Fig. 1A

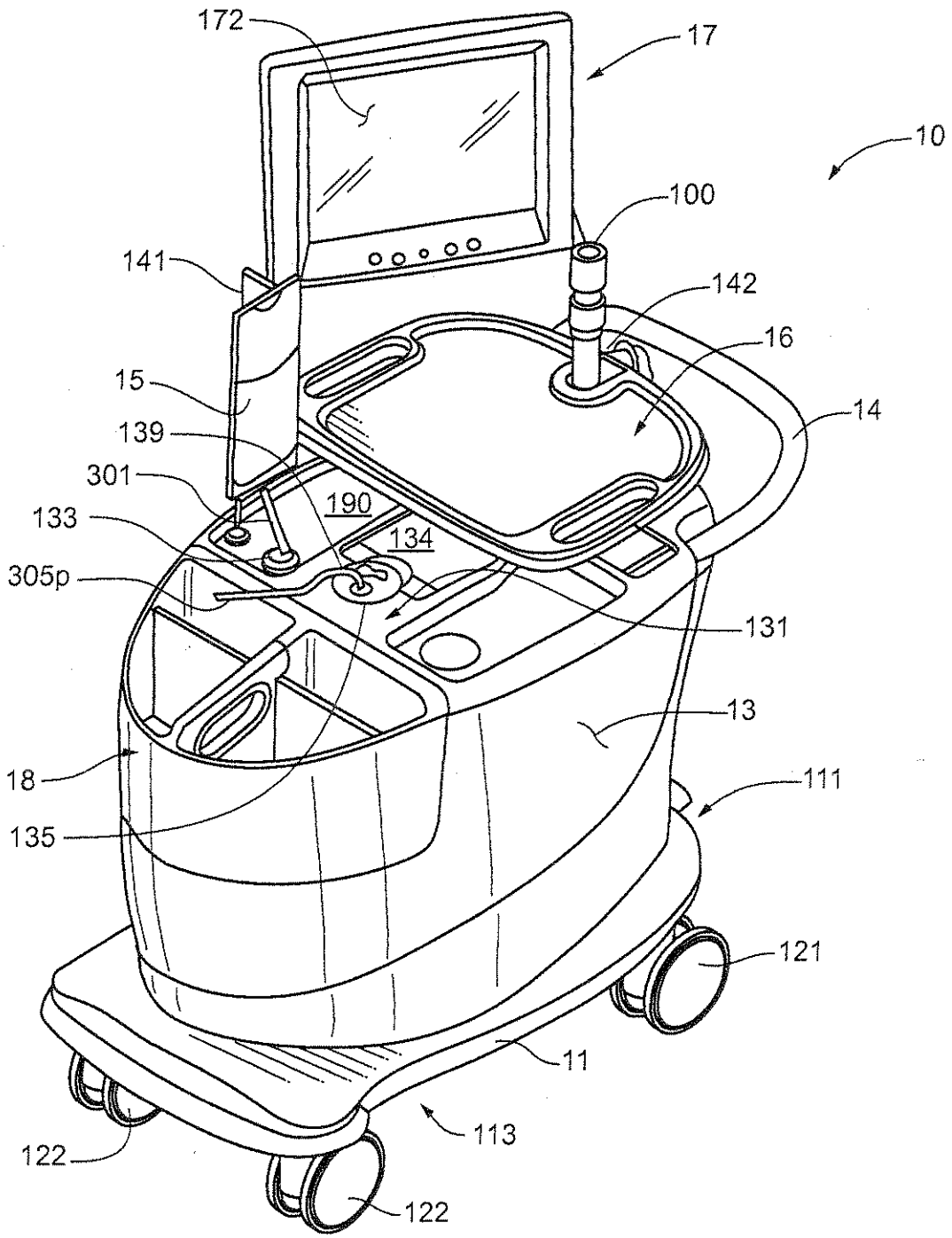

172
17
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100
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142
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305p
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122

Fig. 1B

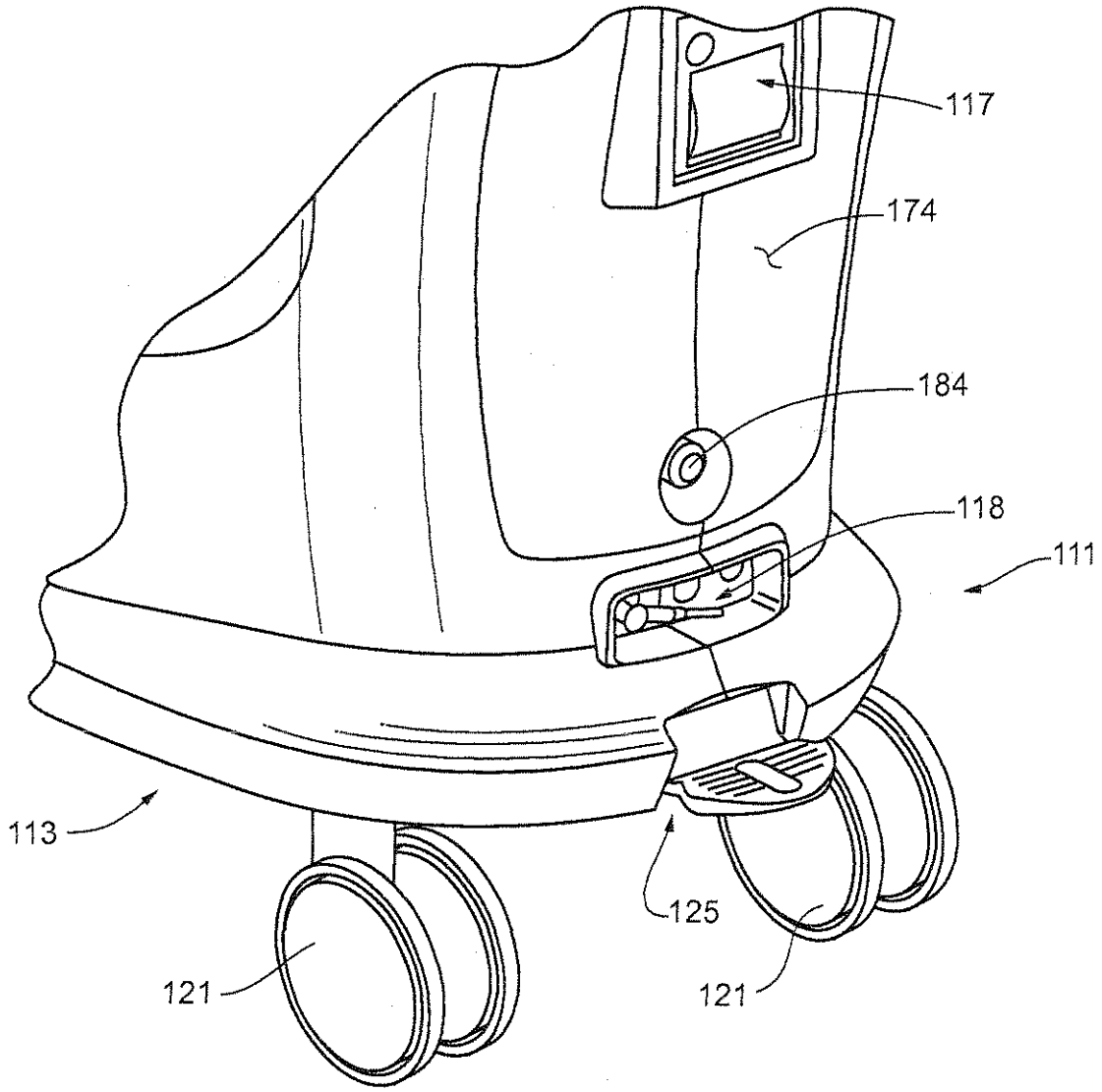


Fig. 1C

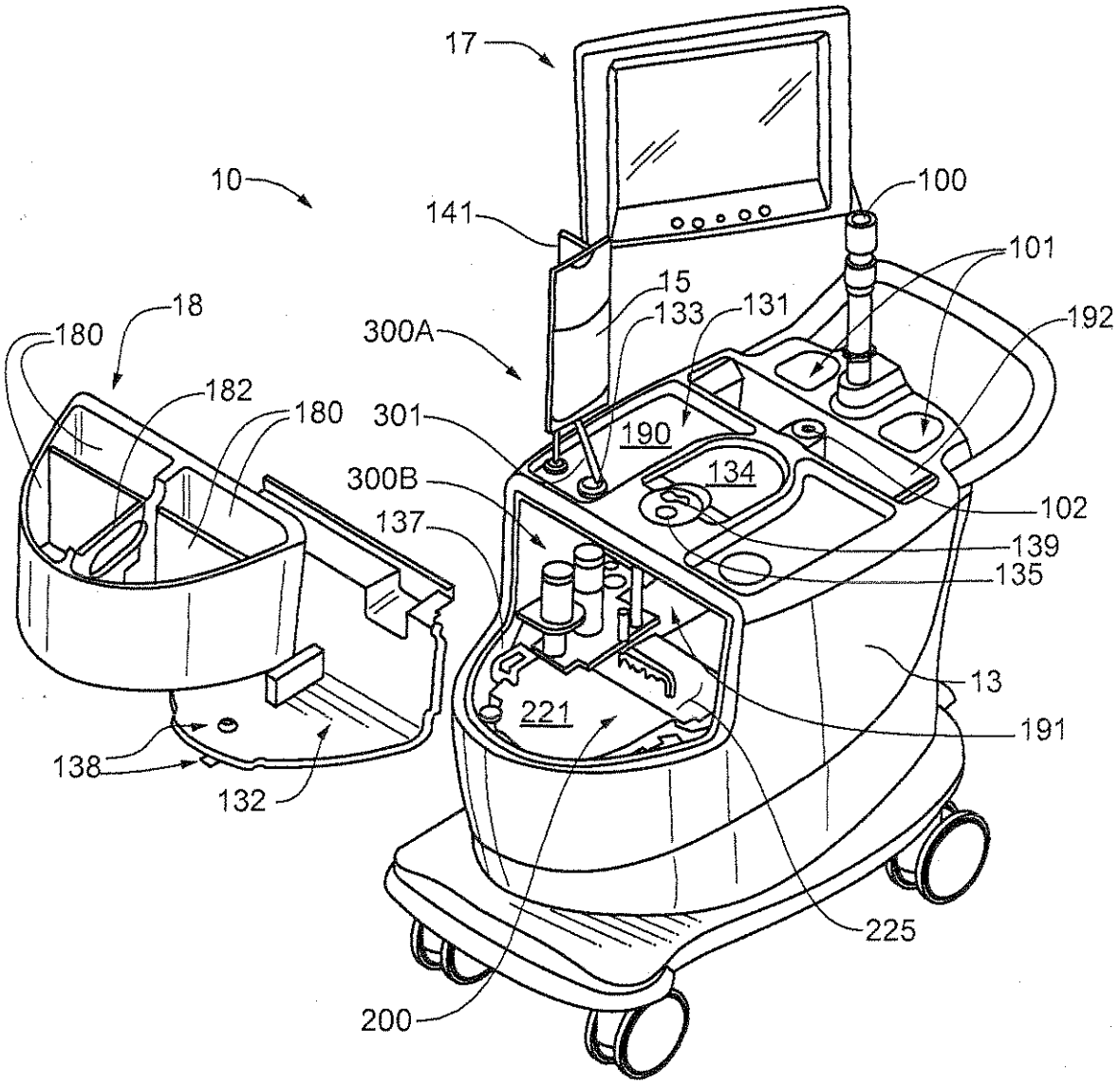

17
10
141
100
101
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133
131
192
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180
300A
182
180
301
190
300B
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102
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Fig. 1D

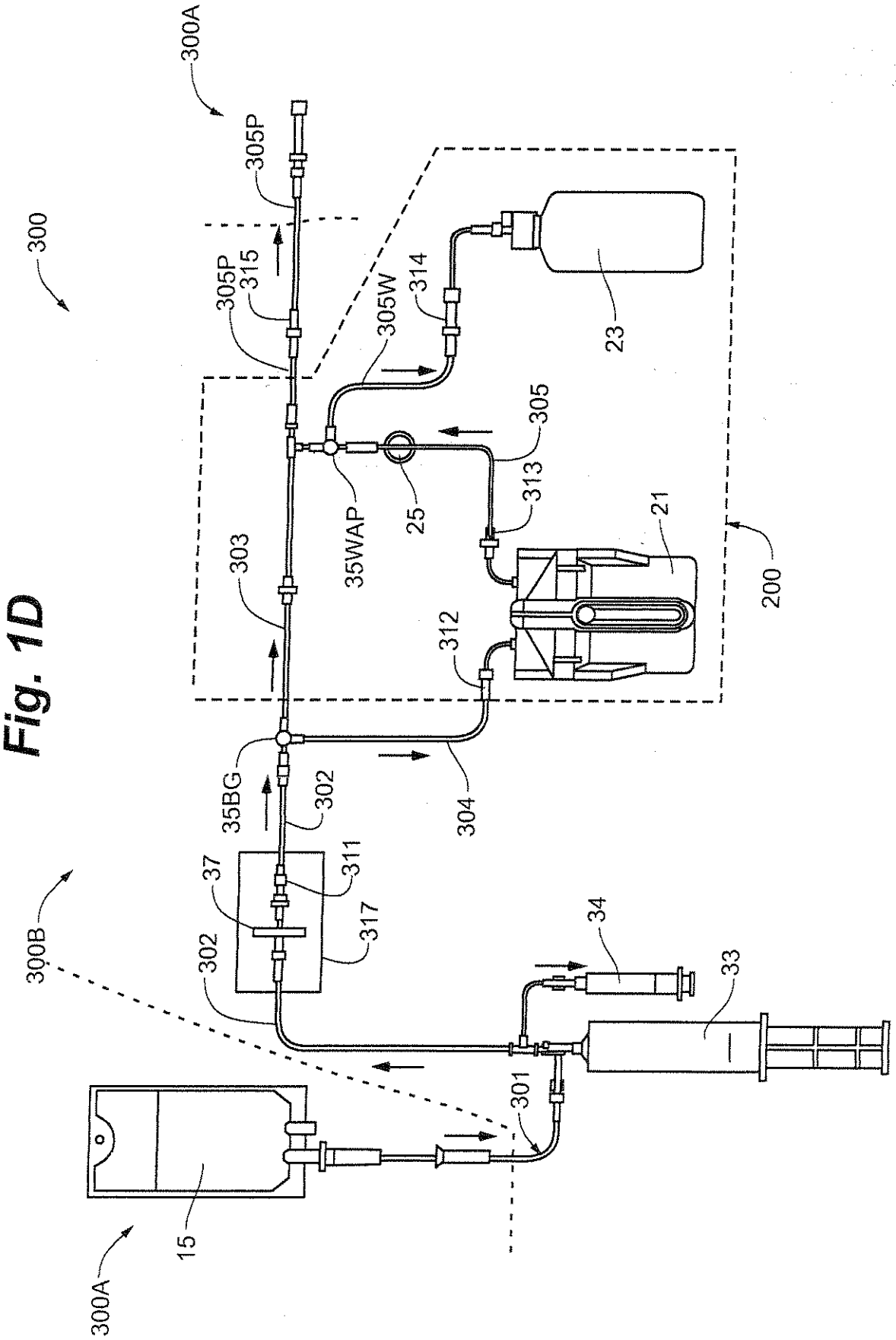

300
300A
305P
315
305P
305W
314
23
305
313
25
35WAP
303
21
200
312
35BG
302
304
300B
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301
15
300A

Fig. 1E

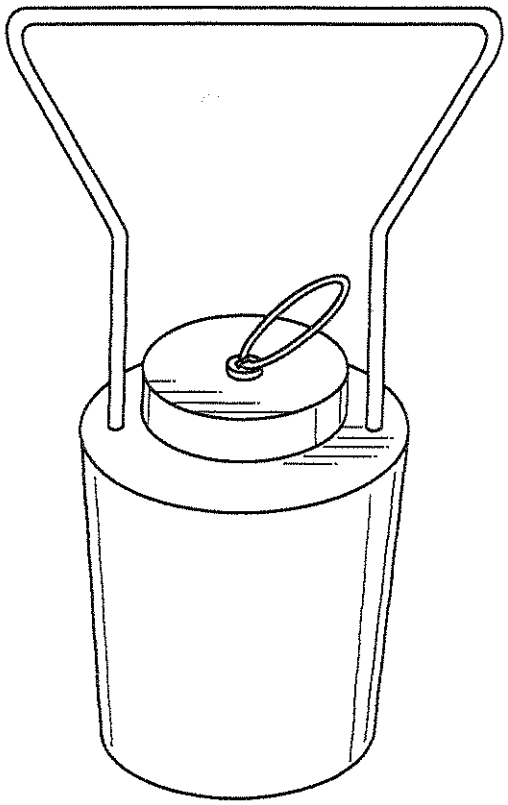


Fig. 2A

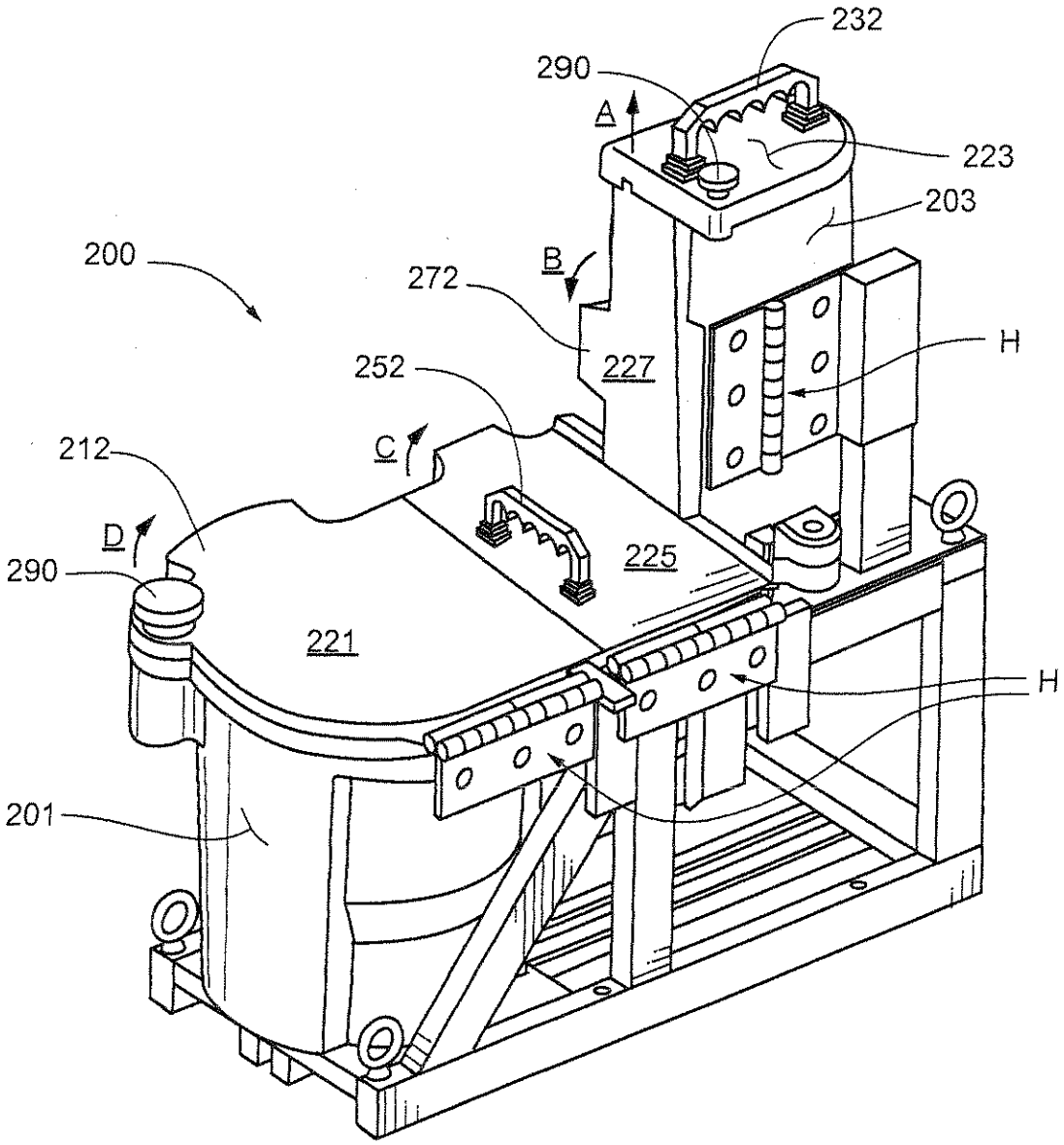


Fig. 2B-1

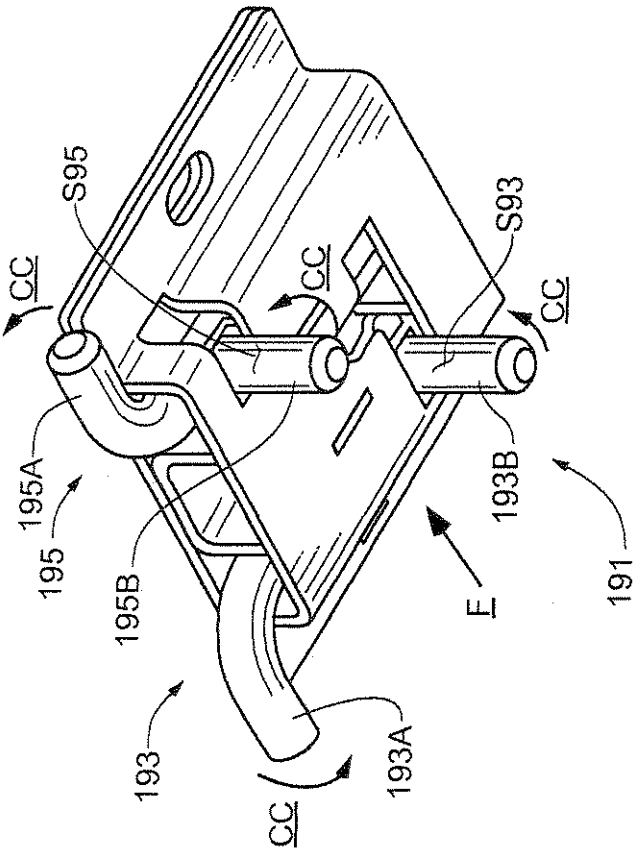


Fig. 2B

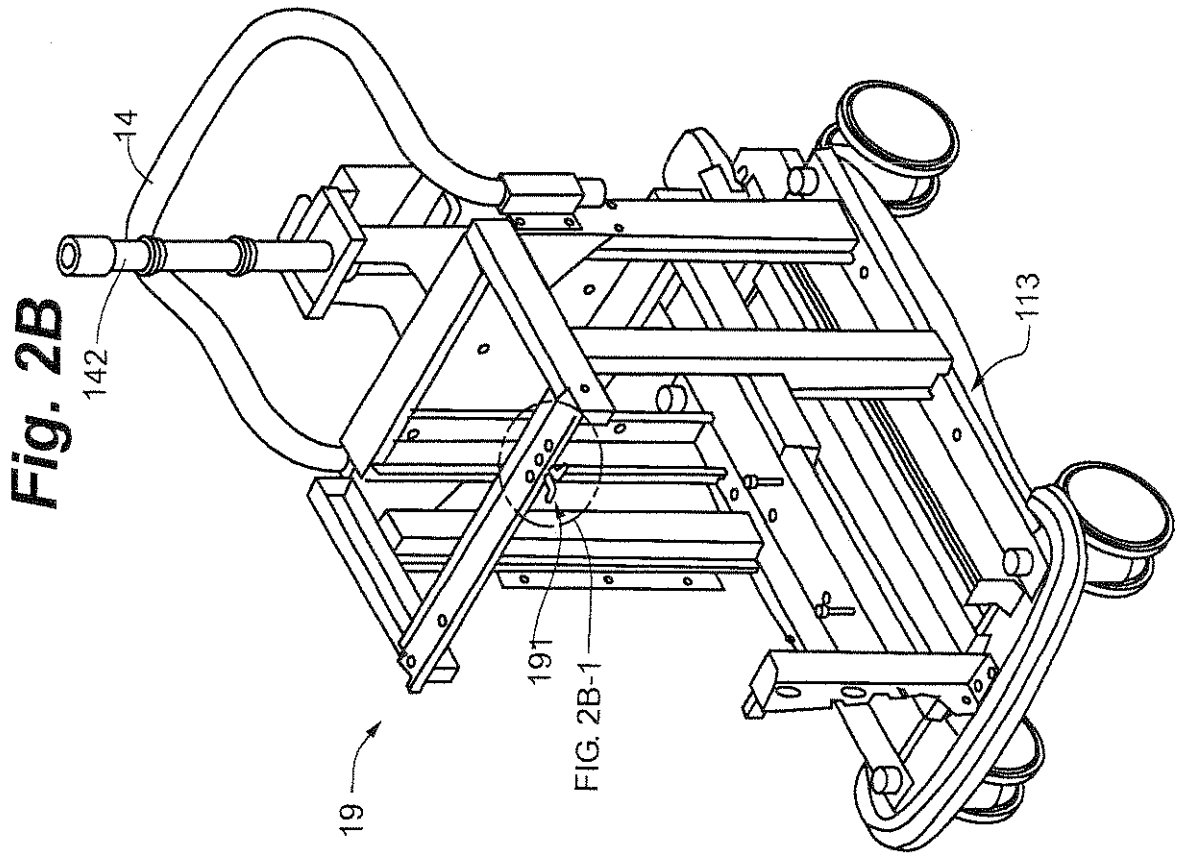


Fig. 3A

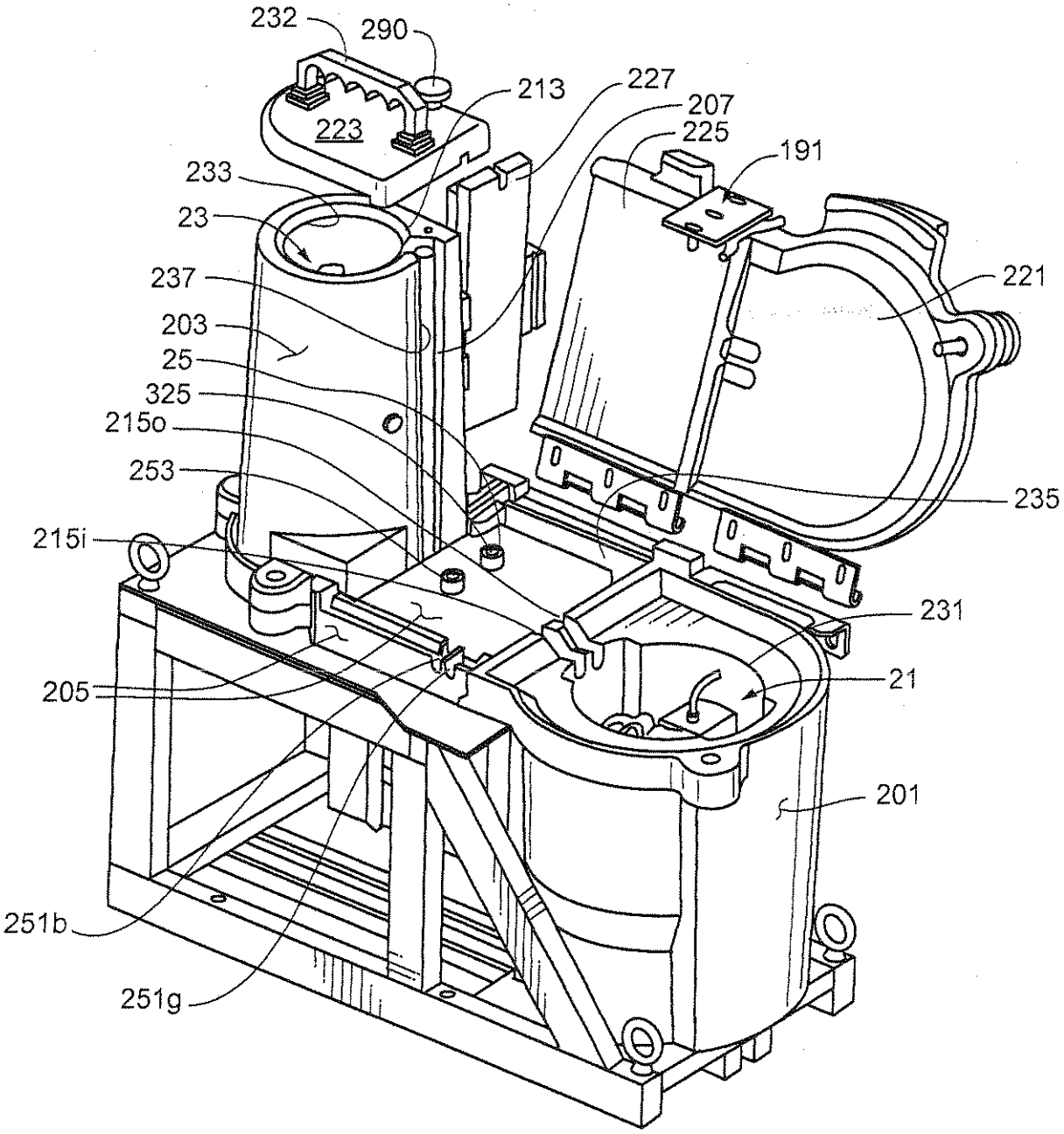
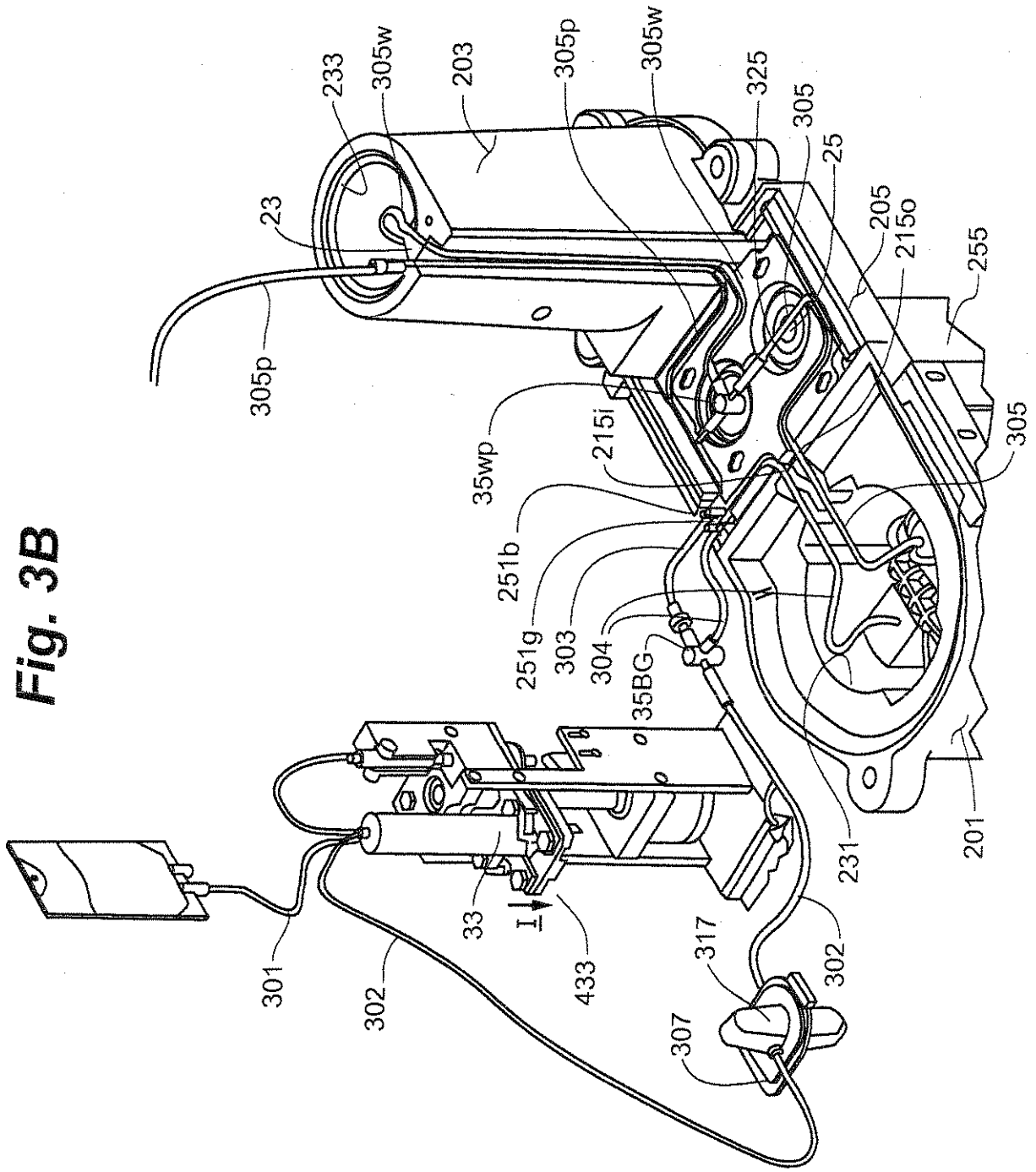

232
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191
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233
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203
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325
215o
253
221
235
215i
231
21
205
201
251b
251g

Fig. 3B


233
305w
203
305p
305w
325
305
25
205
215o
255
23
305p
35wp
215i
305
251b
251g
303
304
35BG
231
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433
317
302
307
301
302

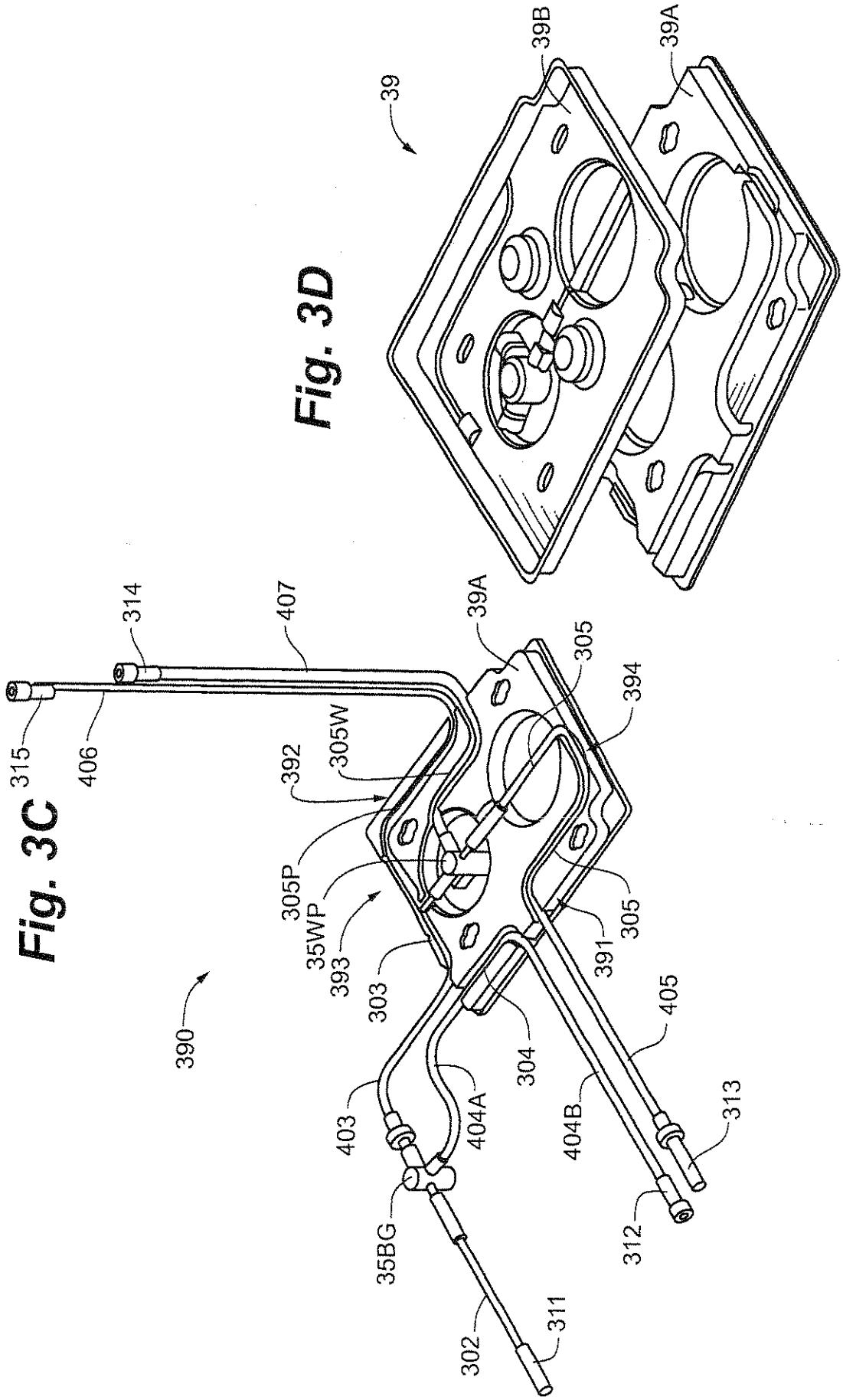

39
39B
39A
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305W
305P
35WP
393
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404A
404B
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35BG
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39A
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Fig. 3C

Fig. 3D

Fig. 4

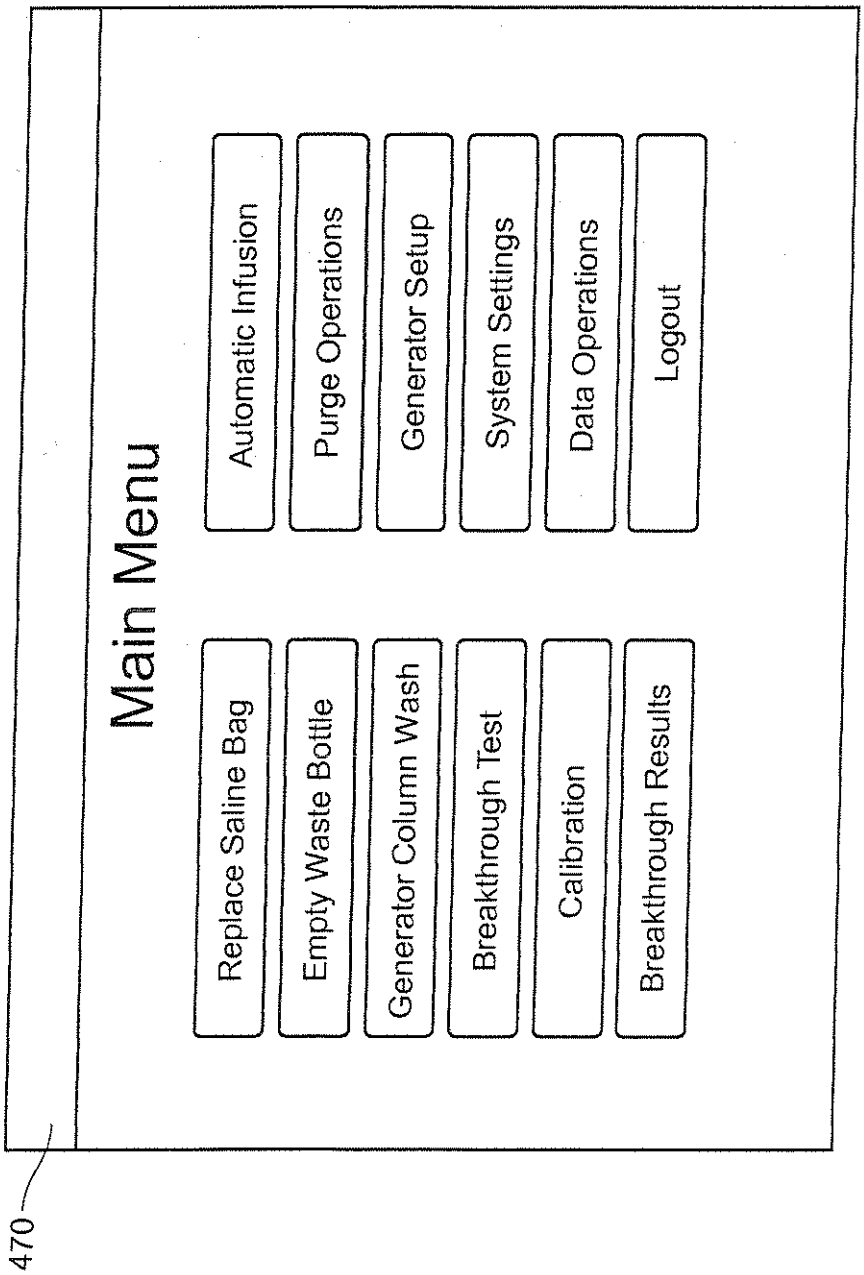

Main Menu
Automatic Infusion
Purge Operations
Generator Setup
System Settings
Data Operations
Logout
Replace Saline Bag
Empty Waste Bottle
Generator Column Wash
Breakthrough Test
Calibration
Breakthrough Results
470

Fig. 5A

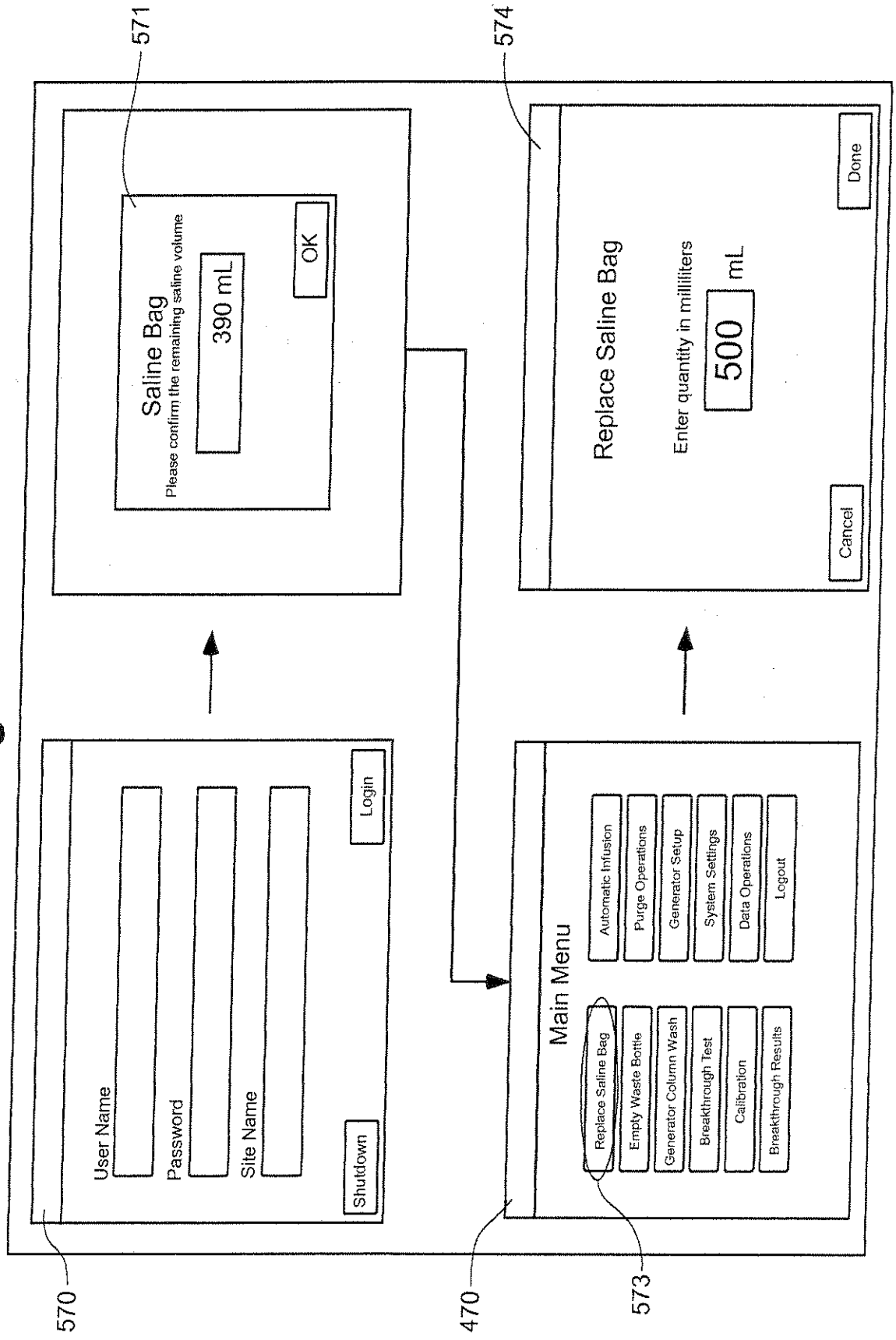
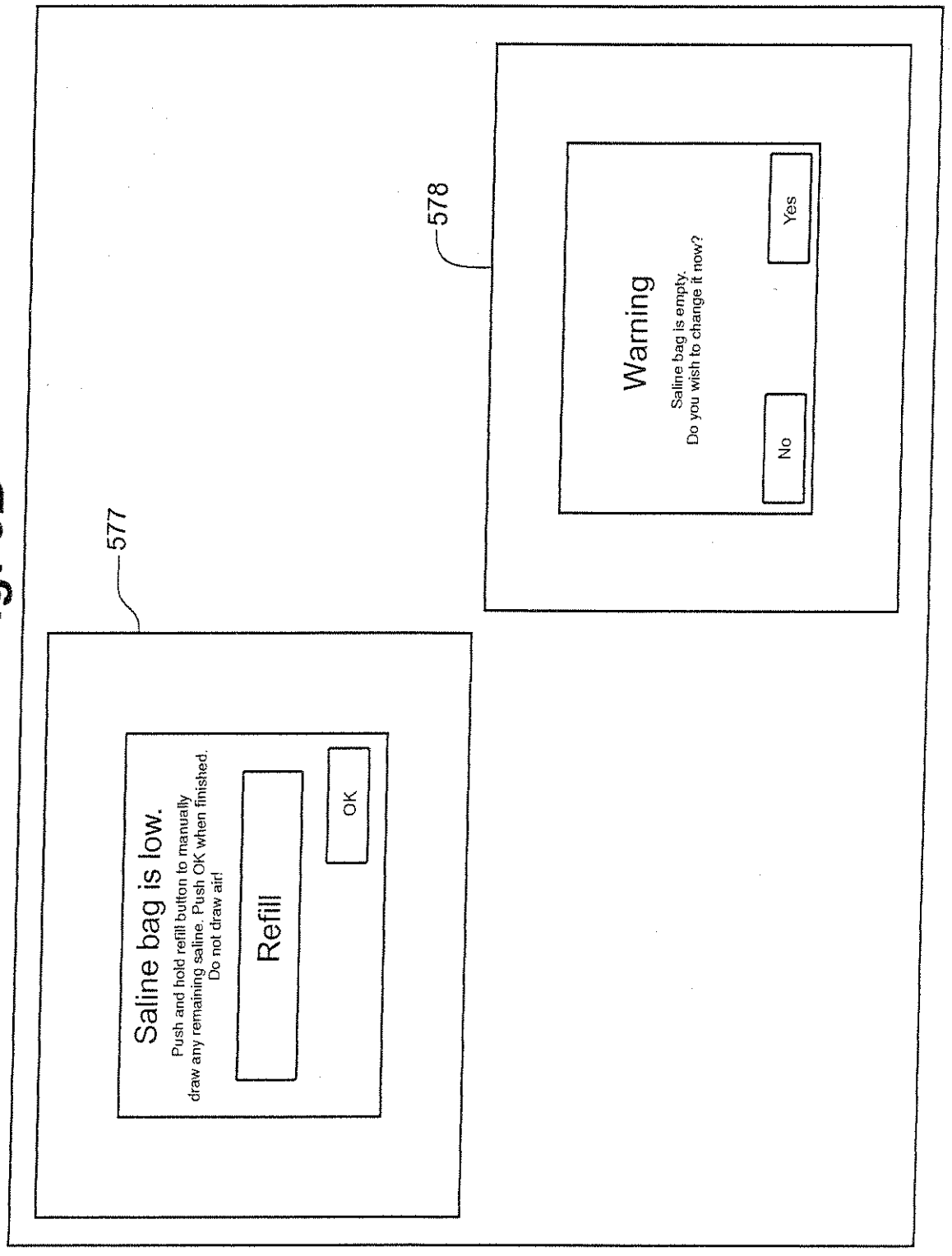

571
574
Saline Bag
Please confirm the remaining saline volume
390 mL
OK
Replace Saline Bag
Enter quantity in milliliters
500
mL
Done
Cancel
User Name
Password
Site Name
Login
Shutdown
Main Menu
Automatic Infusion
Purge Operations
Generator Setup
System Settings
Data Operations
Logout
Replace Saline Bag
Empty Waste Bottle
Generator Column Wash
Breakthrough Test
Calibration
Breakthrough Results
570
470
573

Fig. 5B


577
Saline bag is low.
Push and hold refill button to manually draw any remaining saline. Push OK when finished.
Do not draw air!
Refill
OK
578
Warning
Saline bag is empty.
Do you wish to change it now?
No
Yes

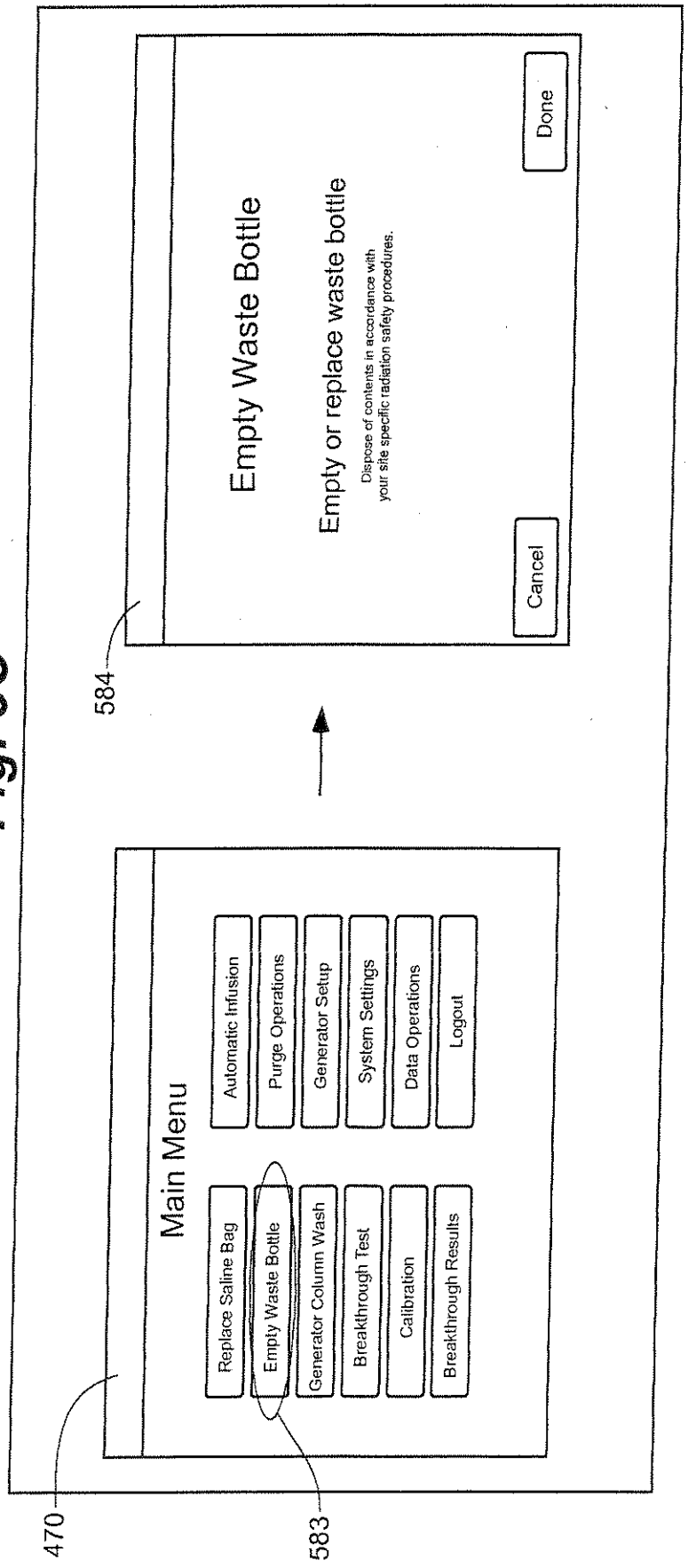

Main Menu
Automatic Infusion
Purge Operations
Generator Setup
System Settings
Data Operations
Logout
Replace Saline Bag
Empty Waste Bottle
Generator Column Wash
Breakthrough Test
Calibration
Breakthrough Results
470
583
584
Empty Waste Bottle
Empty or replace waste bottle
Dispose of contents in accordance with your site specific radiation safety procedures.
Cancel
Done

Fig. 5C

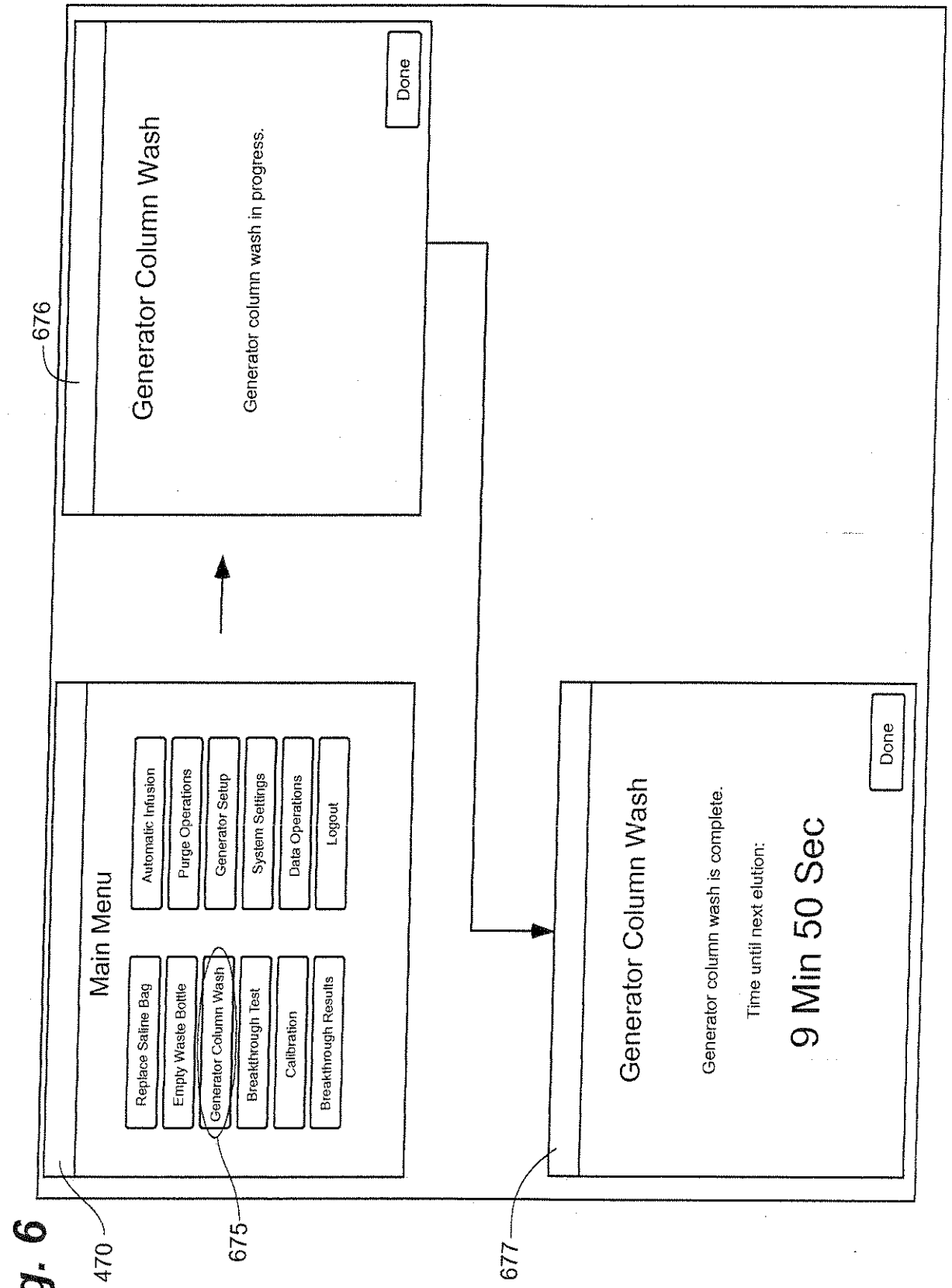

Generator Column Wash
Generator column wash in progress.
Done
676
Main Menu
Automatic Infusion
Purge Operations
Generator Setup
System Settings
Data Operations
Logout
Replace Saline Bag
Empty Waste Bottle
Generator Column Wash
Breakthrough Test
Calibration
Breakthrough Results
Generator Column Wash
Generator column wash is complete.
Time until next elution:
9 Min 50 Sec
Done
470
675
677

Fig. 6

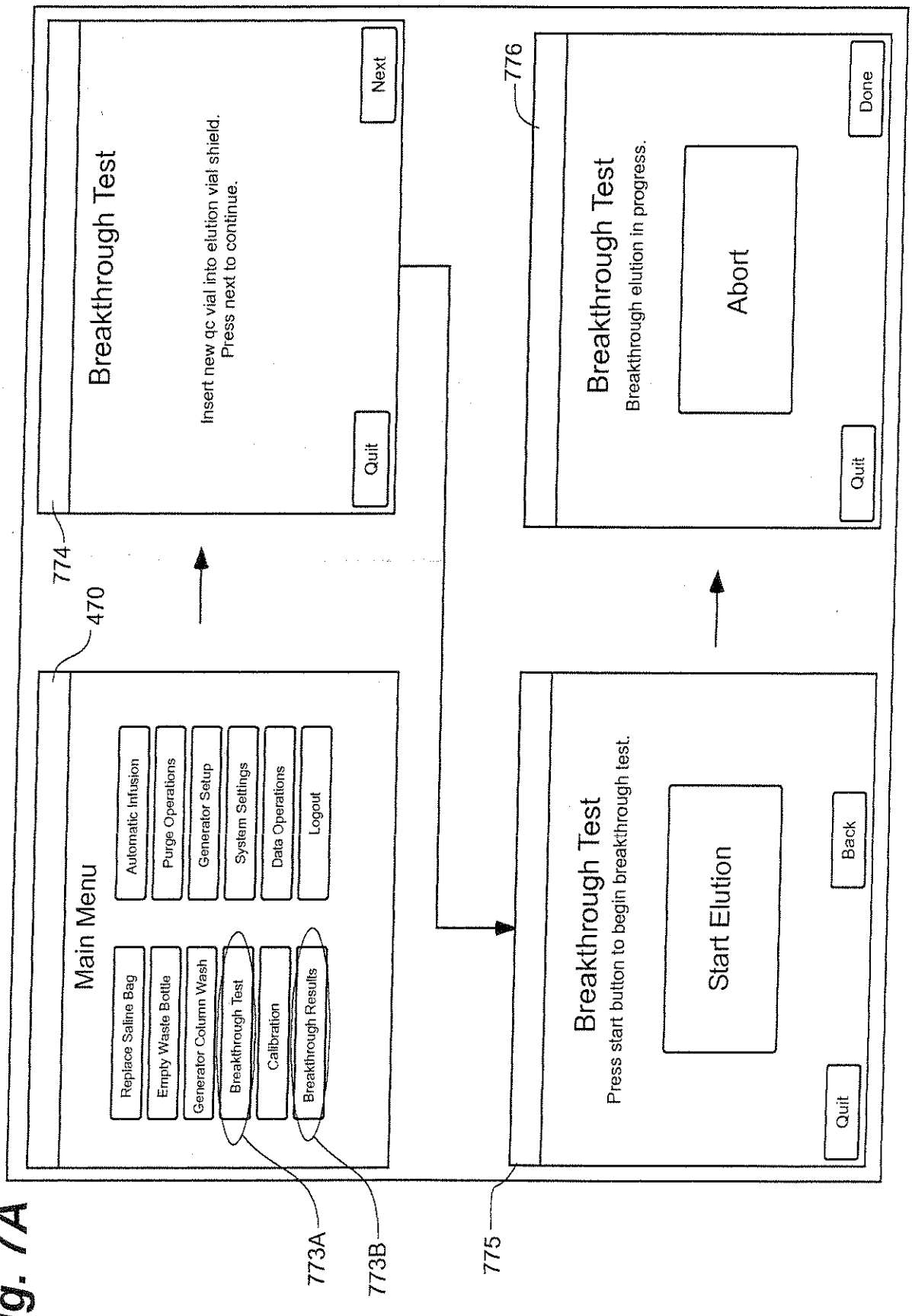

Main Menu
Replace Saline Bag
Empty Waste Bottle
Generator Column Wash
Breakthrough Test
Calibration
Breakthrough Results
Automatic Infusion
Purge Operations
Generator Setup
System Settings
Data Operations
Logout
470
Breakthrough Test
Insert new qc vial into elution vial shield.
Press next to continue.
Next
Quit
774
Breakthrough Test
Press start button to begin breakthrough test.
Start Elution
Back
Quit
775
Breakthrough Test
Breakthrough elution in progress.
Abort
Done
Quit
776
773A
773B

Fig. 7A

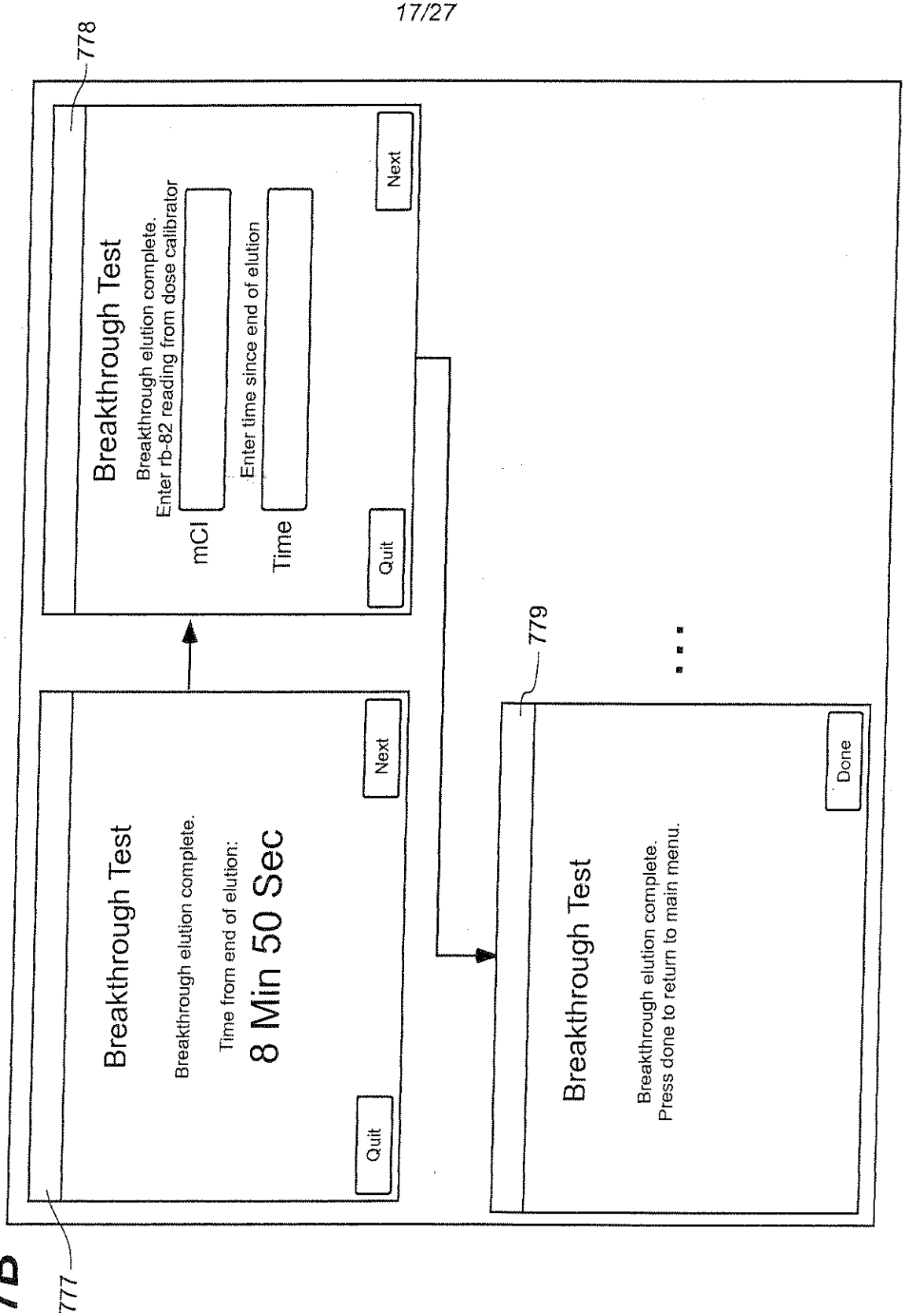
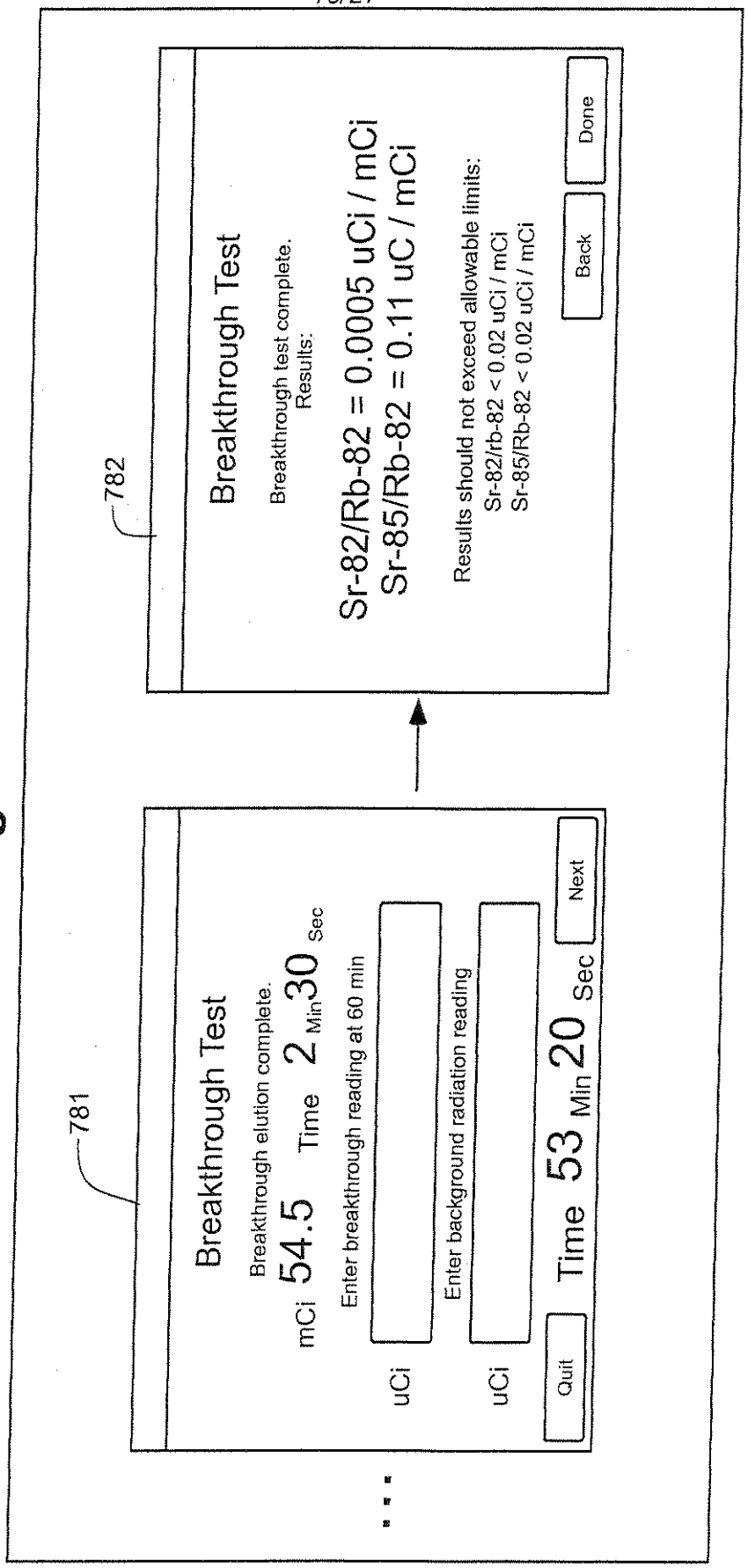

778
Breakthrough Test
Breakthrough elution complete.
Enter rb-82 reading from dose calibrator
mCi
Enter time since end of elution
Time
Next
Quit
777
Breakthrough Test
Breakthrough elution complete.
Time from end of elution:
8 Min 50 Sec
Next
Quit
779
Breakthrough Test
Breakthrough elution complete.
Press done to return to main menu.
Done

Fig. 7B

Fig. 7C


781
Breakthrough Test
Breakthrough elution complete.
mCi 54.5 Time 2 Min 30 Sec
Enter breakthrough reading at 60 min
uCi
Enter background radiation reading
uCi
Quit
Time 53 Min 20 Sec
Next
782
Breakthrough Test
Breakthrough test complete.
Results:
Sr-82/Rb-82 = 0.0005 uCi / mCi
Sr-85/Rb-82 = 0.11 uC / mCi
Results should not exceed allowable limits:
Sr-82/rb-82 < 0.02 uCi / mCi
Sr-85/Rb-82 < 0.02 uCi / mCi
Back
Done

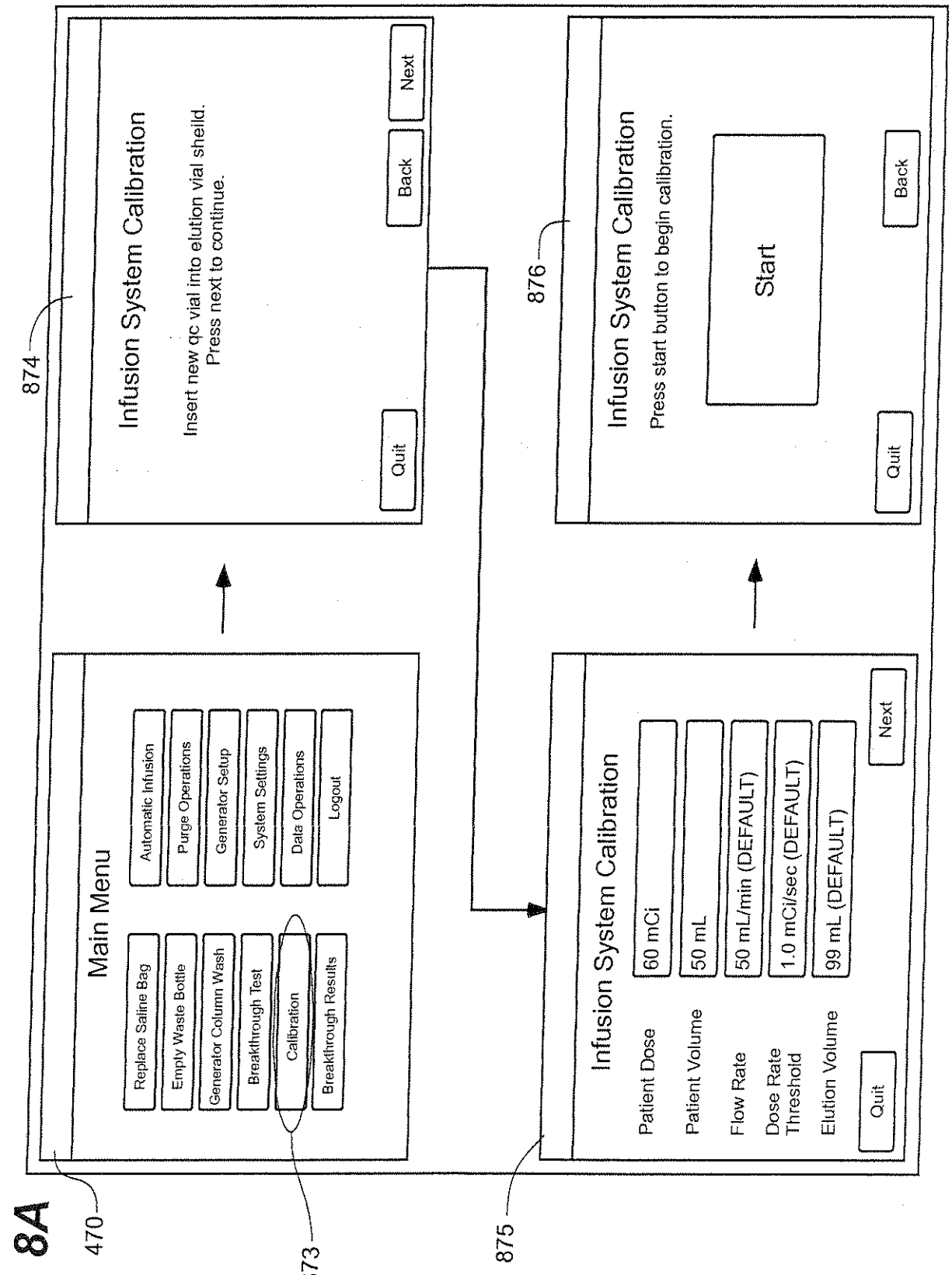

Main Menu
Automatic Infusion
Purge Operations
Generator Setup
System Settings
Data Operations
Logout
Replace Saline Bag
Empty Waste Bottle
Generator Column Wash
Breakthrough Test
Calibration
Breakthrough Results
Infusion System Calibration
Insert new qc vial into elution vial sheild.
Press next to continue.
Quit
Back
Next
Infusion System Calibration
Press start button to begin calibration.
Start
Quit
Back
Infusion System Calibration
Patient Dose
60 mCi
Patient Volume
50 mL
Flow Rate
50 mL/min (DEFAULT)
Dose Rate Threshold
1.0 mCi/sec (DEFAULT)
Elution Volume
99 mL (DEFAULT)
Quit
Next
470
873
874
875
876

Fig. 8A

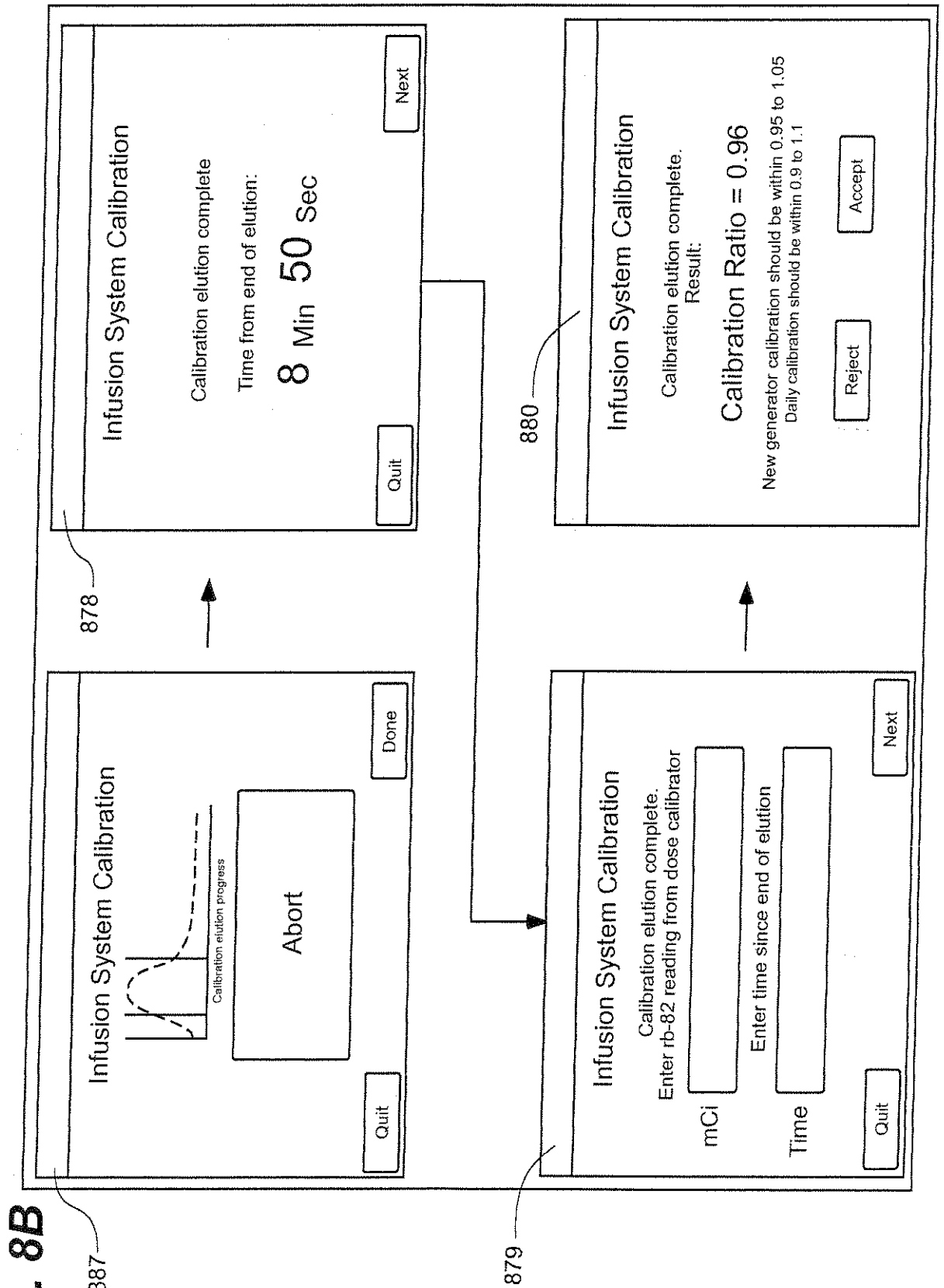

Infusion System Calibration
Calibration elution progress
Abort
Done
Quit
887
Infusion System Calibration
Calibration elution complete
Time from end of elution:
8 Min 50 Sec
Next
Quit
878
Infusion System Calibration
Calibration elution complete.
Enter rb-82 reading from dose calibrator
mCi
Enter time since end of elution
Time
Next
Quit
879
Infusion System Calibration
Calibration elution complete.
Result:
Calibration Ratio = 0.96
New generator calibration should be within 0.95 to 1.05
Daily calibration should be within 0.9 to 1.1
Reject
Accept
880

Fig. 8B

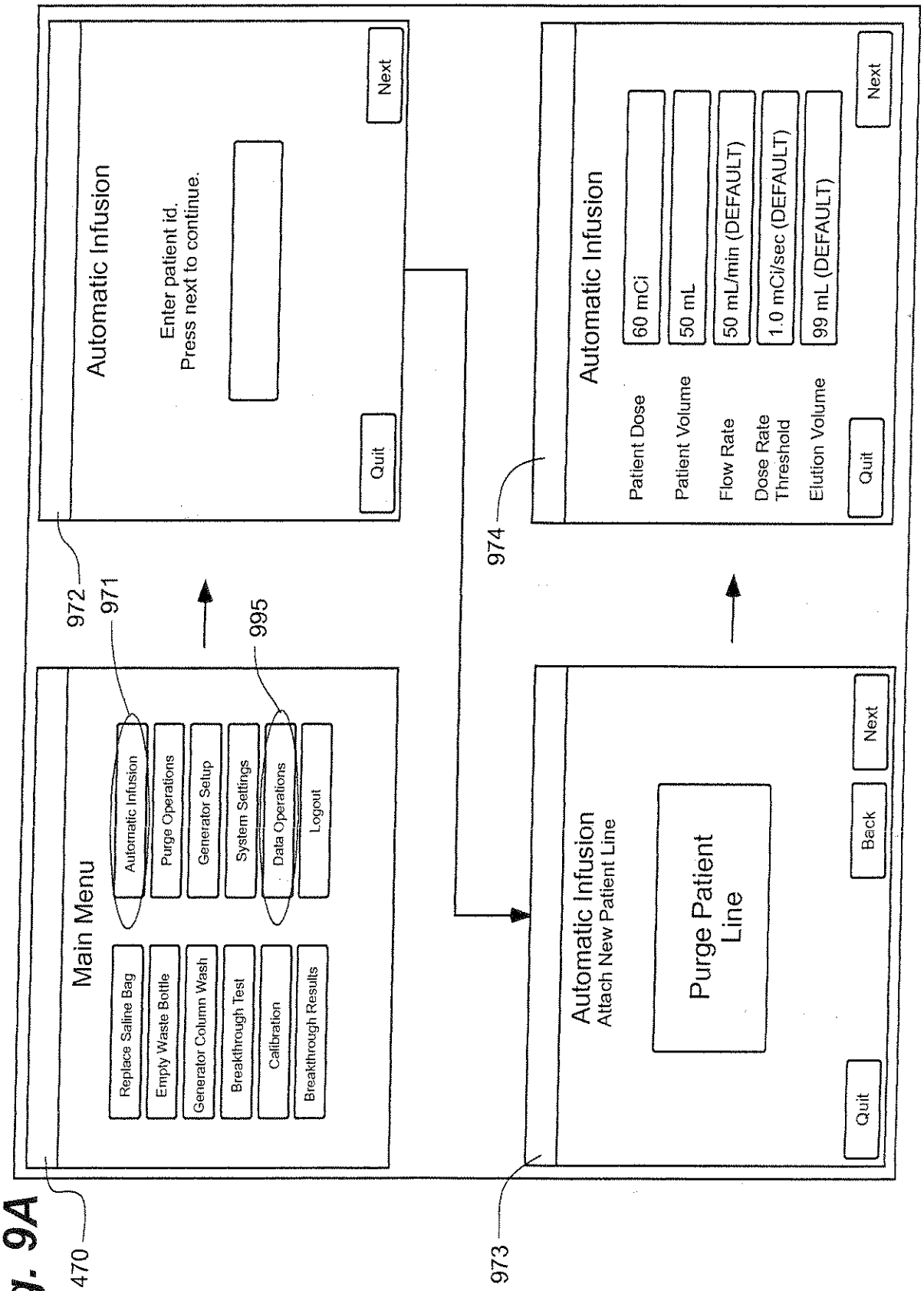

Main Menu
Automatic Infusion
Purge Operations
Generator Setup
System Settings
Data Operations
Logout
Replace Saline Bag
Empty Waste Bottle
Generator Column Wash
Breakthrough Test
Calibration
Breakthrough Results
Automatic Infusion
Enter patient id.
Press next to continue.
Quit
Next
Automatic Infusion
Patient Dose
60 mCi
Patient Volume
50 mL
Flow Rate
50 mL/min (DEFAULT)
Dose Rate Threshold
1.0 mCi/sec (DEFAULT)
Elution Volume
99 mL (DEFAULT)
Quit
Next
Automatic Infusion
Attach New Patient Line
Purge Patient Line
Quit
Back
Next
470
971
972
973
974
995

Fig. 9A

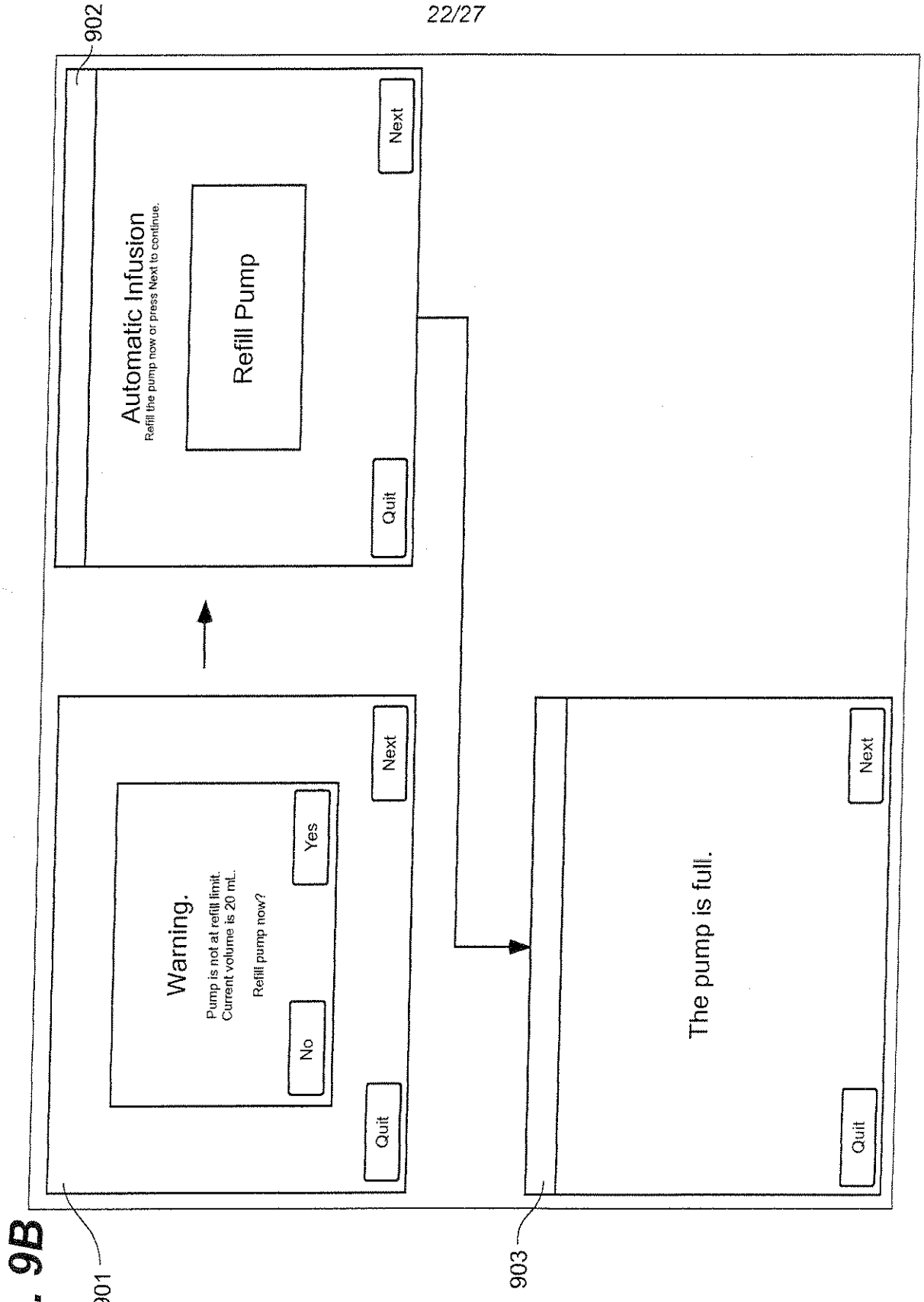

902
Automatic Infusion
Refill the pump now or press Next to continue.
Refill Pump
Next
Quit
Warning.
Pump is not at refill limit.
Current volume is 20 mL.
Refill pump now?
Yes
No
Next
Quit
The pump is full.
Next
Quit
901
903

Fig. 9B

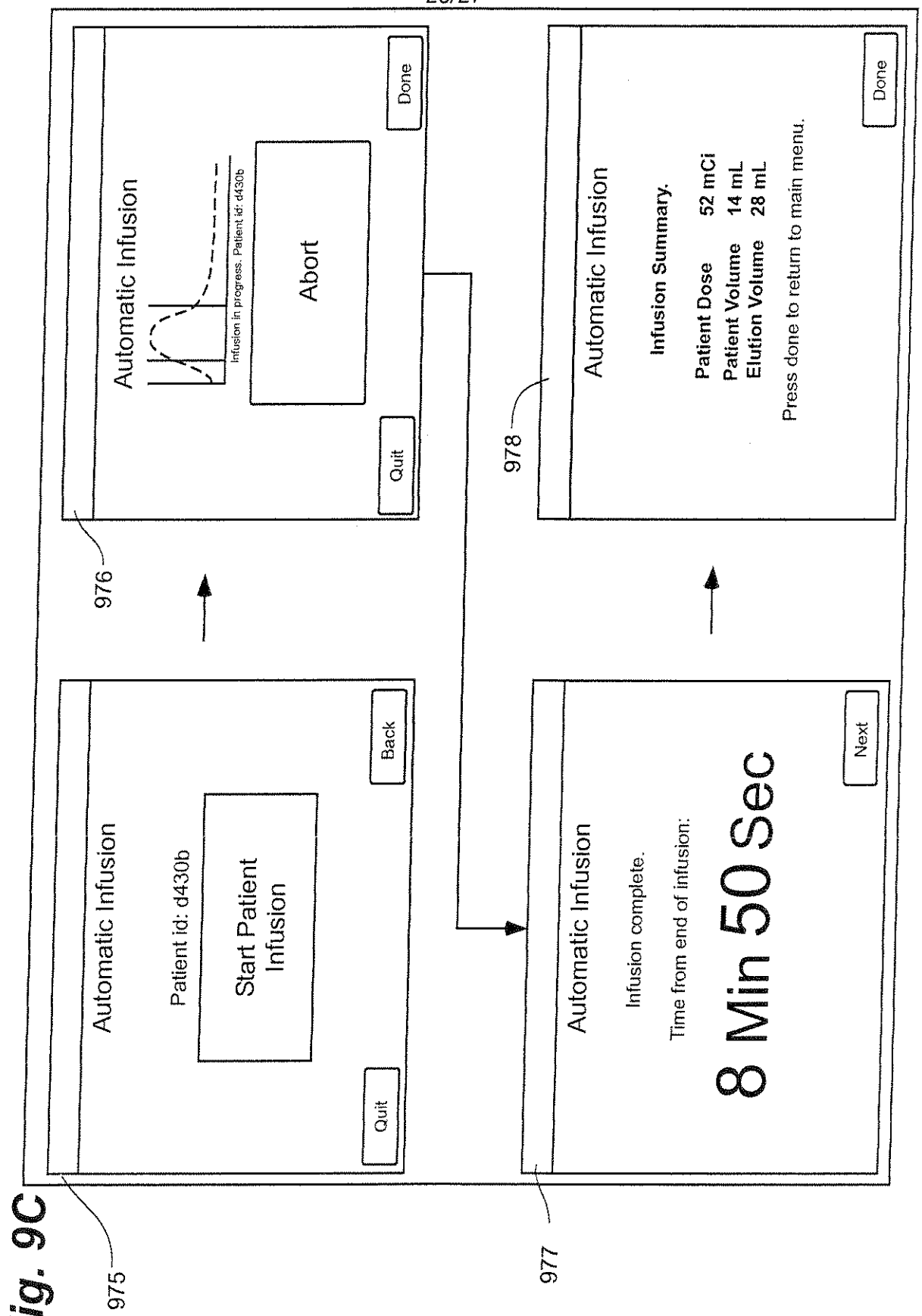

Automatic Infusion
Patient id: d430b
Start Patient Infusion
Back
Quit
975
Automatic Infusion
Infusion in progress. Patient id: d430b
Abort
Done
Quit
976
Automatic Infusion
Infusion complete.
Time from end of infusion:
8 Min 50 Sec
Next
977
Automatic Infusion
Infusion Summary.
Patient Dose 52 mCi
Patient Volume 14 mL
Elution Volume 28 mL
Press done to return to main menu.
Done
978

Fig. 9C

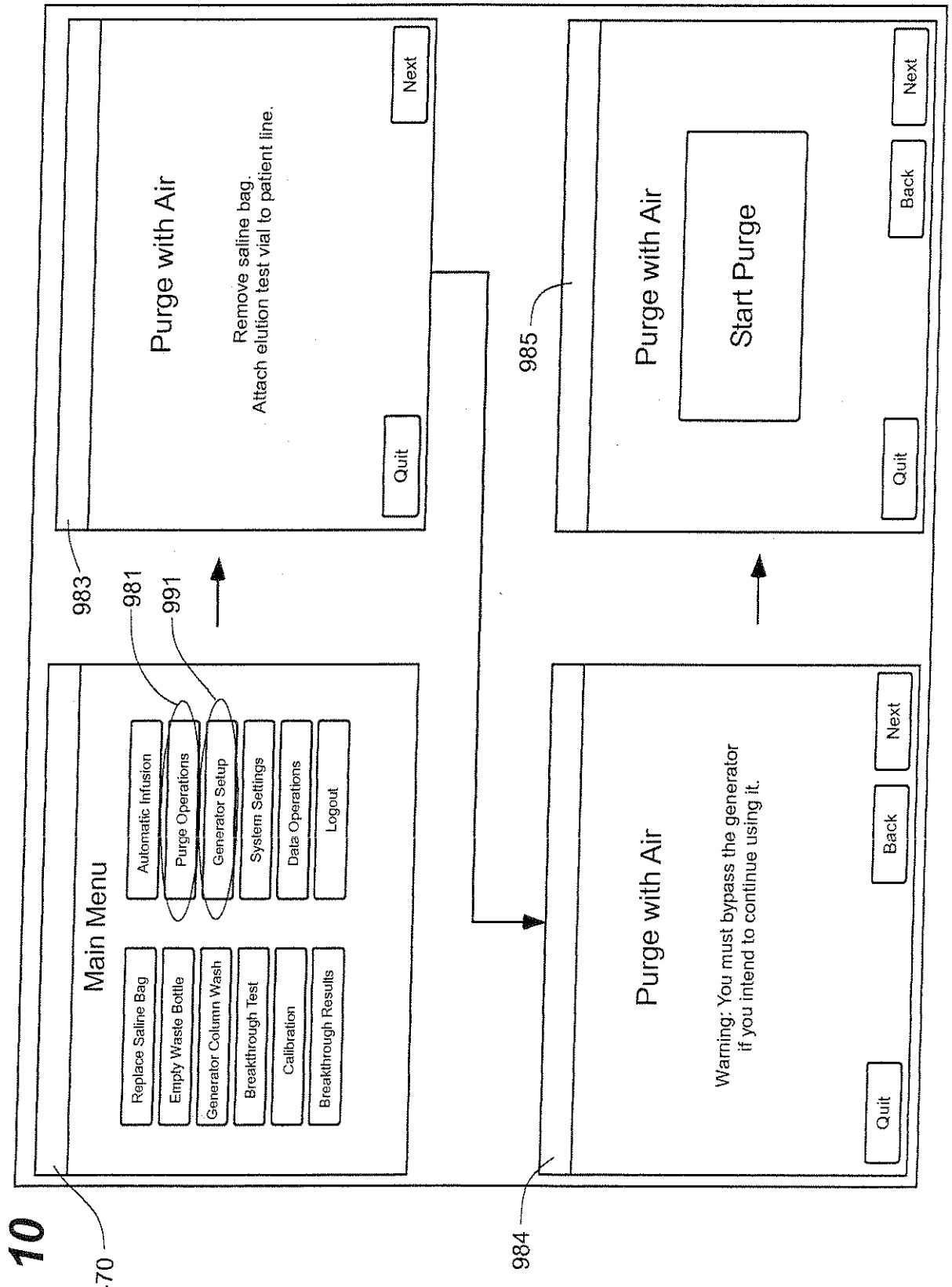

Main Menu
Automatic Infusion
Purge Operations
Generator Setup
System Settings
Data Operations
Logout
Replace Saline Bag
Empty Waste Bottle
Generator Column Wash
Breakthrough Test
Calibration
Breakthrough Results
Purge with Air
Remove saline bag.
Attach elution test vial to patient line.
Next
Quit
Purge with Air
Start Purge
Next
Back
Quit
Purge with Air
Warning: You must bypass the generator if you intend to continue using it.
Next
Back
Quit
470
981
983
984
985
991

Fig. 10

Fig. 11

CARDIOGEN-82 GENERATOR MONTHLY RECEIPT/RETURN WORKSHEET

GENERATOR RECEIPT		
DATE OF DELIVERY:	11/9/2008	
DATE OF CALIBRATION:	11/10/2008	
LOT NUMBER:		
Sr-82 ACTIVITY:	100	mCi
TOTAL ACTIVITY:	256	mCi
Sr-85 ACTIVITY:	156	mCi

RECEIPT SURVEY		
SURFACE:	10.0	mrem/hr (MUST BE < 50 mrem/hr)
1 METER:	0.6	mrem/hr (MUST BE < 1 mrem/hr)
SURFACE WIPE:	1599	dpm (MUST BE < 2200 dpm/100 cm2)

GENERATOR RETURN	
DATE OF RETURN:	12/27/2008
DAYS SINCE CALIBRATION DATE:	47

RETURN SURVEY		
SURFACE:	5.6	mrem/hr (MUST BE < 50 mrem/hr)
1 METER:	0.2	mrem/hr (MUST BE < 1 mrem/hr)
SURFACE WIPE:	1278	dpm (MUST BE < 2200 dpm/100 cm2)

Sr-82 RETURN CALCULATIONS		
INITIAL Sr-82 ACTIVITY:	100	mCi
DECAY FACTOR:	0.2718	
REMAINING Sr-82 IN mCi:	27.18	mCi
REMAINING Sr-82 IN GBq	1.01	GBq

SUMMARY		
TOTAL Sr-82/Sr-85 ACTIVITY:	120.95	mCi
TOTAL Sr-82/Sr-85 ACTIVITY:	4.48	GBq
TRANSPORT INDEX:	0.2	

Sr-85 RETURN CALCULATIONS		
INITIAL Sr-85 ACTIVITY:	156	mCi
DECAY FACTOR:	0.6011	
REMAINING Sr-85 IN mCi:	93.77	mCi
REMAINING Sr-85 IN GBq	3.47	GBq

Fig. 12A

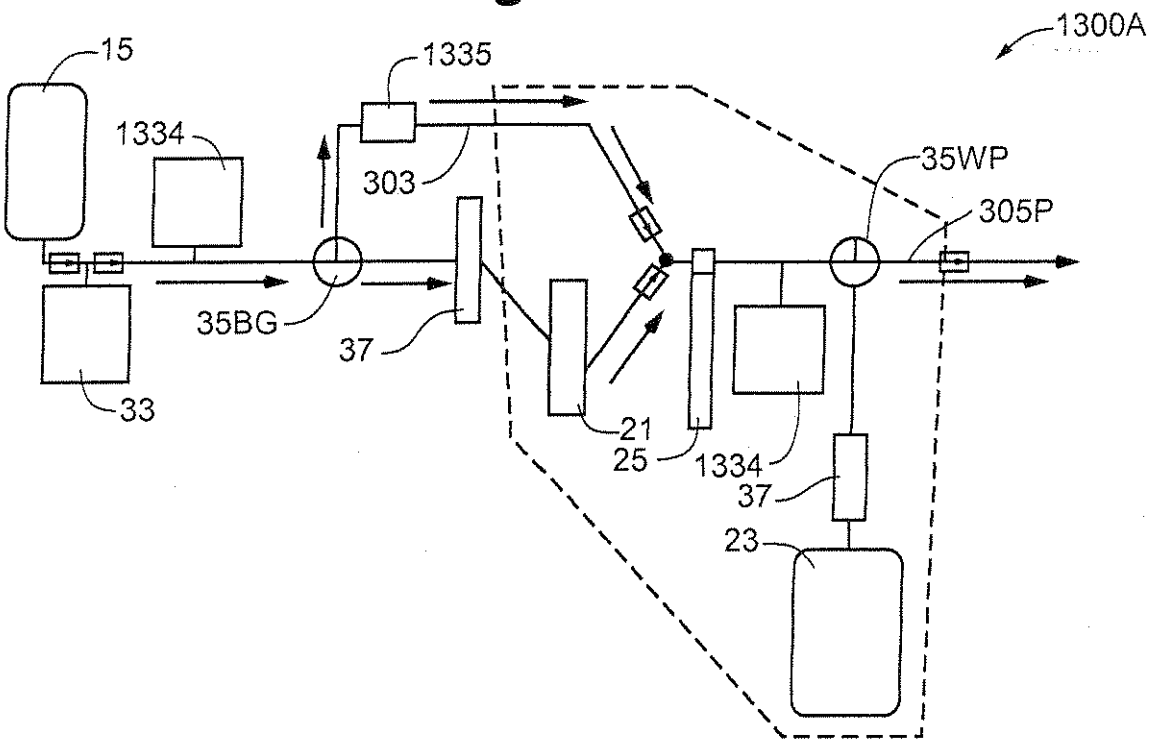


Fig. 12B

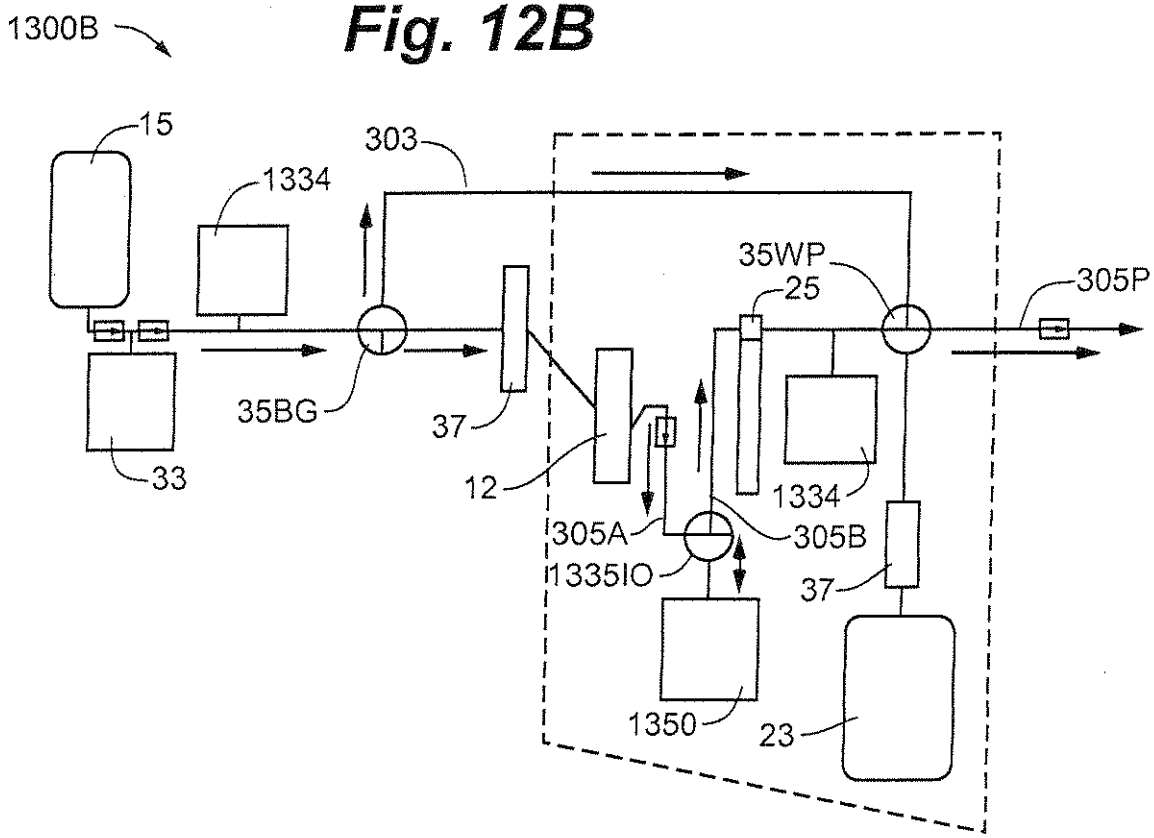


Fig. 12C

