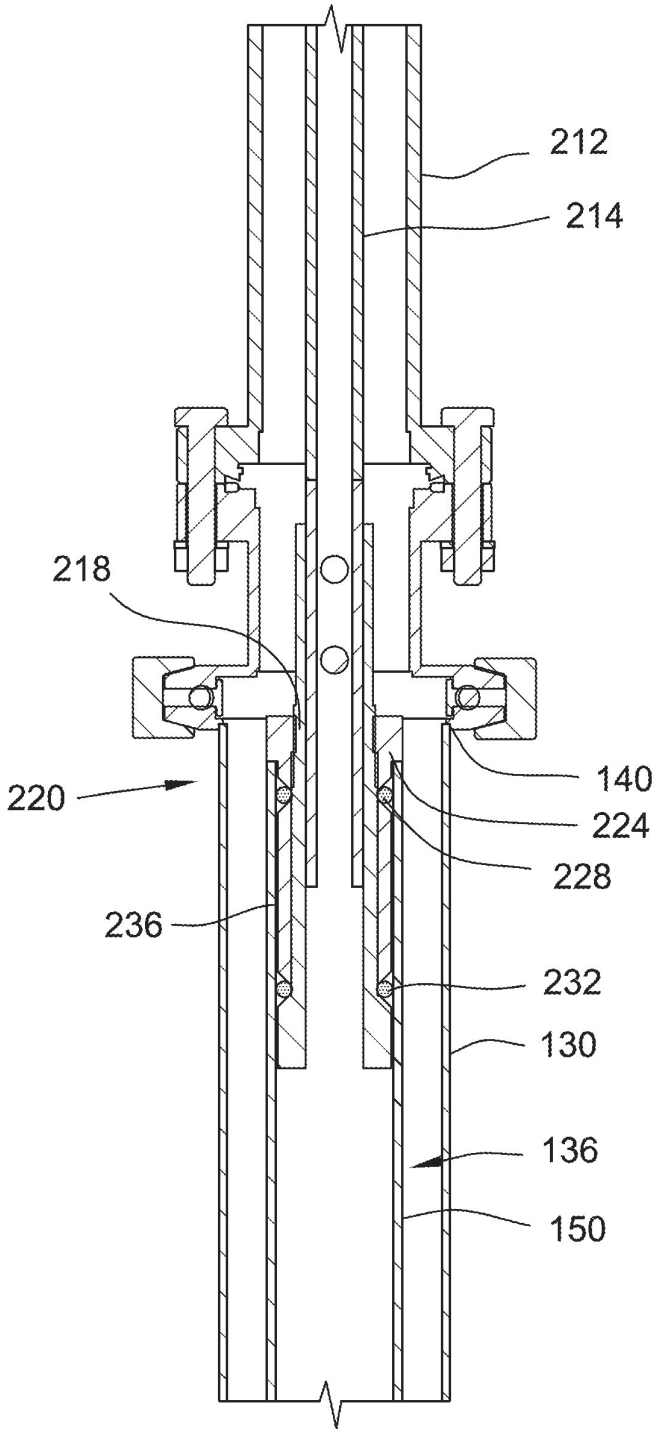


FIG. 7

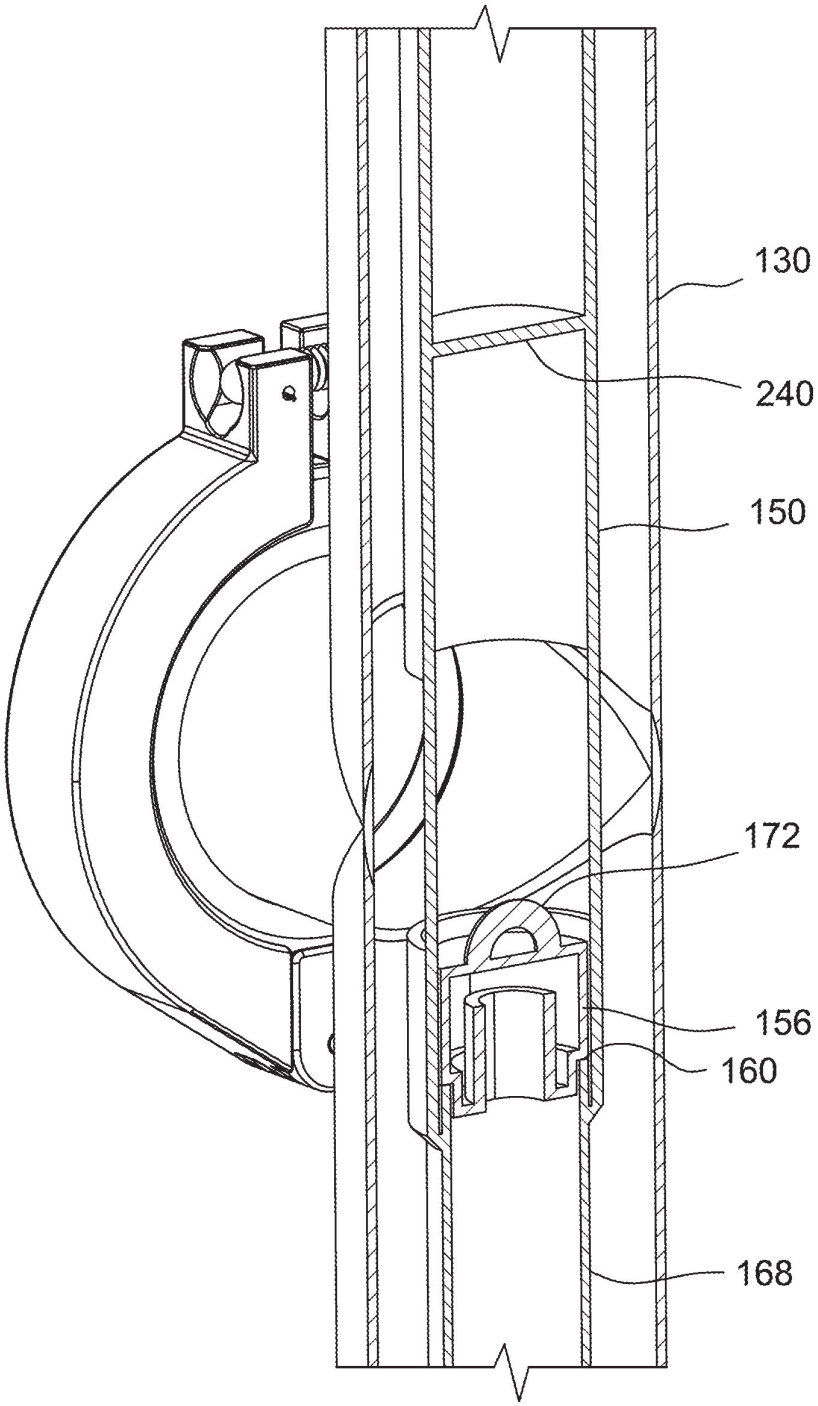


FIG. 8

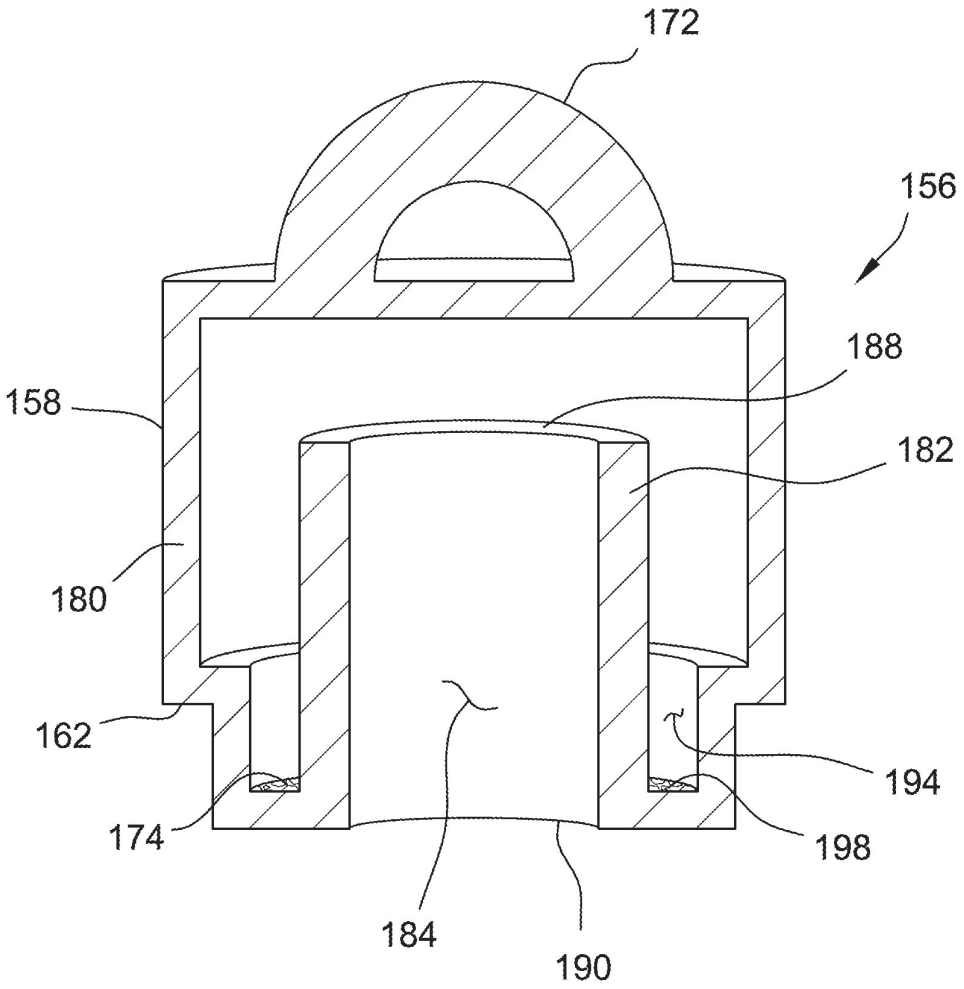


FIG. 9

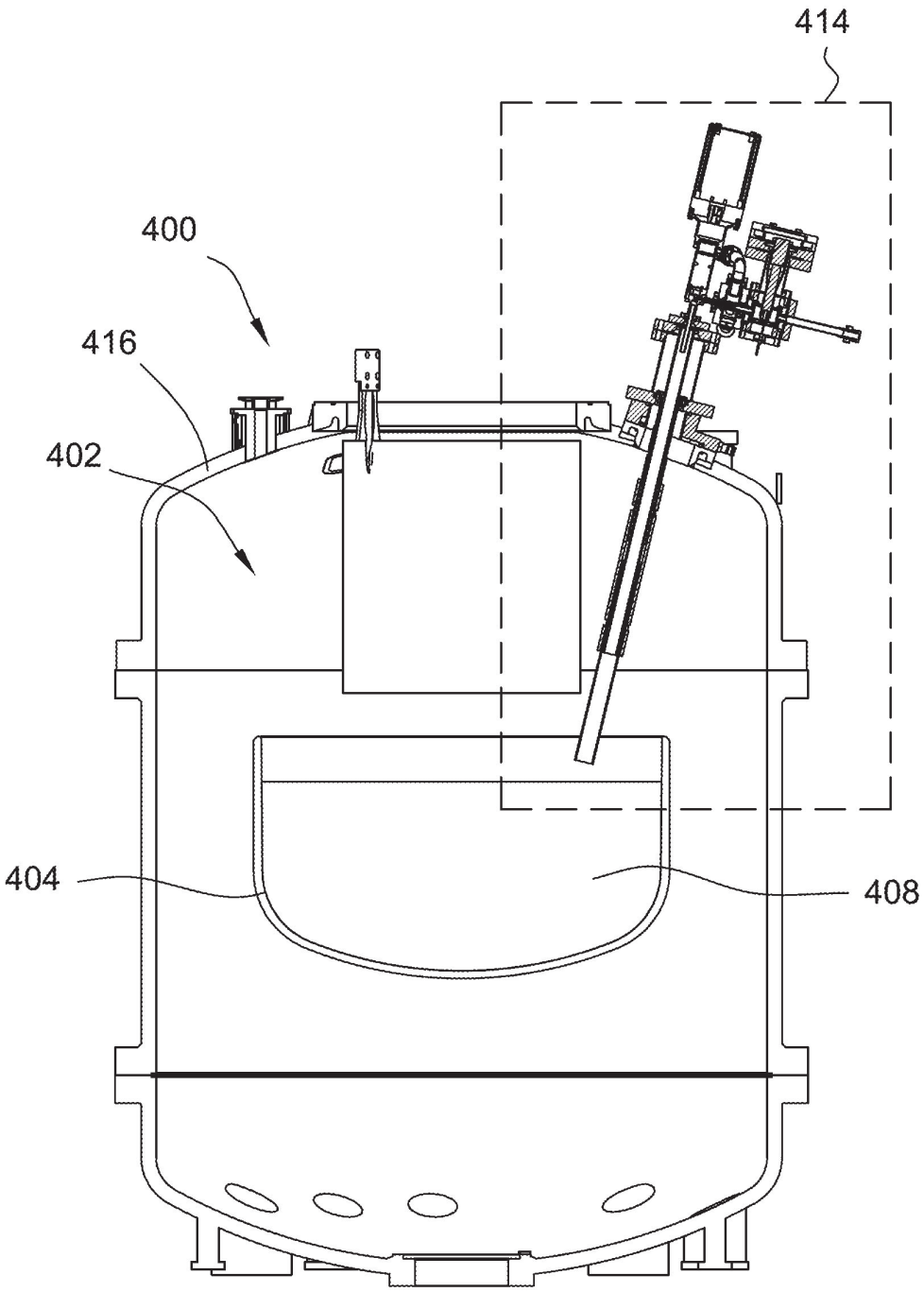


FIG. 10

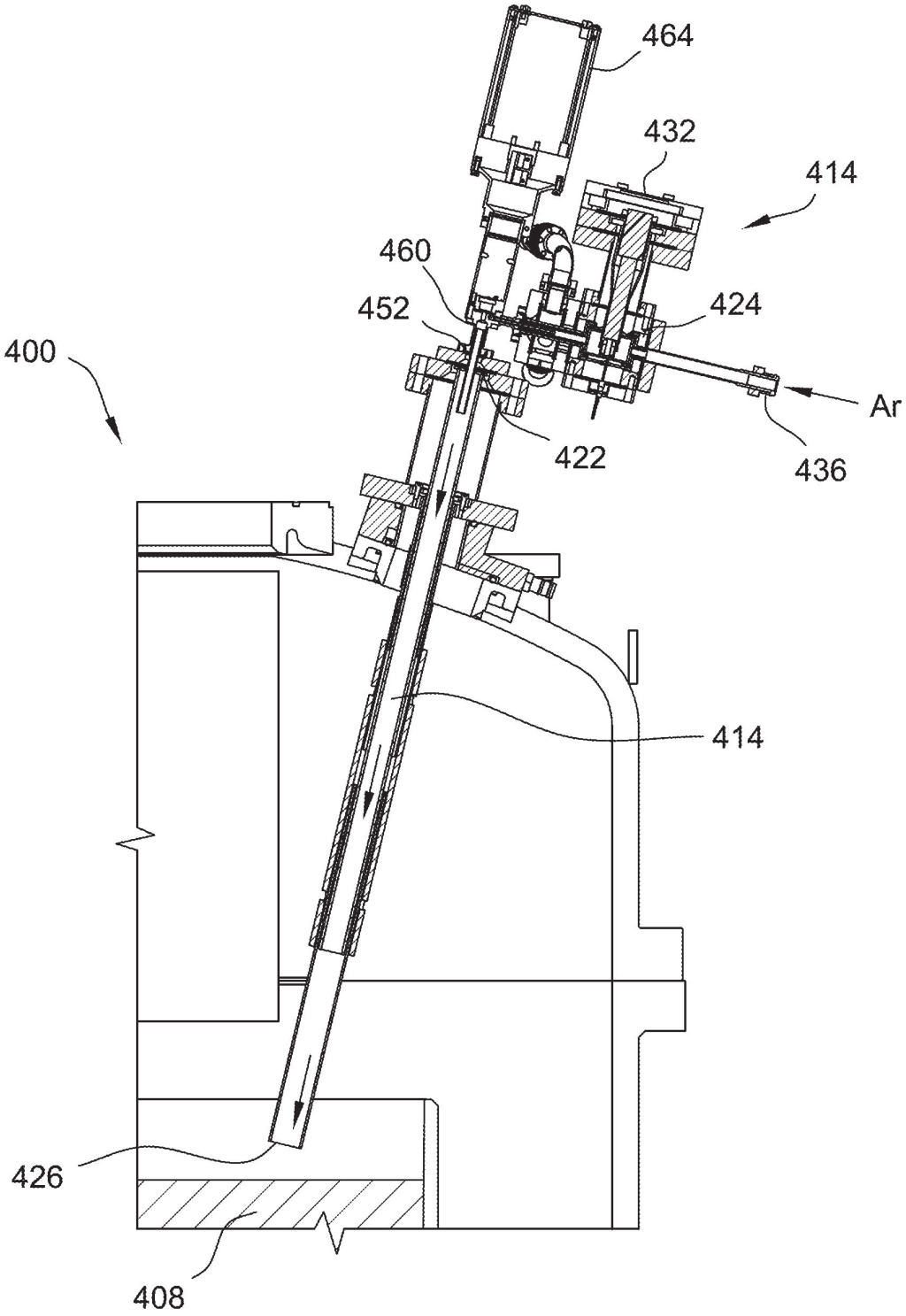


FIG. 11

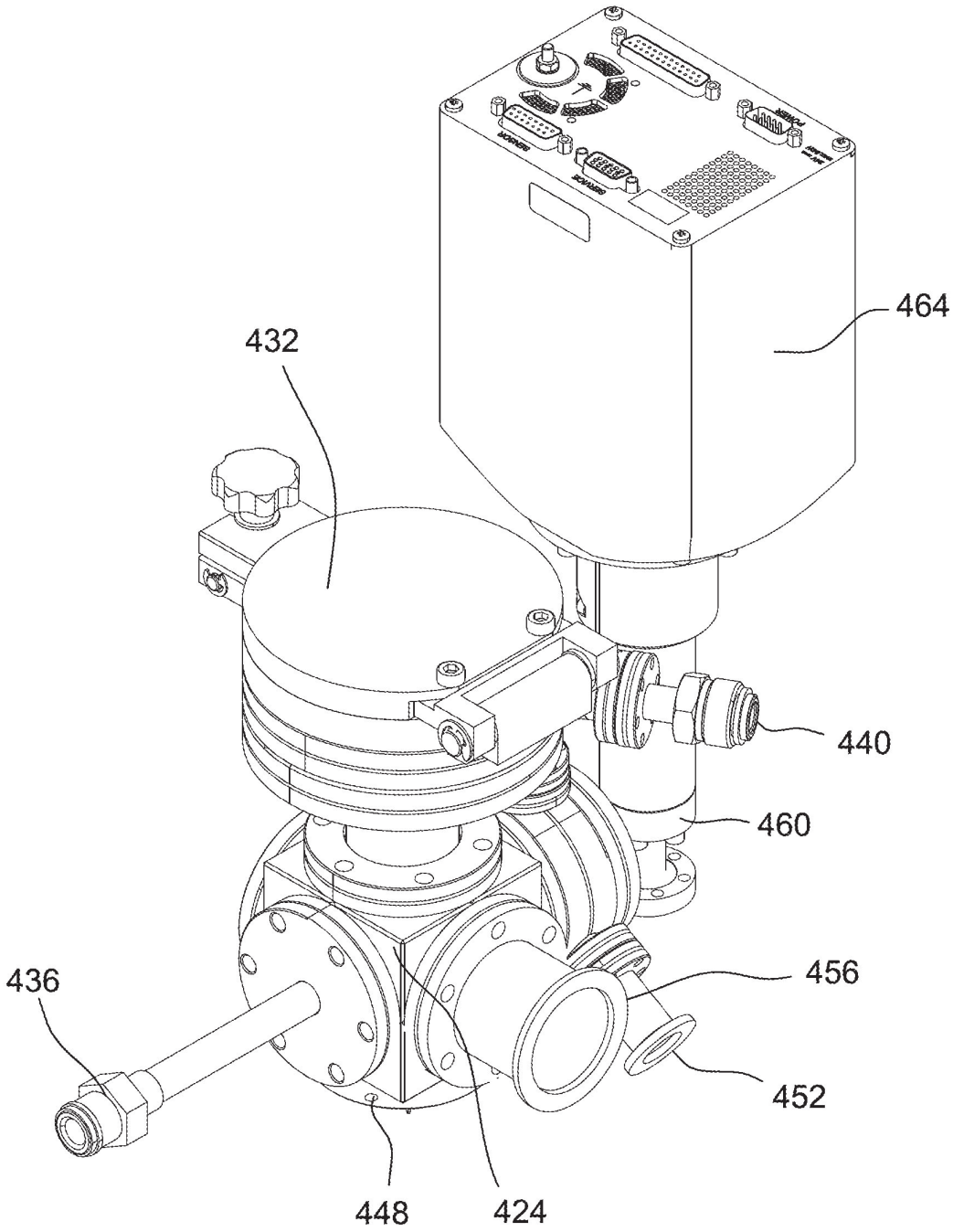


FIG. 12

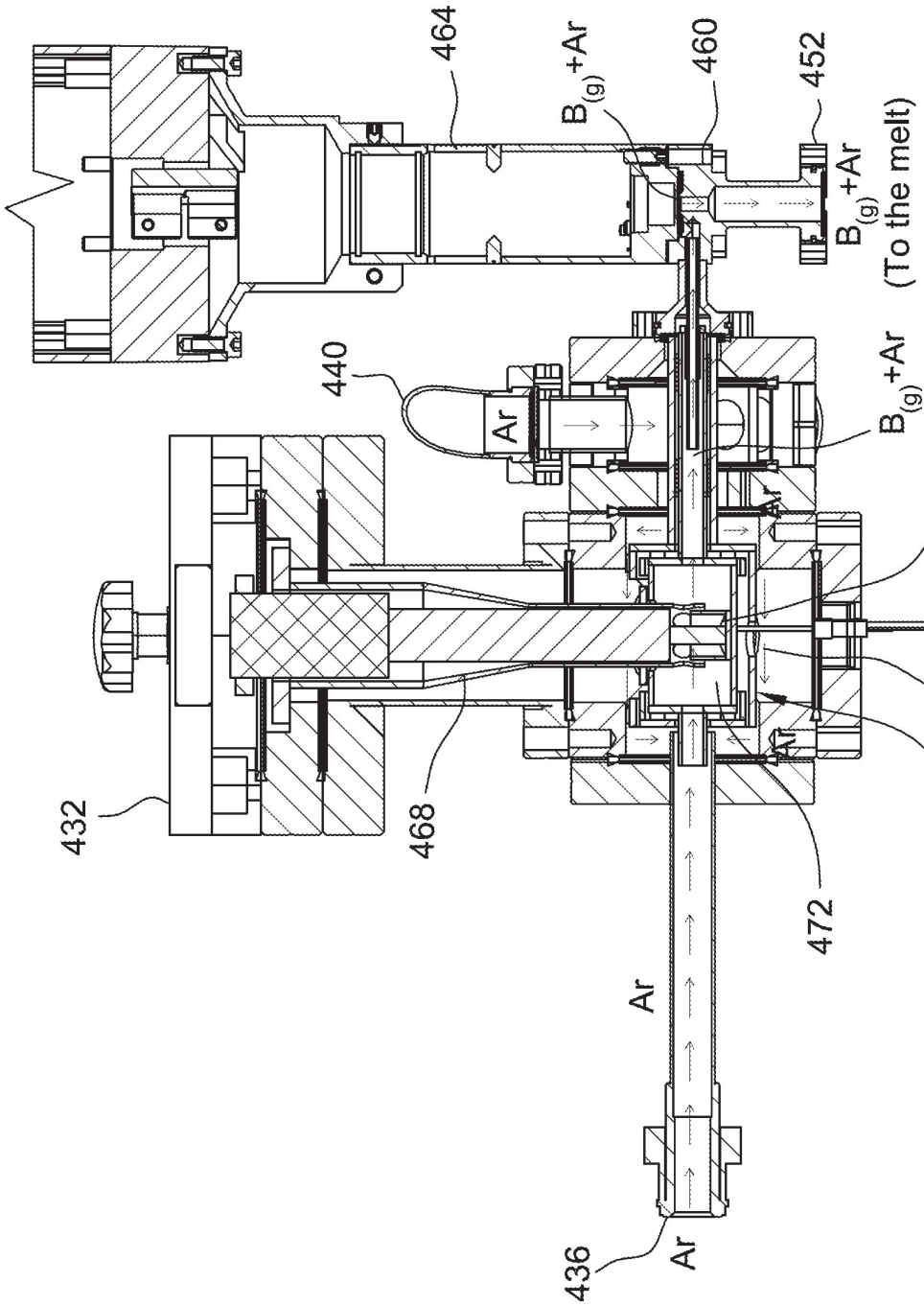

464
$B_{(g)}$+Ar
460
452
$B_{(g)}$+Ar
(To the melt)
440
Ar
$B_{(g)}$+Ar
Ar
424
476
428
Ar
432
468
472
Ar
436
Ar

FIG. 13