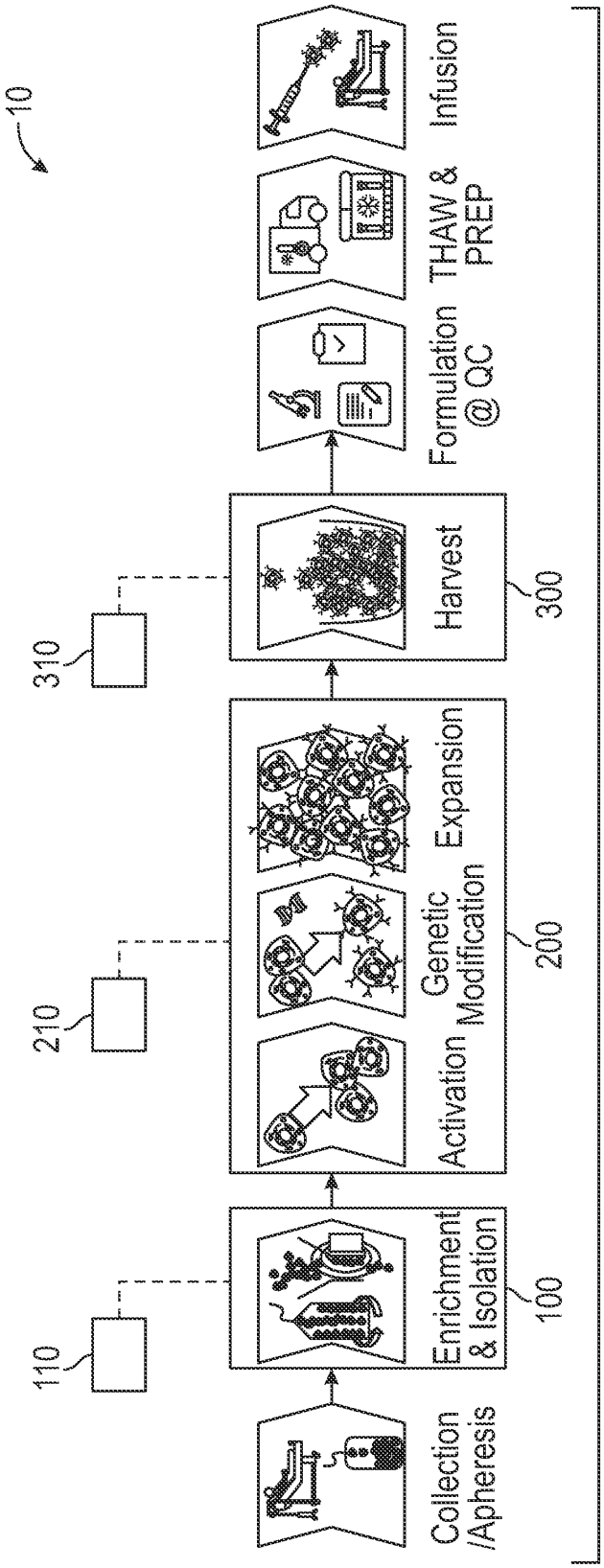

10
Collection /Apheresis
110
Enrichment & Isolation
100
Activation
Genetic Modification
Expansion
200
210
Harvest
300
310
Formulation @QC
THAW & PREP
Infusion

FIG. 1

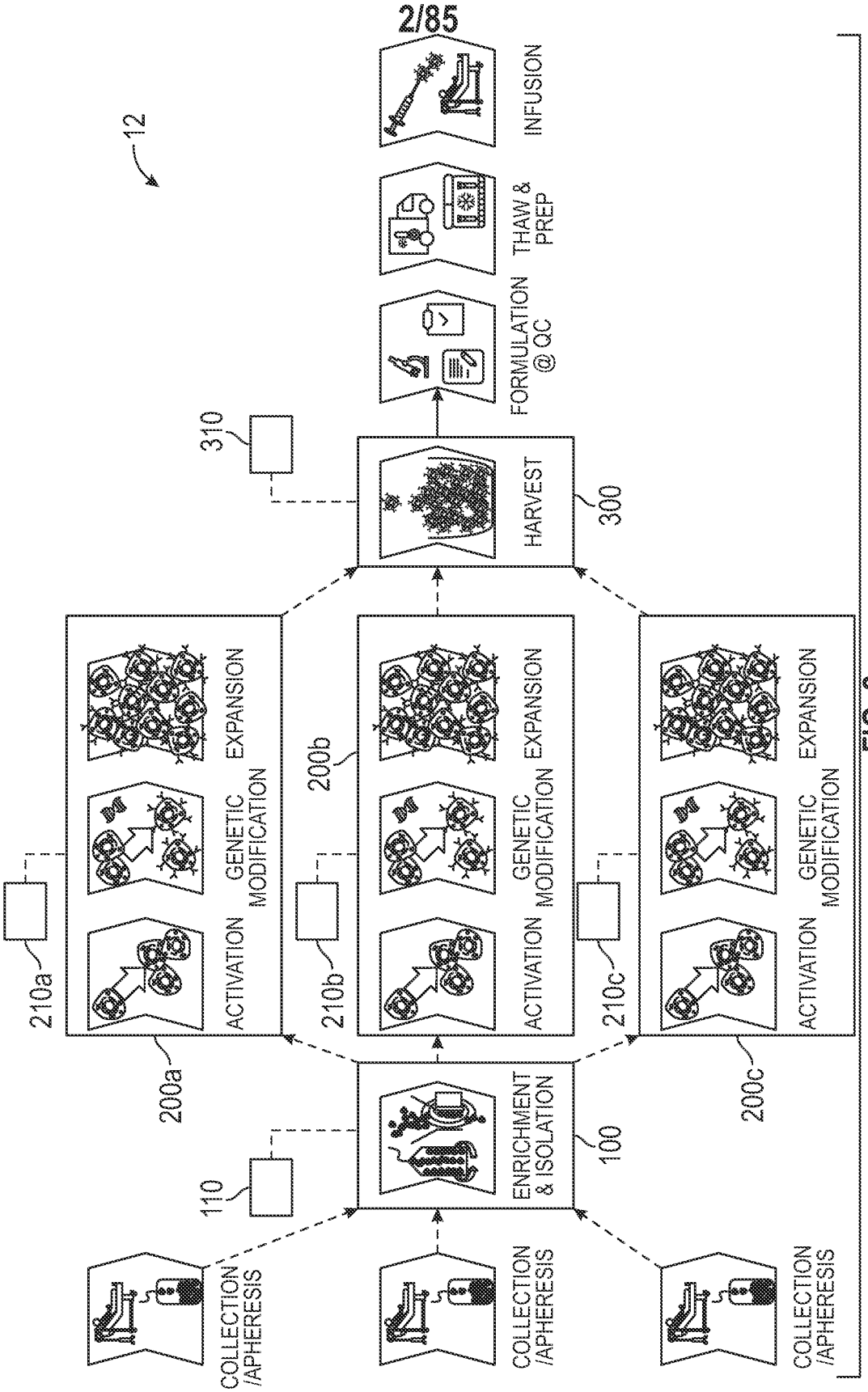

12
COLLECTION /APHERESIS
110
ENRICHMENT & ISOLATION
100
COLLECTION /APHERESIS
COLLECTION /APHERESIS
200a
ACTIVATION
GENETIC MODIFICATION
EXPANSION
210a
200b
ACTIVATION
GENETIC MODIFICATION
EXPANSION
210b
210c
200c
ACTIVATION
GENETIC MODIFICATION
EXPANSION
310
HARVEST
300
FORMULATION @ QC
THAW & PREP
INFUSION

FIG. 2

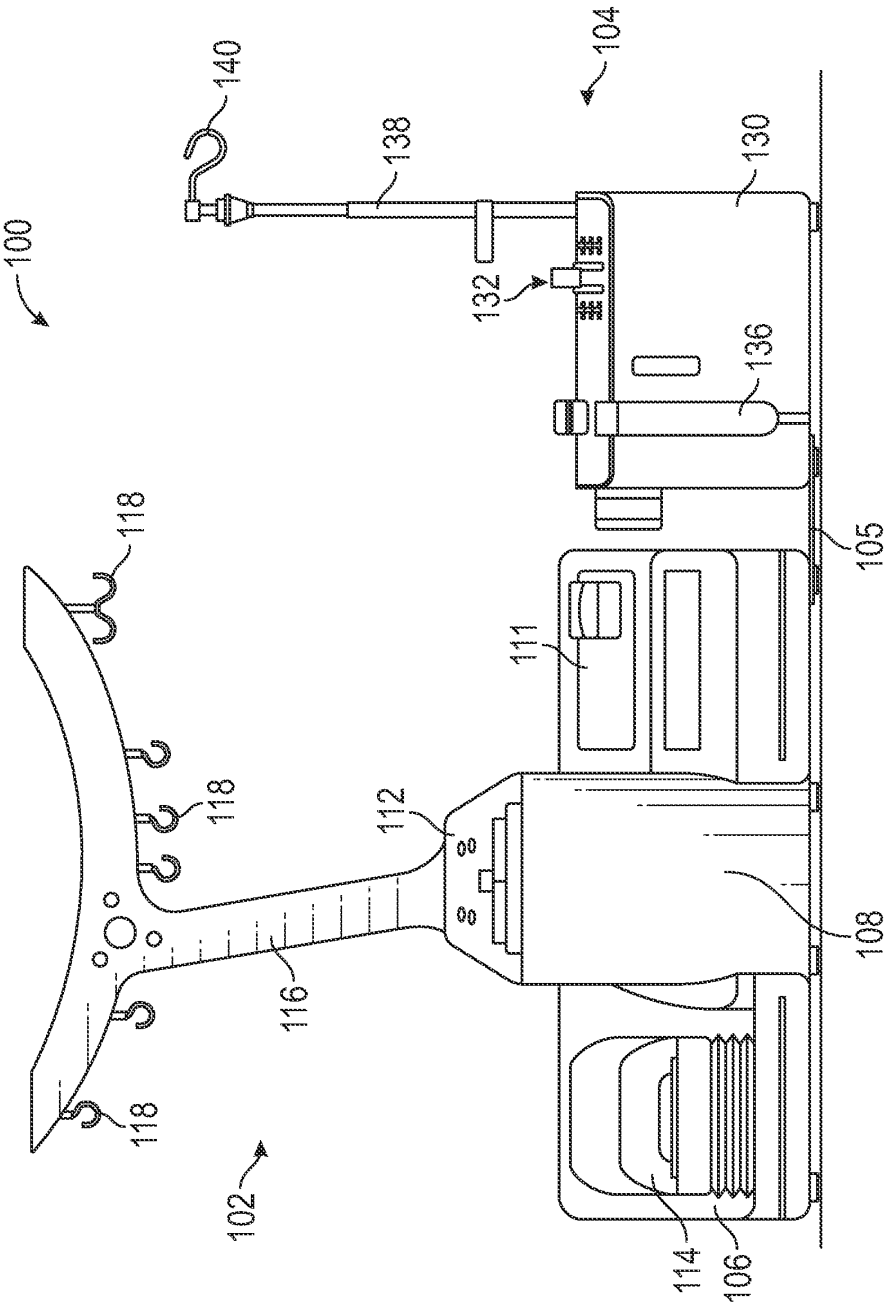

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FIG. 3

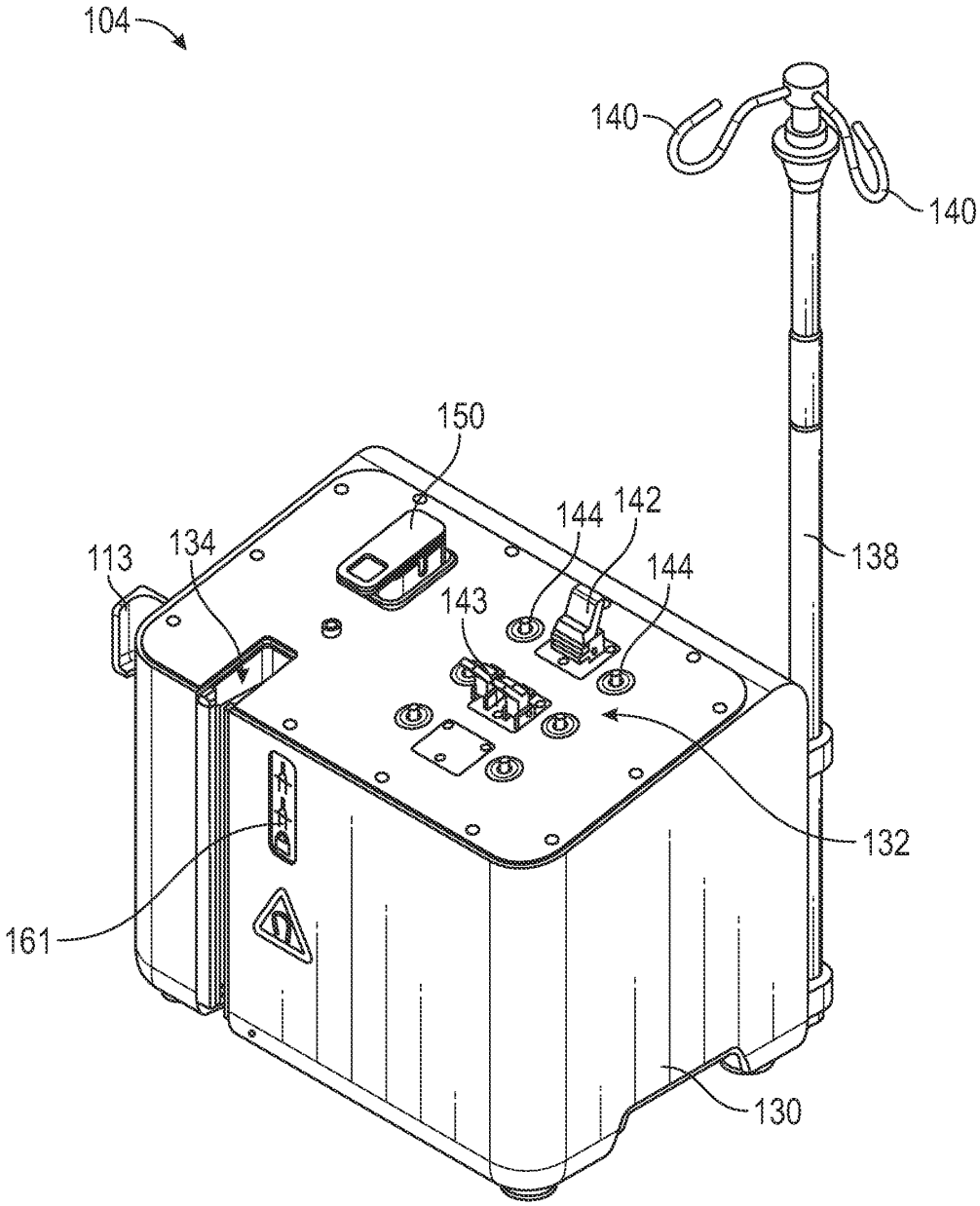


FIG. 4

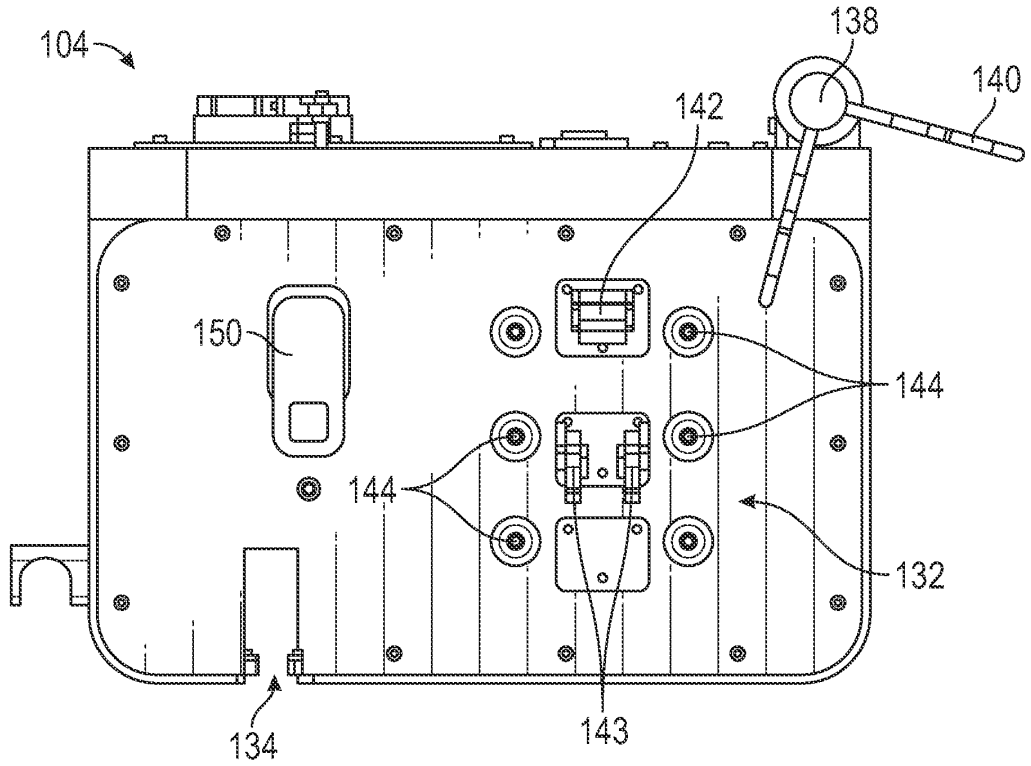

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FIG. 5

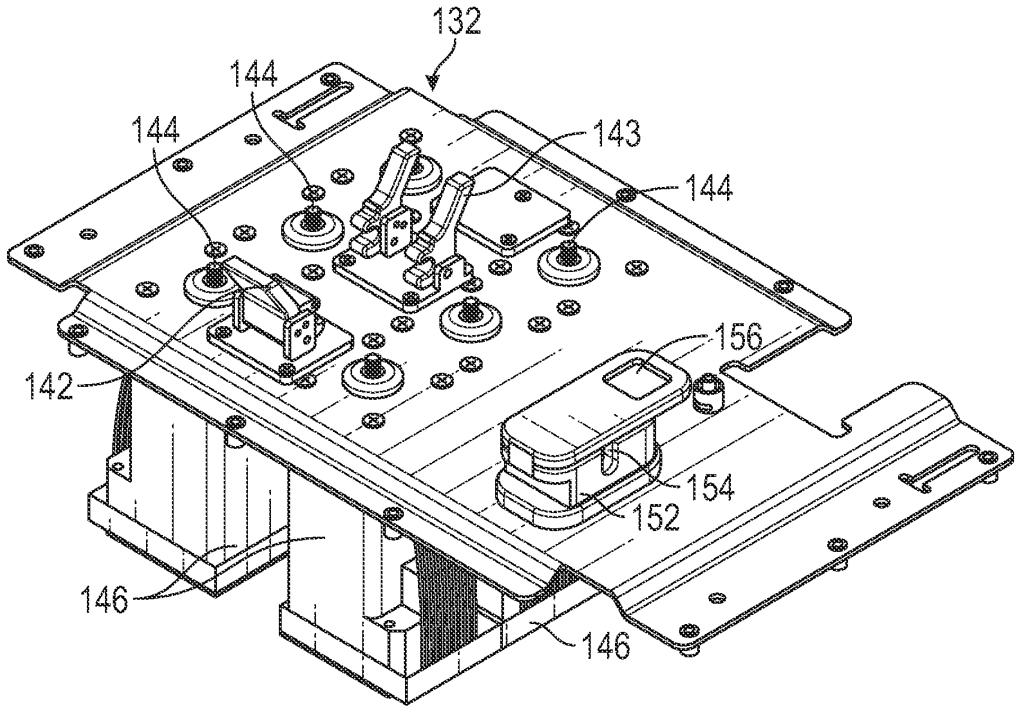

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FIG. 6

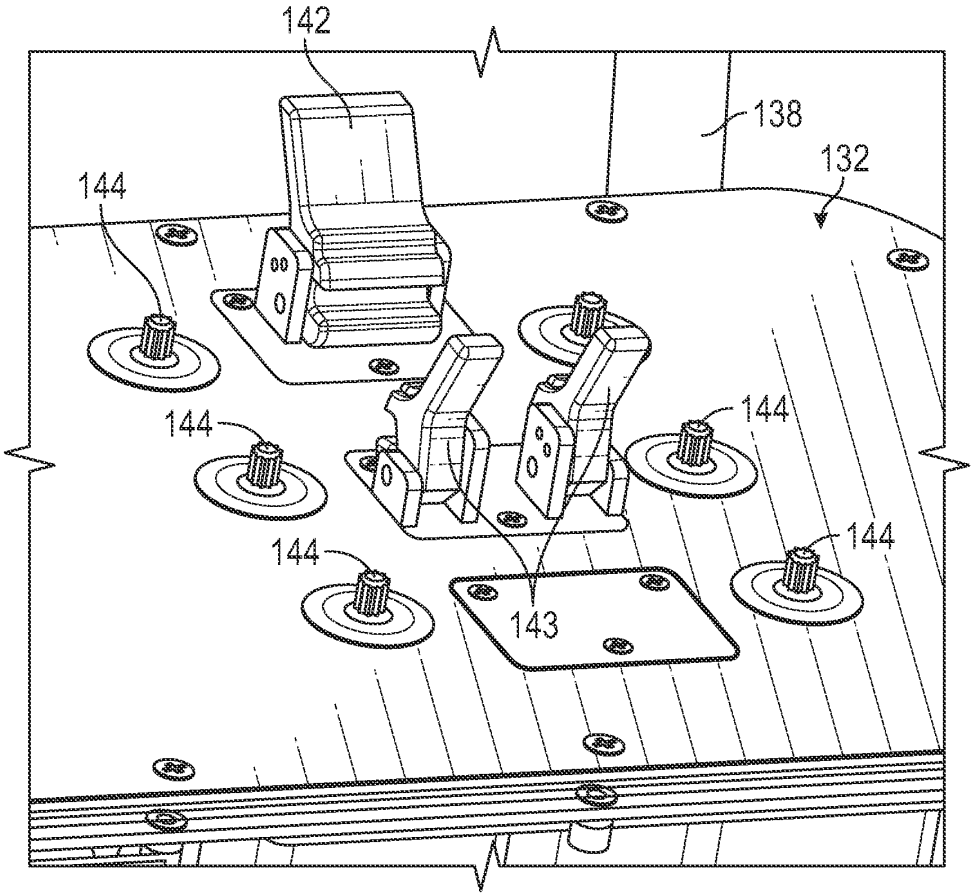


FIG. 7

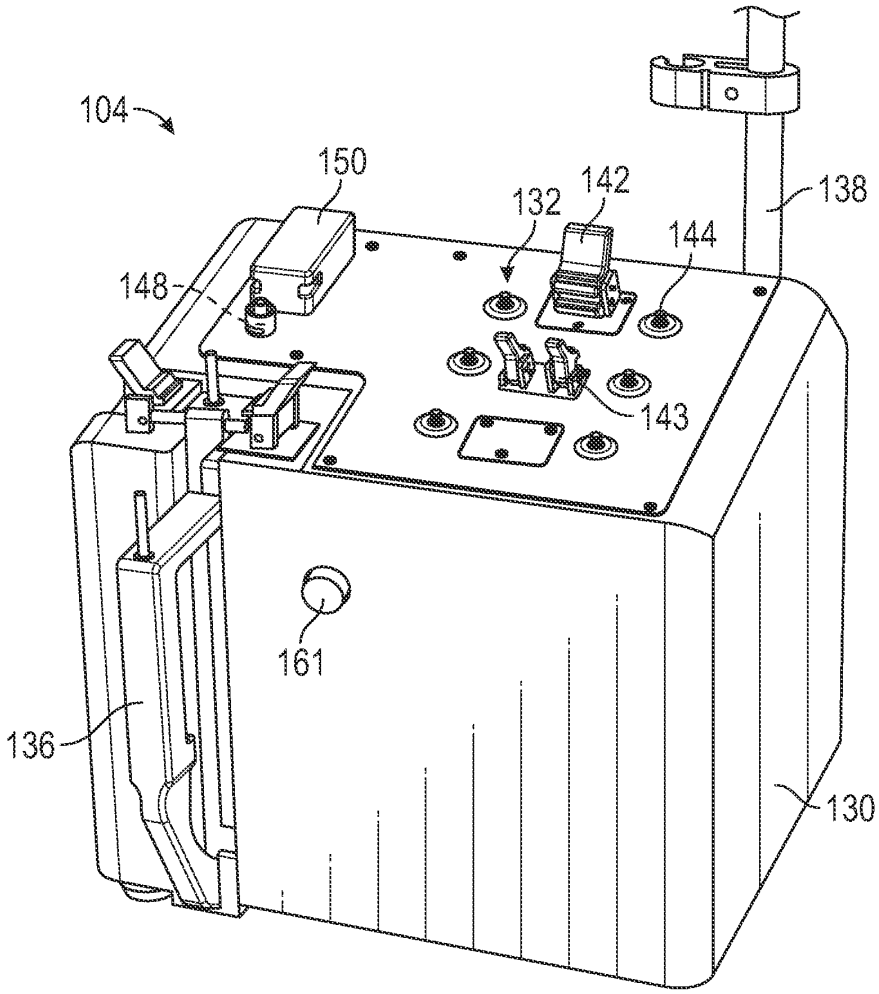


FIG. 8

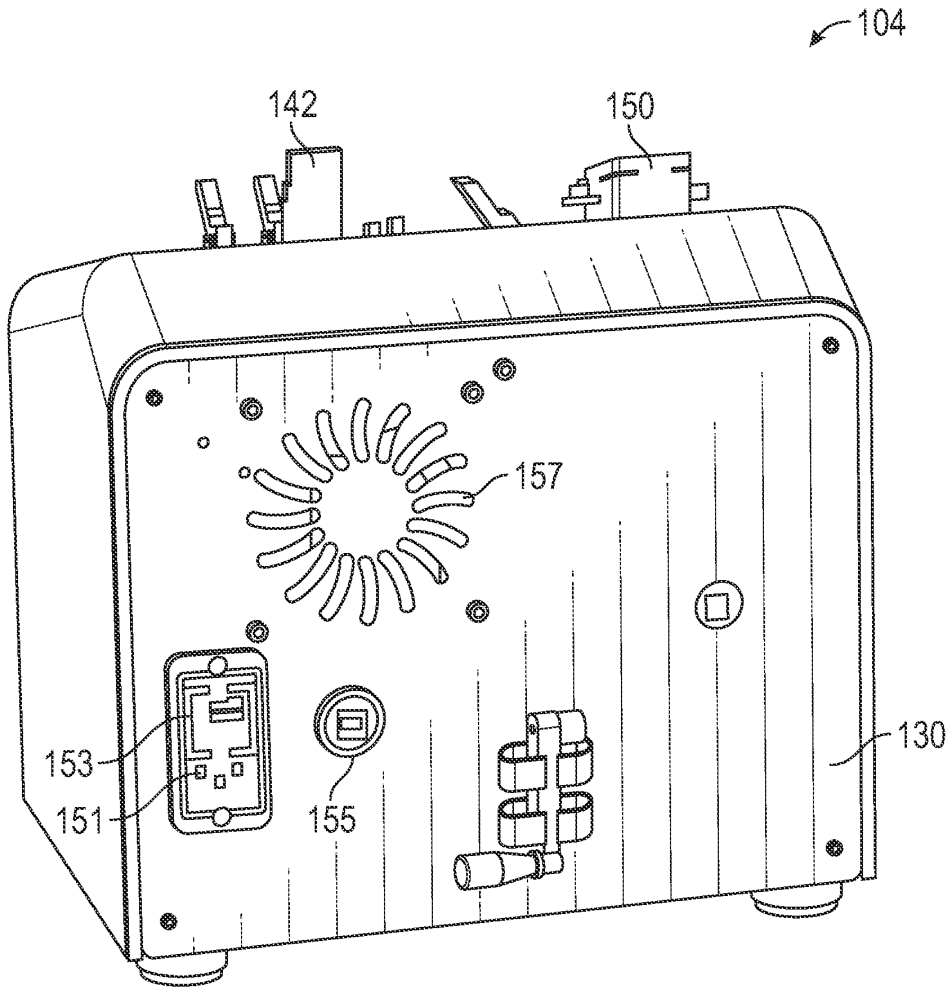


FIG. 9

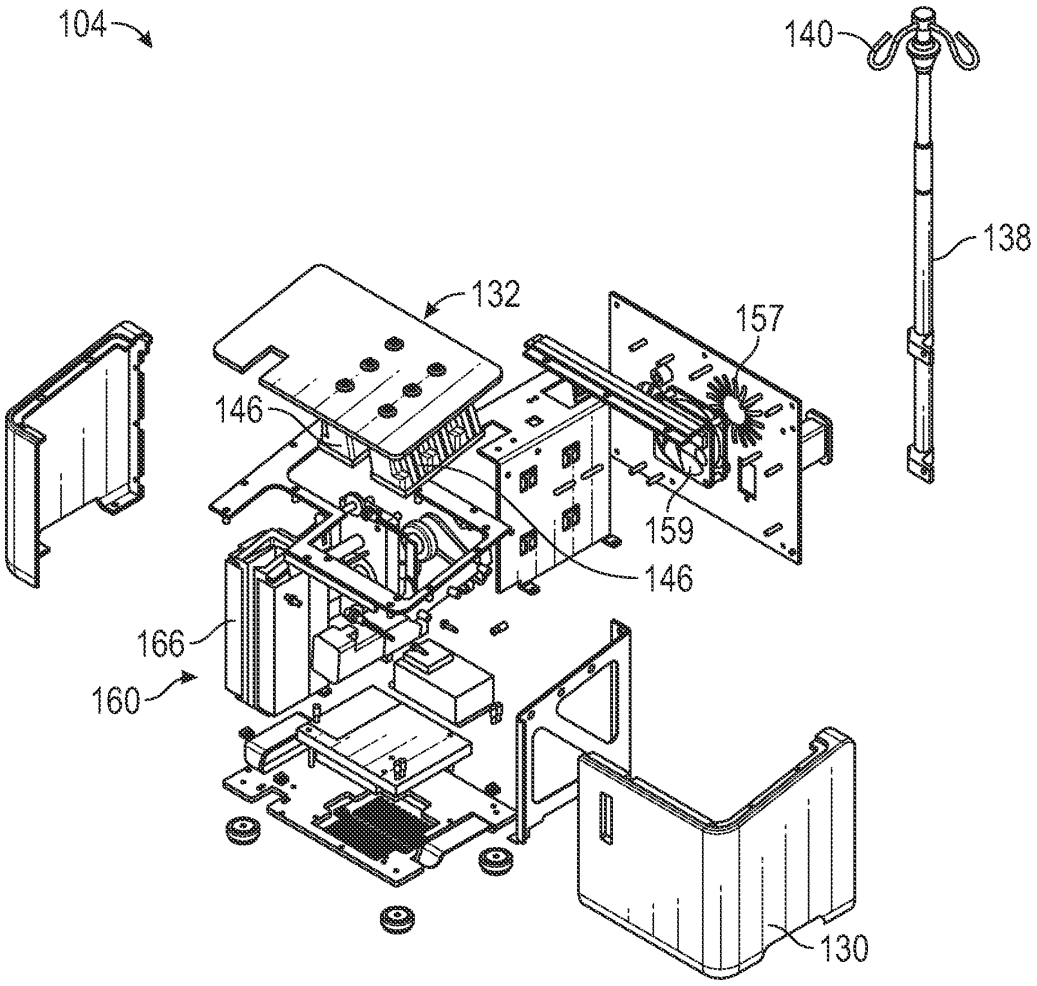


FIG. 10

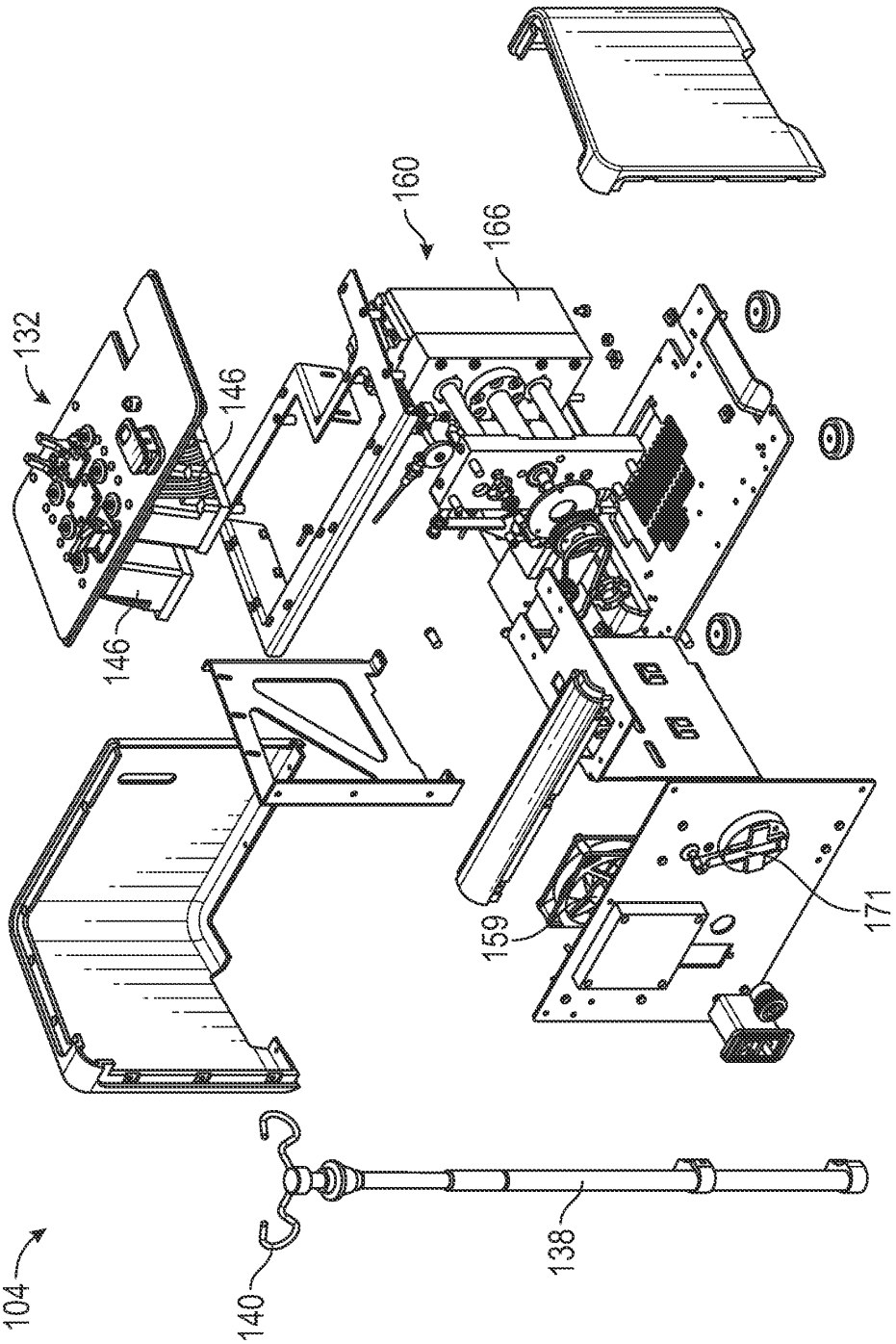


FIG. 11

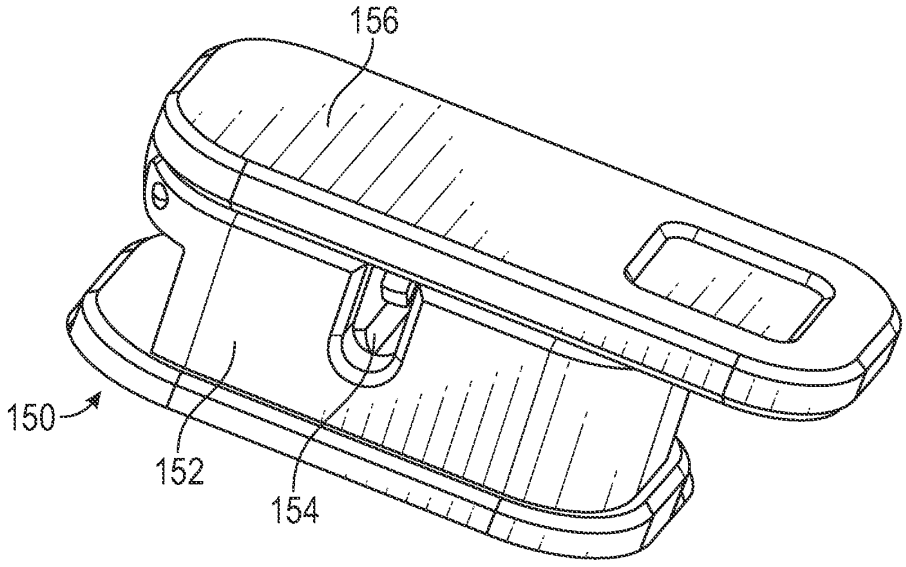


FIG. 12

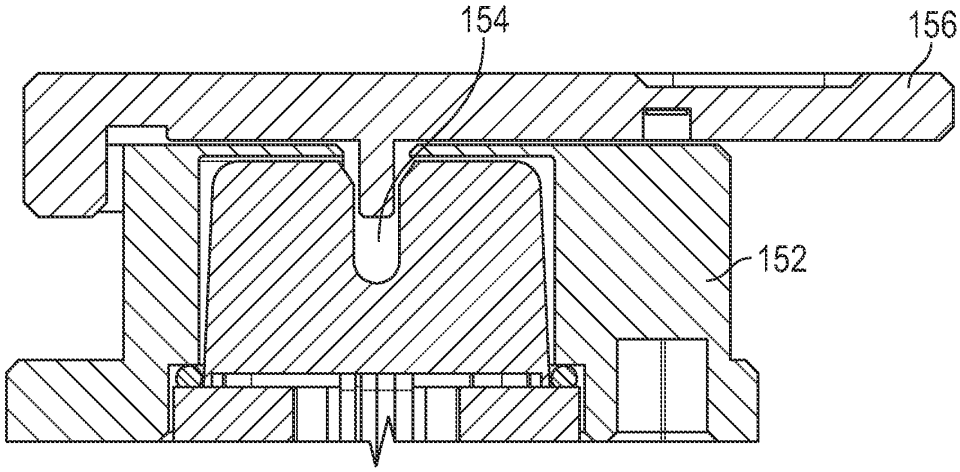


FIG. 13

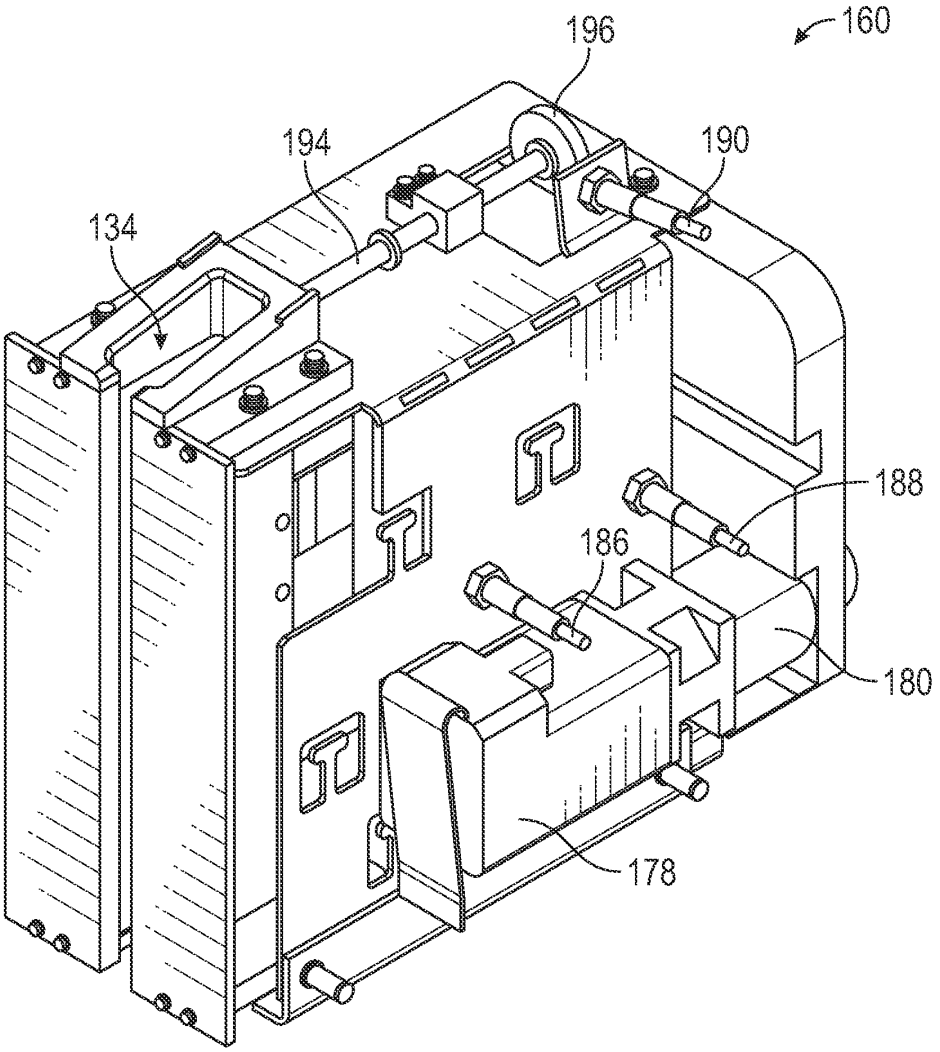


FIG. 14

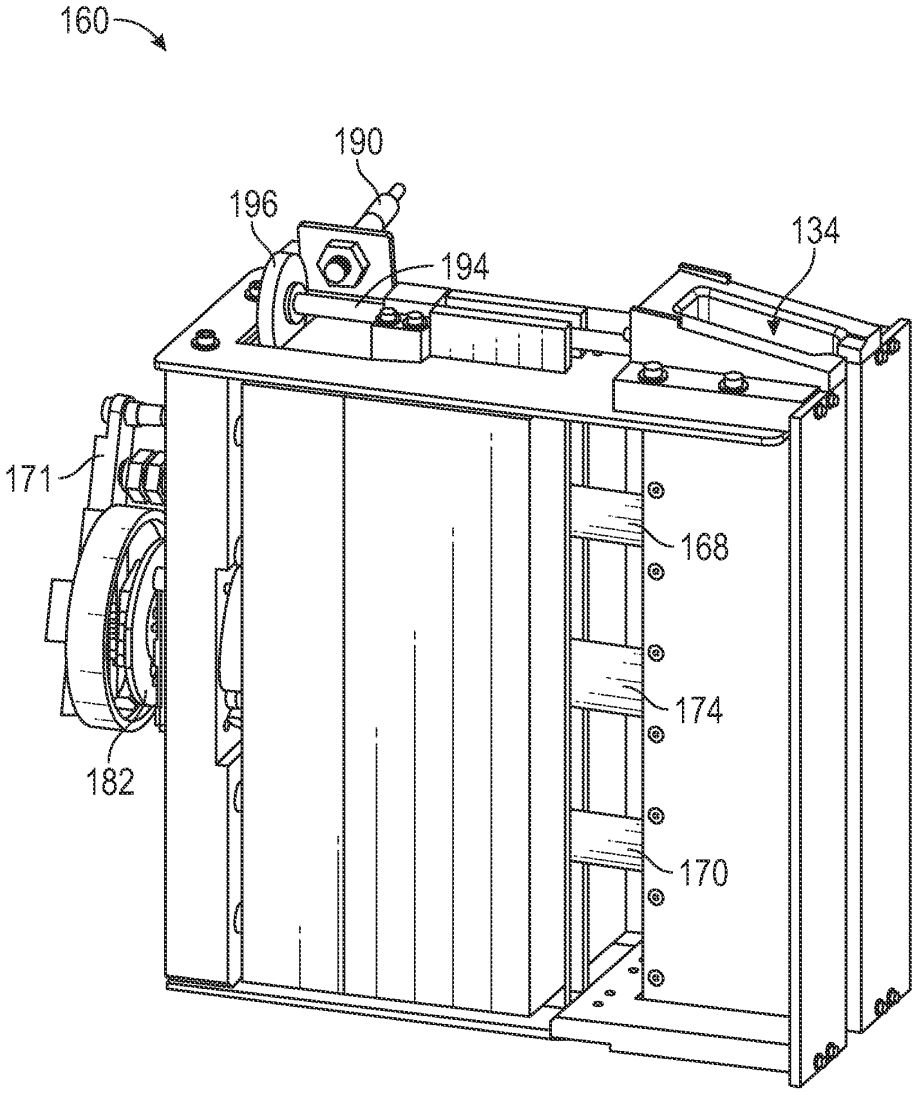


FIG. 15

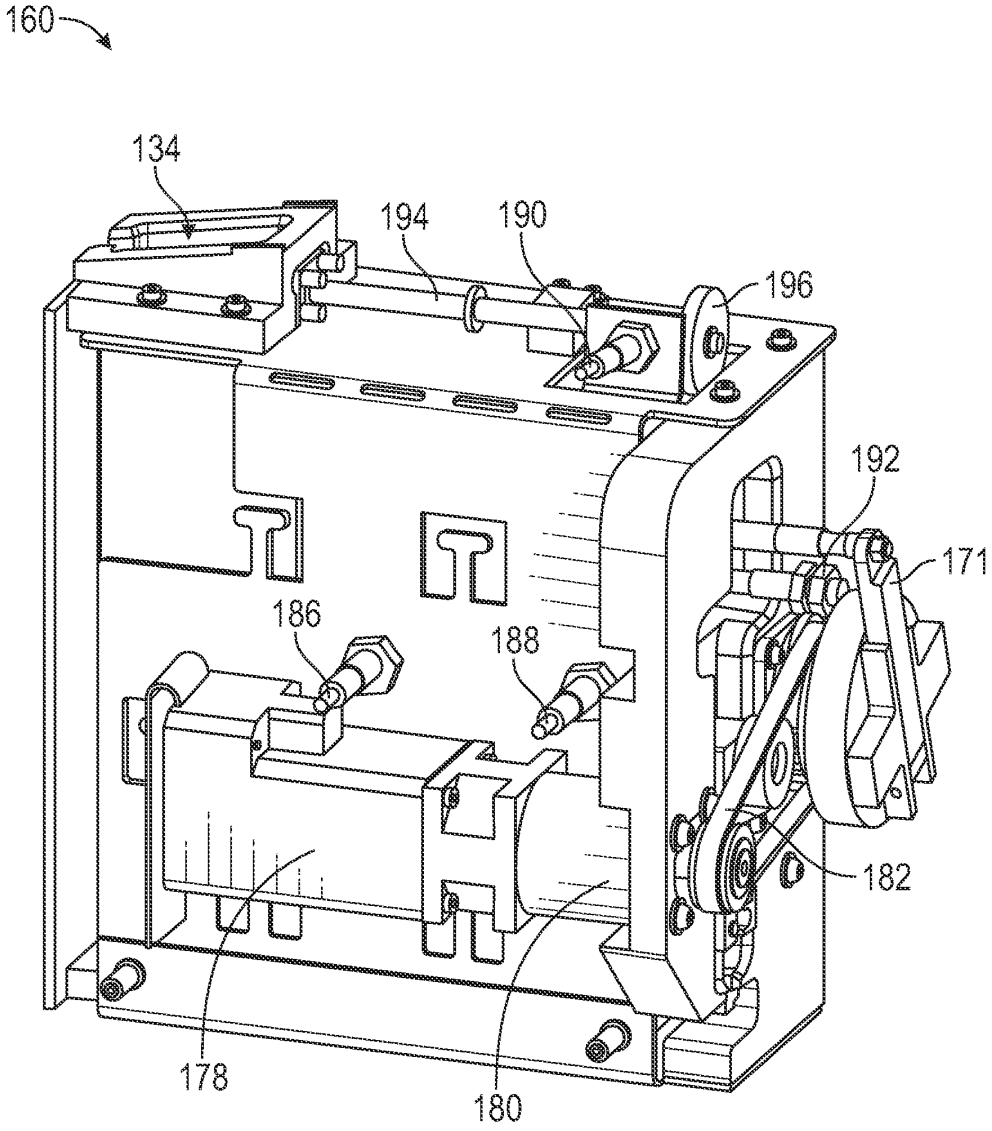


FIG. 16

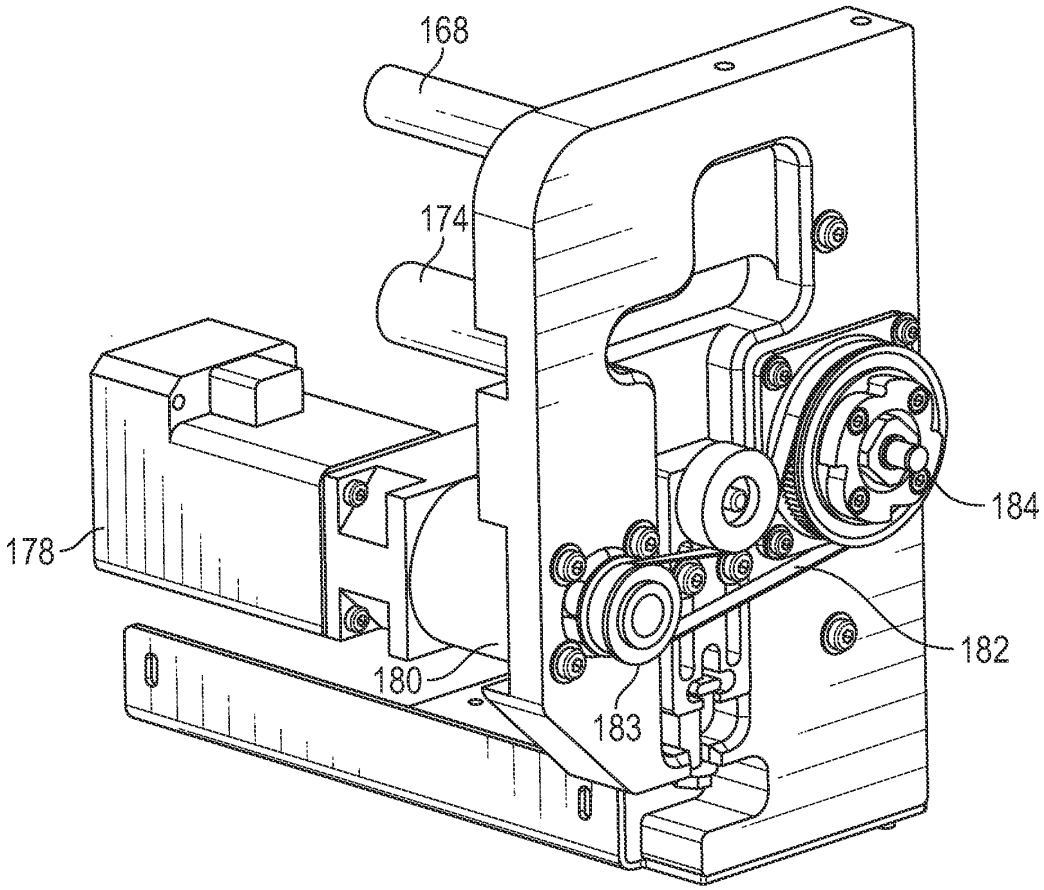


FIG. 17

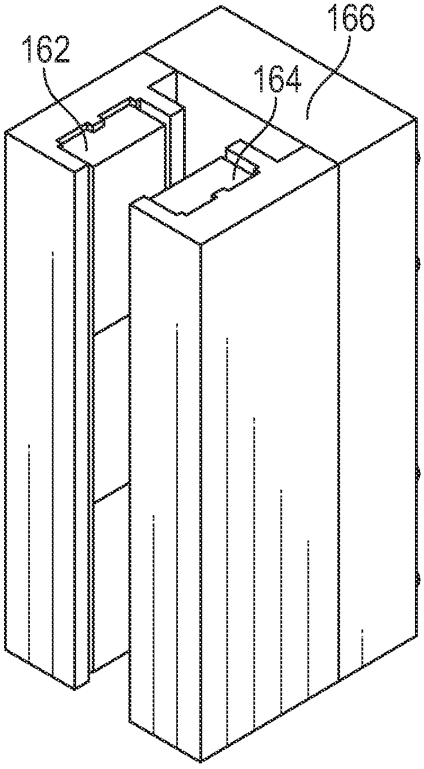


FIG. 18

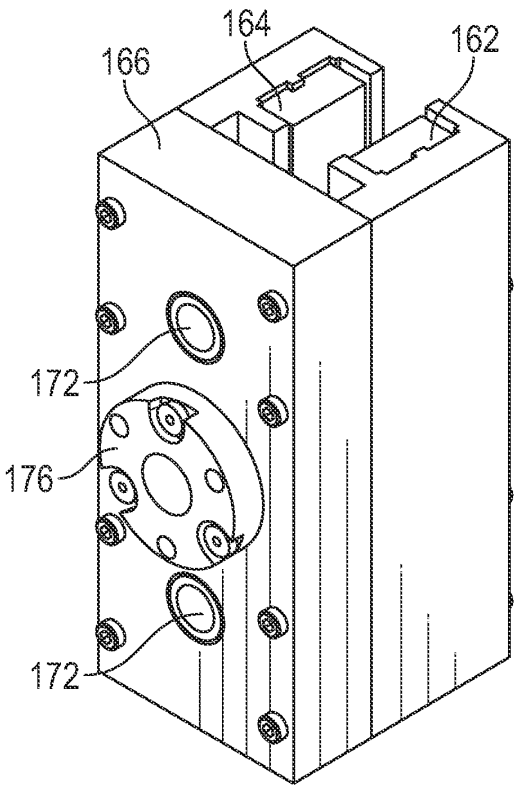


FIG. 19

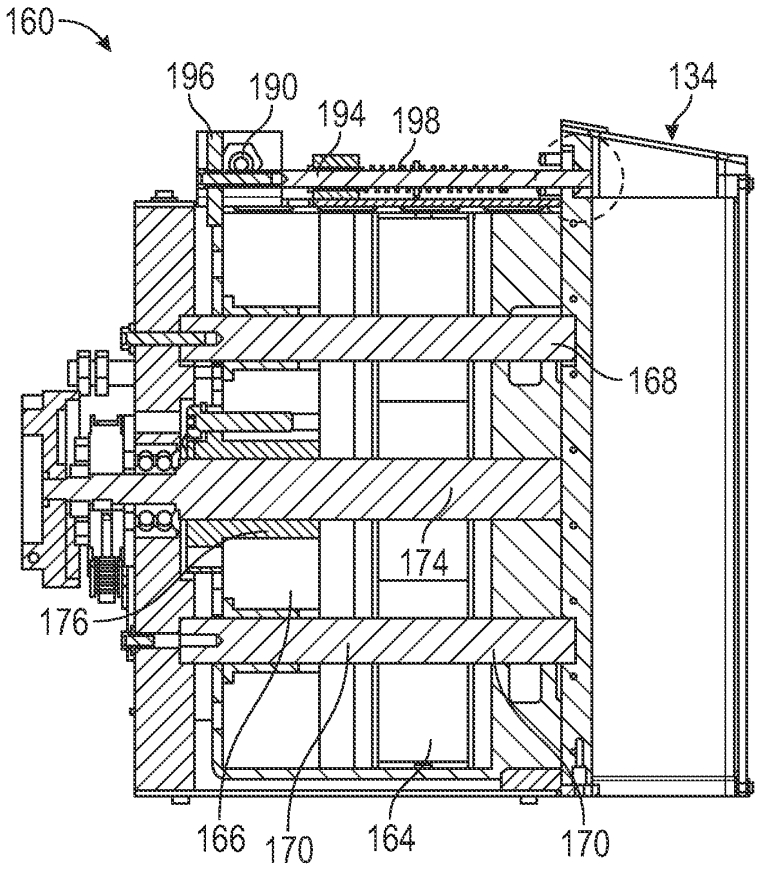


FIG. 20

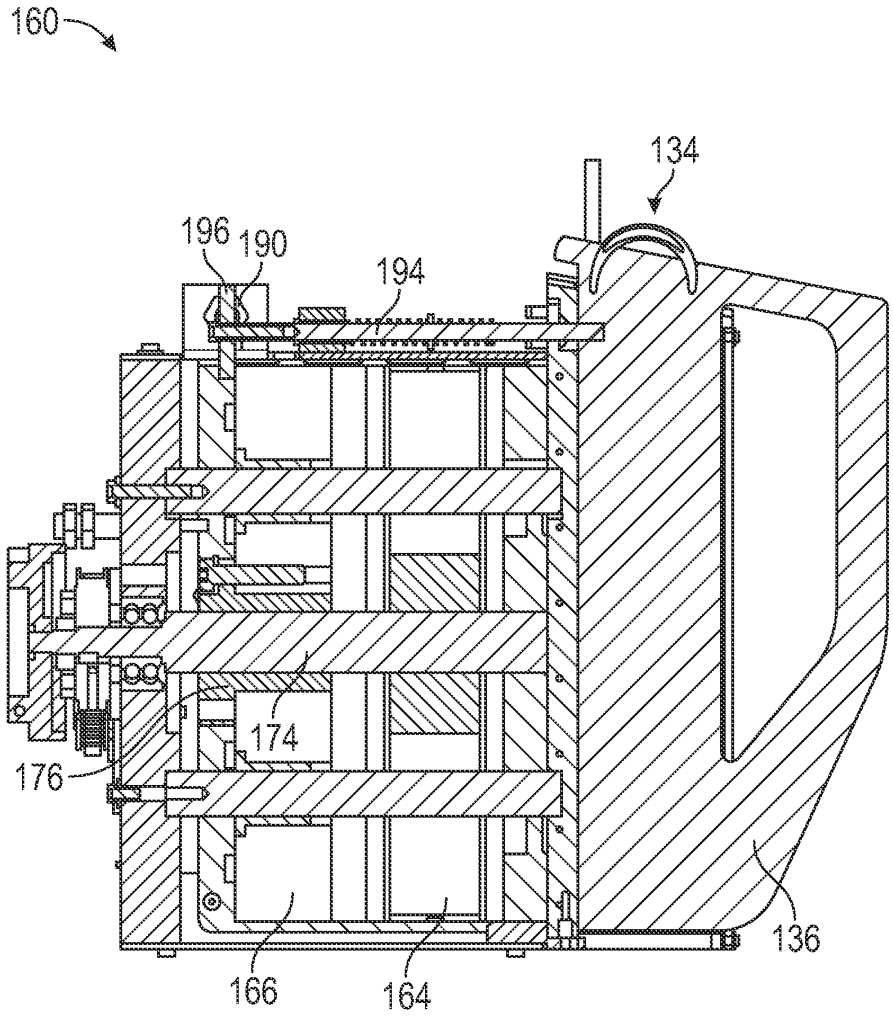


FIG. 21

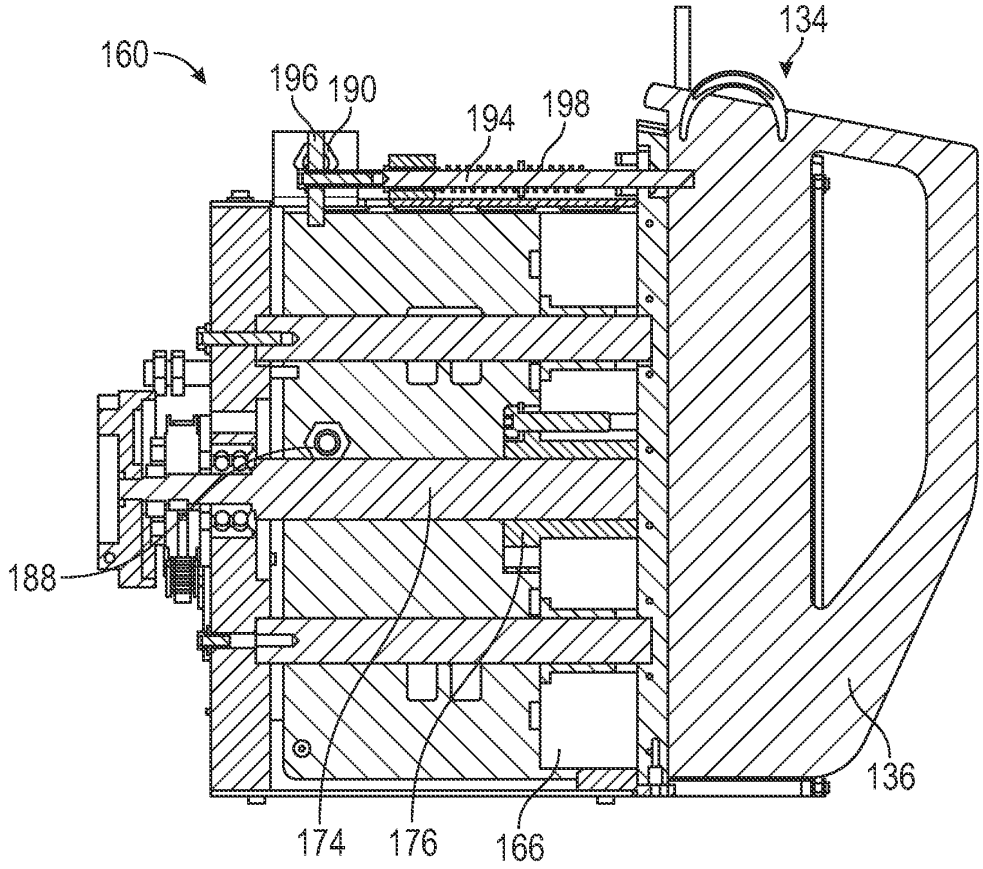


FIG. 22

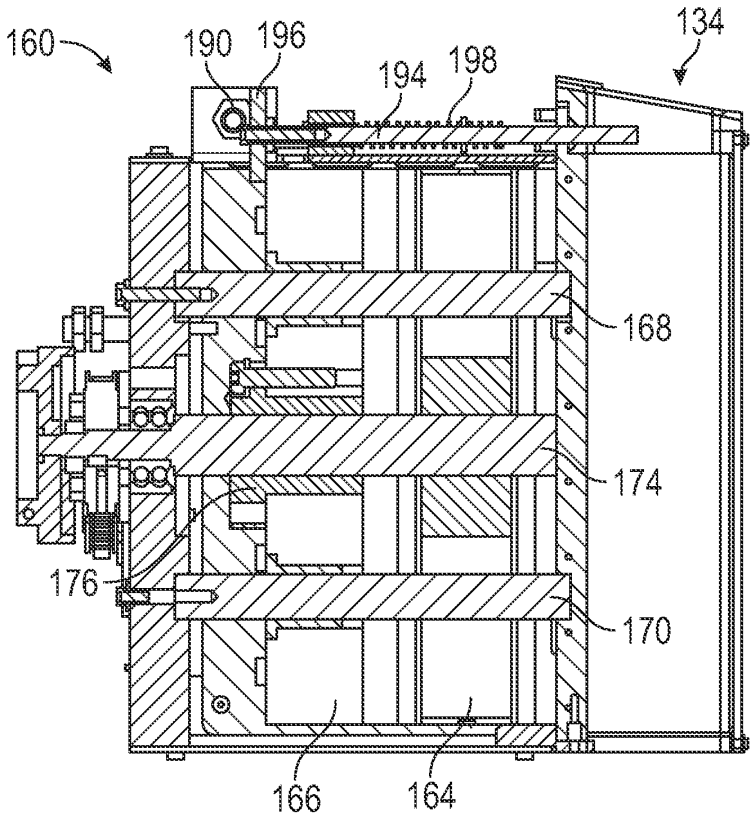


FIG. 23

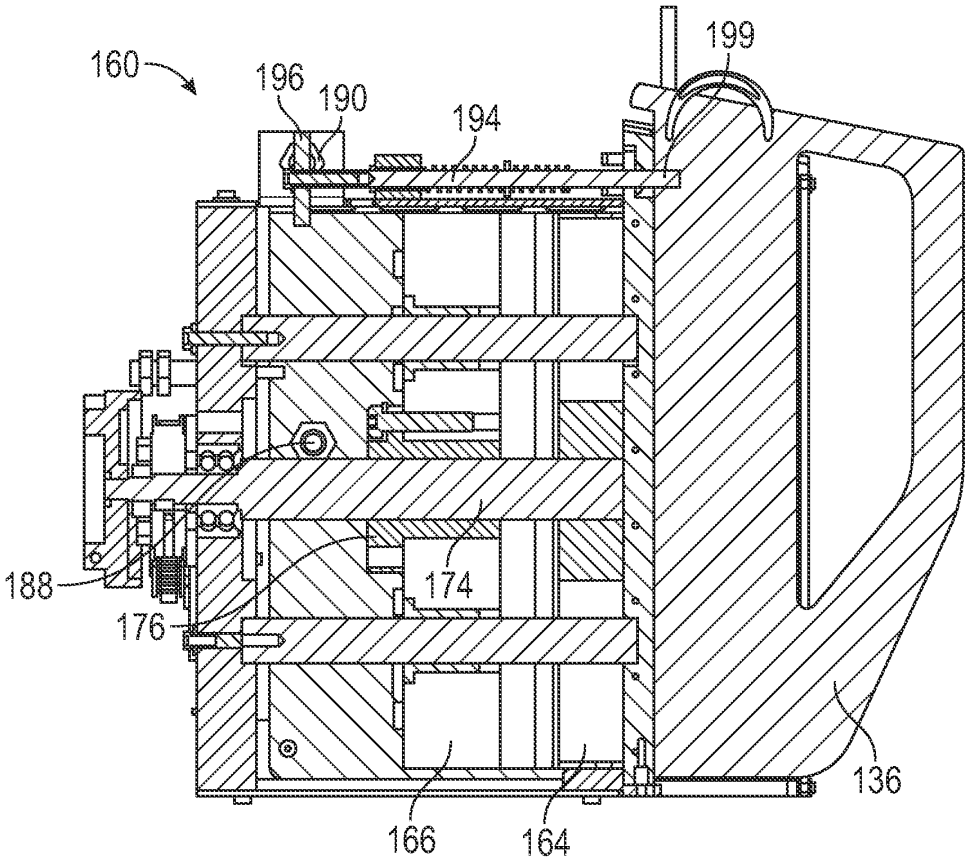


FIG. 24

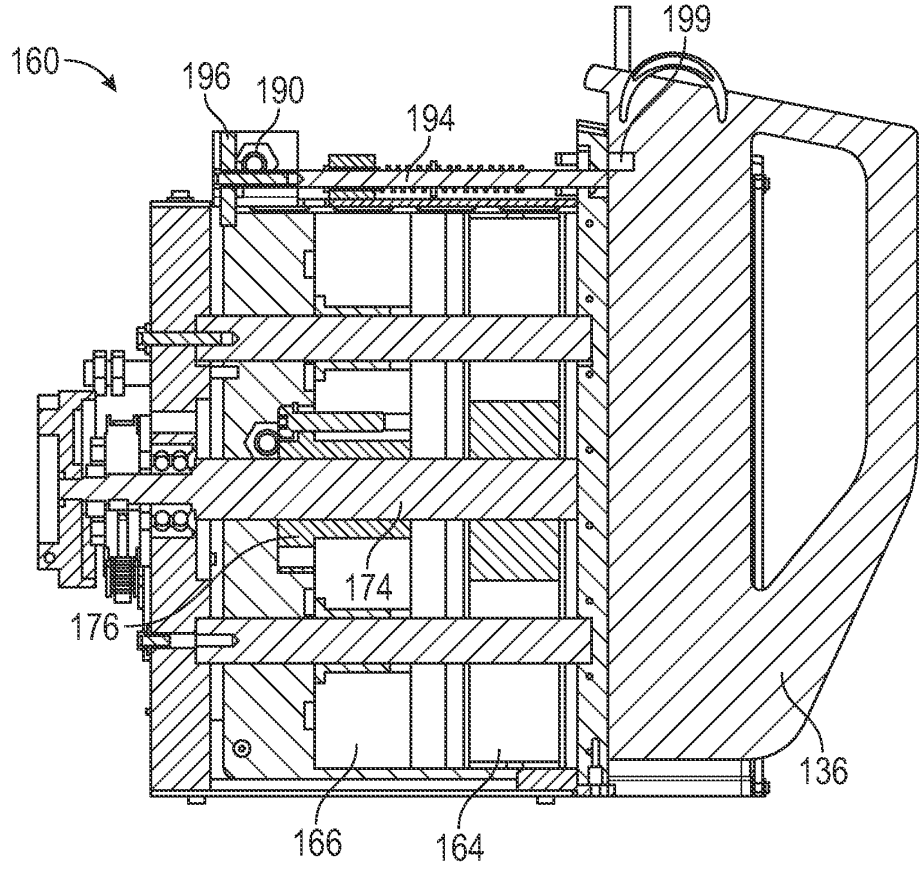


FIG. 25

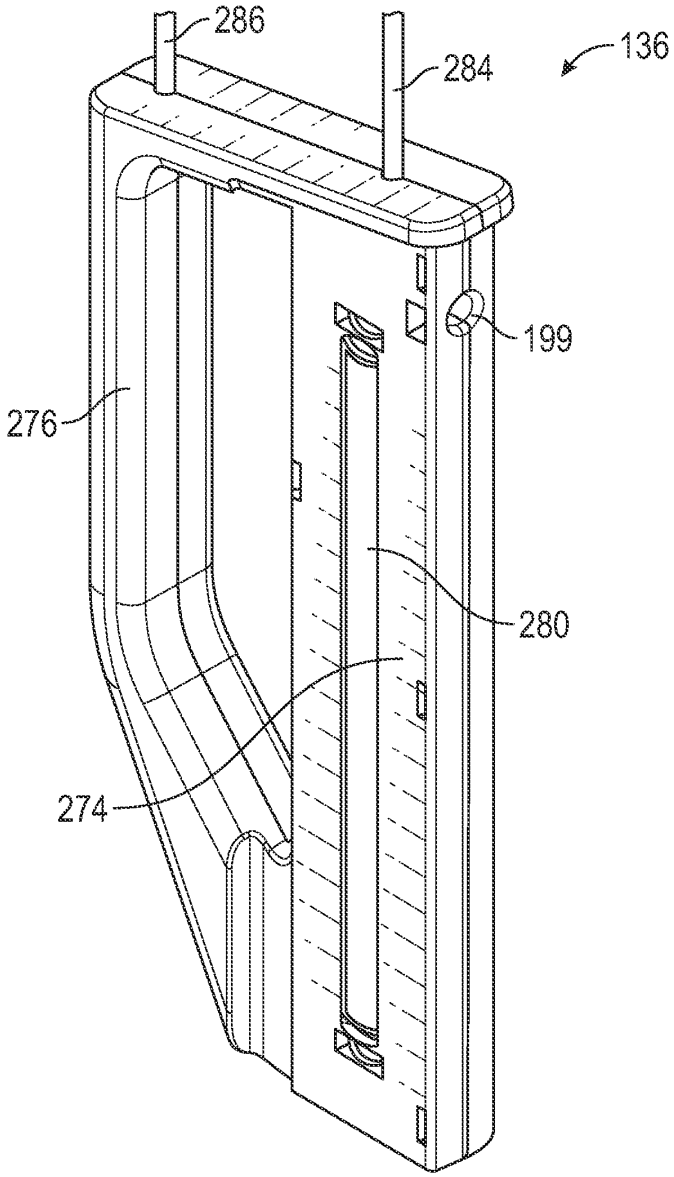


FIG. 26

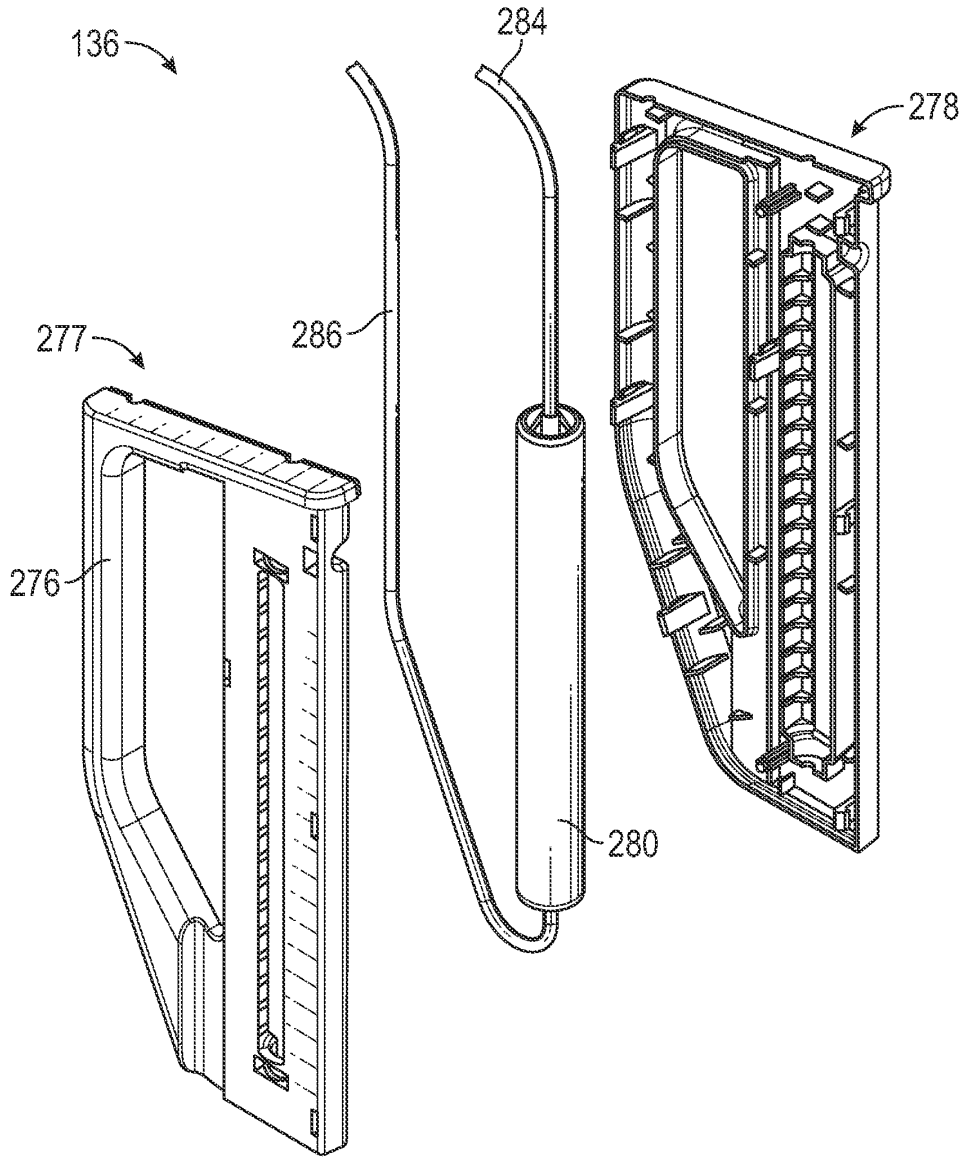


FIG. 27

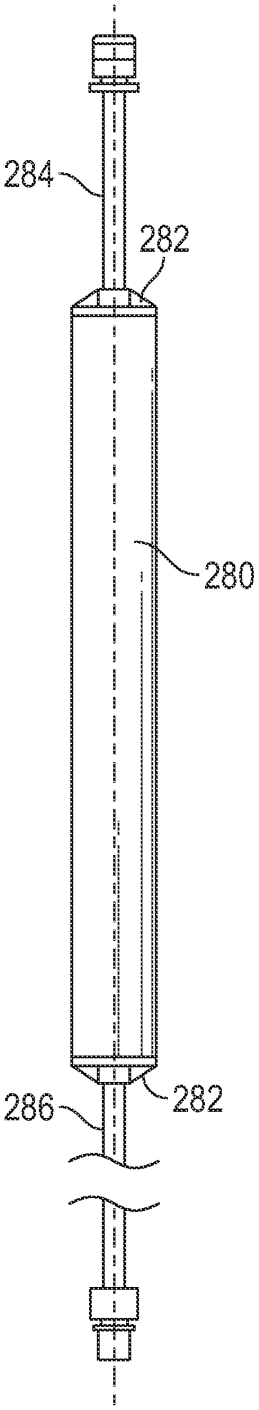


FIG. 28

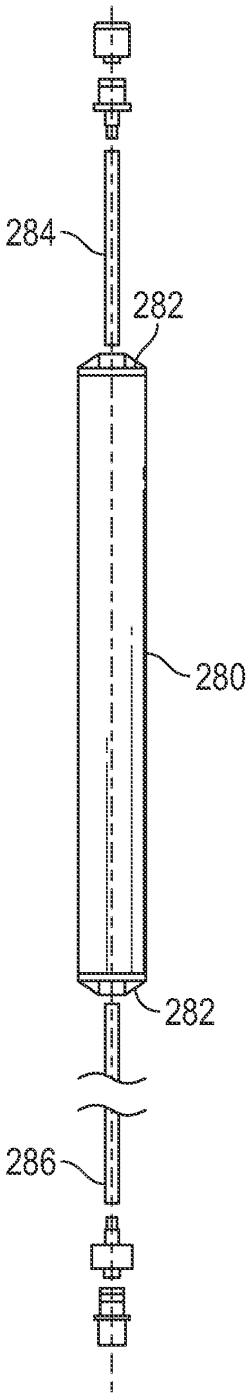


FIG. 29

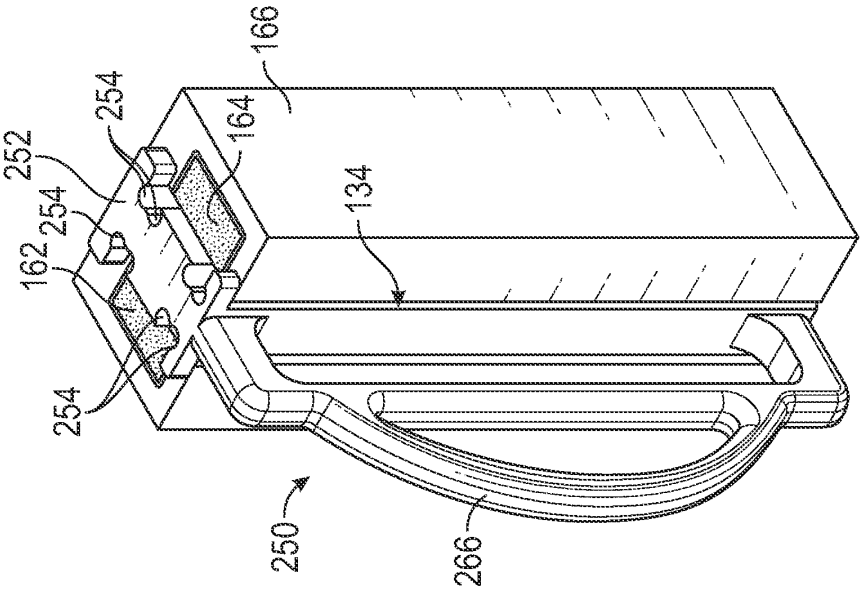

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FIG. 31

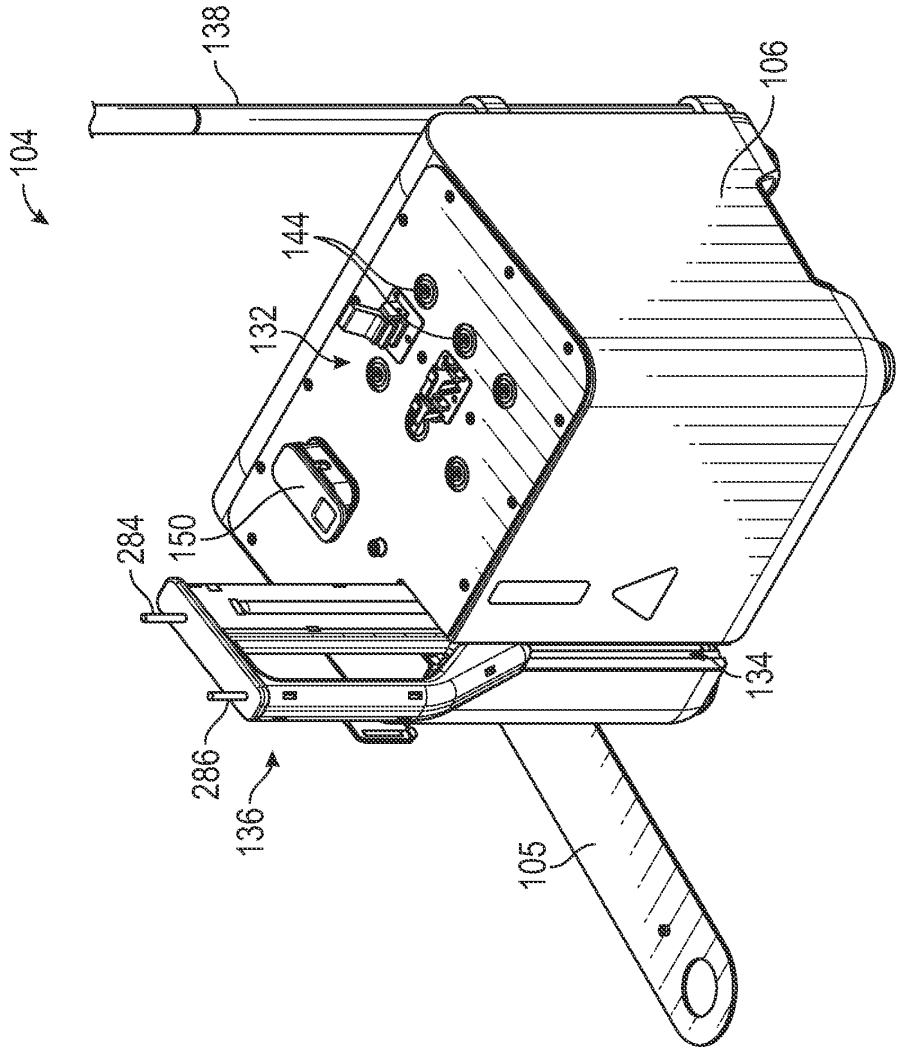

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FIG. 30

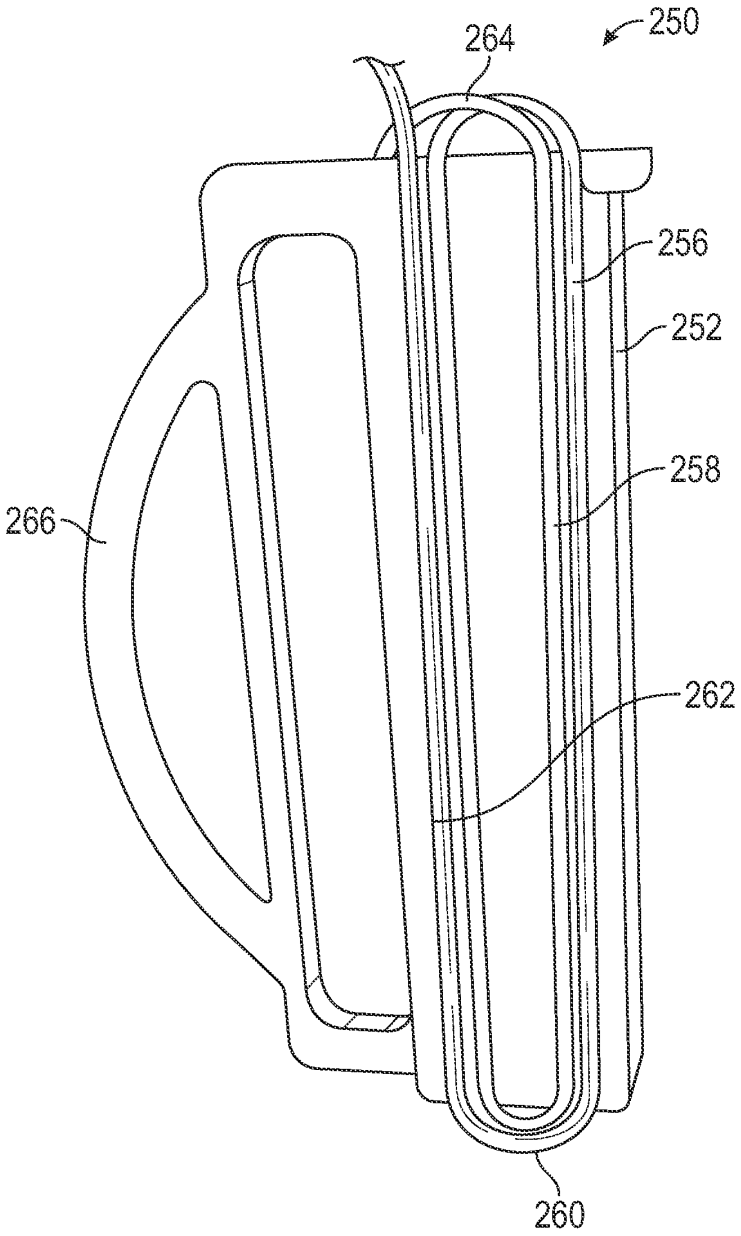


FIG. 32

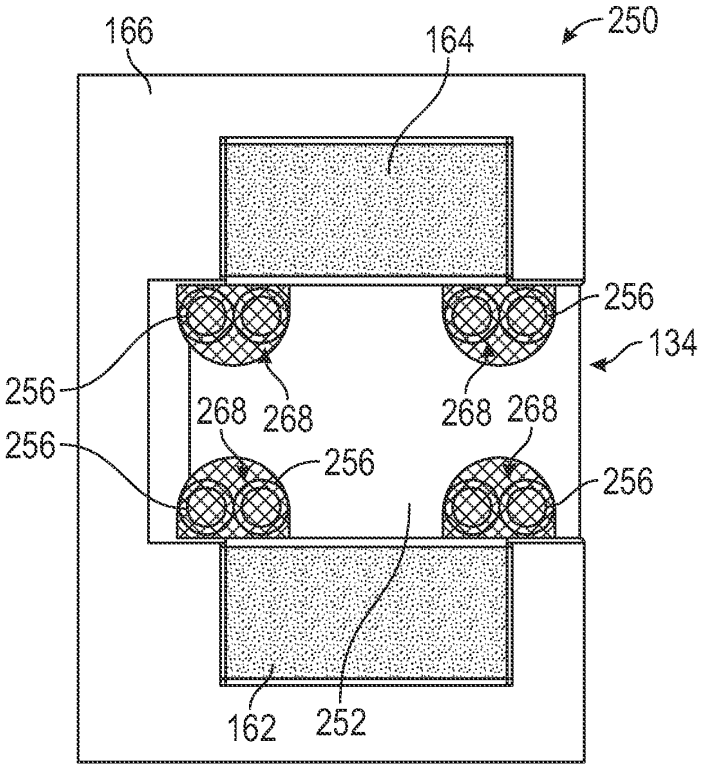


FIG. 33

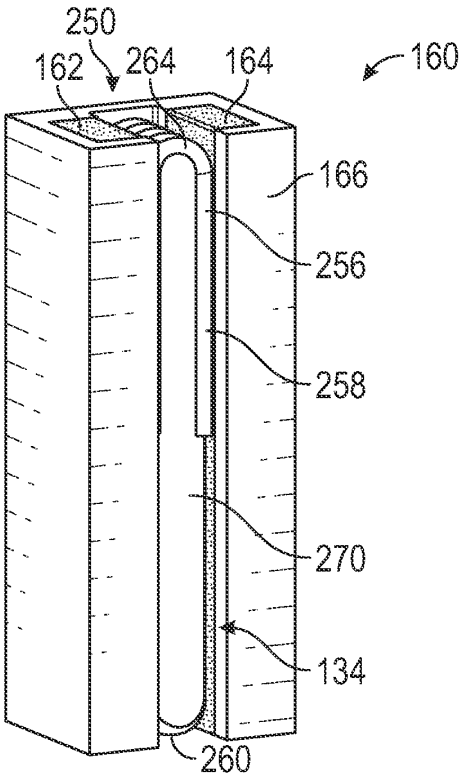

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FIG. 34

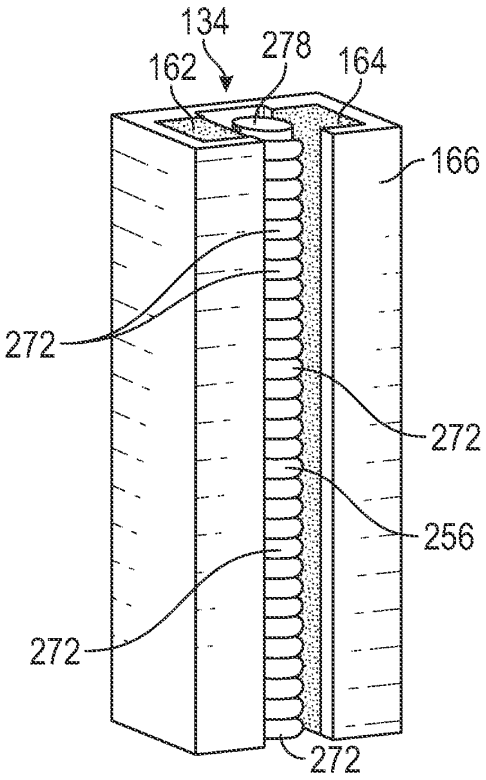

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FIG. 35

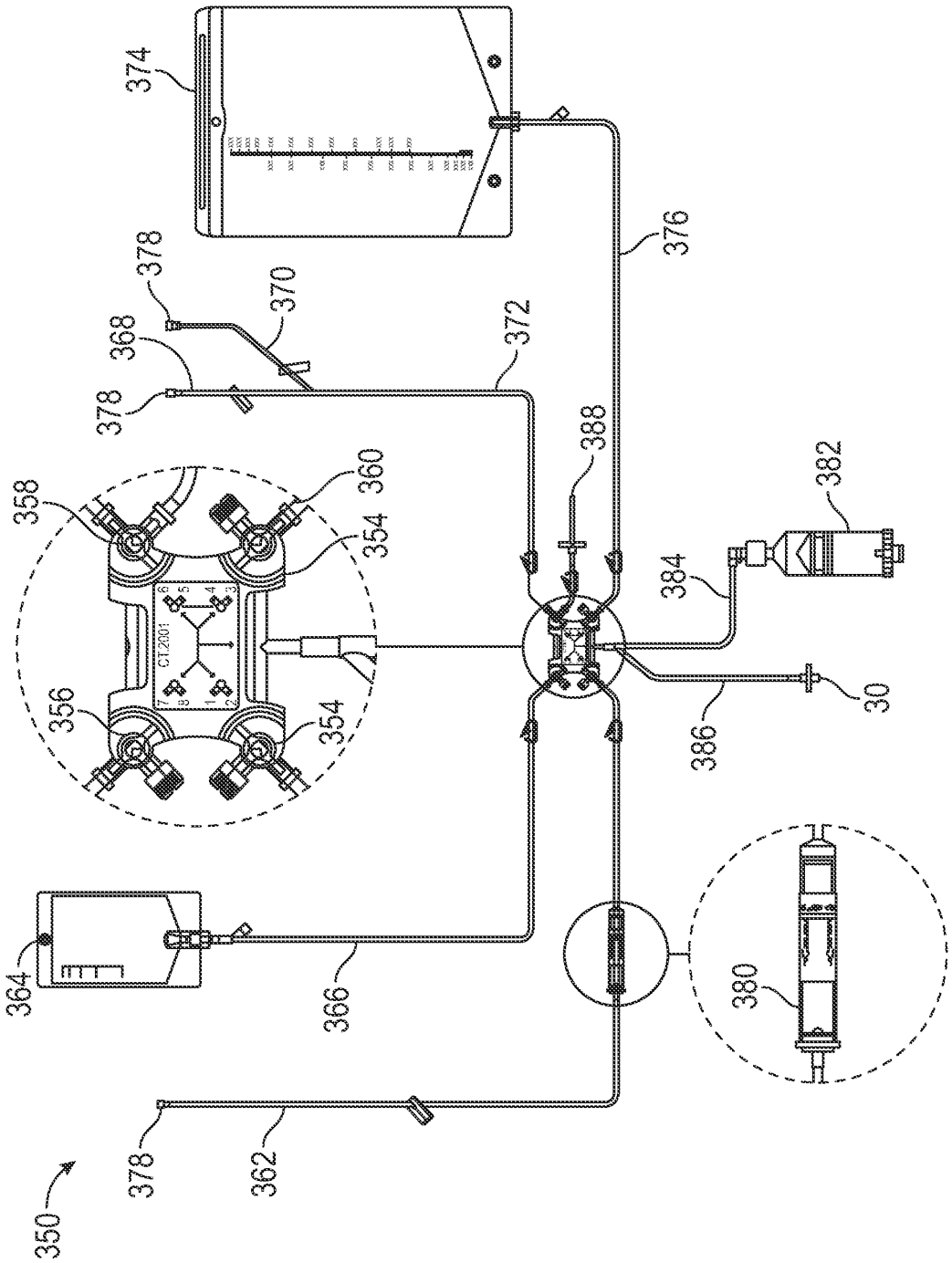

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FIG. 36

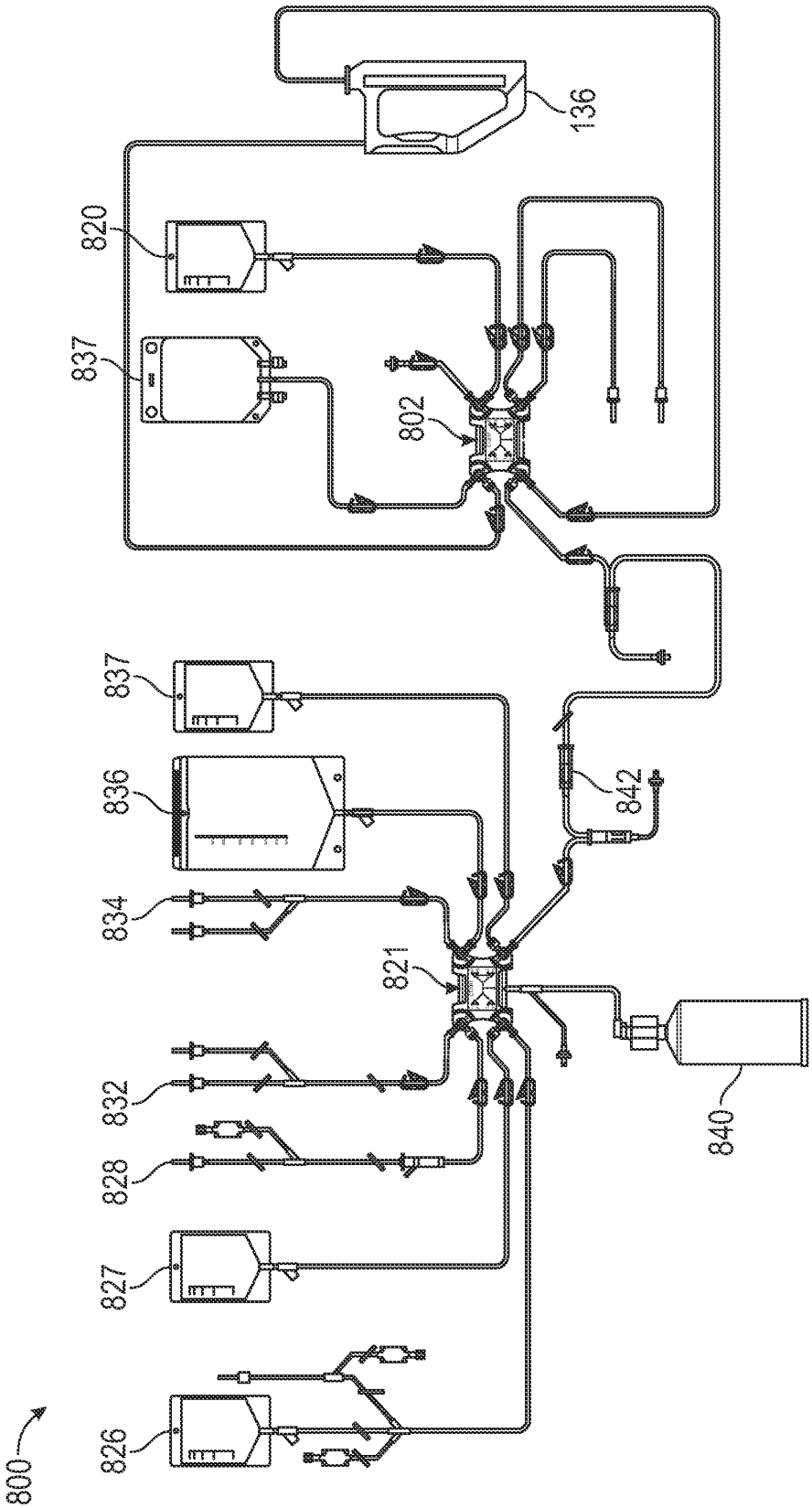


FIG. 37A

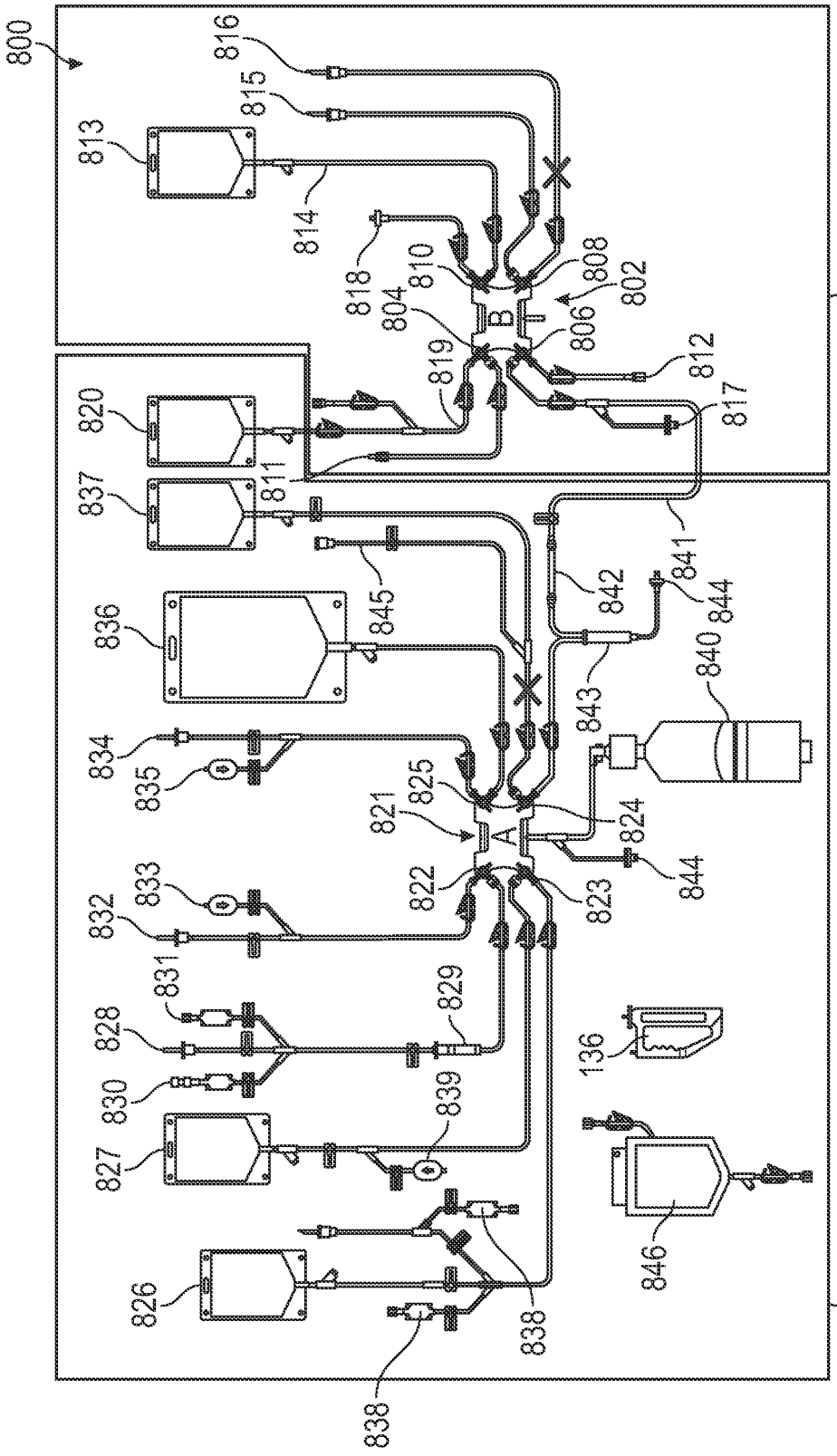

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FIG. 37B

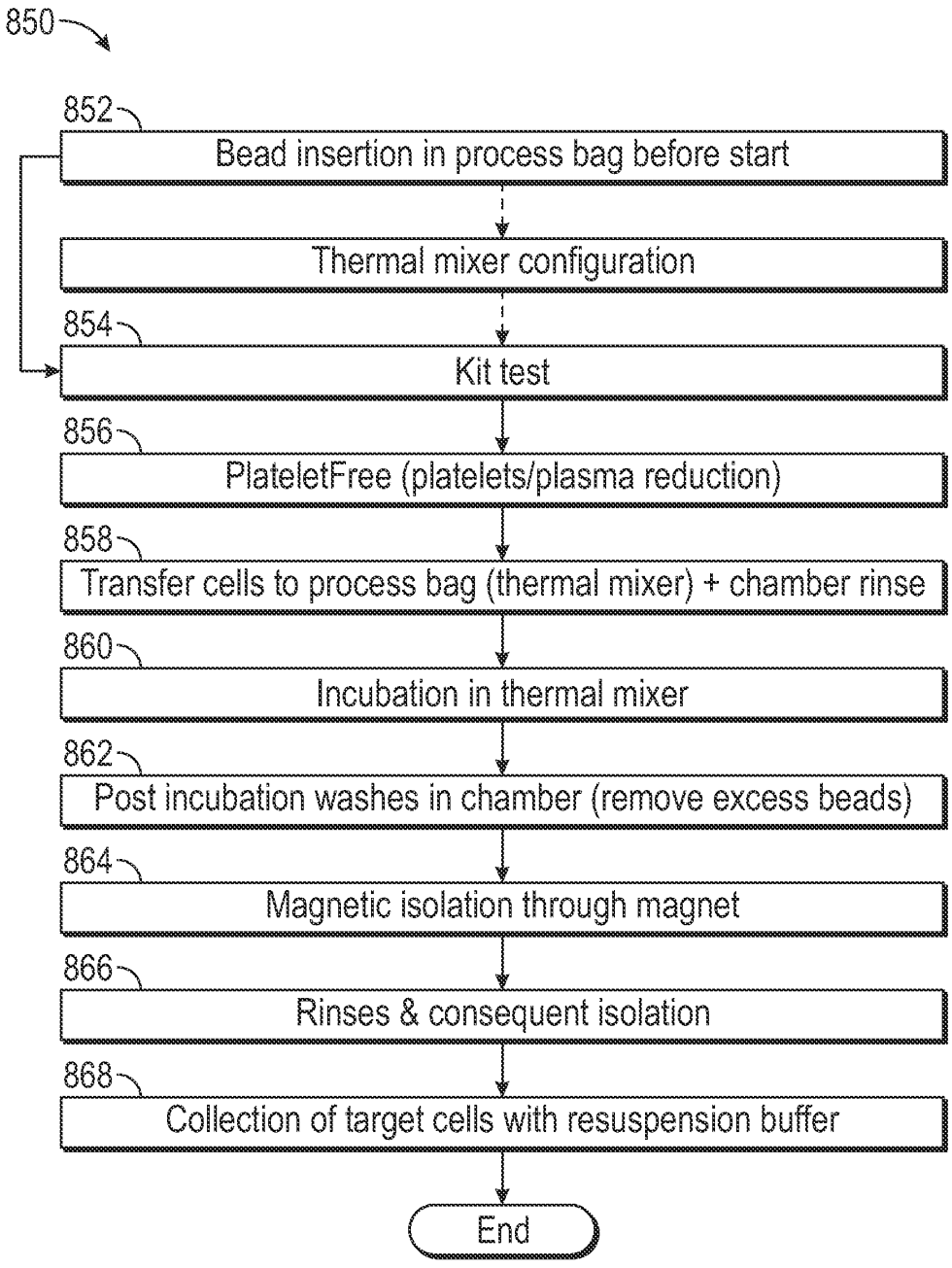

850
852
Bead insertion in process bag before start
Thermal mixer configuration
854
Kit test
856
PlateletFree (platelets/plasma reduction)
858
Transfer cells to process bag (thermal mixer) + chamber rinse
860
Incubation in thermal mixer
862
Post incubation washes in chamber (remove excess beads)
864
Magnetic isolation through magnet
866
Rinses & consequent isolation
868
Collection of target cells with resuspension buffer
End

FIG. 38

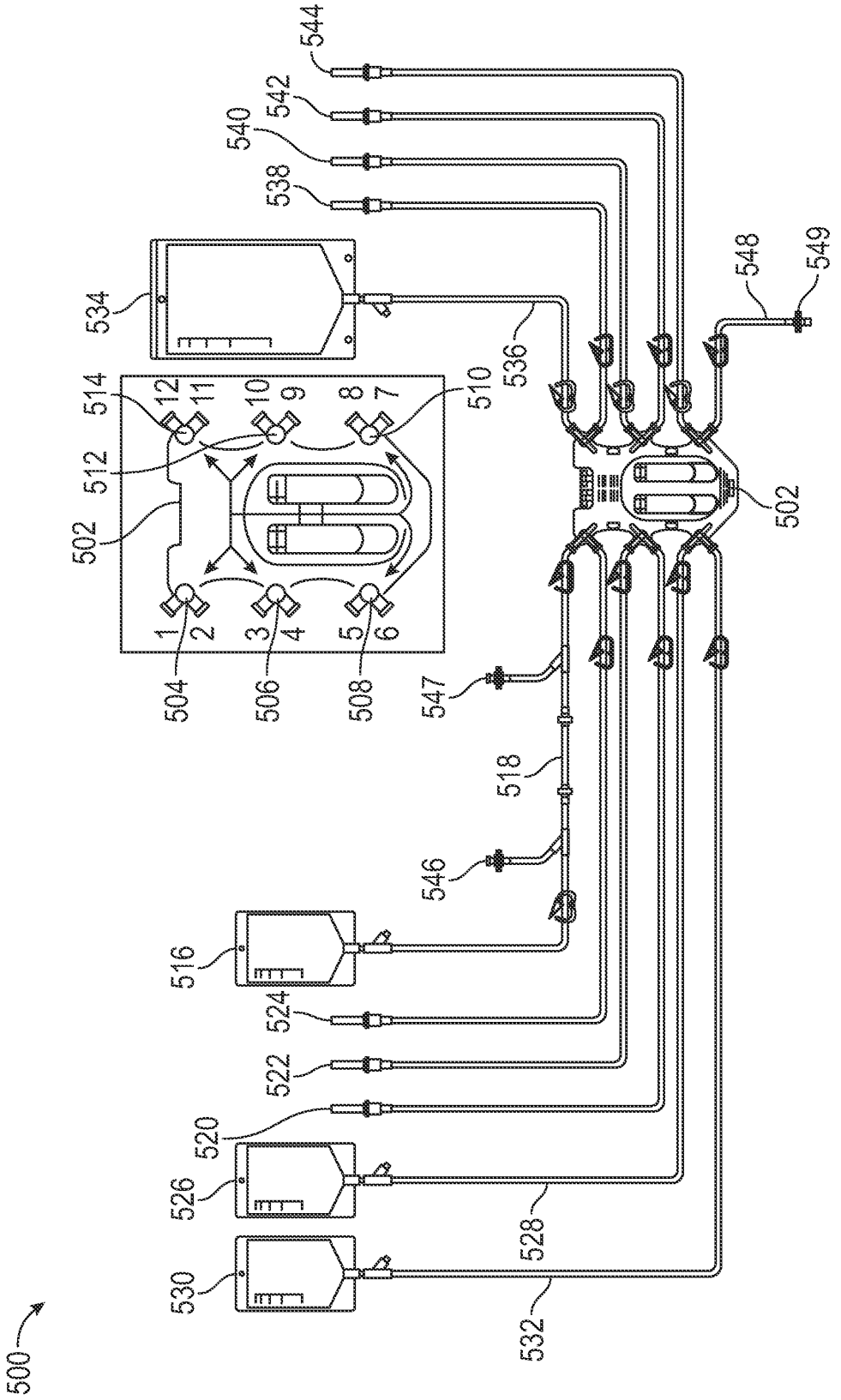

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FIG. 39

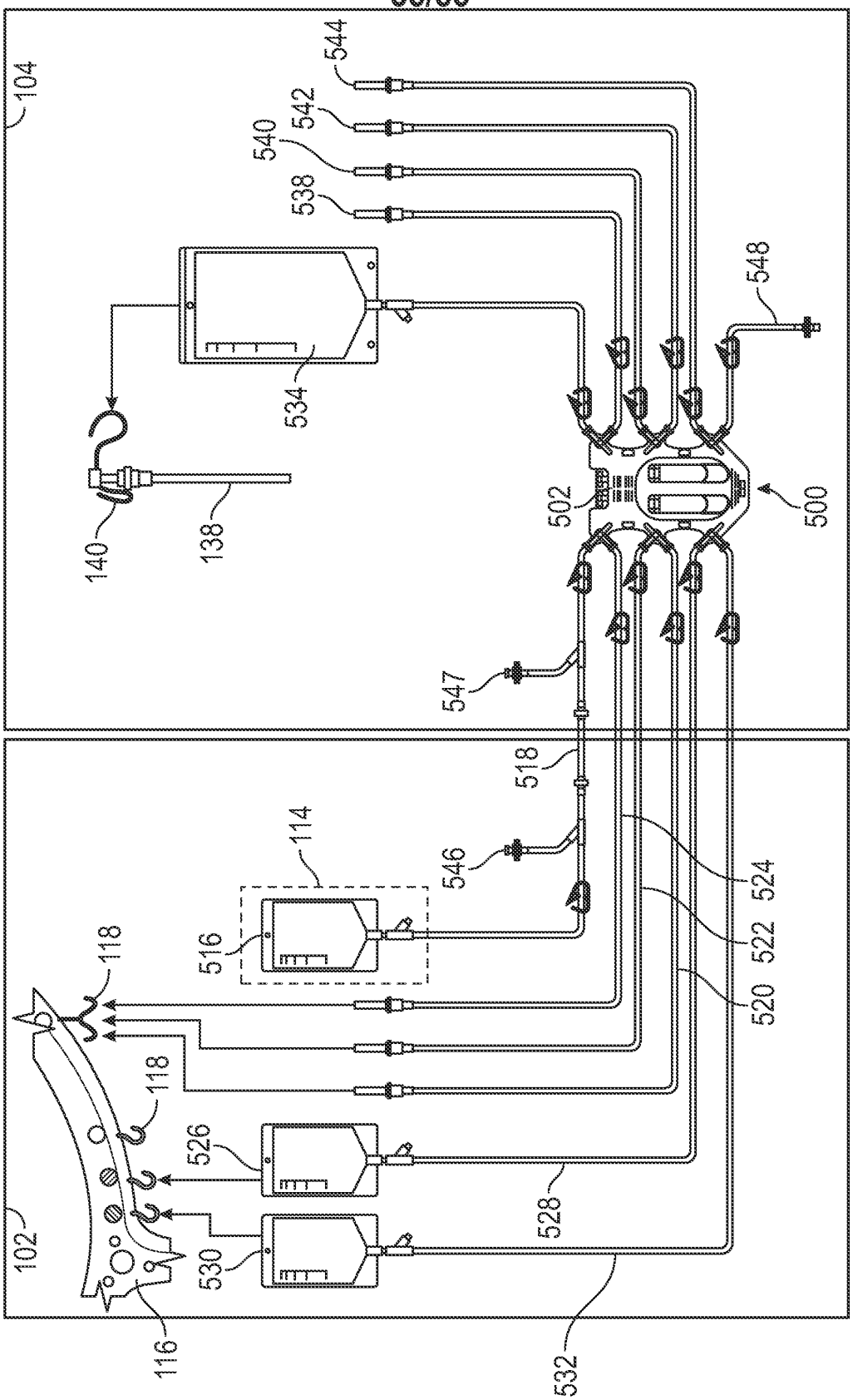

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FIG. 40

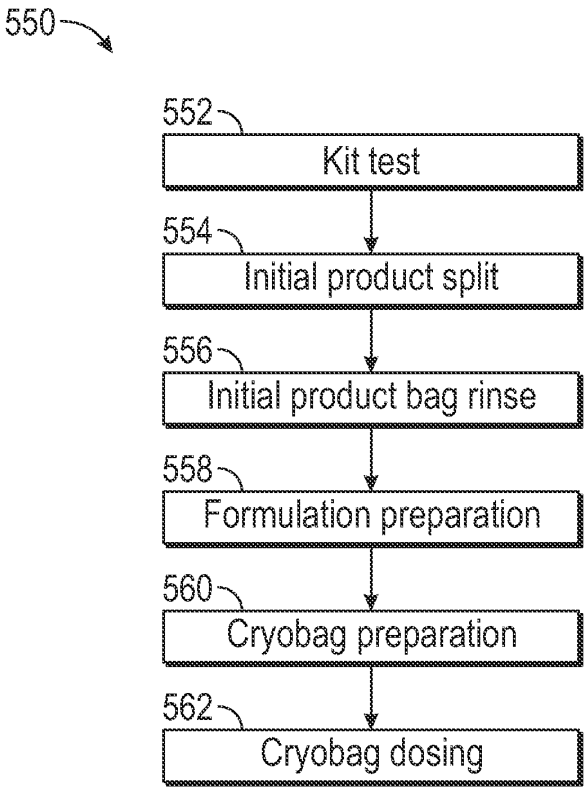

550
552
Kit test
554
Initial product split
556
Initial product bag rinse
558
Formulation preparation
560
Cryobag preparation
562
Cryobag dosing

FIG. 41

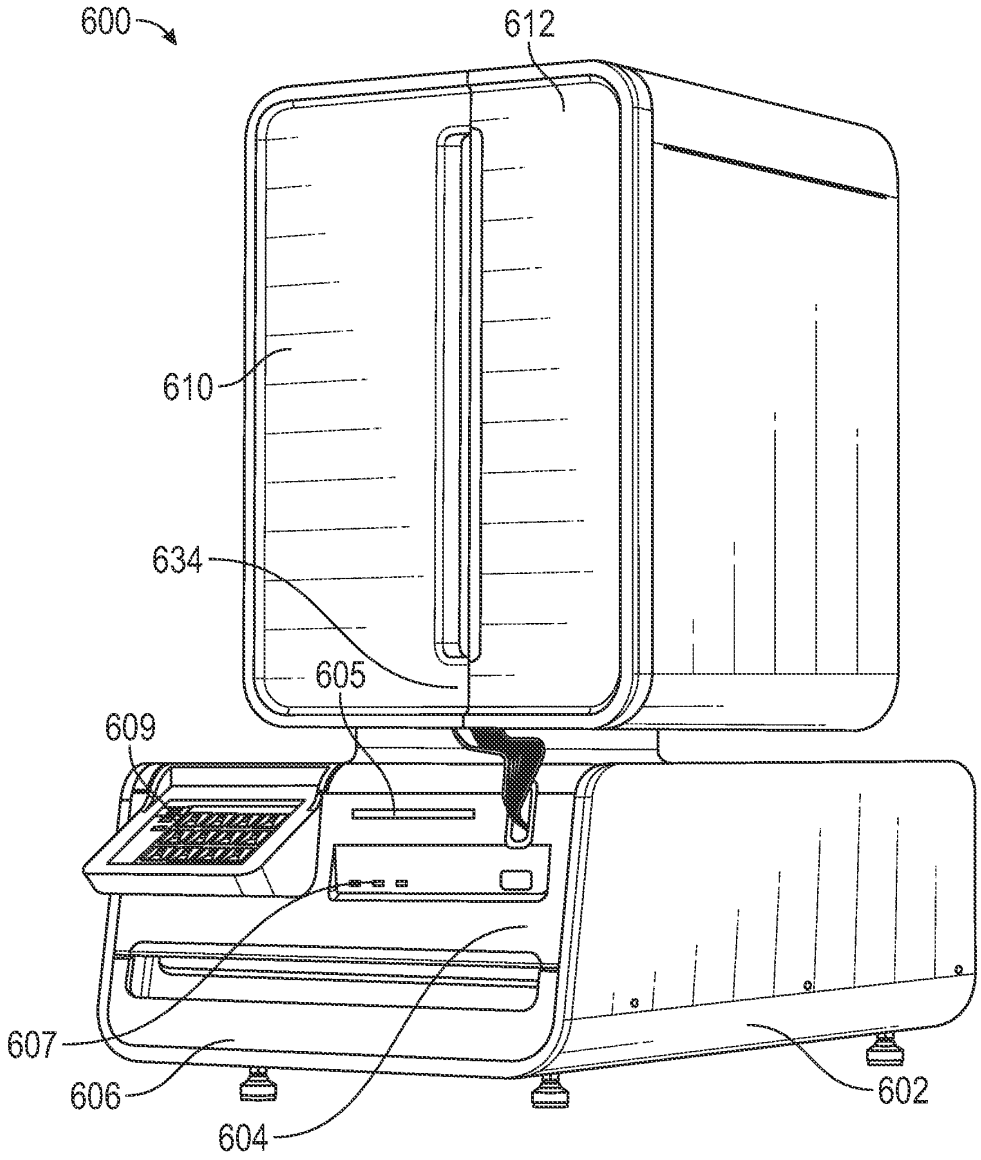


FIG. 42

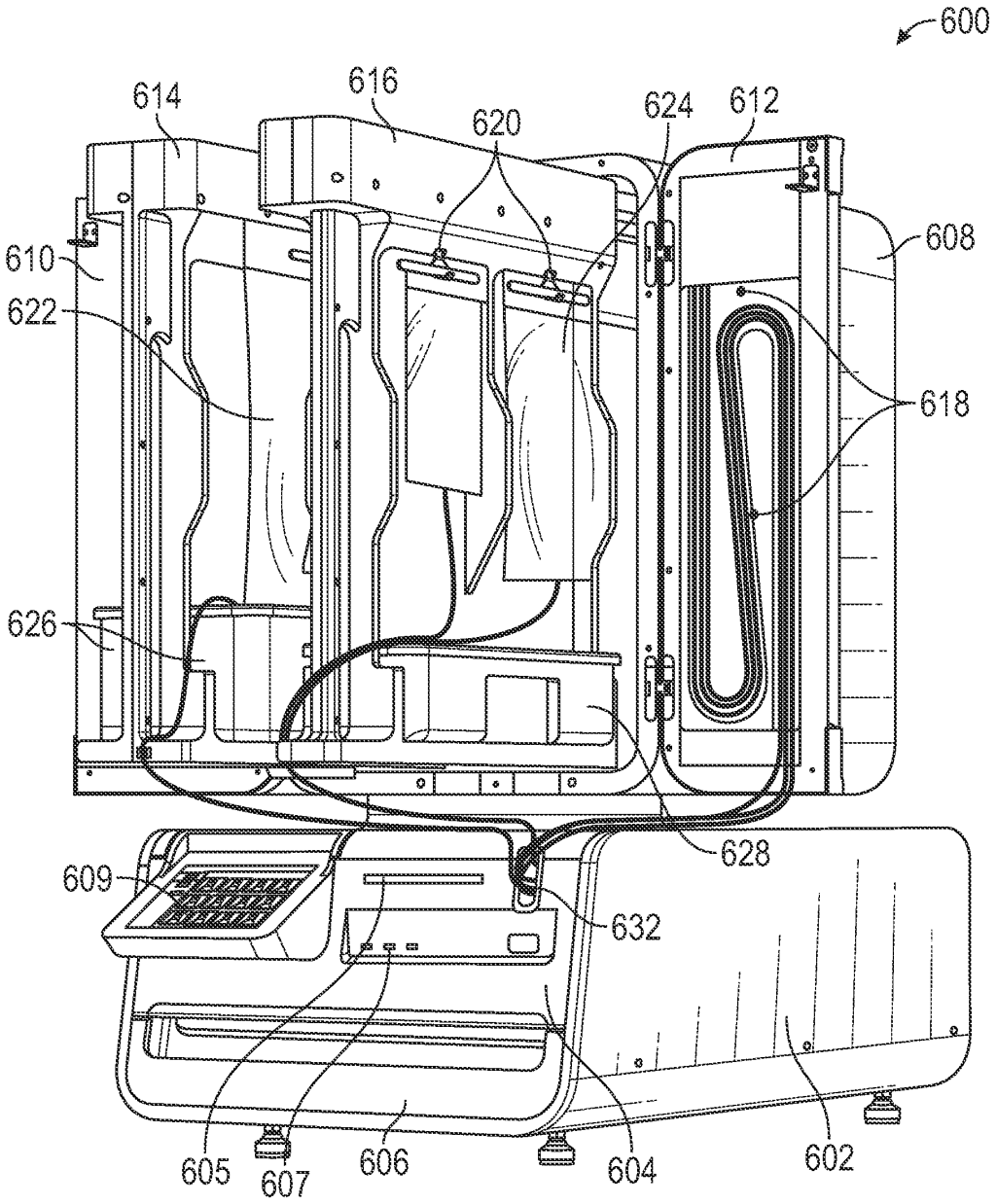

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FIG. 43

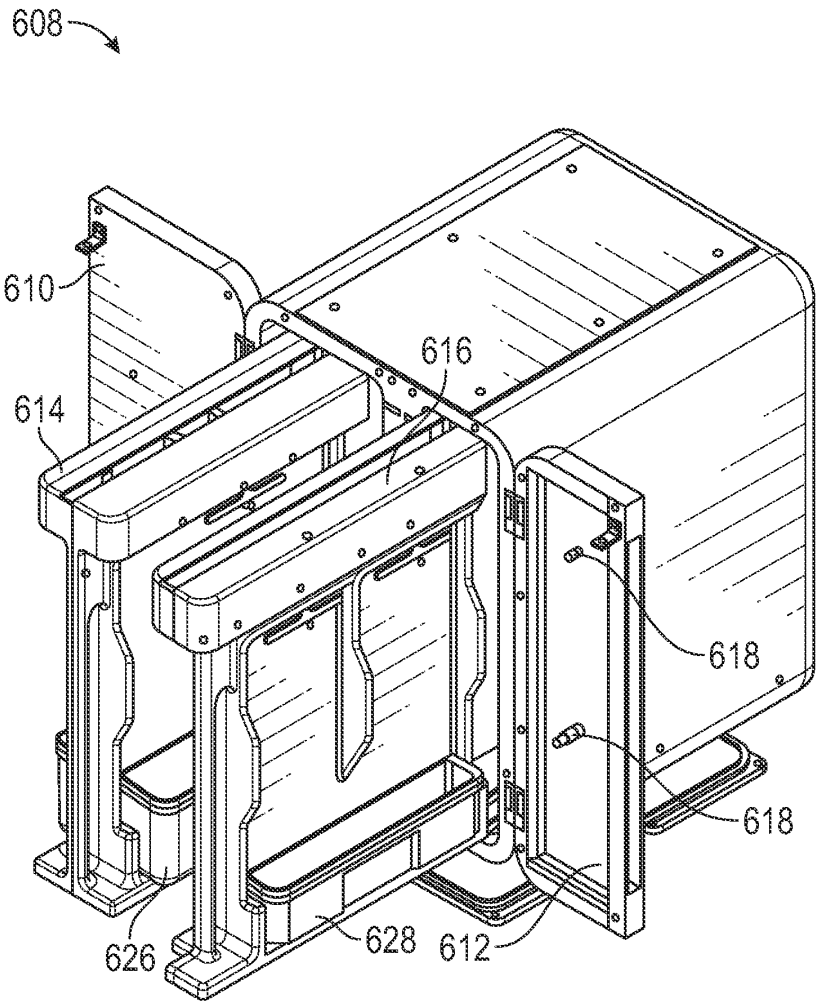


FIG. 44

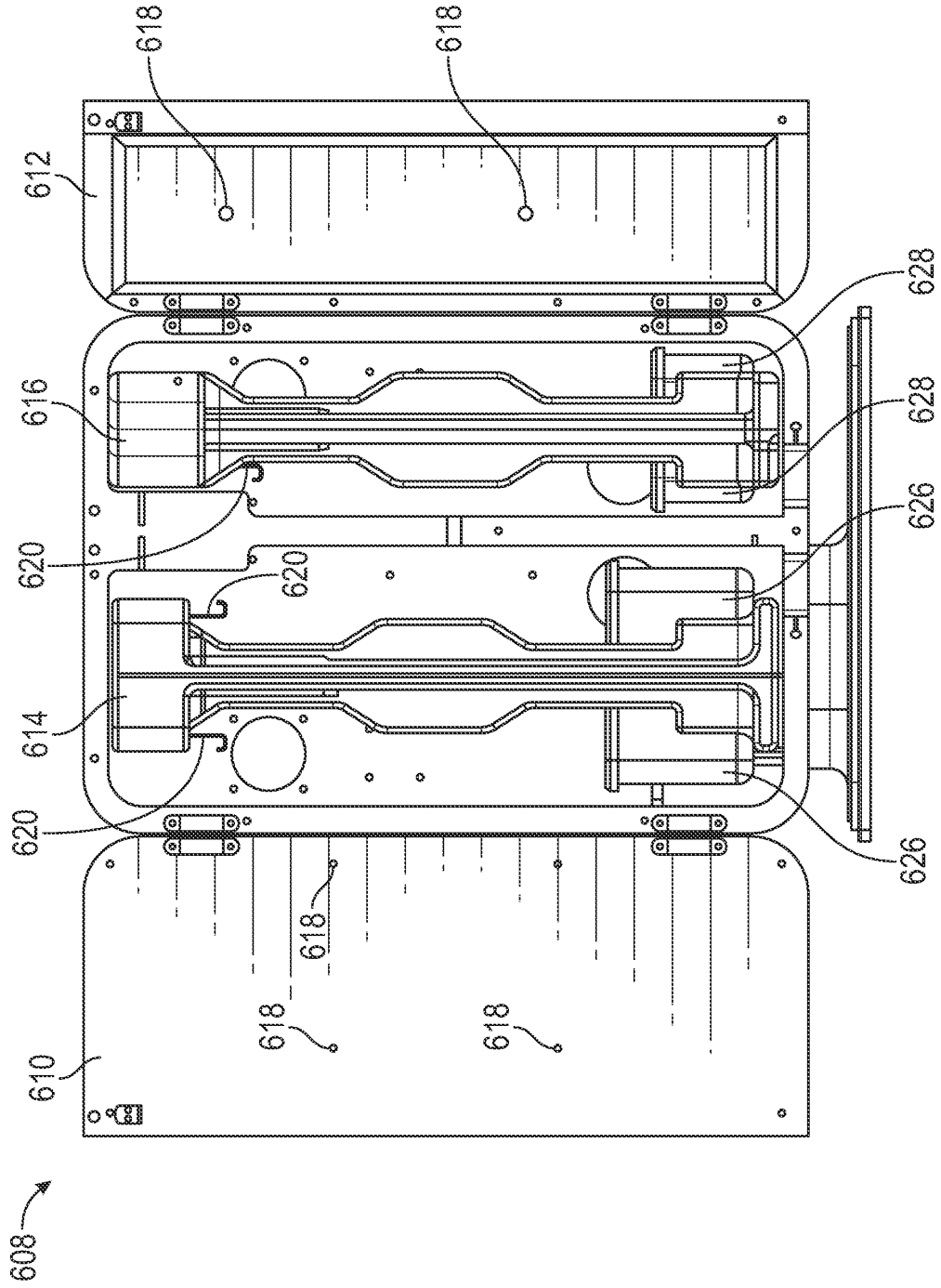

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FIG. 45

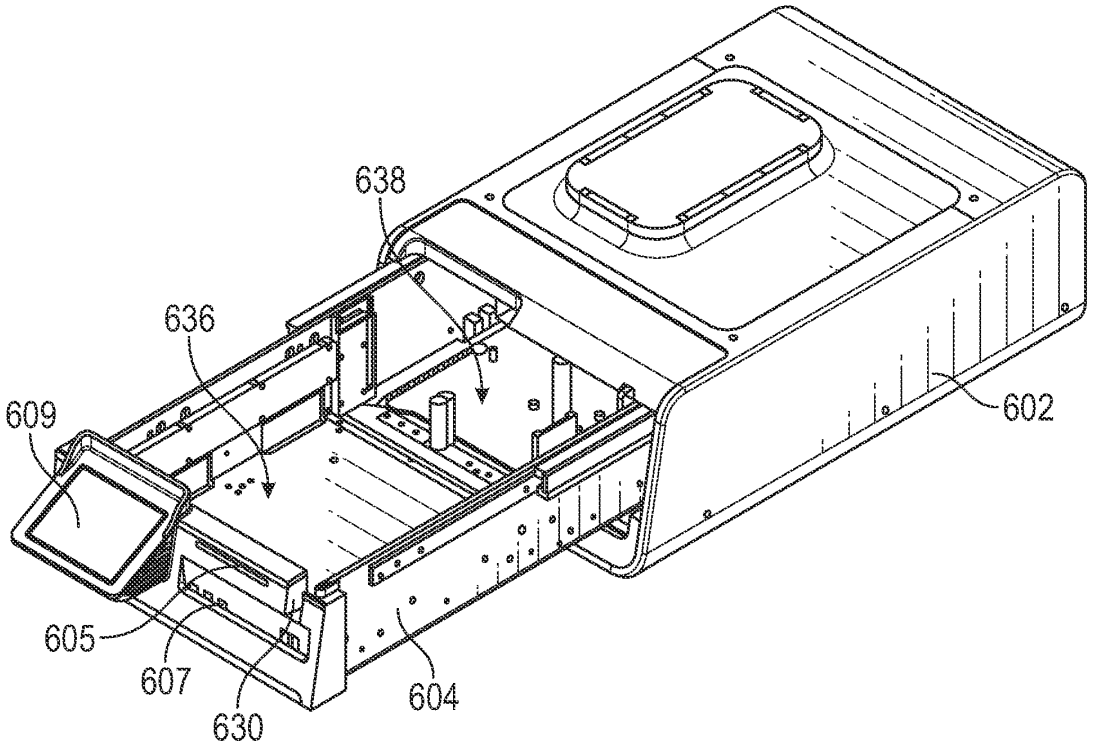


FIG. 46

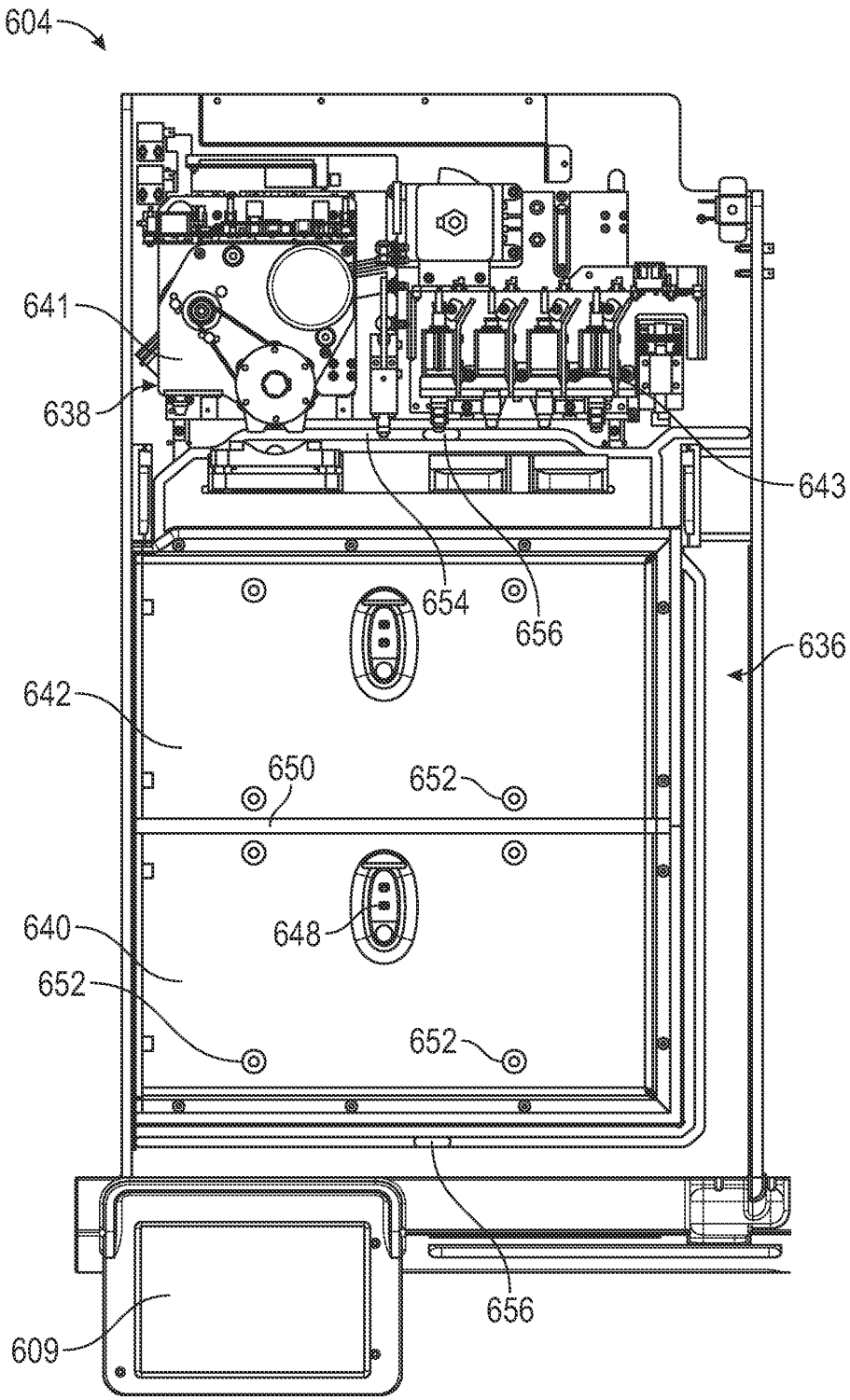

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FIG. 47

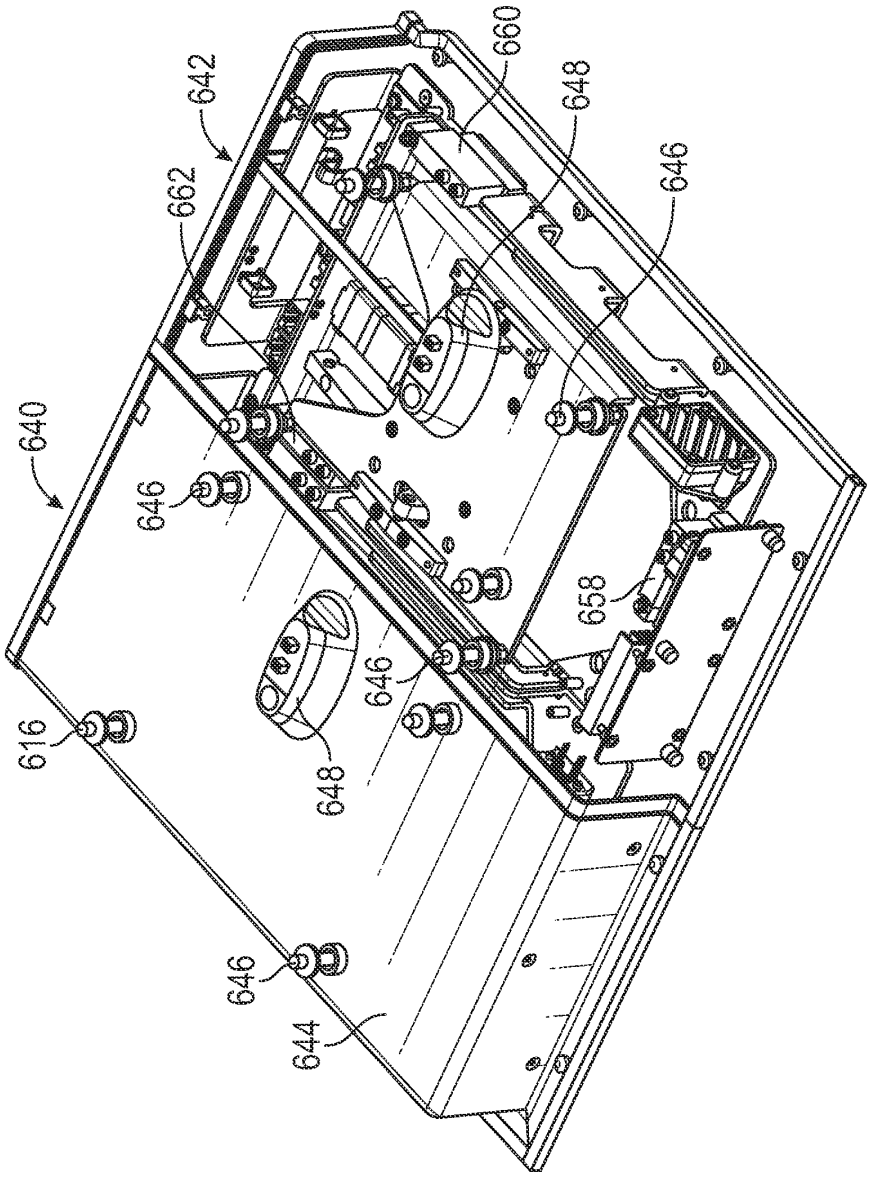


FIG. 48

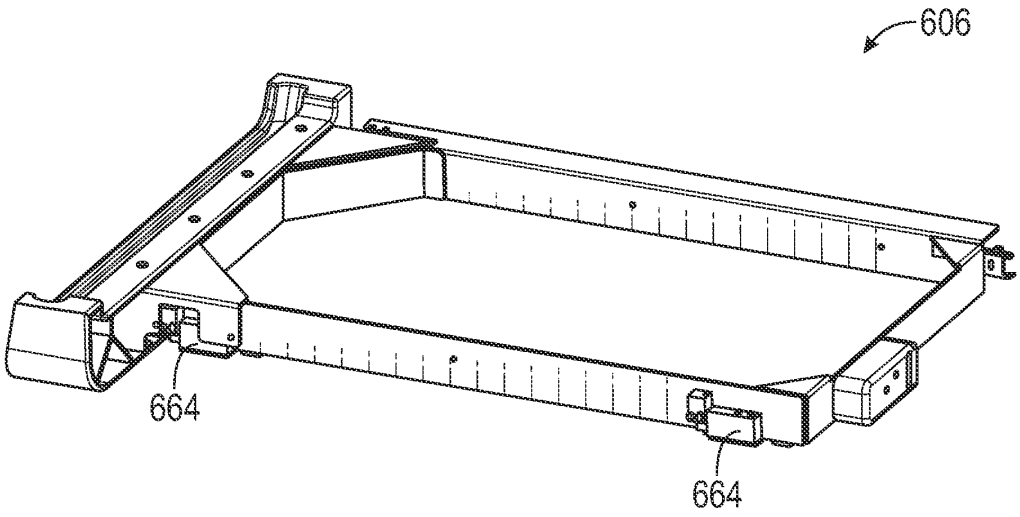


FIG. 49

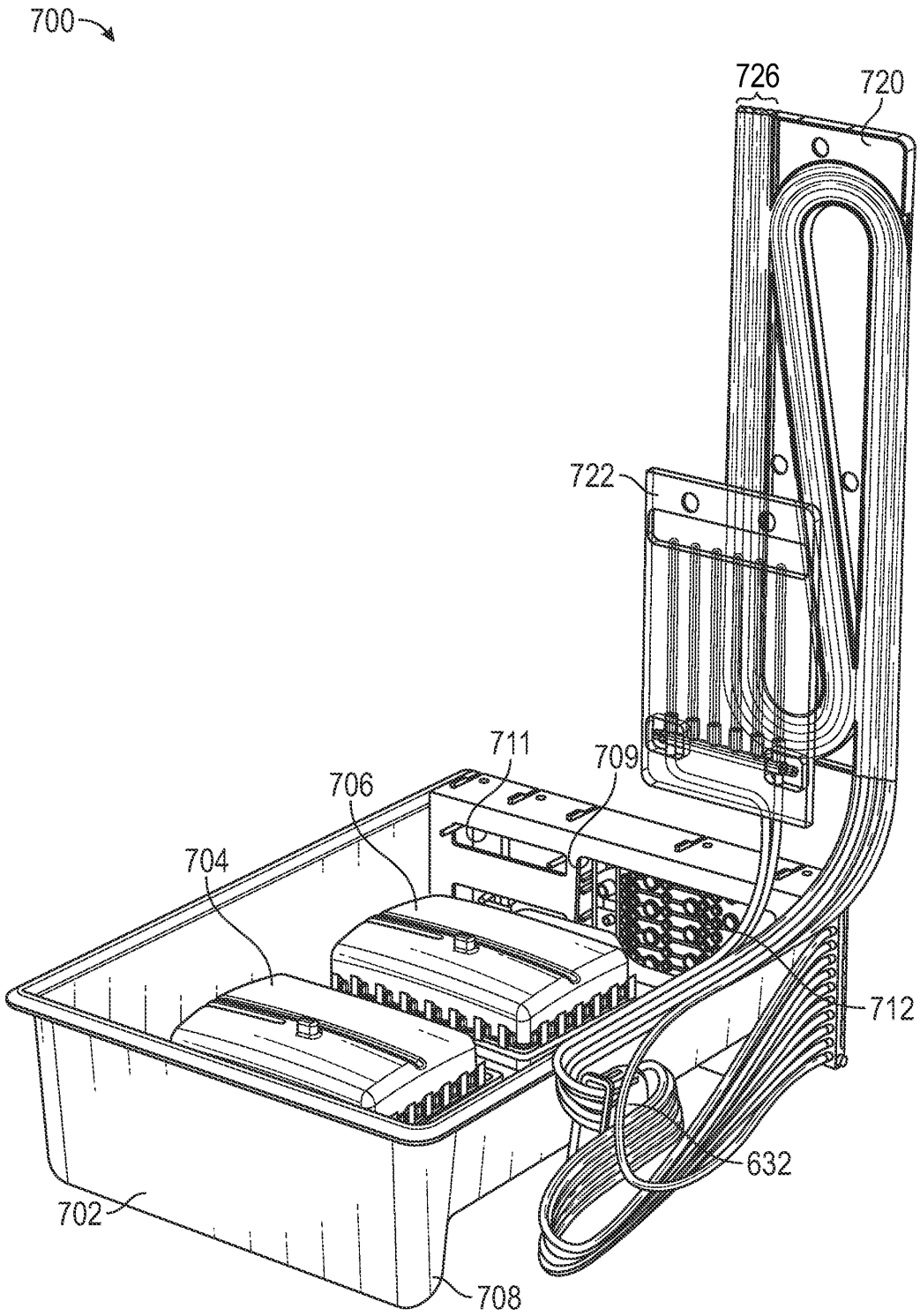


FIG. 50

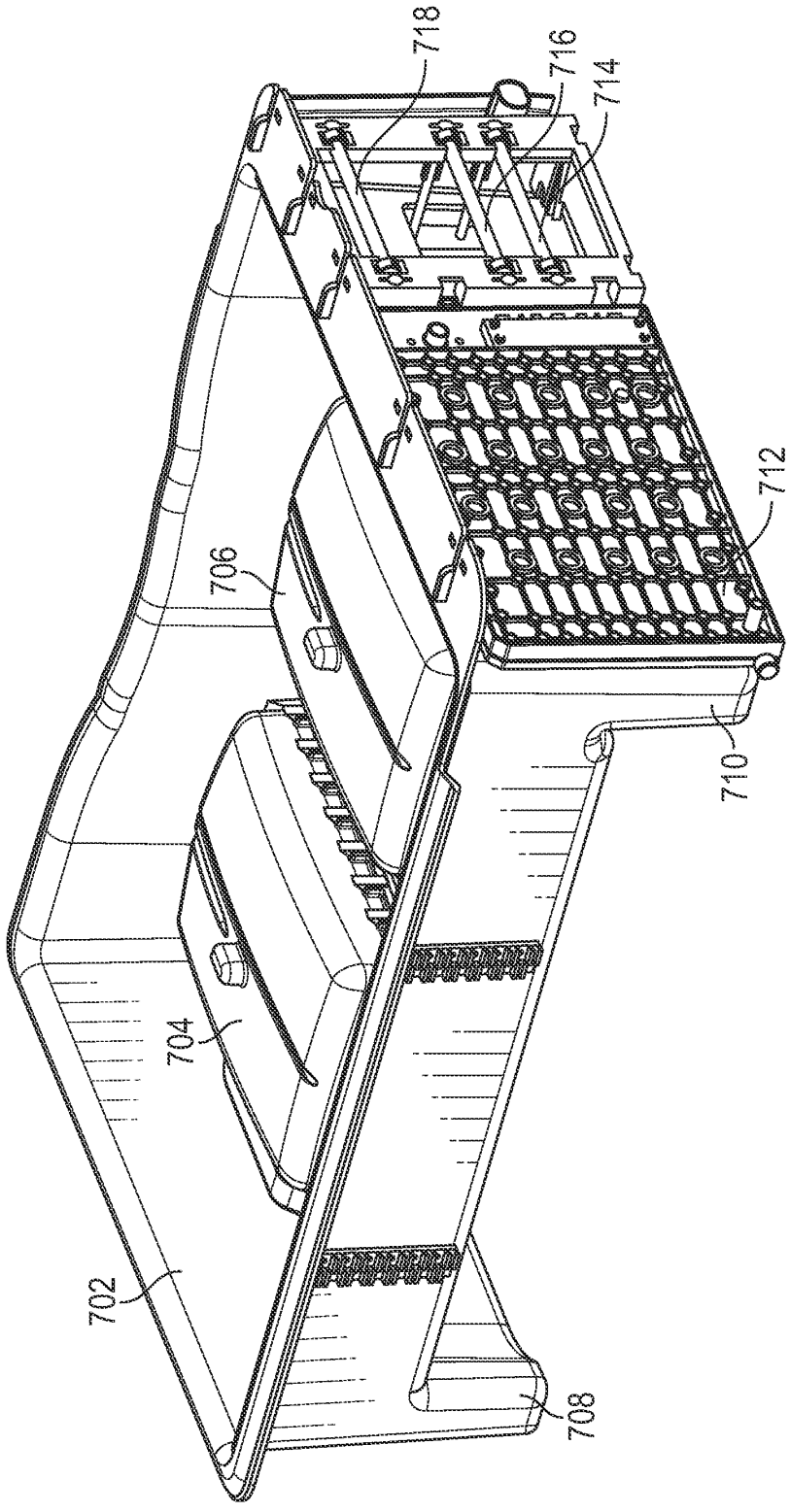


FIG. 51

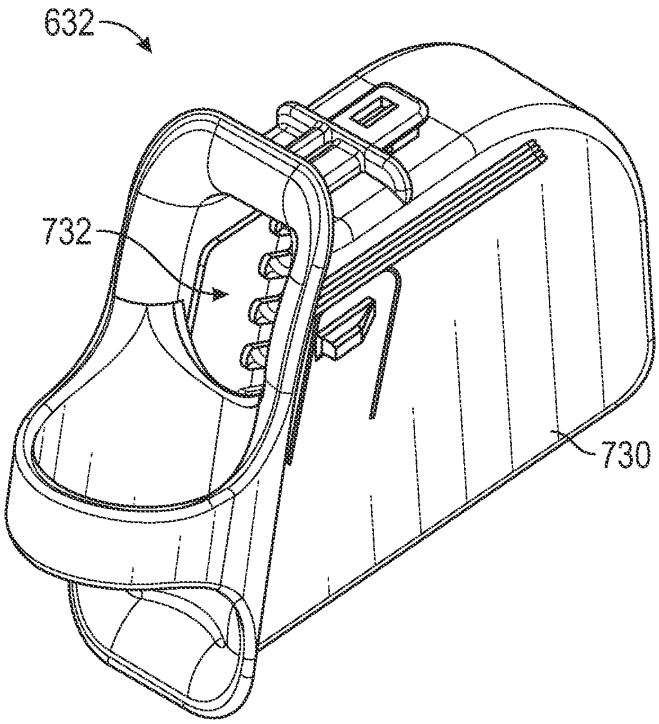


FIG. 52

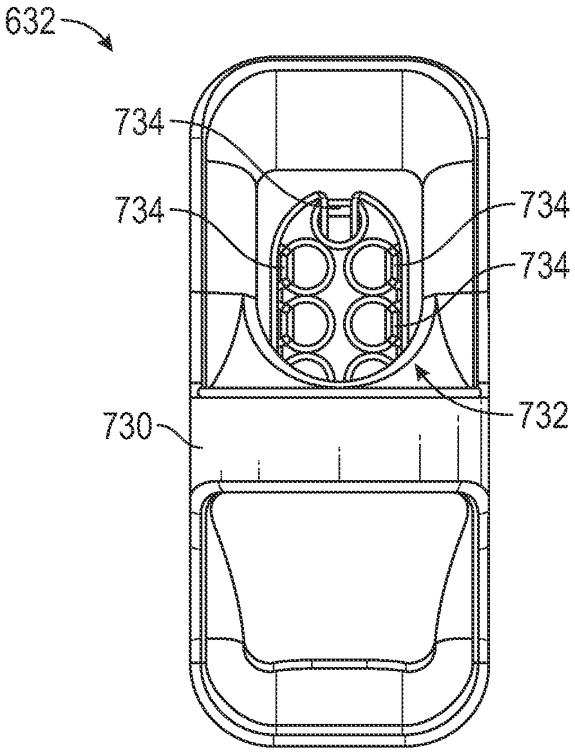


FIG. 53

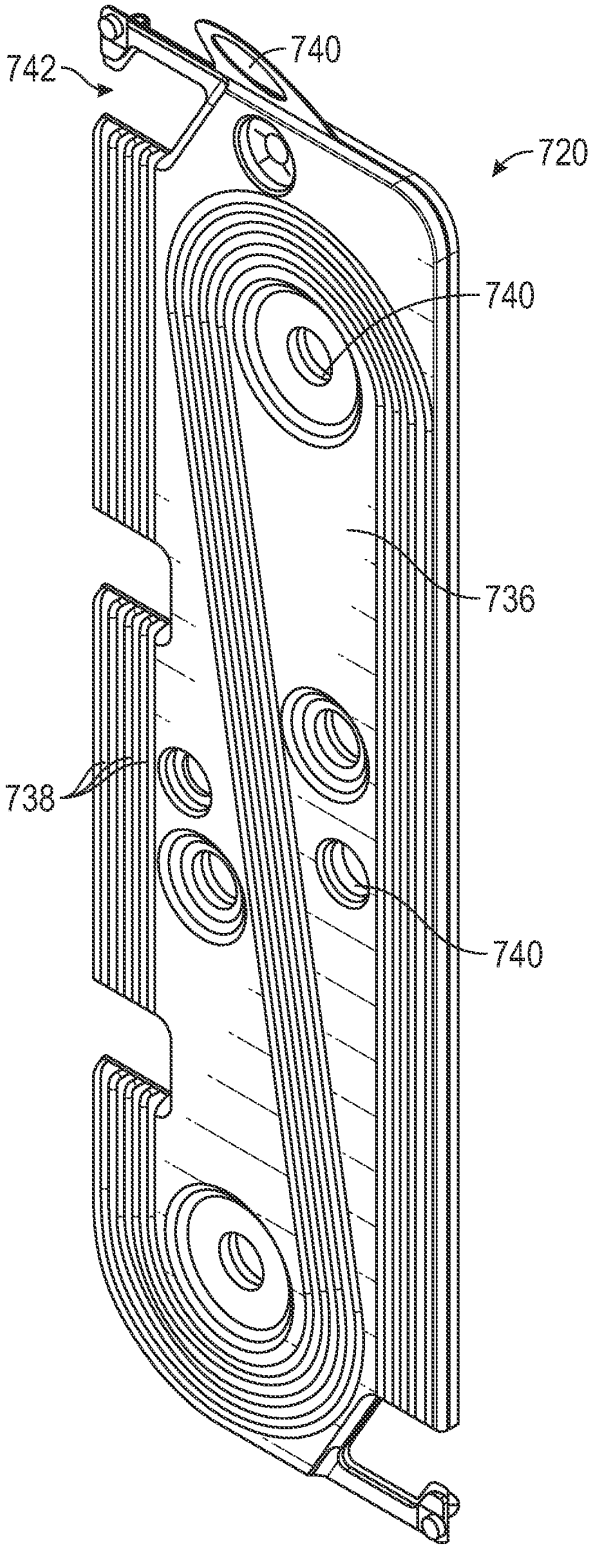


FIG. 54

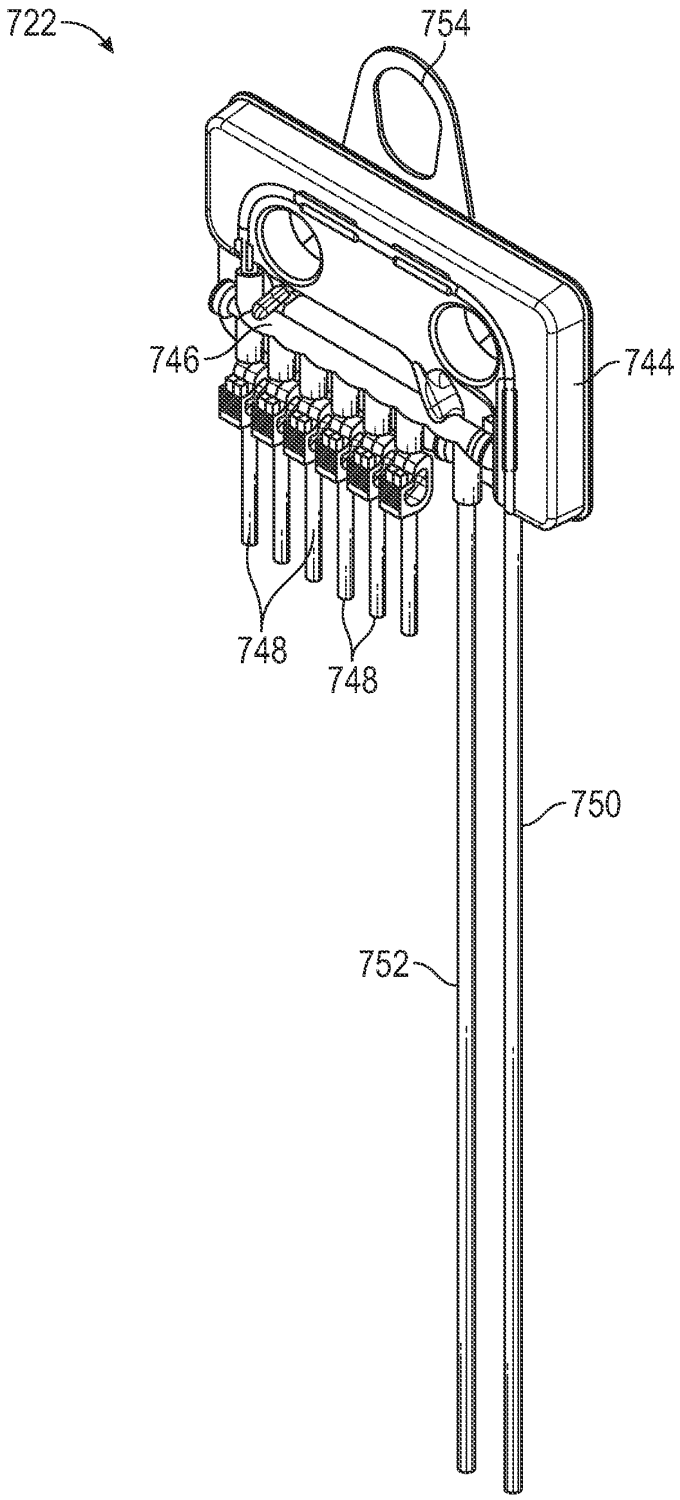


FIG. 55

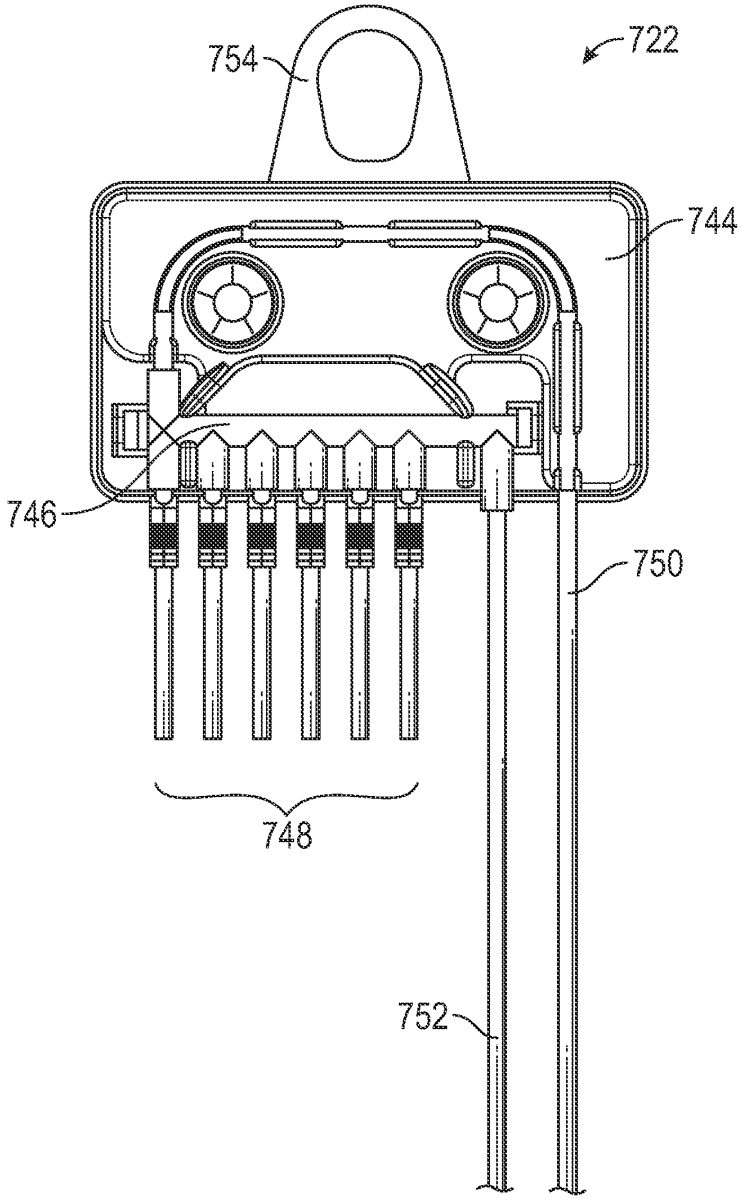


FIG. 56

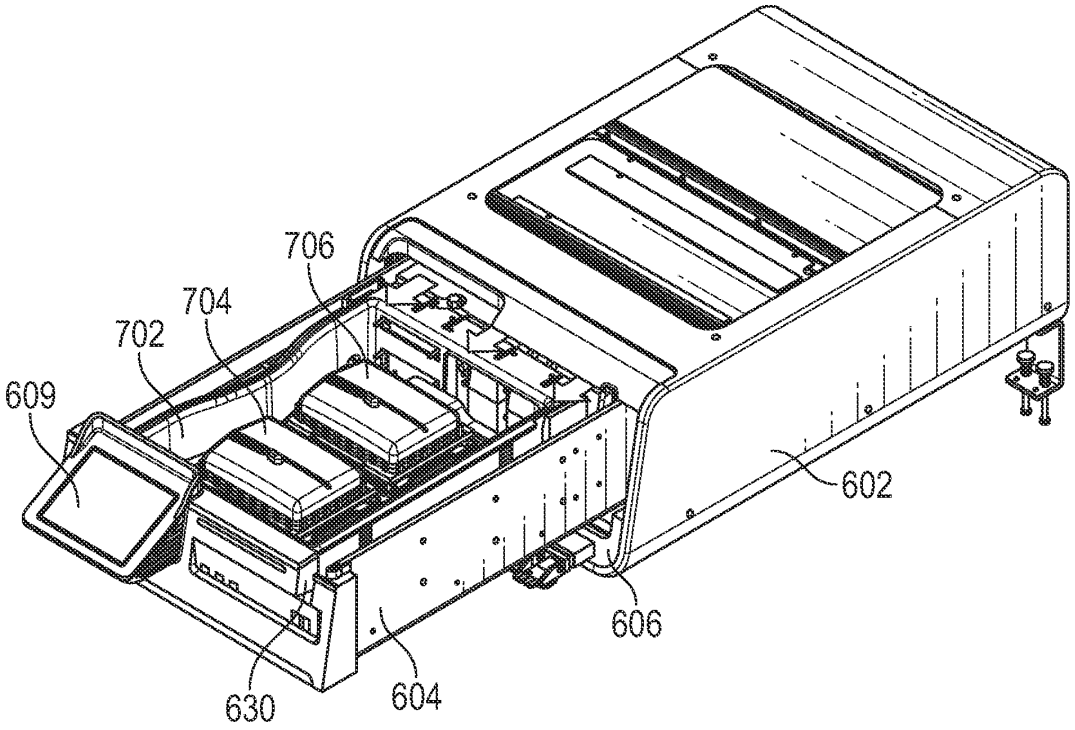


FIG. 57

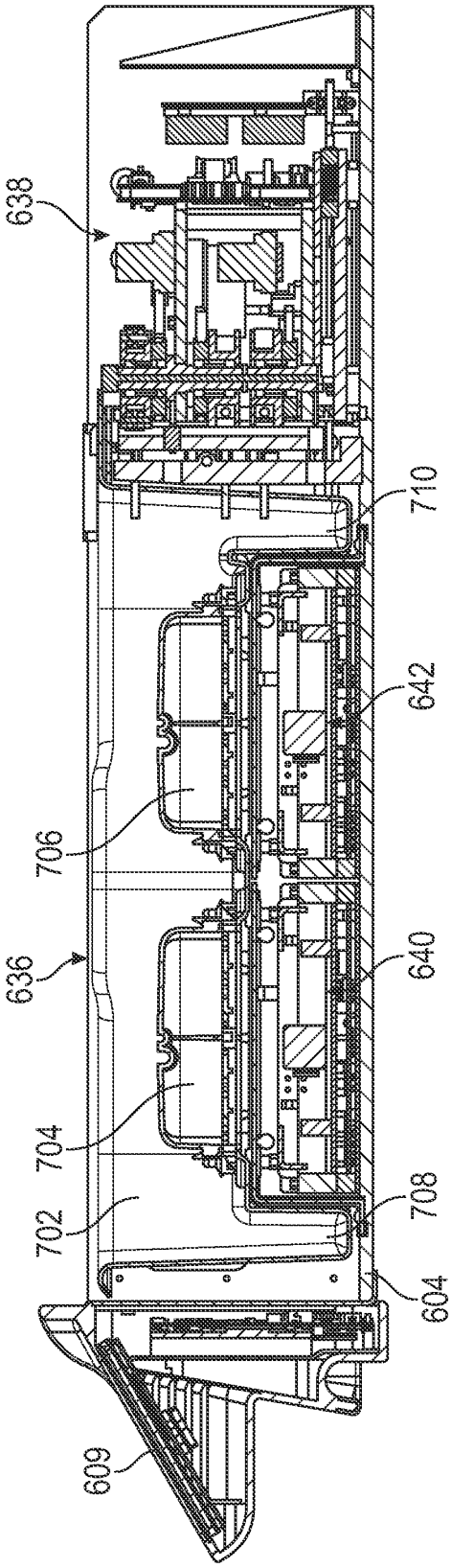


FIG. 58

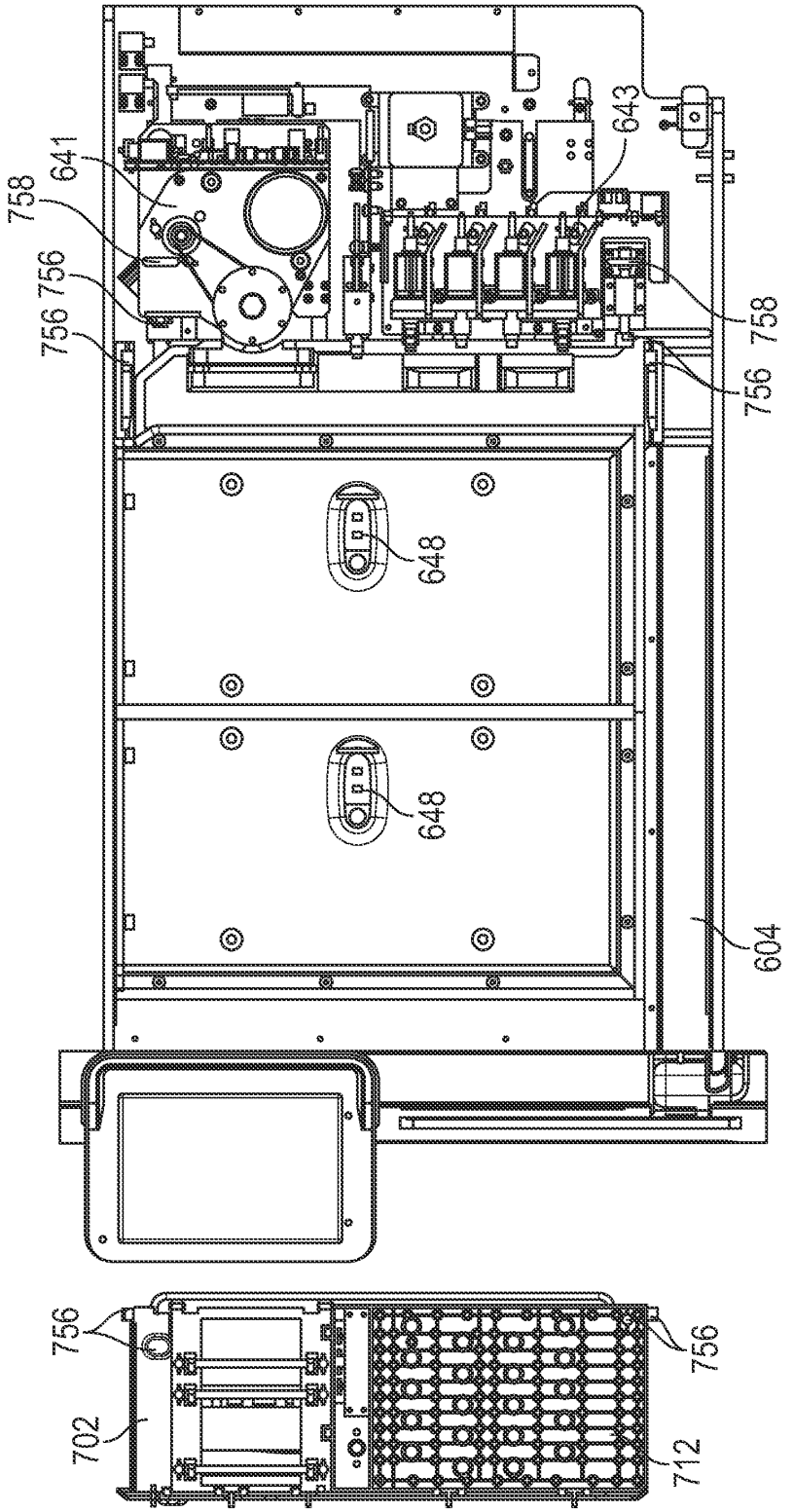


FIG. 59

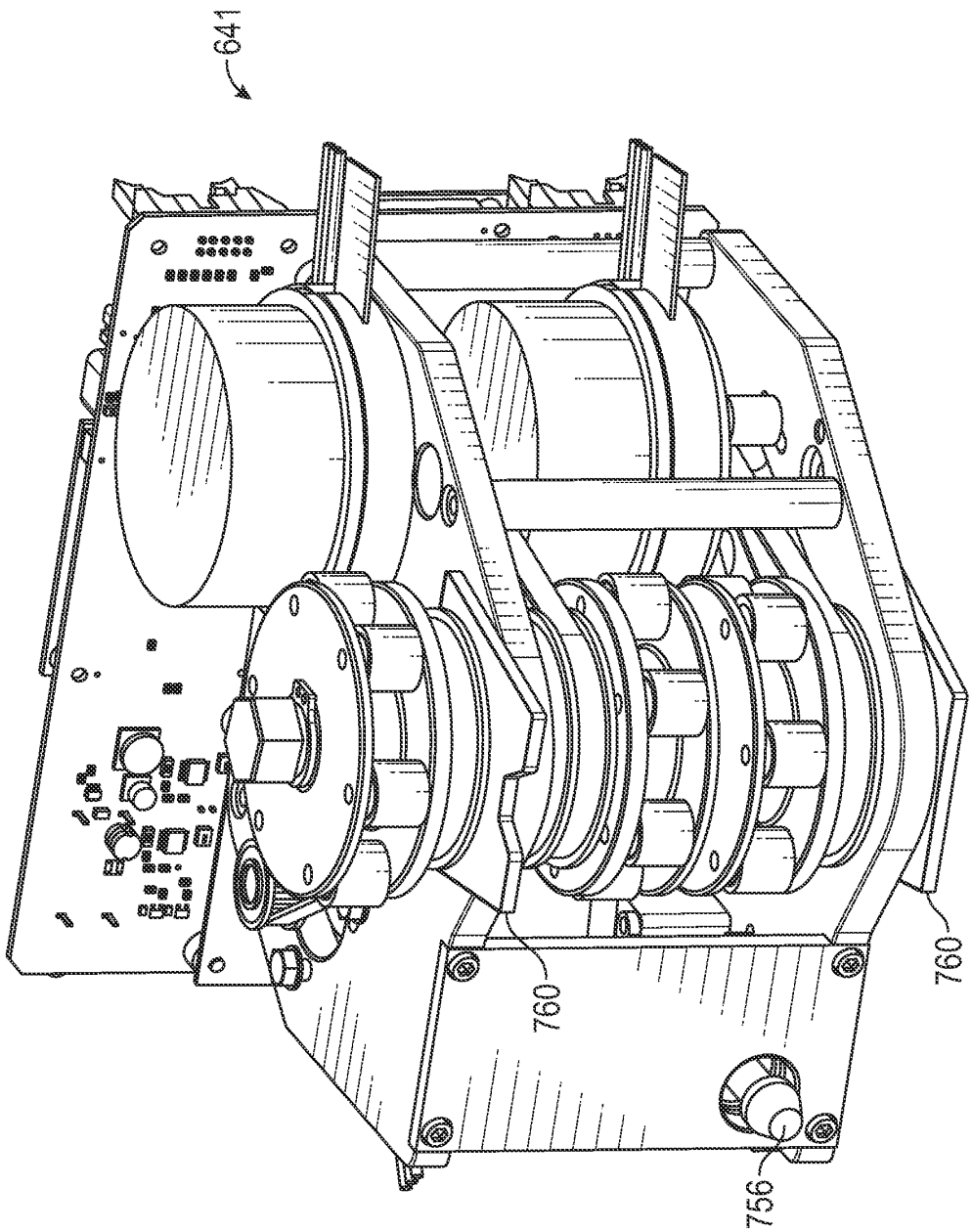


FIG. 60

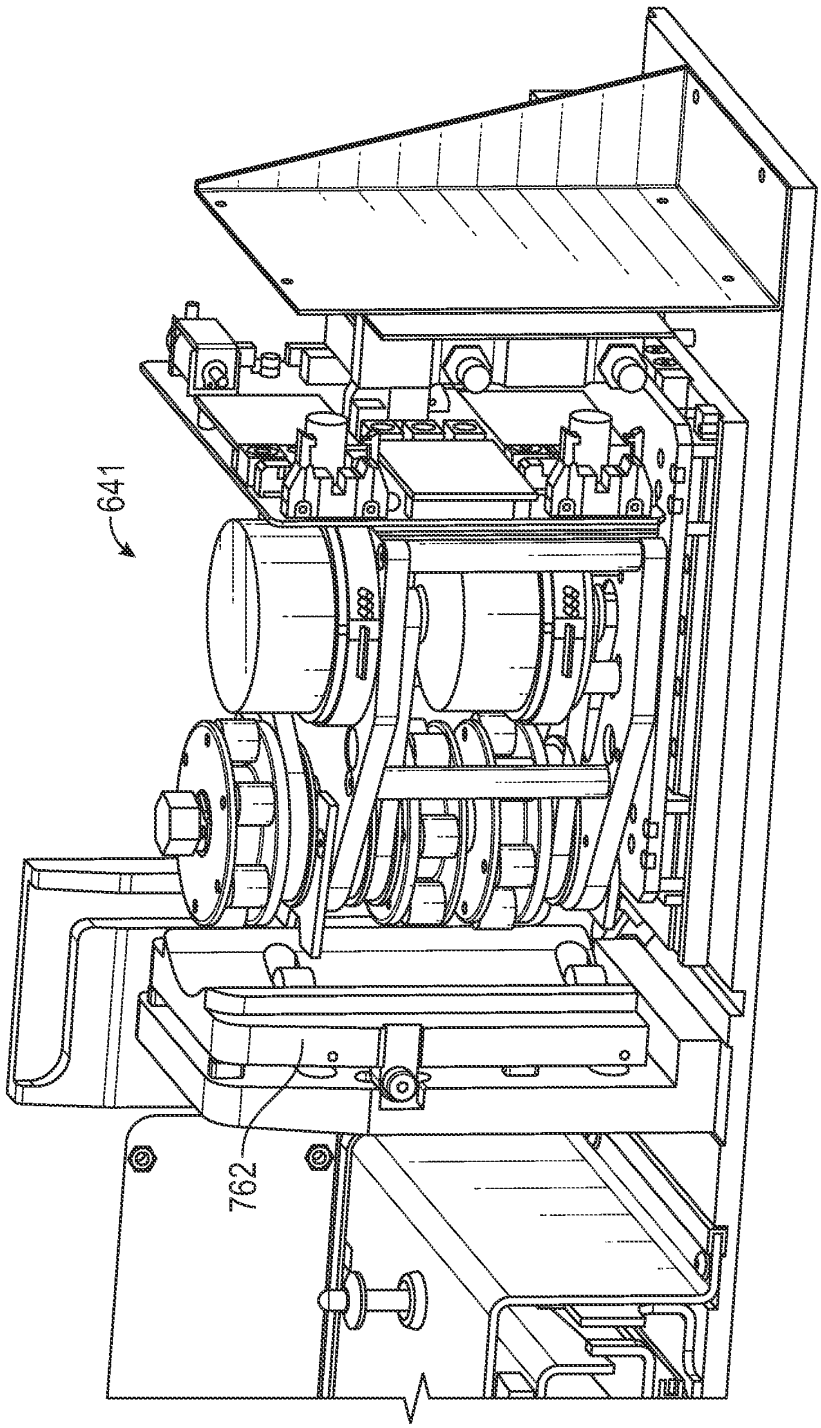


FIG. 61

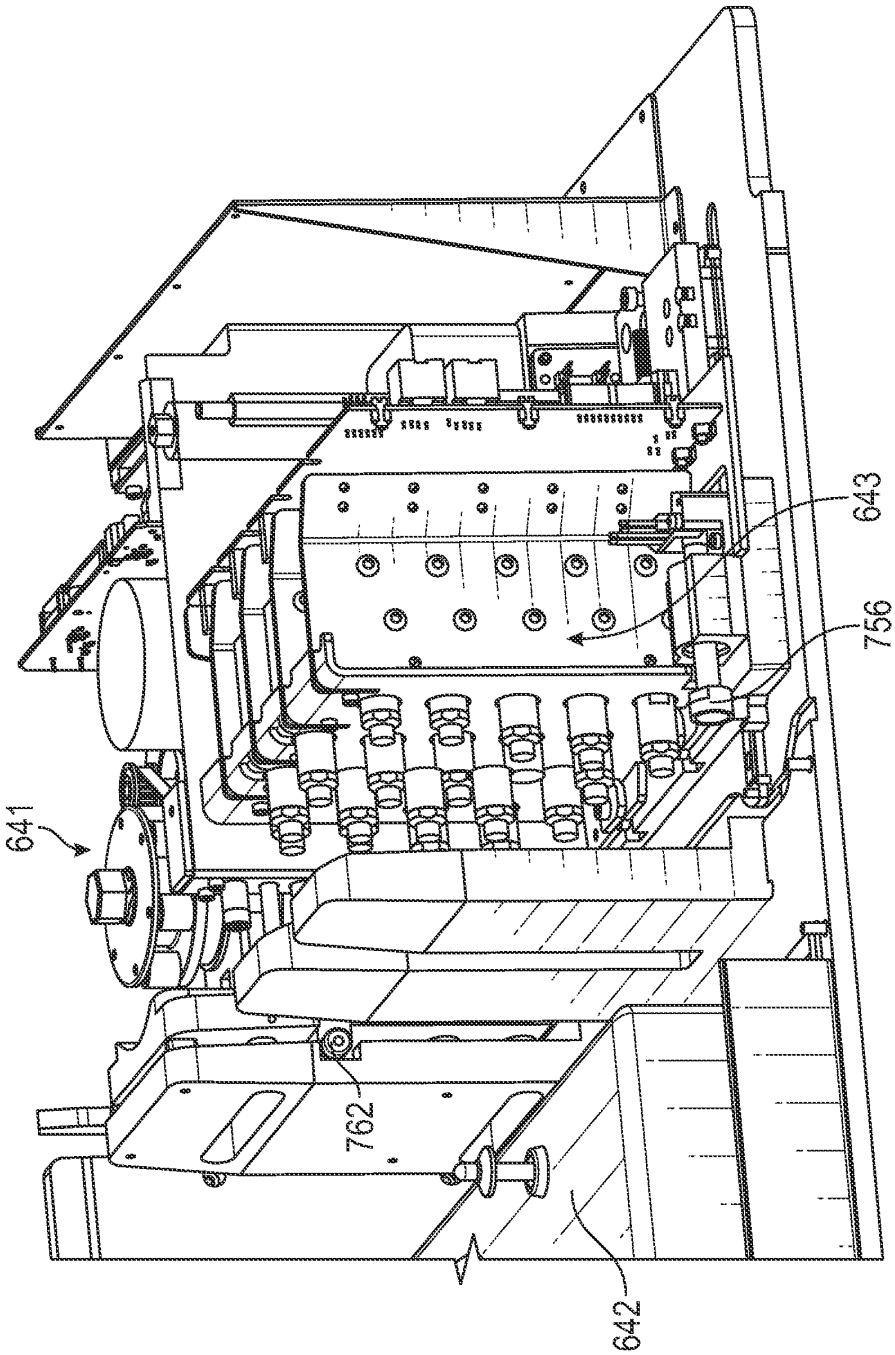


FIG. 62

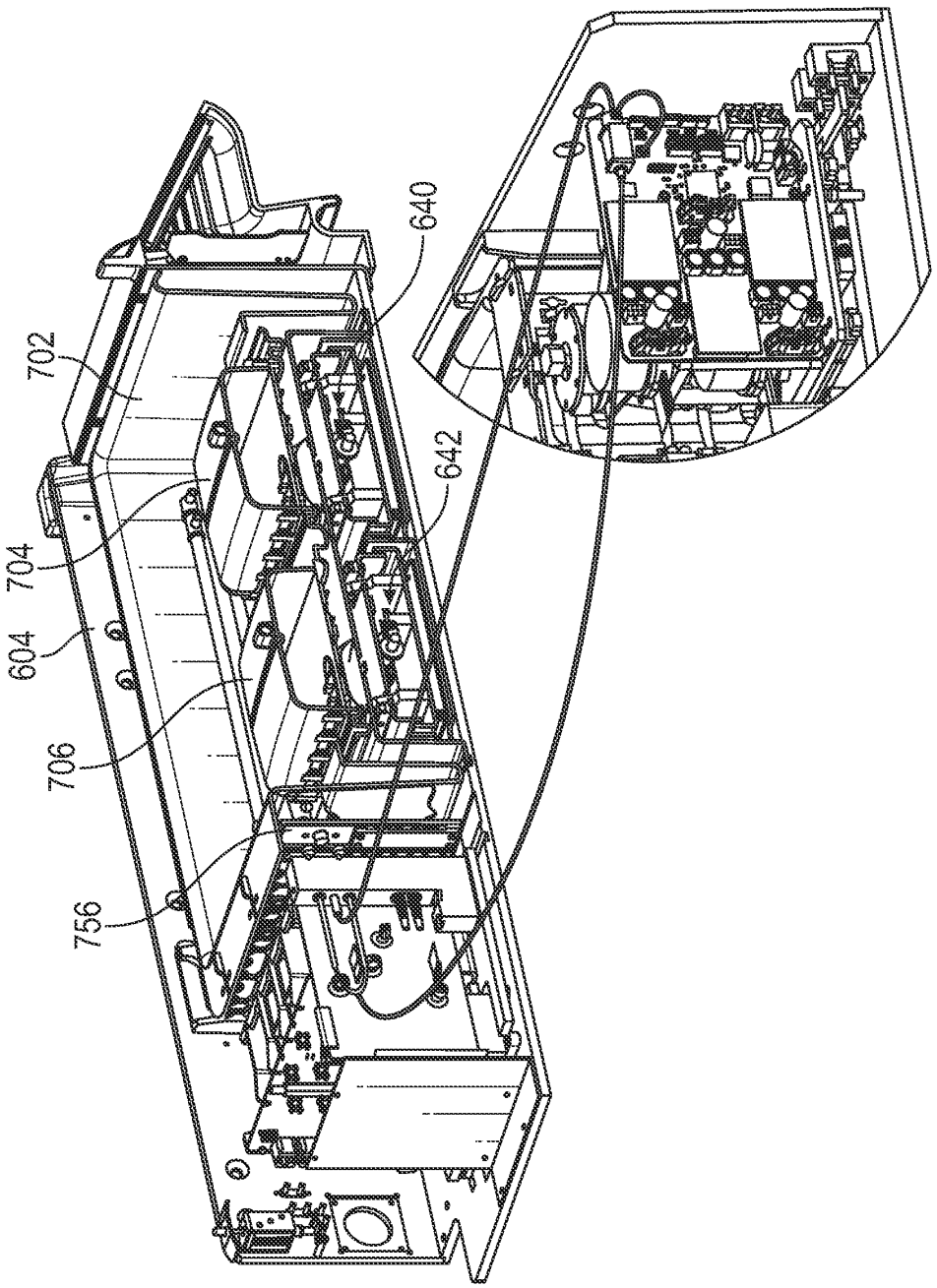


FIG. 63

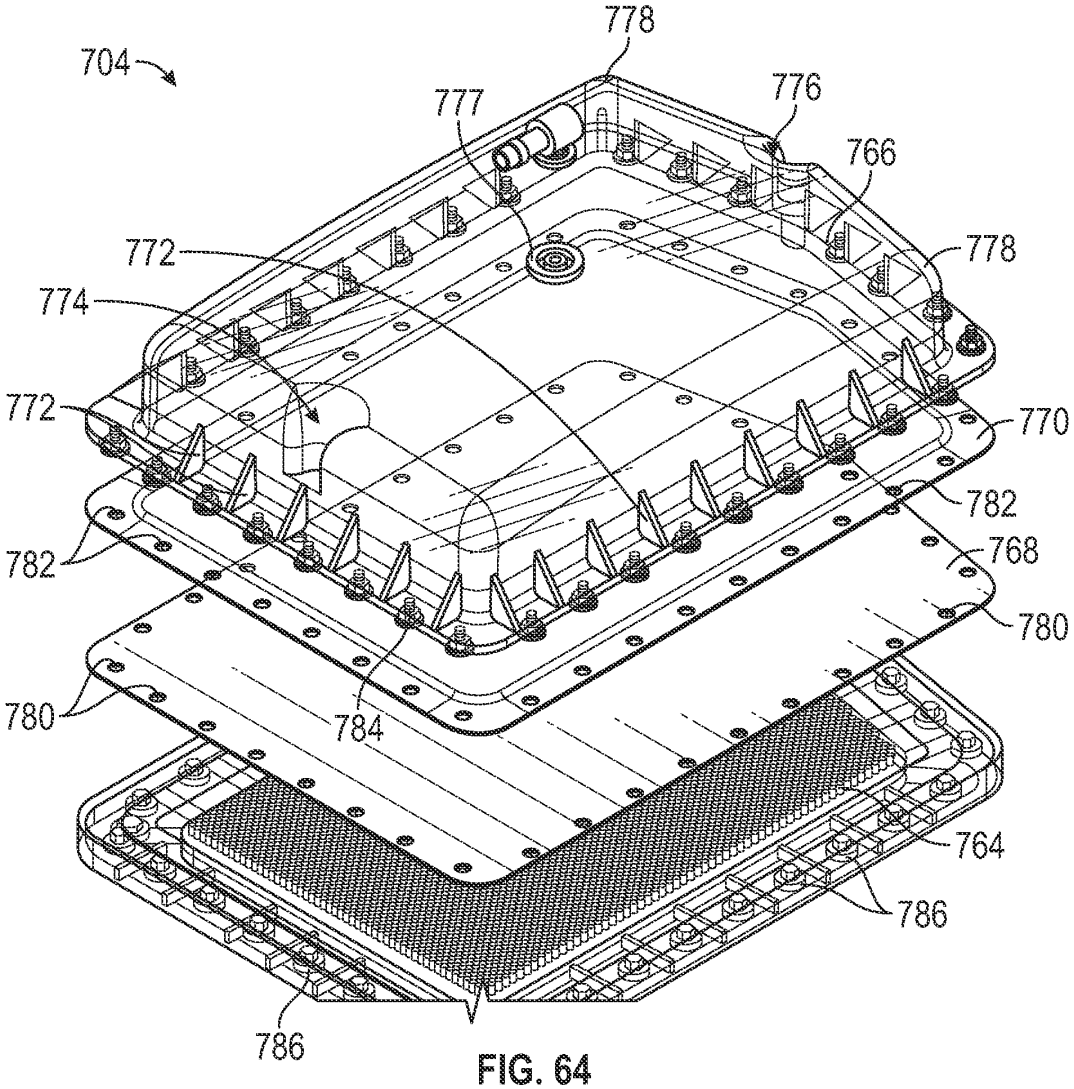

704
778
777
776
766
772
778
774
772
770
782
768
782
780
780
784
764
786
786

FIG. 64

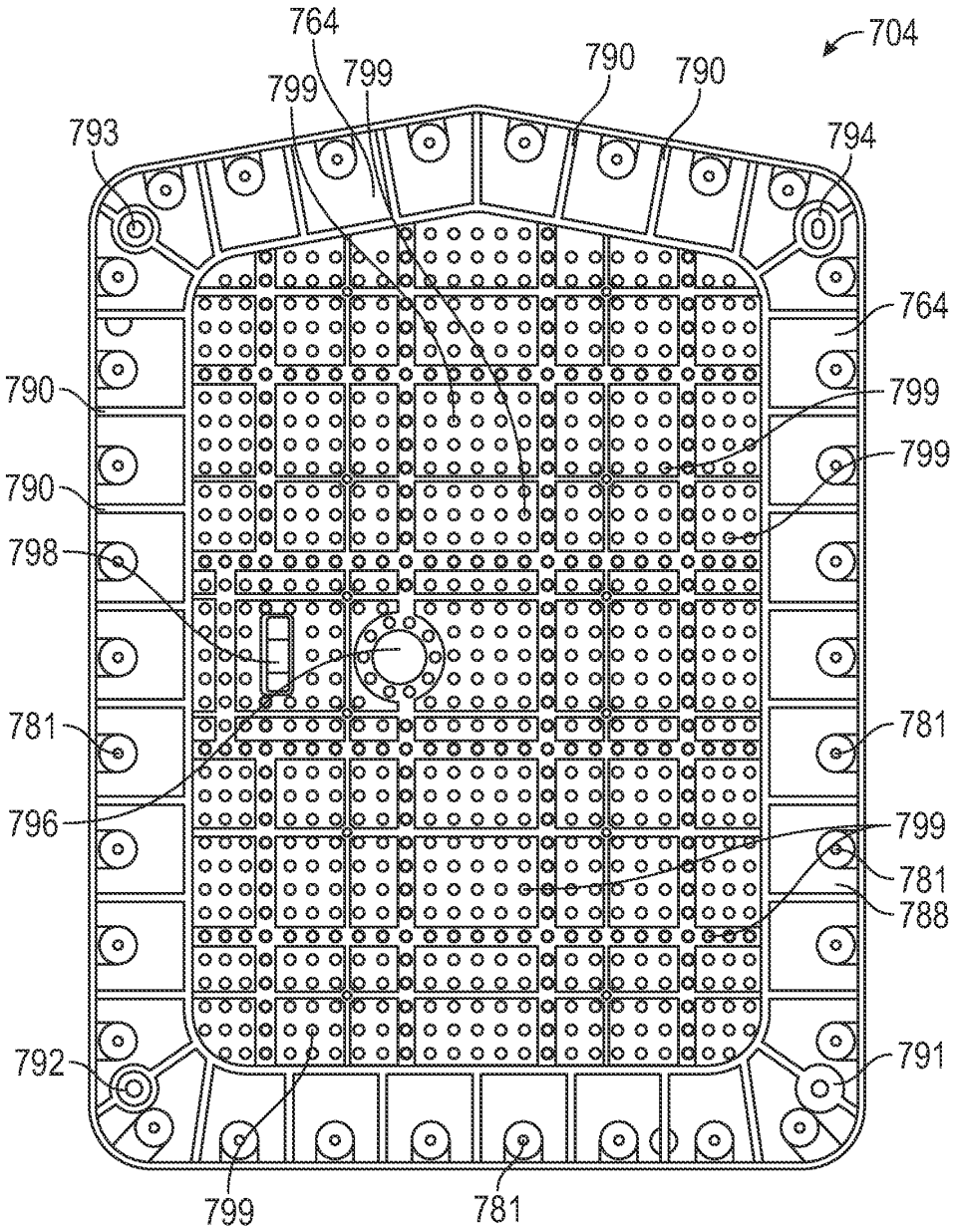

764
799
799
790
790
704
793
794
764
790
799
790
799
798
781
781
796
799
781
788
792
791
799
781

FIG. 65

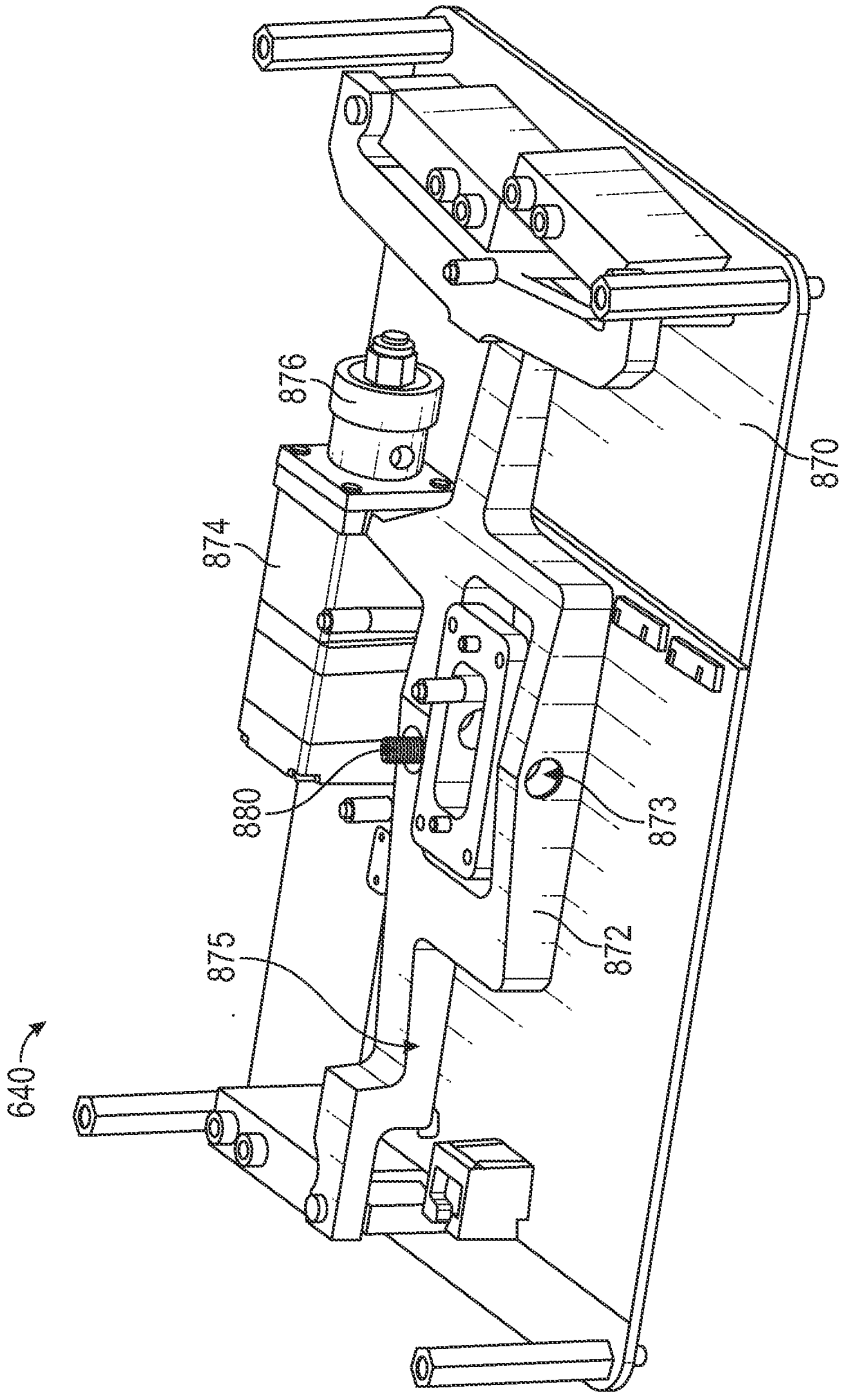


FIG. 66

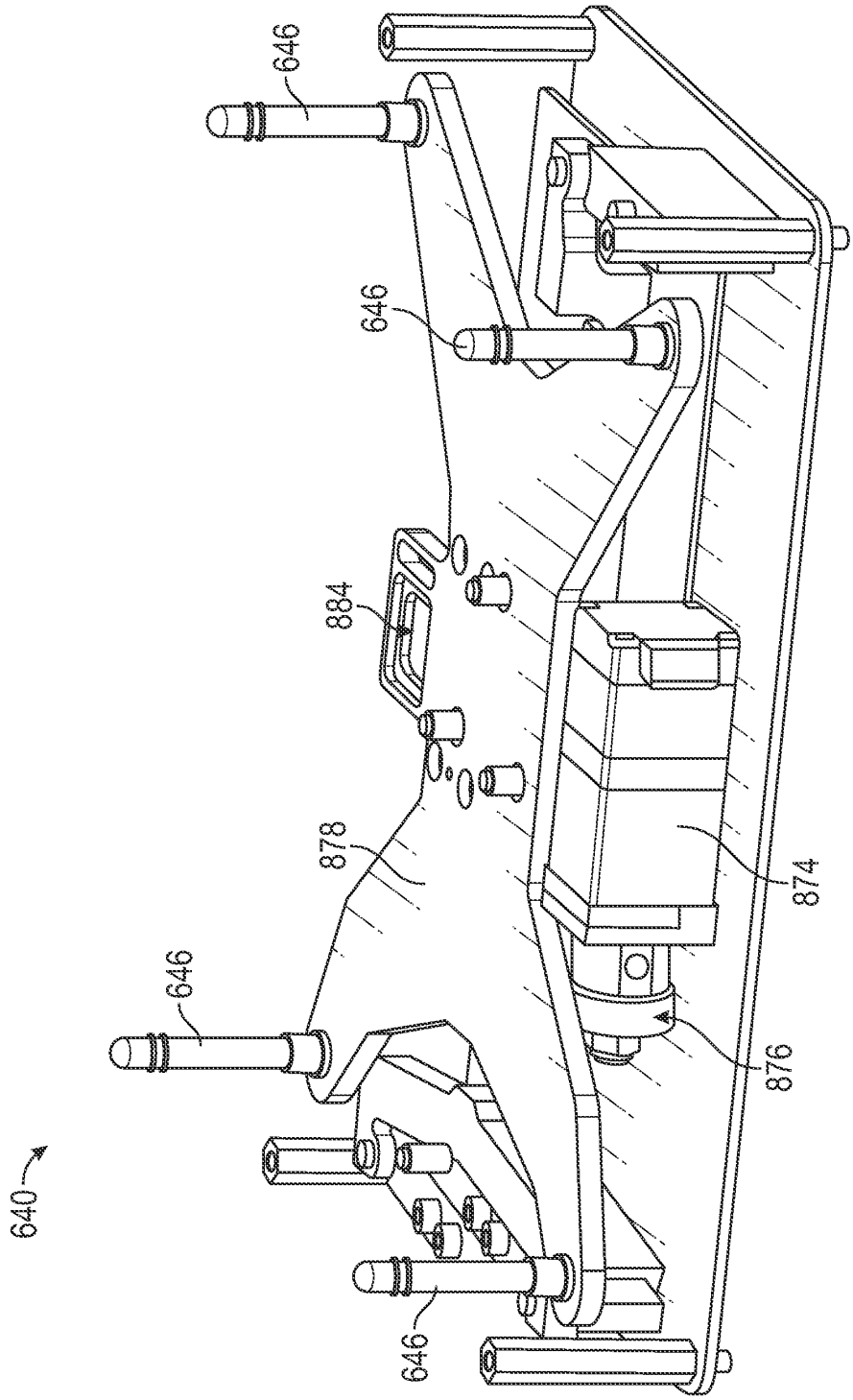


FIG. 67

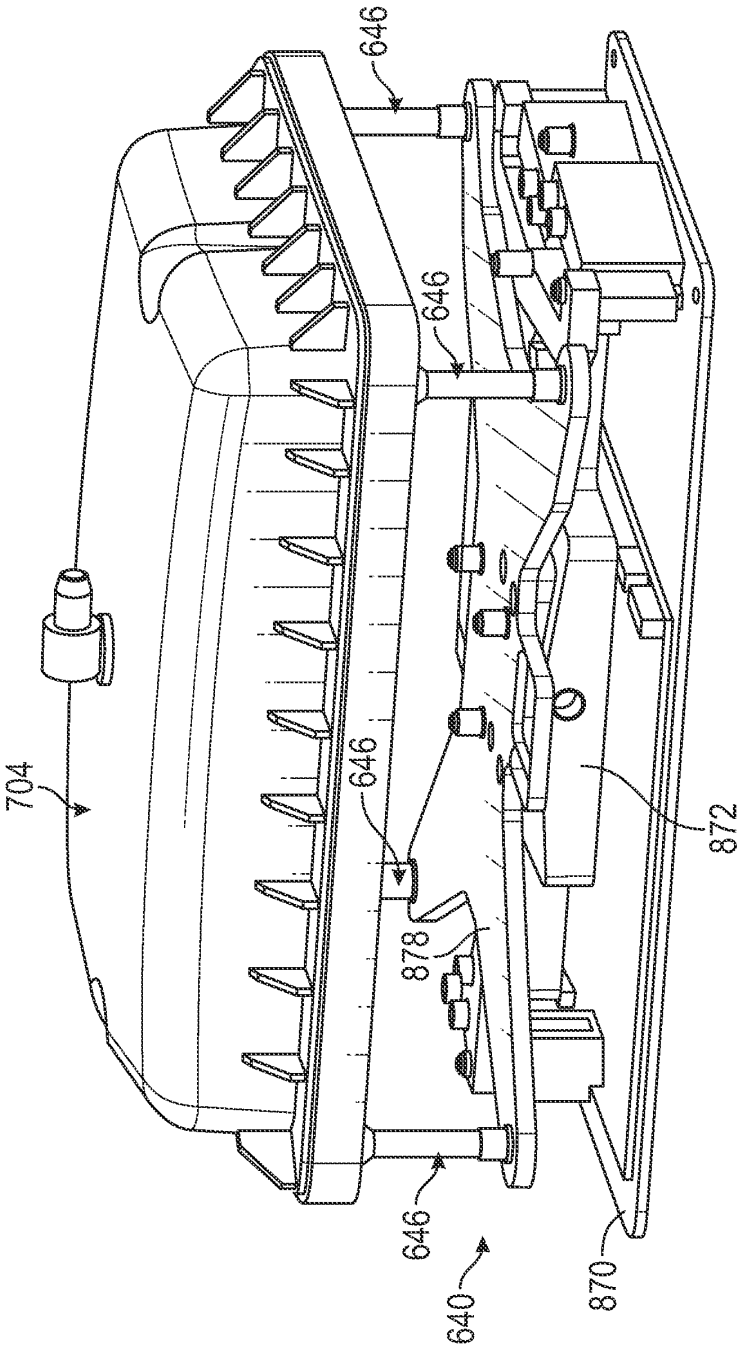


FIG. 68

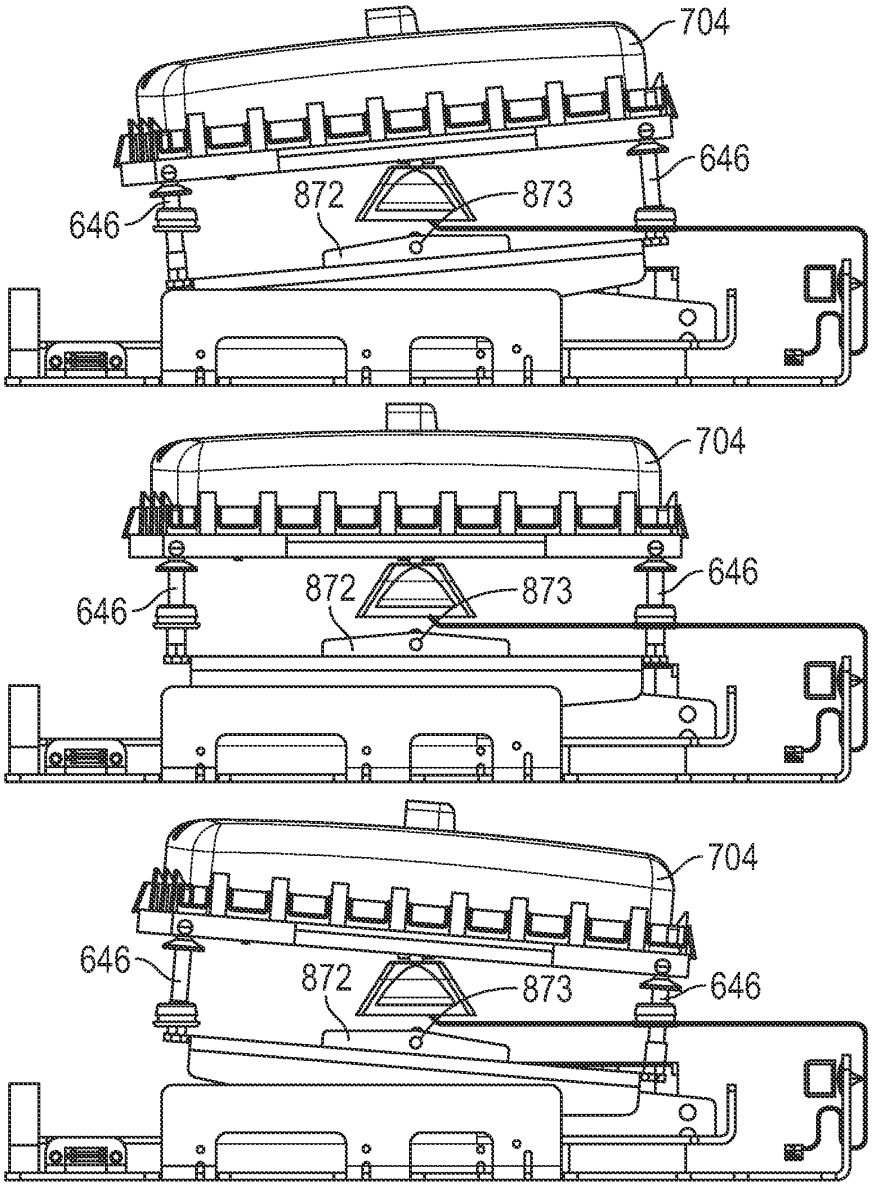


FIG. 69

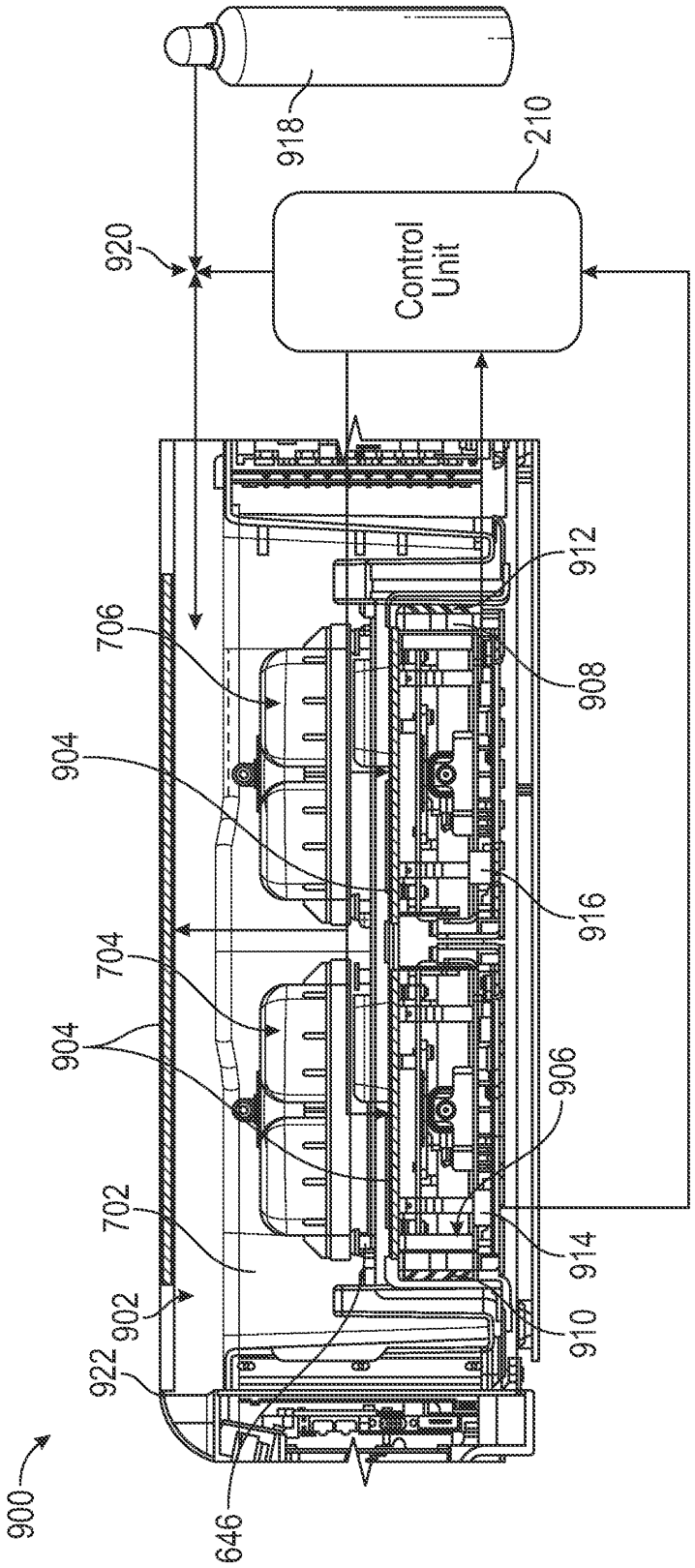

900
646
922
902
702
904
704
904
706
904
916
908
912
906
914
910
920
Control Unit
210
918

FIG. 70

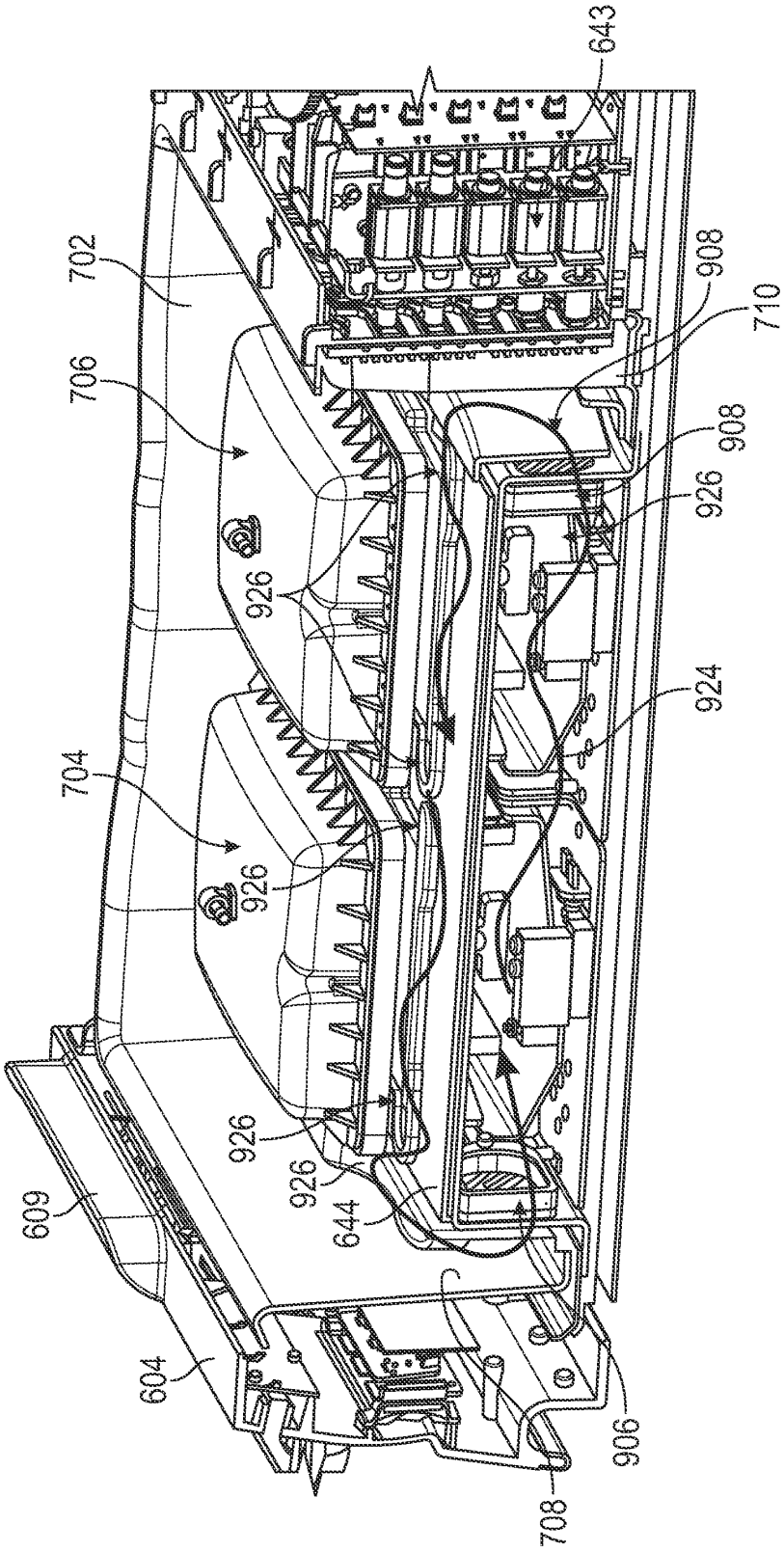

900
643
702
706
908
710
908
926
926
924
704
926
926
926
644
609
604
906
708

FIG. 71

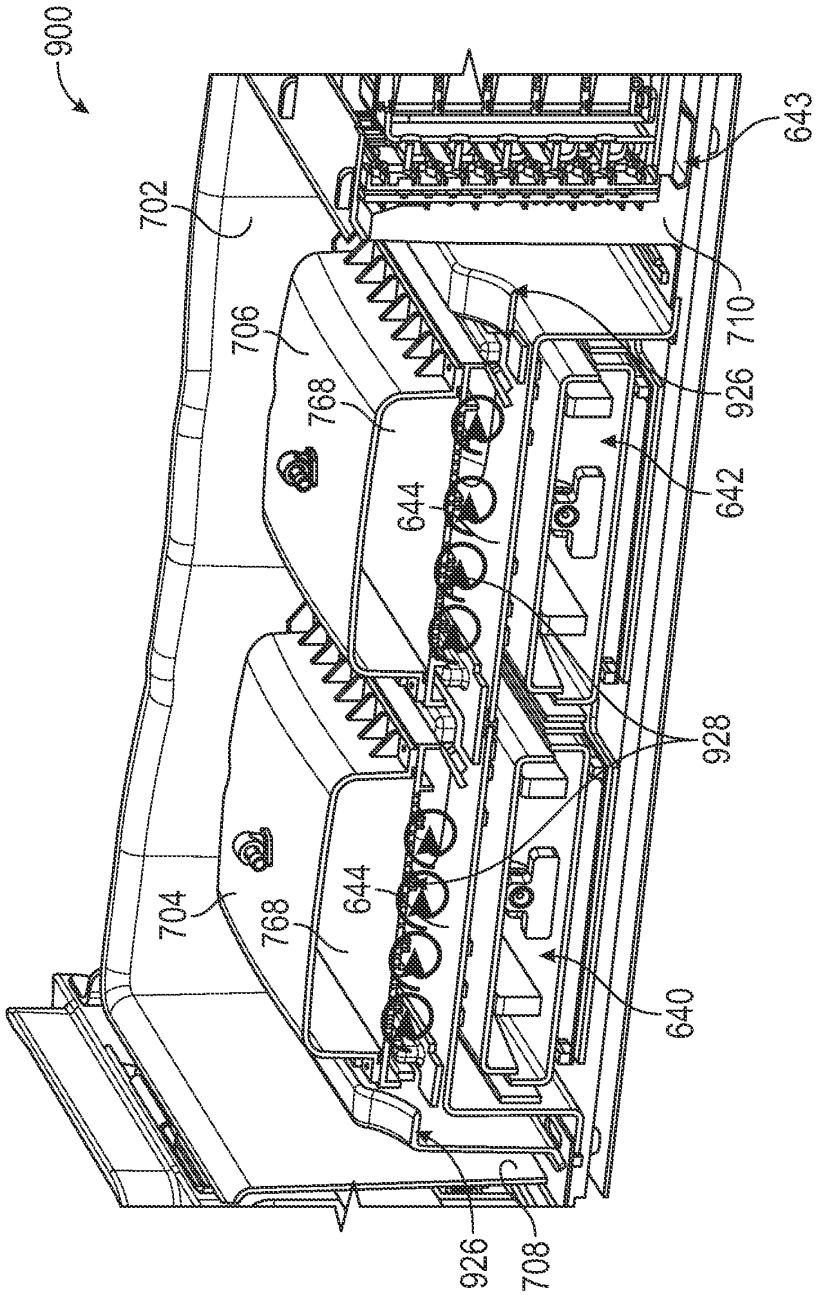


FIG. 72

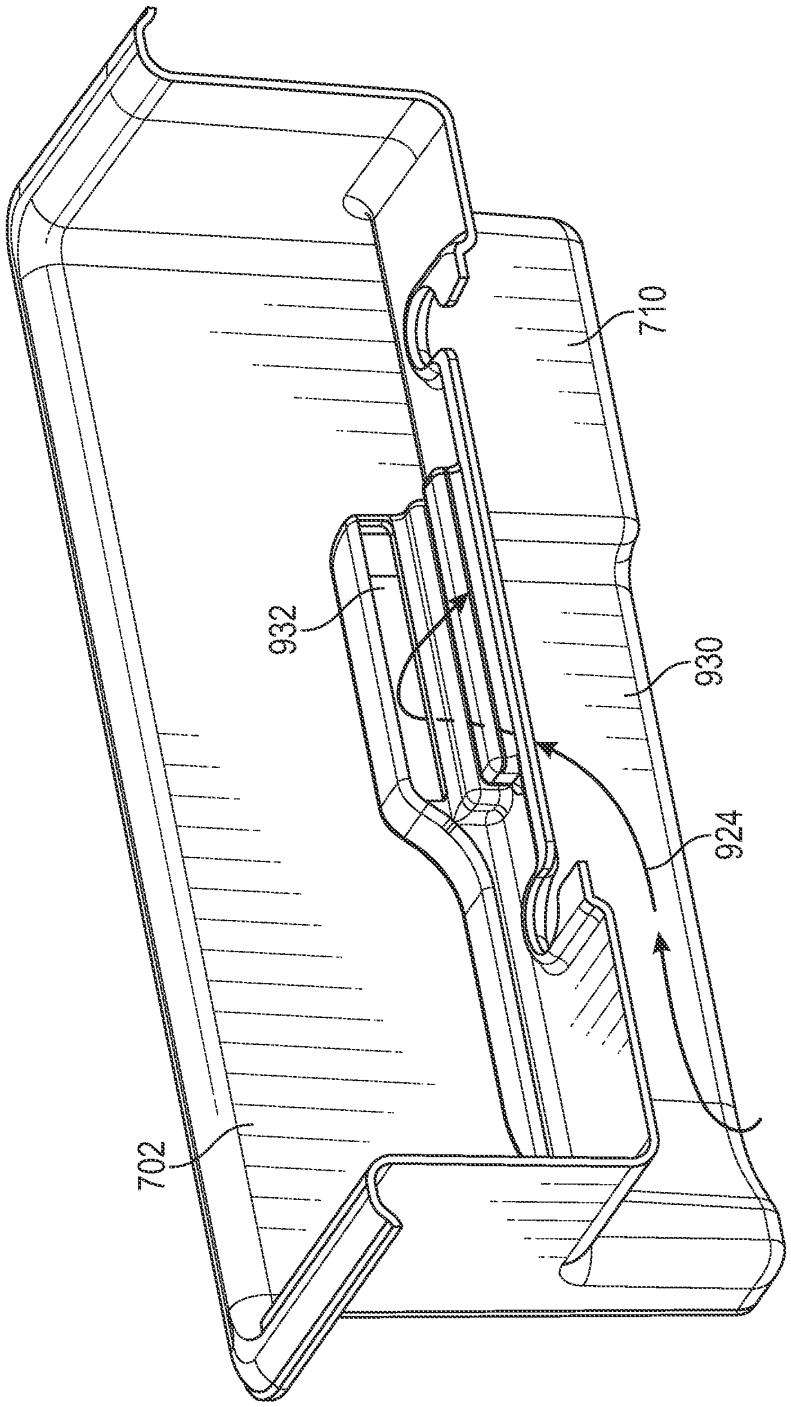


FIG. 73

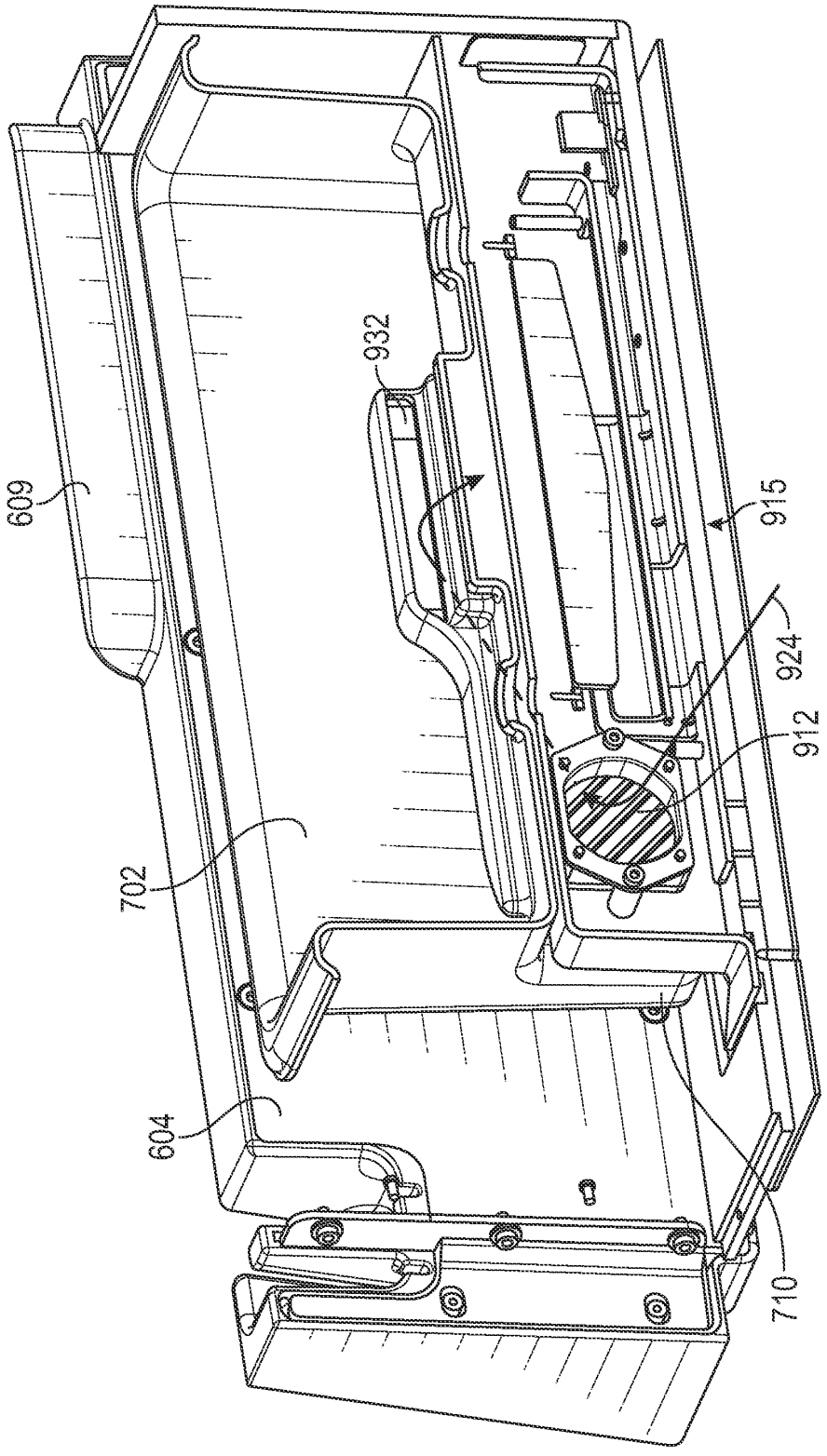


FIG. 74

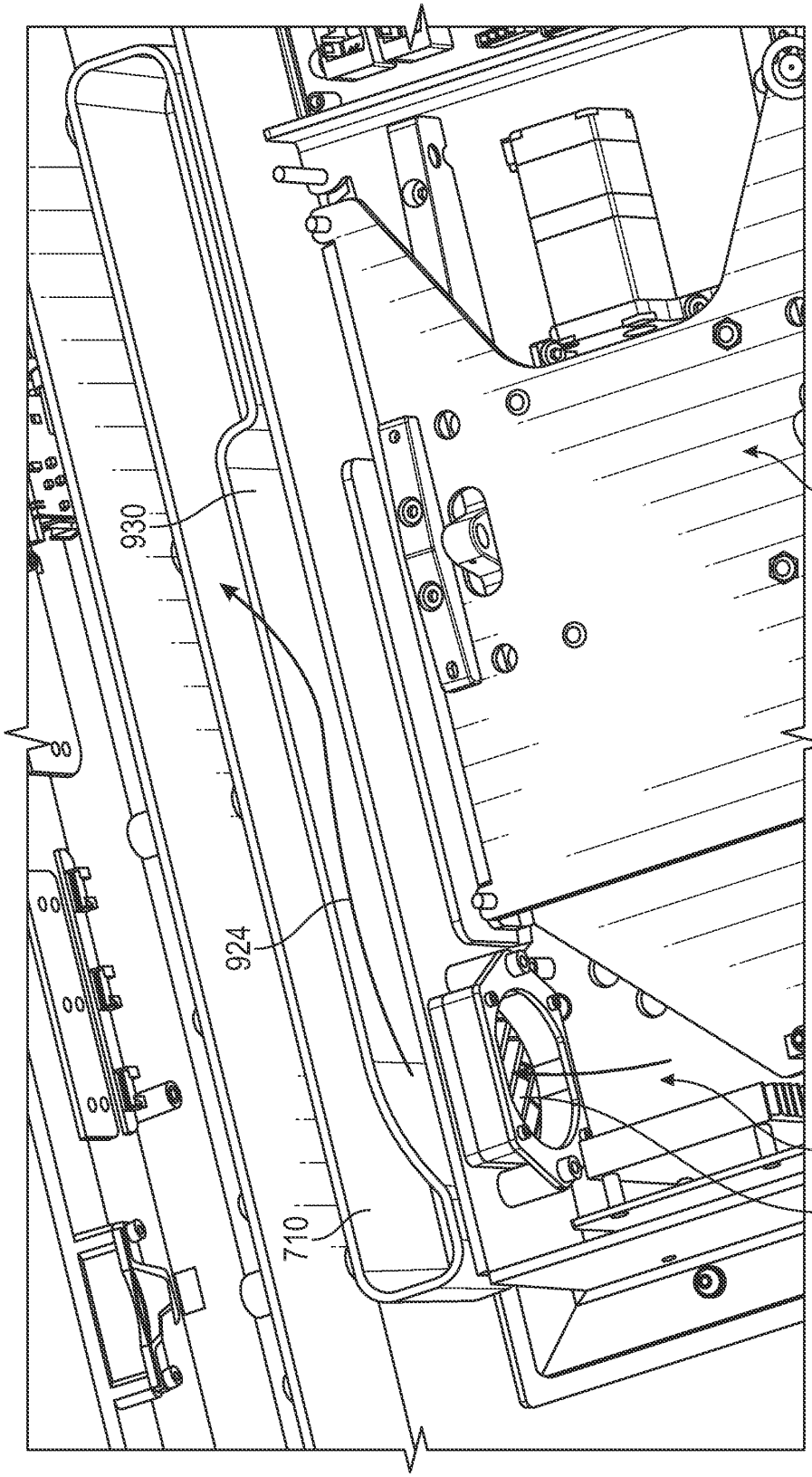


FIG. 75

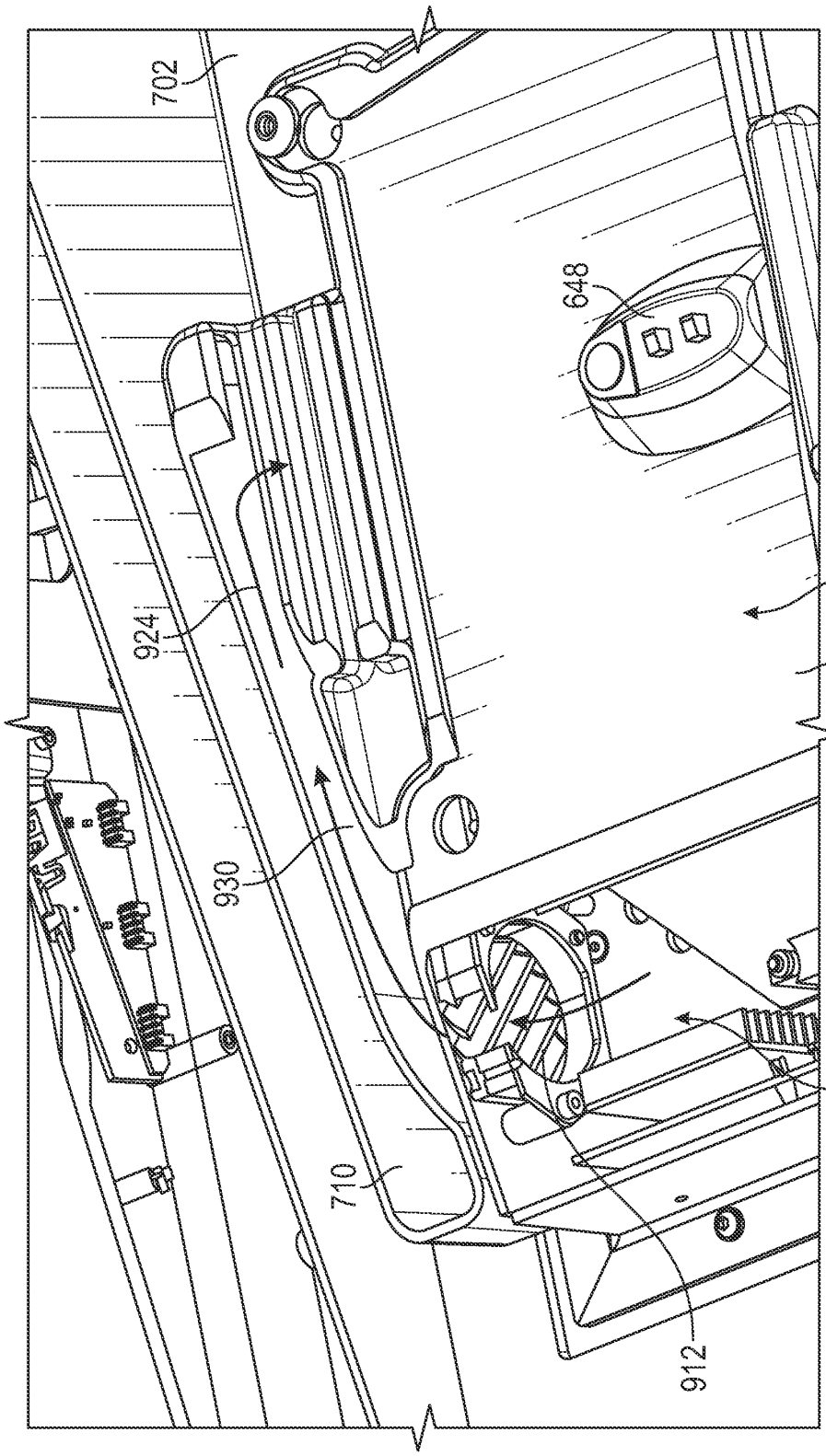


FIG. 76

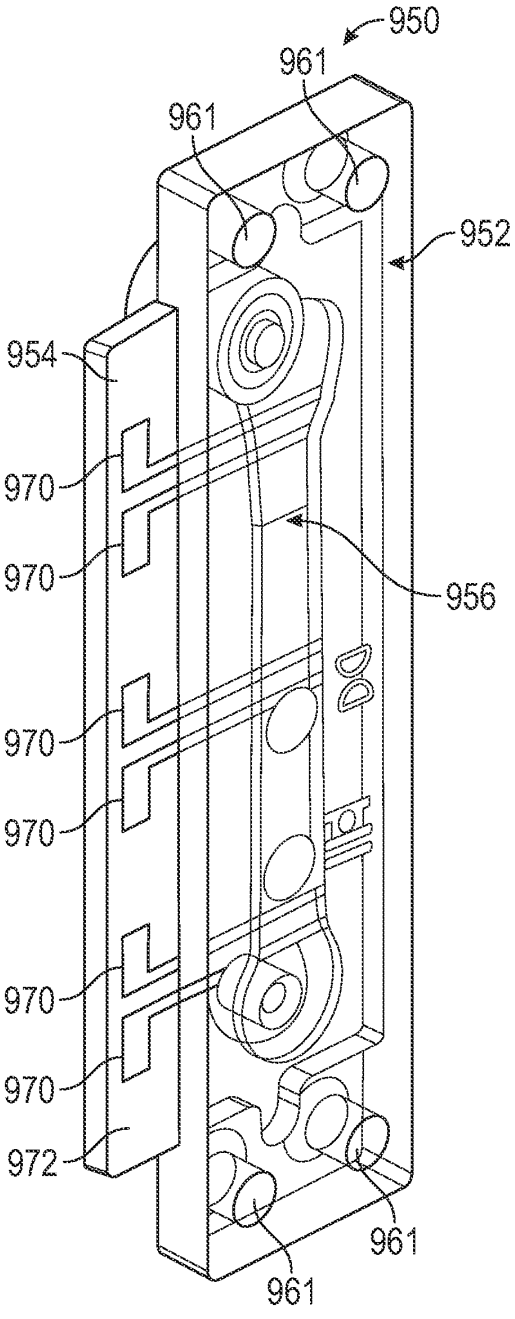

950
961
961
952
954
970
970
956
970
970
970
970
972
961
961

FIG. 77

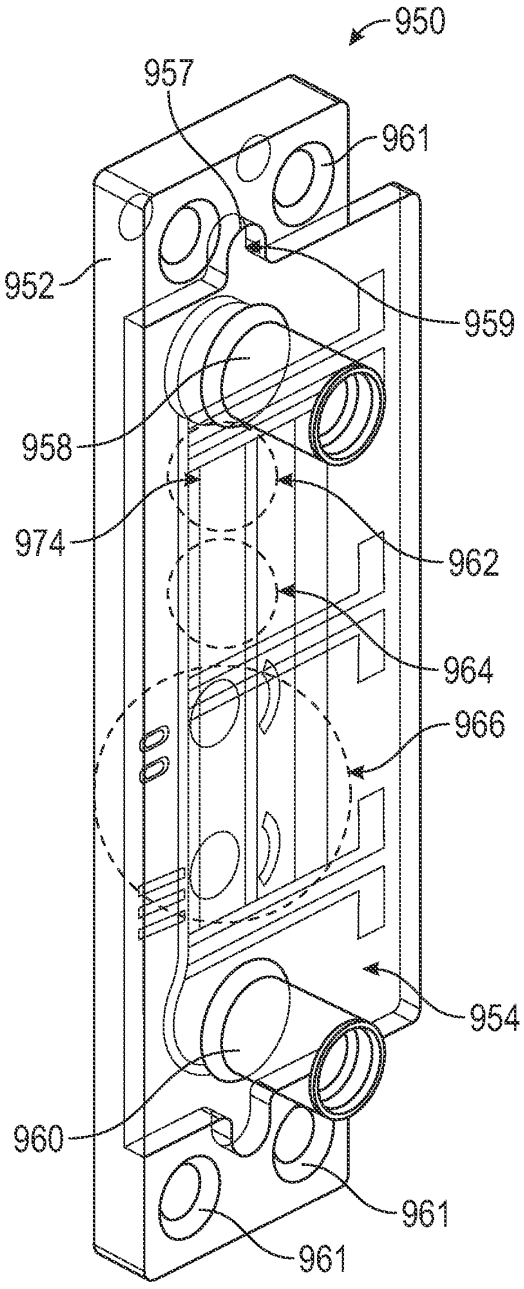

950
957
961
952
959
958
974
962
964
966
954
960
961
961

FIG. 78

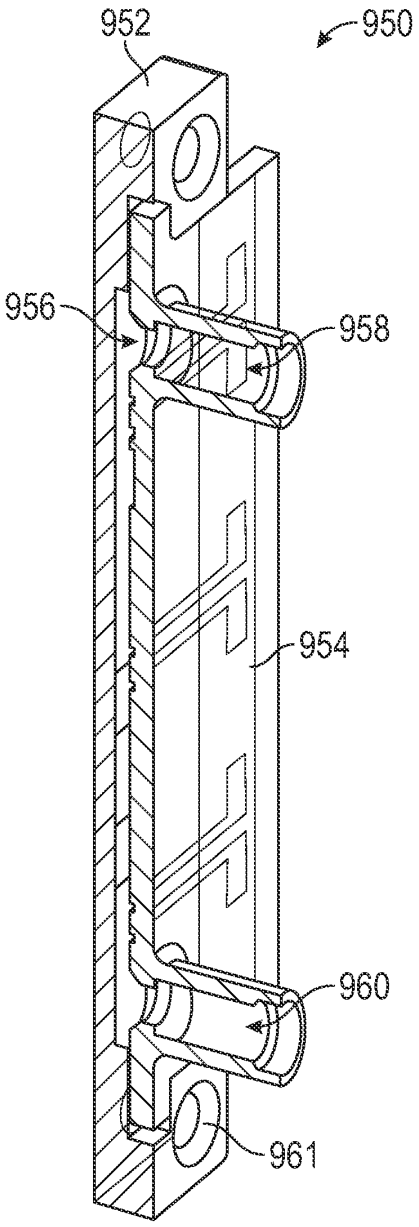

952
950
956
958
954
960
961

FIG. 79

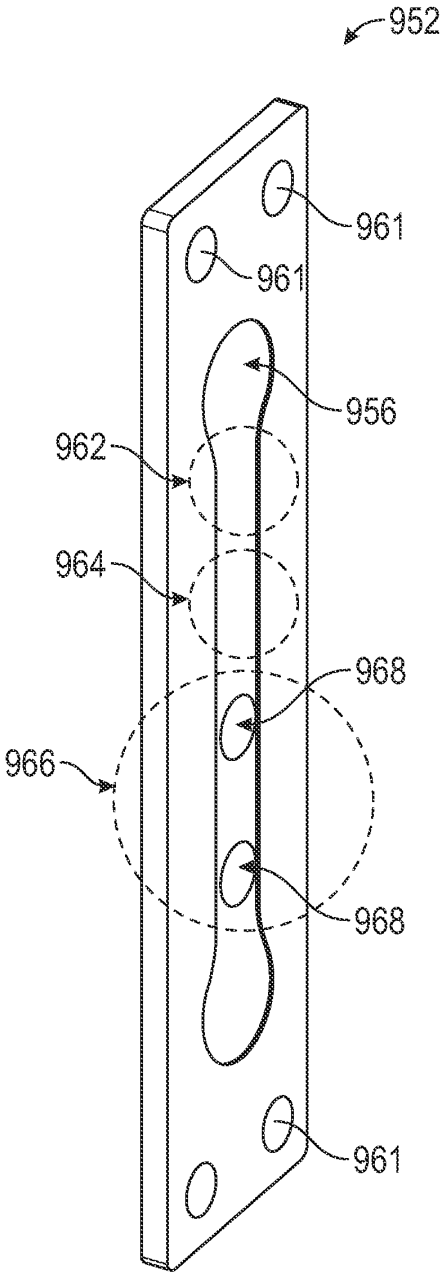

952
961
961
956
962
964
968
966
968
961

FIG. 80

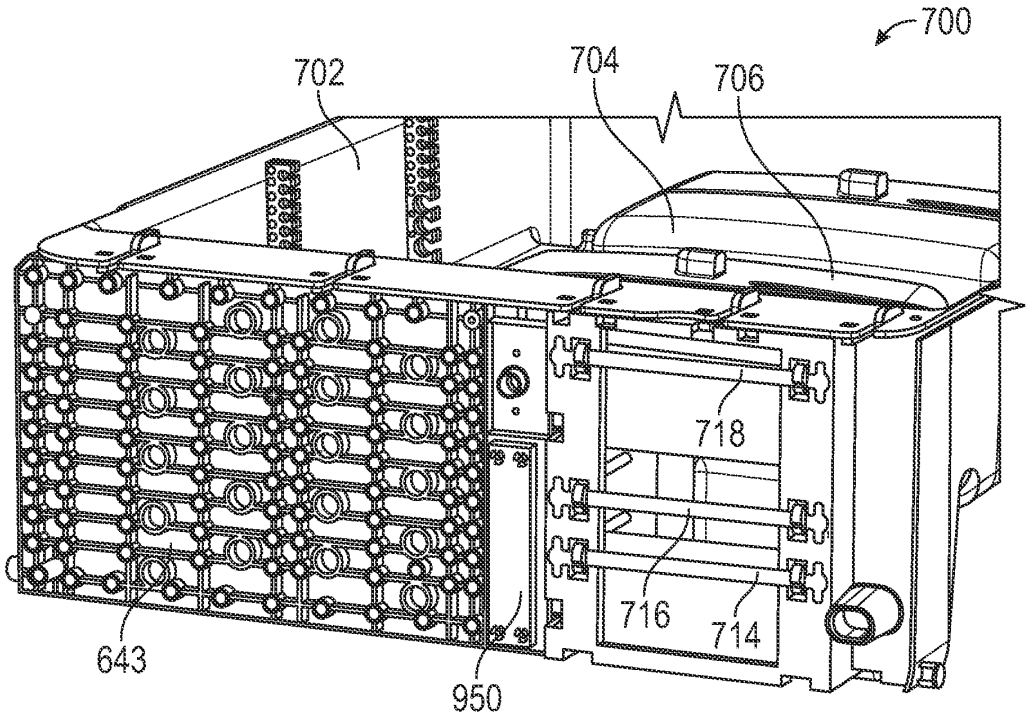


FIG. 81

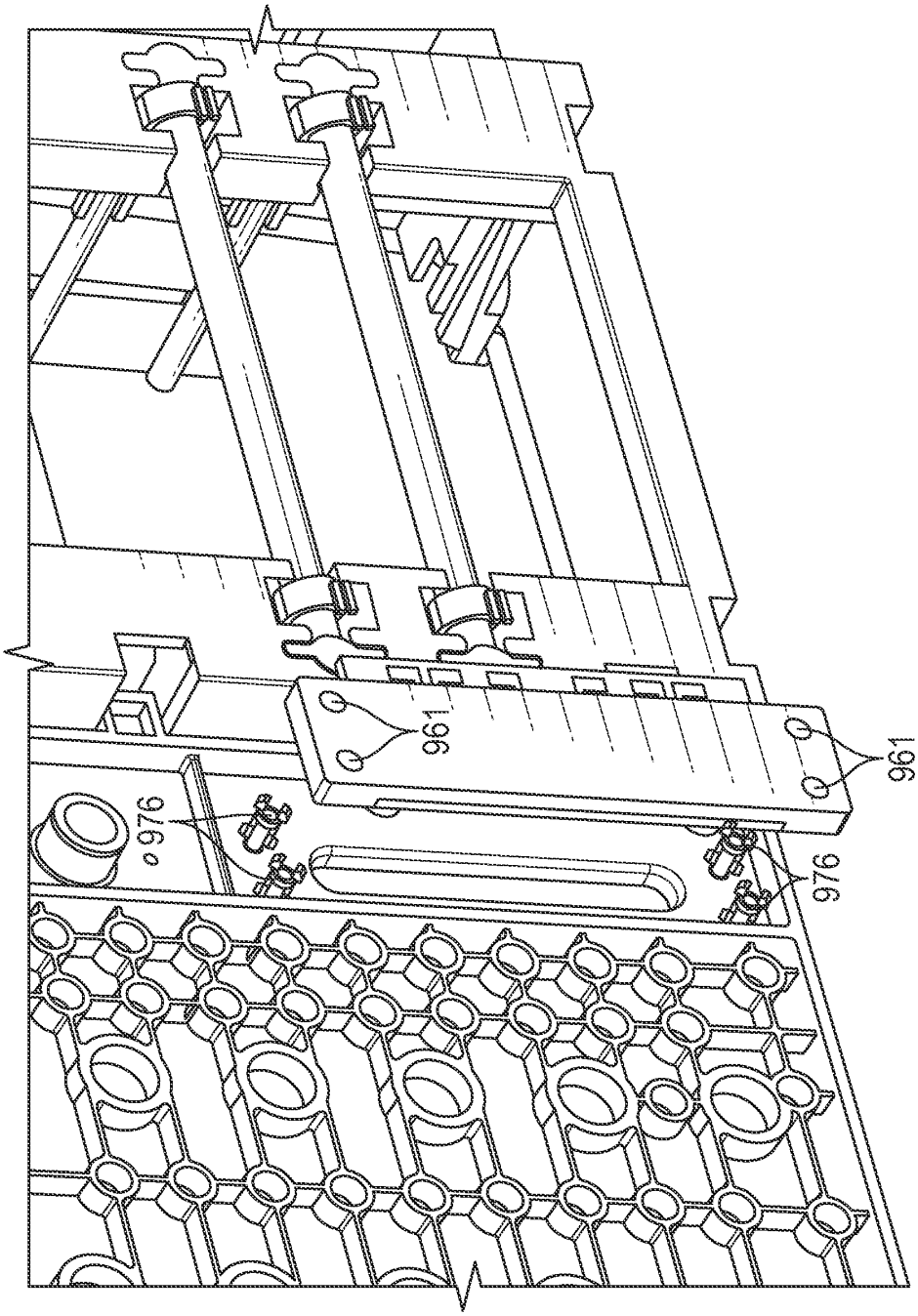


FIG. 82

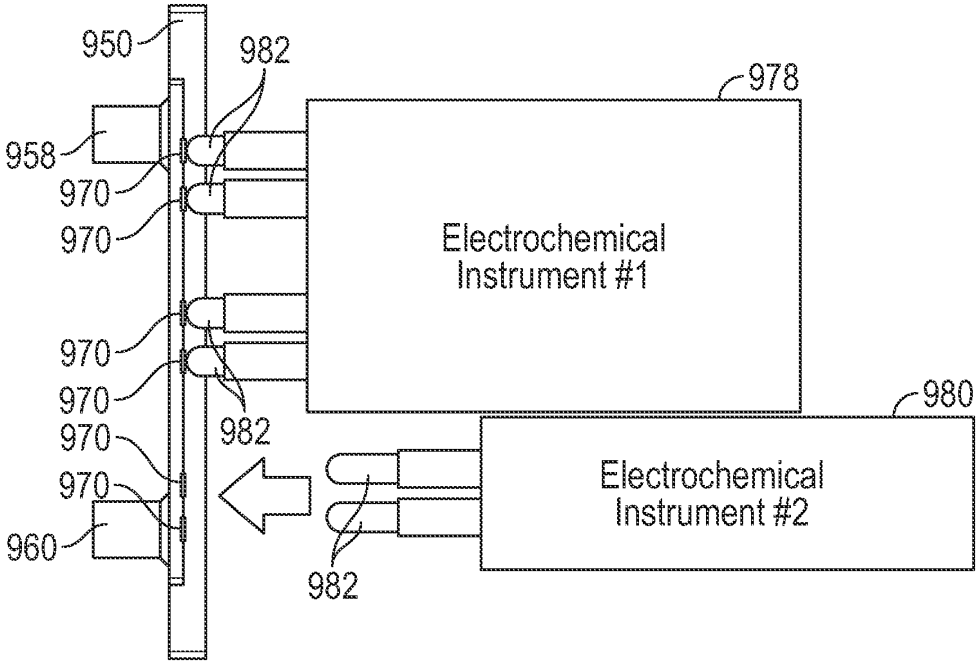

950
982
978
958
970
970
Electrochemical
Instrument #1
970
970
980
970
982
970
Electrochemical
Instrument #2
960
982

FIG. 83

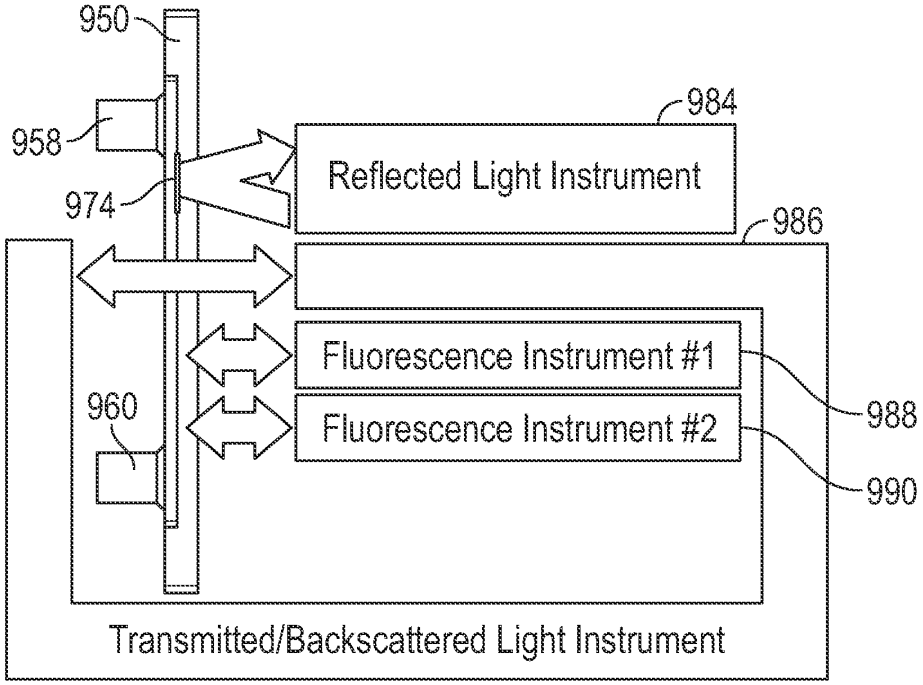

950
984
958
Reflected Light Instrument
974
986
Fluorescence Instrument #1
988
960
Fluorescence Instrument #2
990
Transmitted/Backscattered Light Instrument

FIG. 84

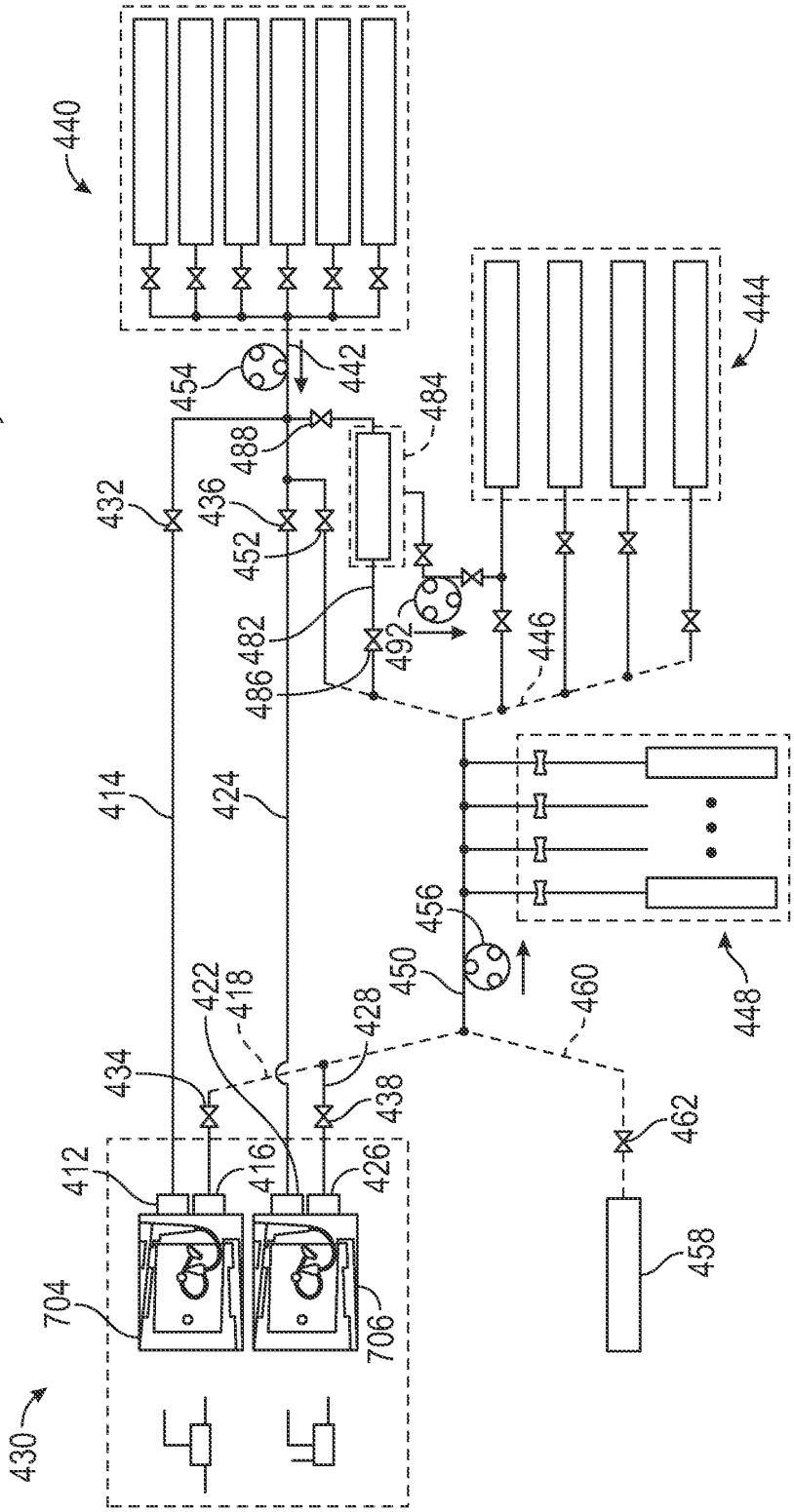

400
440
442
444
446
448
450
452
454
456
458
460
462
482
484
486
488
492
412
414
416
418
422
424
426
428
430
432
434
436
438
704
706

FIG. 85

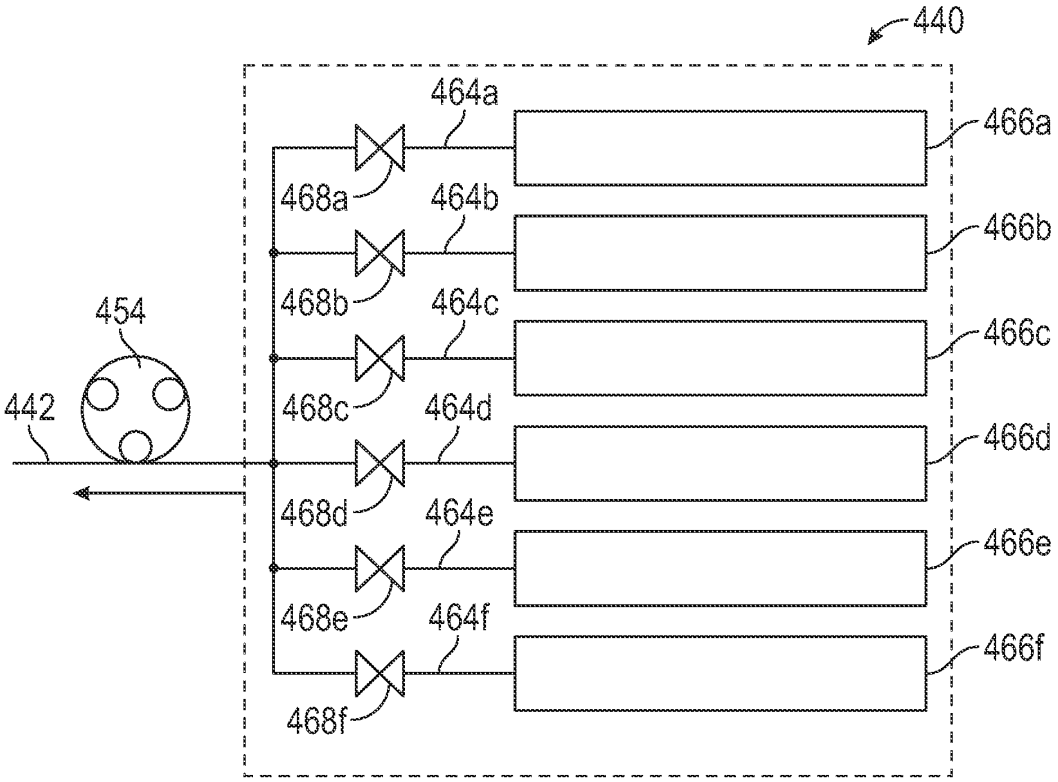

440
464a
466a
468a
464b
466b
468b
464c
454
466c
442
468c
464d
466d
468d
464e
466e
468e
464f
466f
468f

FIG. 86

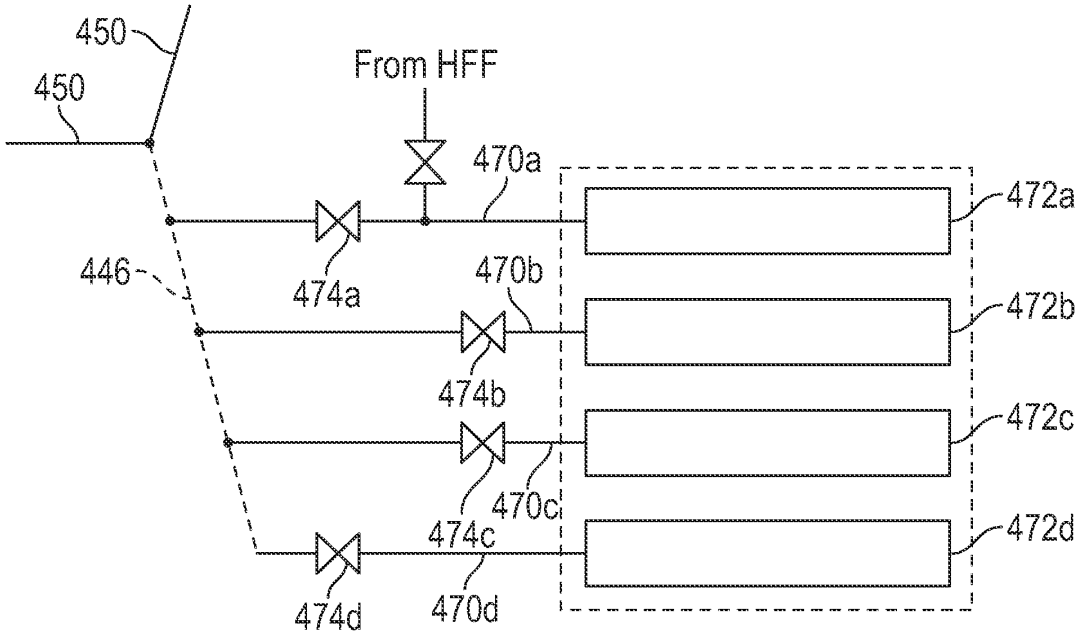

450
450
From HFF
470a
472a
474a
446
470b
472b
474b
472c
470c
474c
472d
474d
470d

FIG. 87

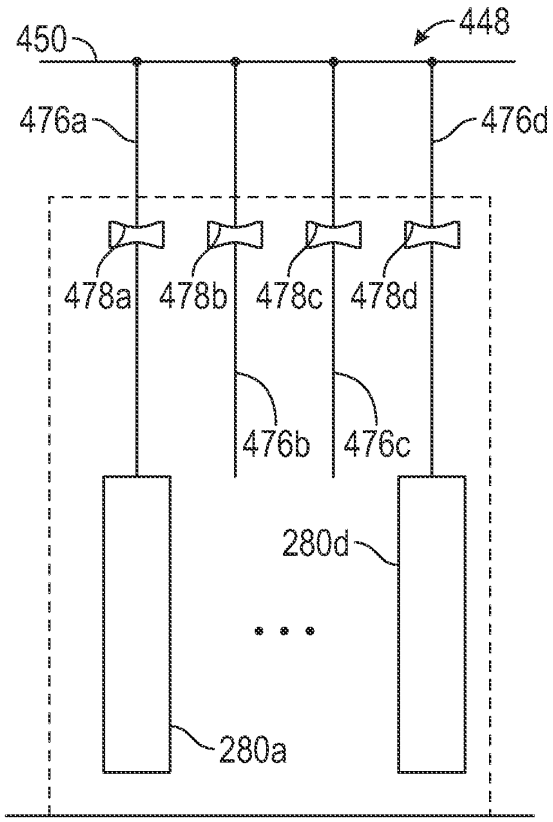

450
448
476a
476d
478a
478b
478c
478d
476b
476c
280d
280a

FIG. 88

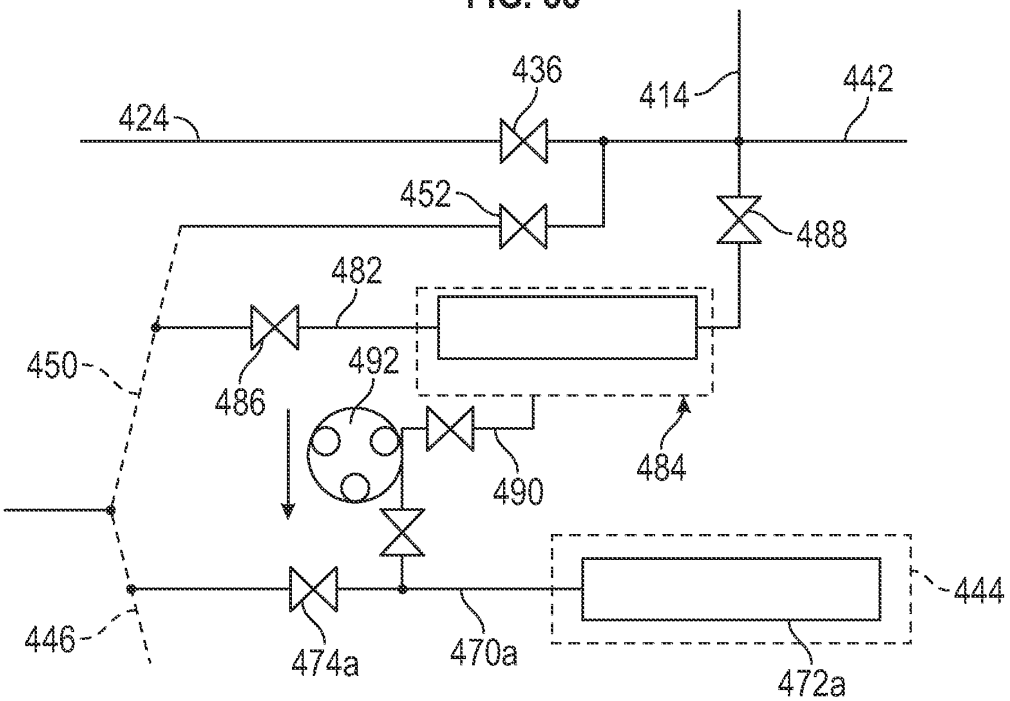

436
414
442
424
452
488
482
450
492
486
484
490
444
446
474a
470a
472a

FIG. 89

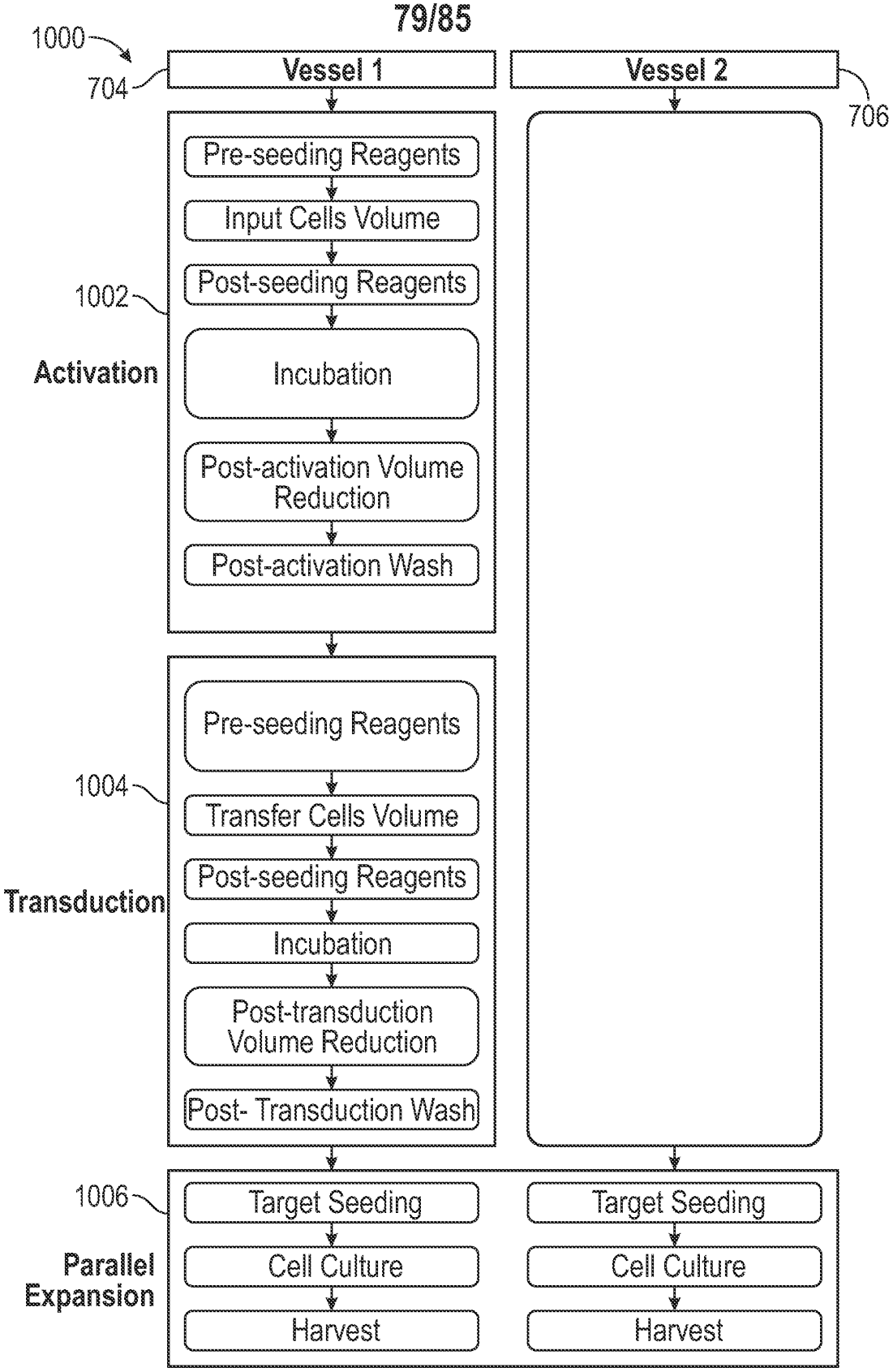

1000
704
Vessel 1
Vessel 2
706
Pre-seeding Reagents
Input Cells Volume
Post-seeding Reagents
1002
Activation
Incubation
Post-activation Volume Reduction
Post-activation Wash
Pre-seeding Reagents
1004
Transfer Cells Volume
Post-seeding Reagents
Transduction
Incubation
Post-transduction Volume Reduction
Post- Transduction Wash
1006
Target Seeding
Target Seeding
Cell Culture
Cell Culture
Parallel Expansion
Harvest
Harvest

FIG. 90

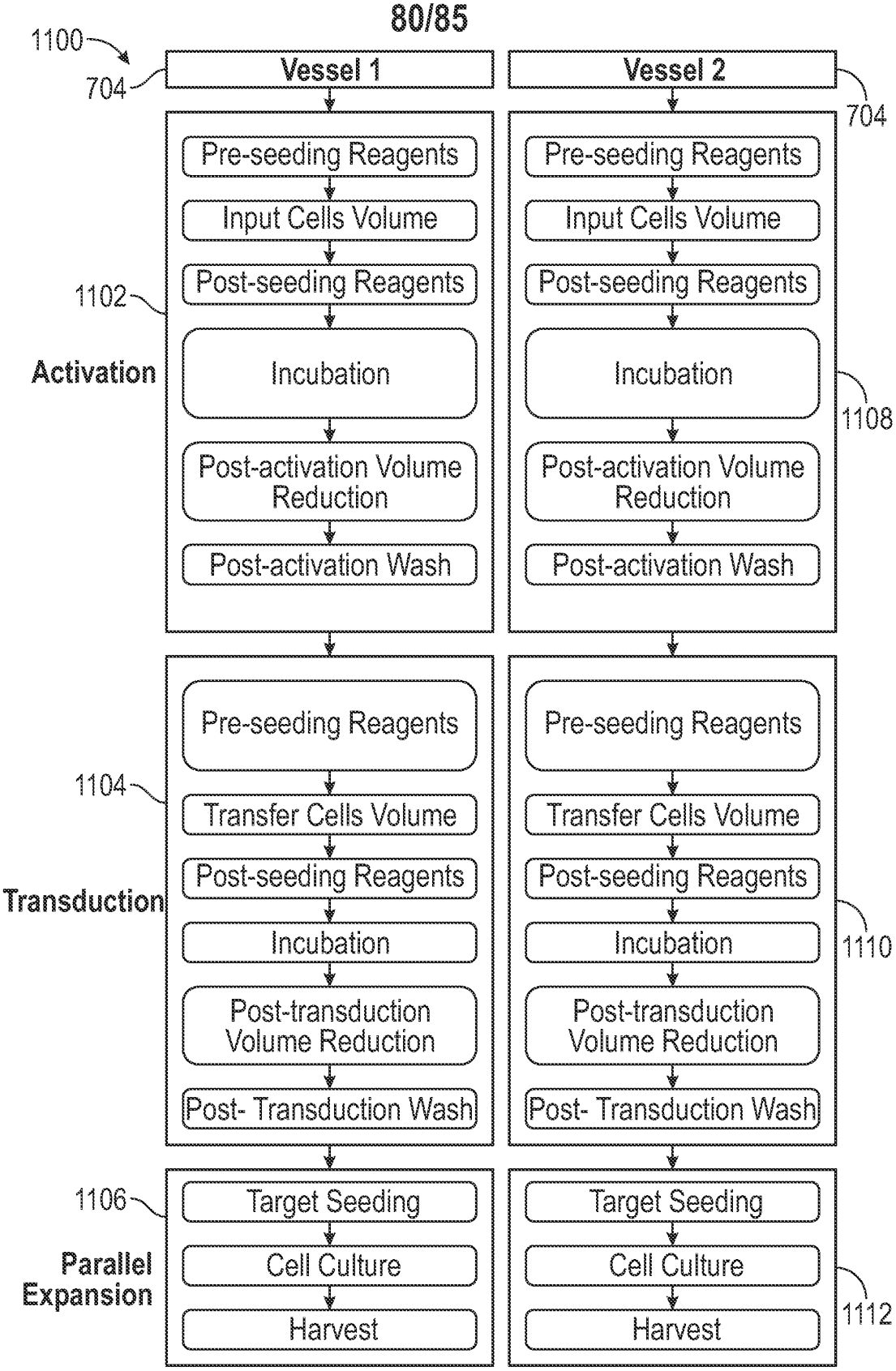

1100
704
Vessel 1
Vessel 2
704
Pre-seeding Reagents
Input Cells Volume
Post-seeding Reagents
1102
Activation
Incubation
Post-activation Volume Reduction
Post-activation Wash
1108
Pre-seeding Reagents
1104
Transfer Cells Volume
Post-seeding Reagents
Transduction
Incubation
Post-transduction Volume Reduction
Post- Transduction Wash
1110
1106
Target Seeding
Cell Culture
Parallel Expansion
Harvest
1112

FIG. 91

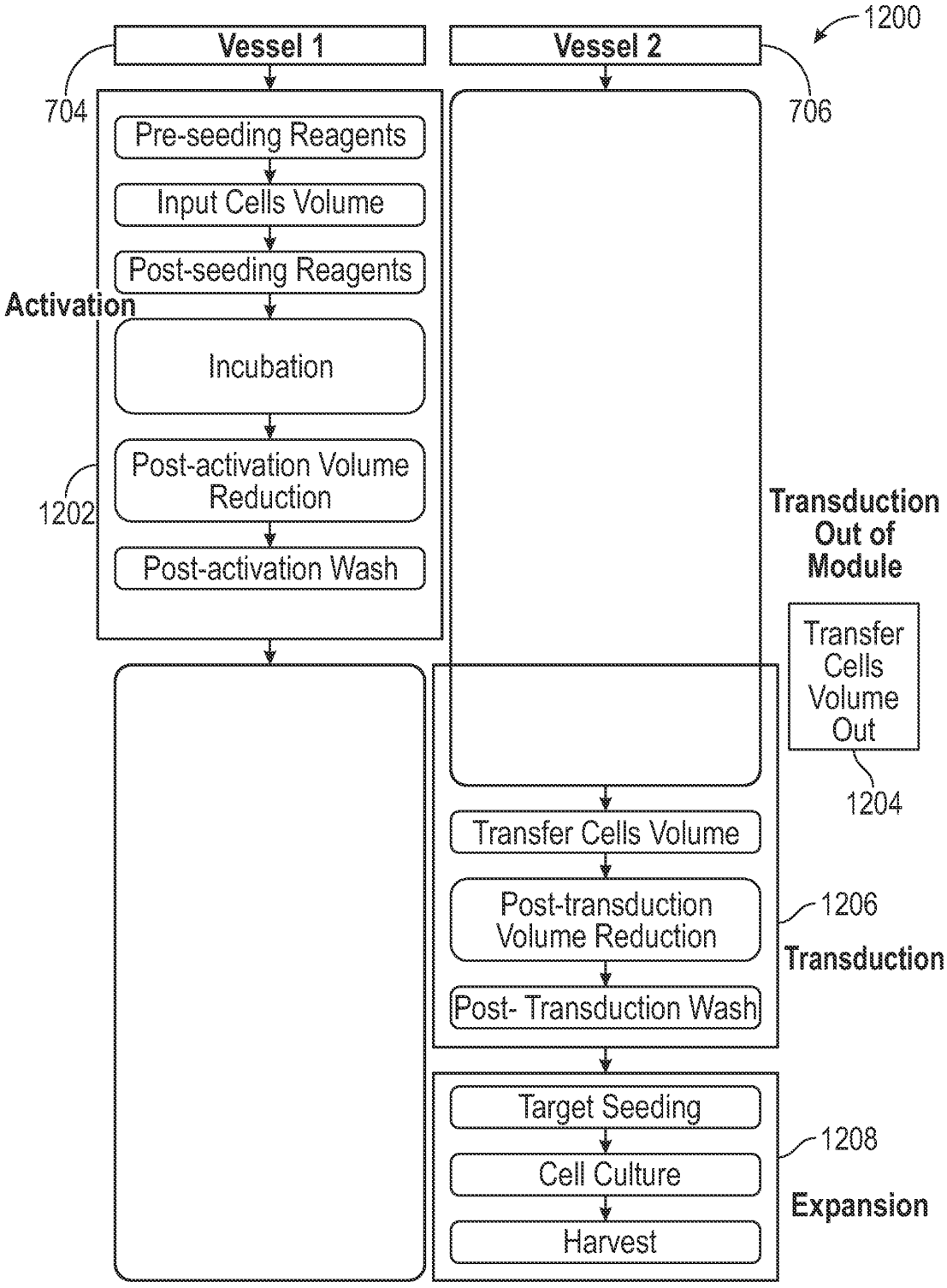

1200
Vessel 1
Vessel 2
704
706
Pre-seeding Reagents
Input Cells Volume
Post-seeding Reagents
Activation
Incubation
Post-activation Volume Reduction
1202
Post-activation Wash
Transduction Out of Module
Transfer Cells Volume Out
1204
Transfer Cells Volume
Post-transduction Volume Reduction
1206
Transduction
Post- Transduction Wash
Target Seeding
Cell Culture
Harvest
1208
Expansion

FIG. 92

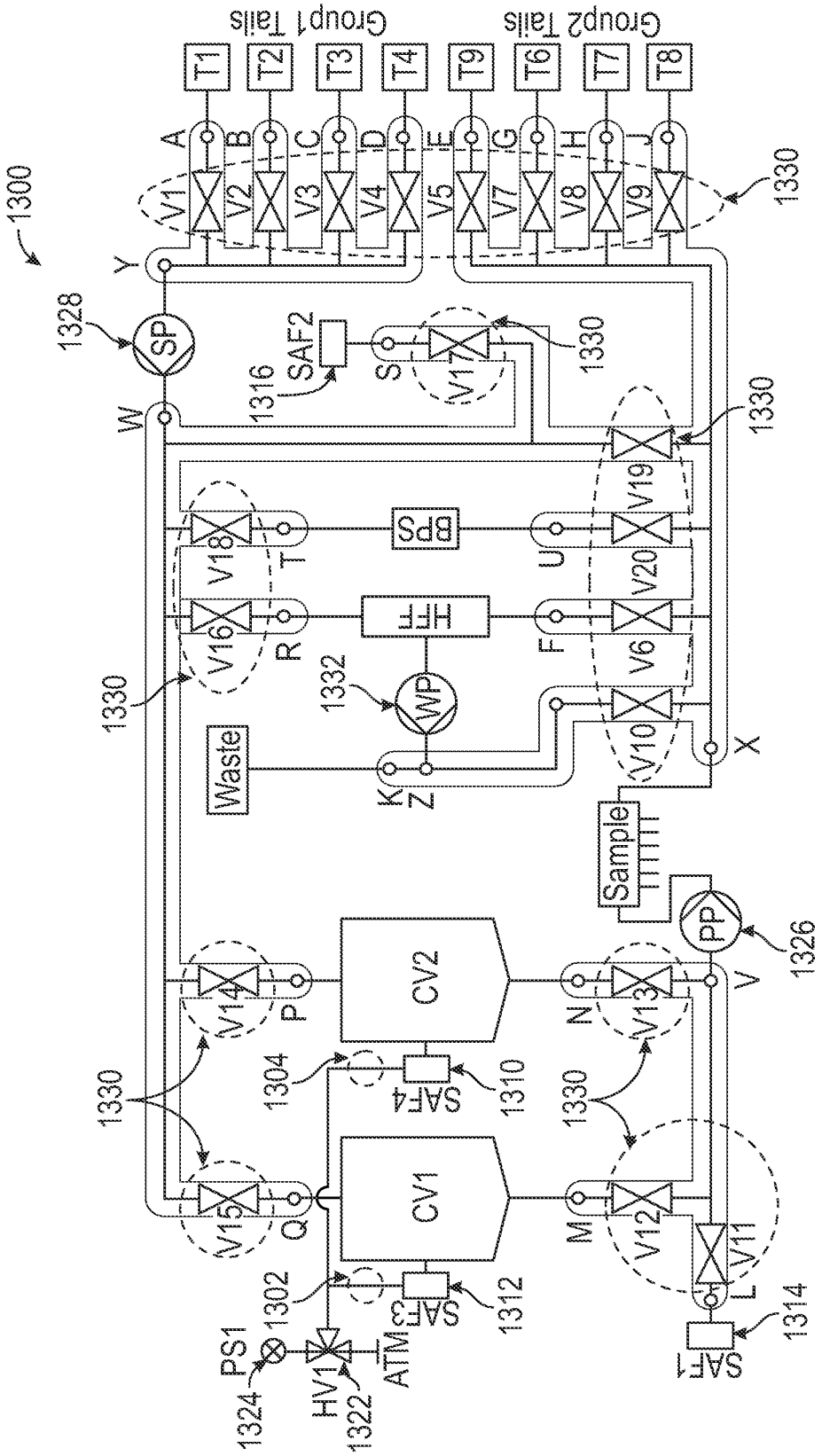

Group1 Tails
Group2 Tails
T1
T2
T3
T4
T9
T6
T7
T8
A
B
C
D
E
G
H
J
V1
V2
V3
V4
V5
V7
V8
V9
1330
1300
Y
1328
SP
SAF2
1316
S
V17
1330
W
1330
V19
V18
T
BPS
U
V20
V16
R
FF
F
V6
1330
1332
WP
V10
X
Waste
K
Z
Sample
PP
1326
CV2
V14
P
N
V13
V
1330
1304
SAF4
1310
1330
CV1
V15
Q
M
V12
V11
L
1302
SAF3
1312
1314
SAF1
PS1
1324
HV1
1322
ATM

FIG. 93

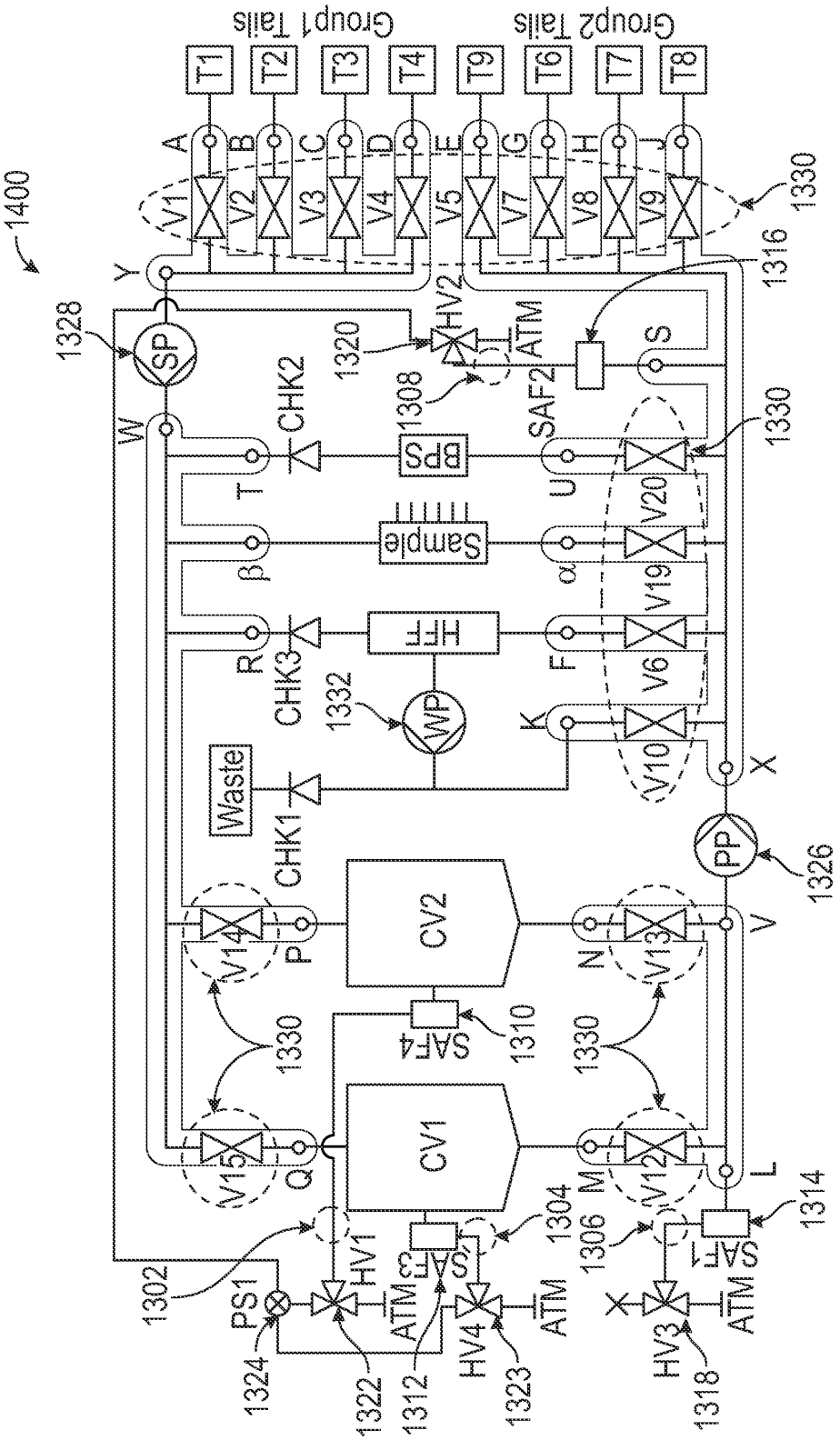

1400
Group1 Tails
Group2 Tails
T1
T2
T3
T4
T9
T6
T7
T8
A
B
C
D
E
G
H
J
V1
V2
V3
V4
V5
V7
V8
V9
1330
1316
Y
1328
SP
1320
HV2
ATM
1308
SAF2
S
W
CHK2
BPS
T
U
V20
Sample
β
α
V19
R
CHK3
FT
F
V6
1332
WP
K
V10
X
Waste
CHK1
PP
1326
V14
P
CV2
N
V13
V
1330
SAF4
1310
1330
V15
Q
CV1
M
V12
L
1304
1306
1314
1302
PS1
HV1
ATM
SAF3
S
HV4
ATM
SAF1
S
HV3
ATM
1324
1322
1312
1323
1318

FIG. 94

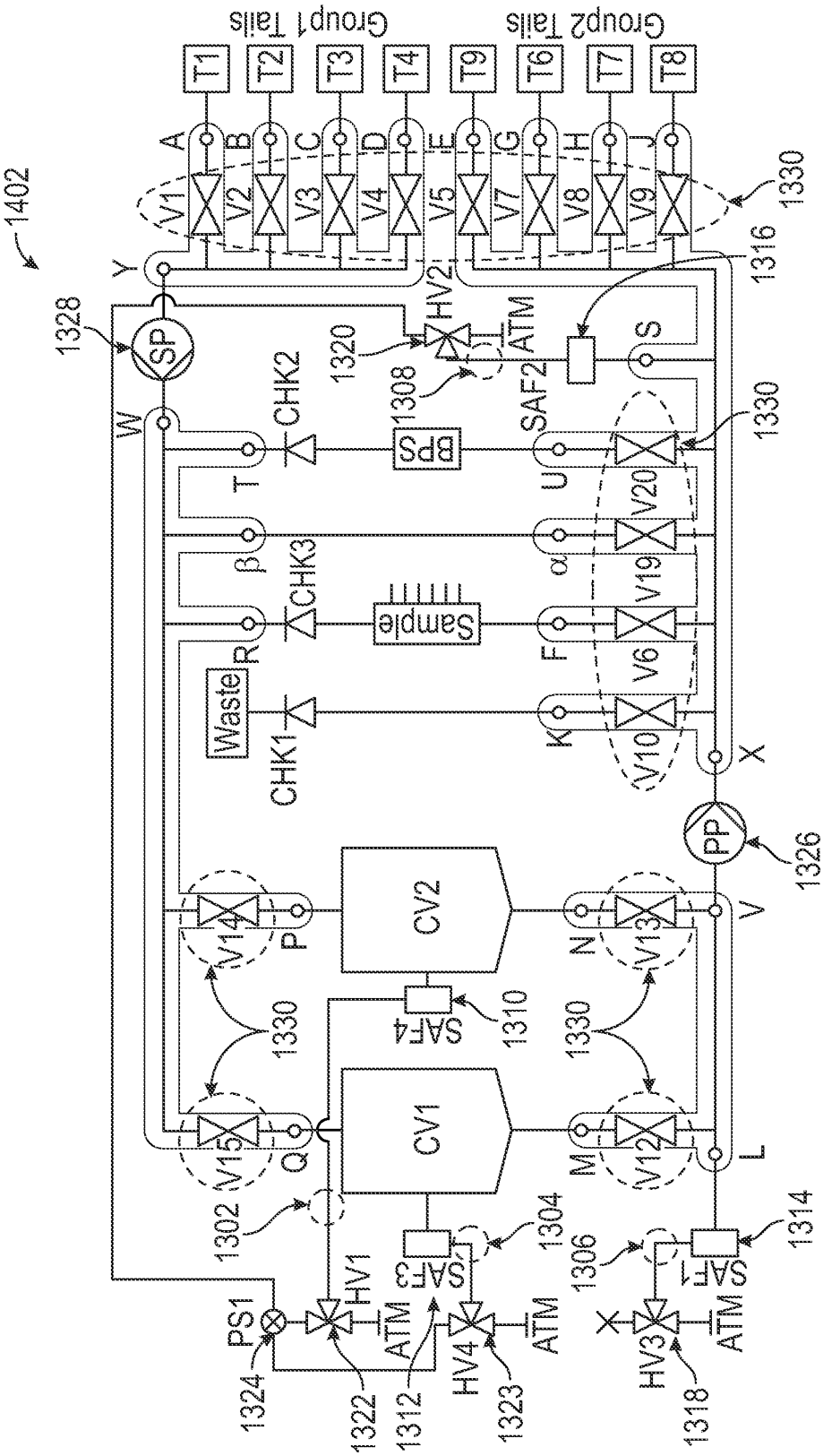

Group1 Tails
Group2 Tails
T1
T2
T3
T4
T9
T6
T7
T8
1402
1330
1316
1328
SP
1320
HV2
ATM
1308
SAF2
CHK2
BPS
CHK3
Sample
CHK1
Waste
V20
V19
V6
V10
PP
1326
CV2
CV1
V14
V13
V15
V12
SAF4
1310
SAF3
1304
SAF1
1314
1302
1306
PS1
HV1
HV4
HV3
1324
1322
1312
1323
1318

FIG. 95

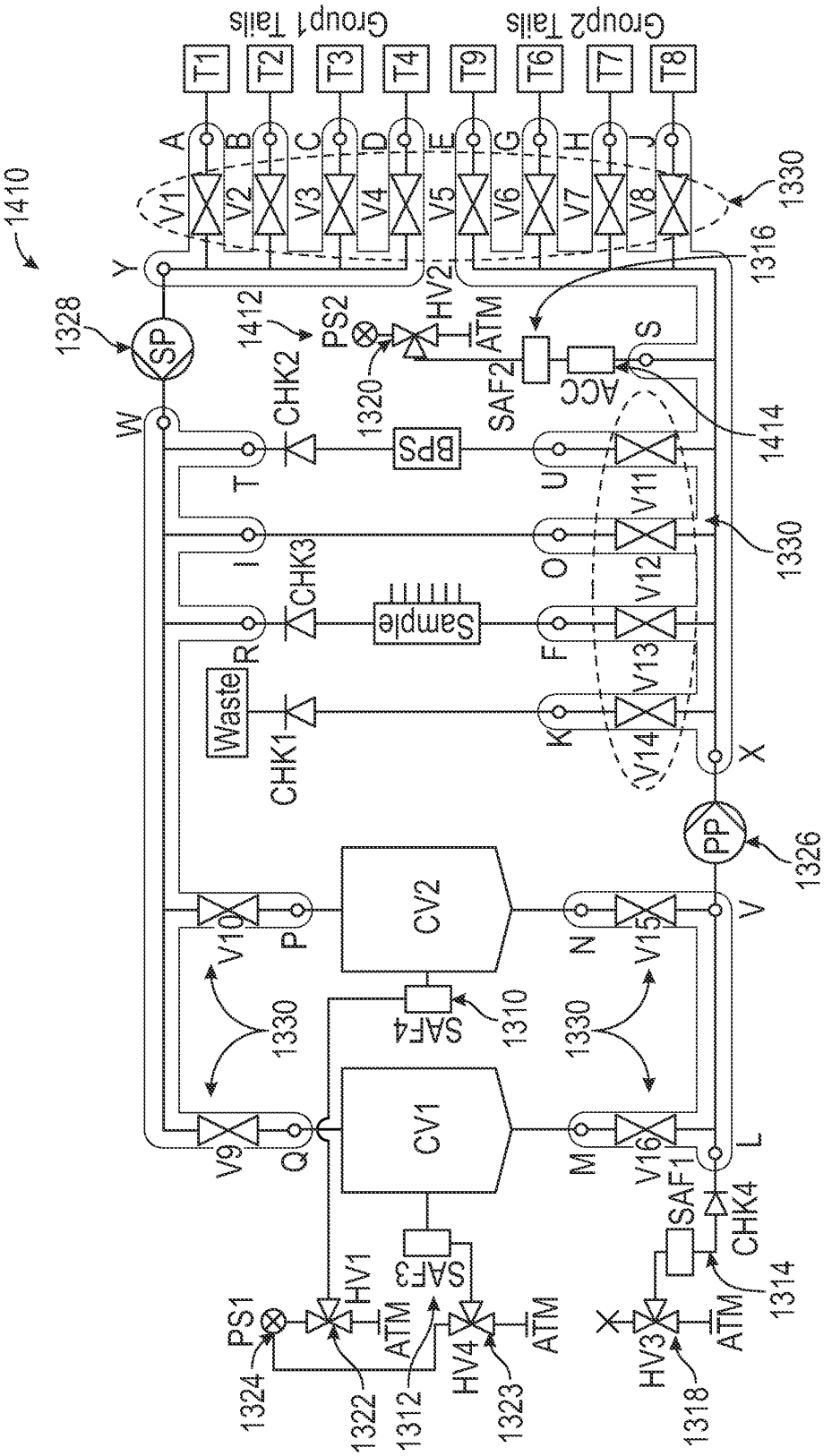

Group1 Tails
Group2 Tails
T1
T2
T3
T4
T9
T6
T7
T8
A
B
C
D
E
G
H
J
V1
V2
V3
V4
V5
V6
V7
V8
1330
1316
1410
Y
1328
SP
1412
PS2
HV2
ATM
SAF2
ACC
S
1414
1320
CHK2
W
T
BPS
U
V11
I
CHK3
O
V12
1330
Sample
F
V13
R
Waste
CHK1
K
V14
X
PP
1326
V10
P
CV2
N
V15
V
1330
SAF4
1310
1330
V9
Q
CV1
M
V16
L
SAF1
CHK4
1314
PS1
HV1
ATM
SAF3
HV4
ATM
HV3
ATM
1324
1322
1312
1323
1318

FIG. 96