Figure 1

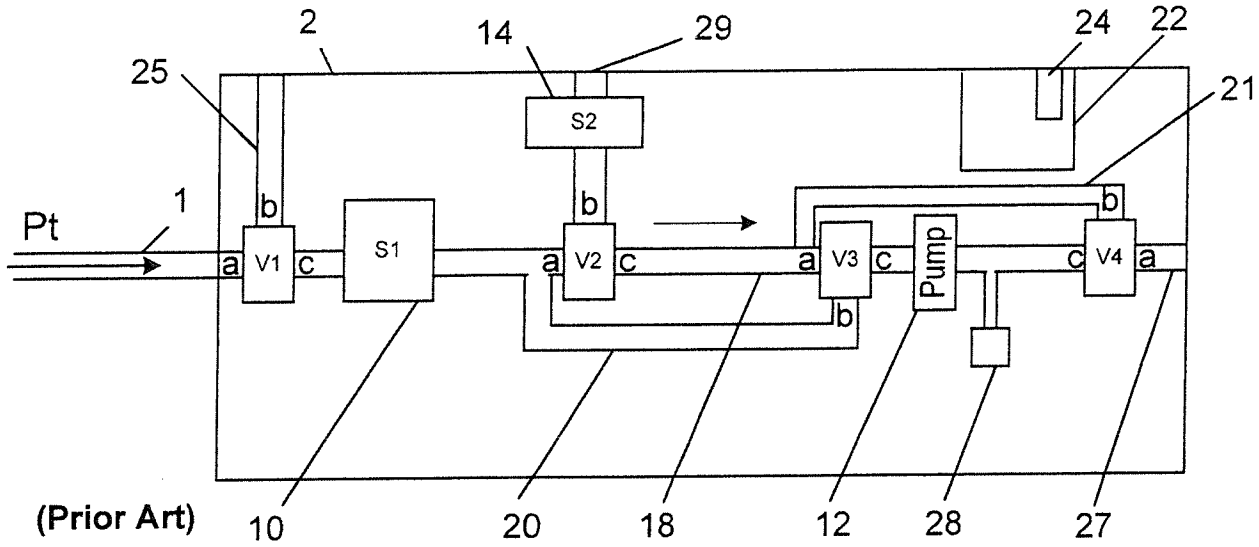


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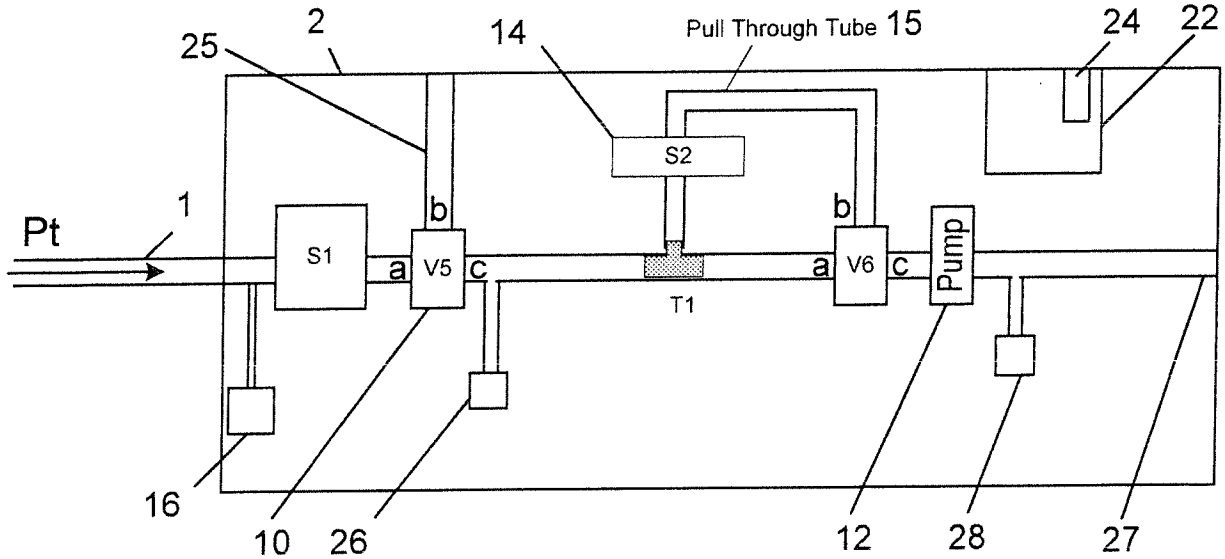


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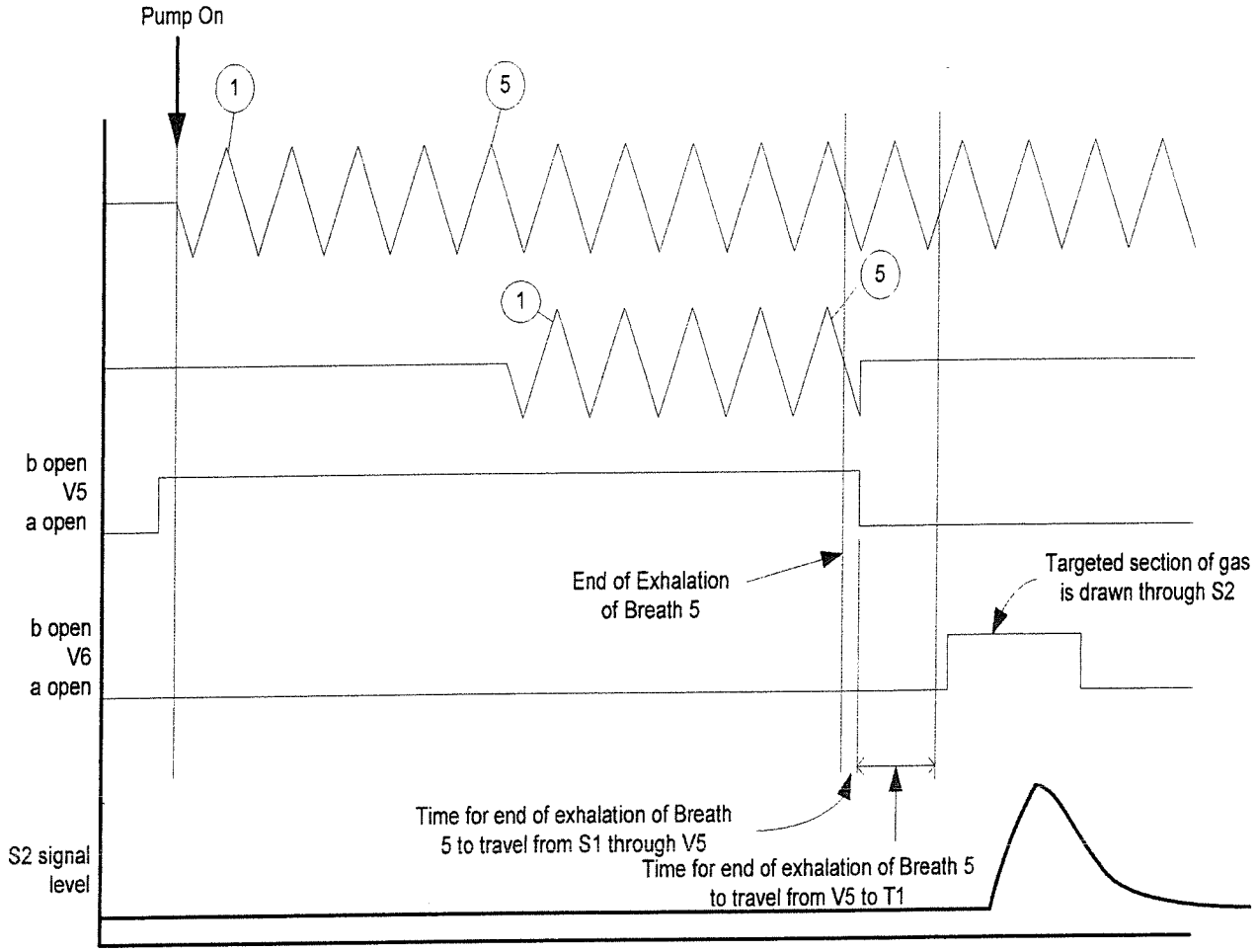


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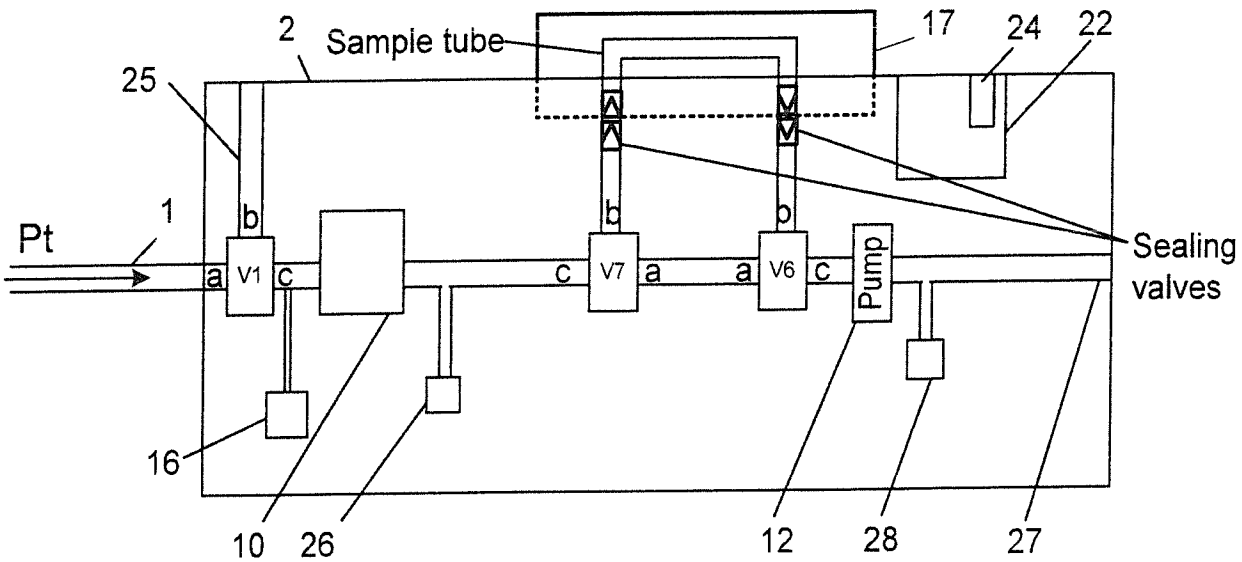


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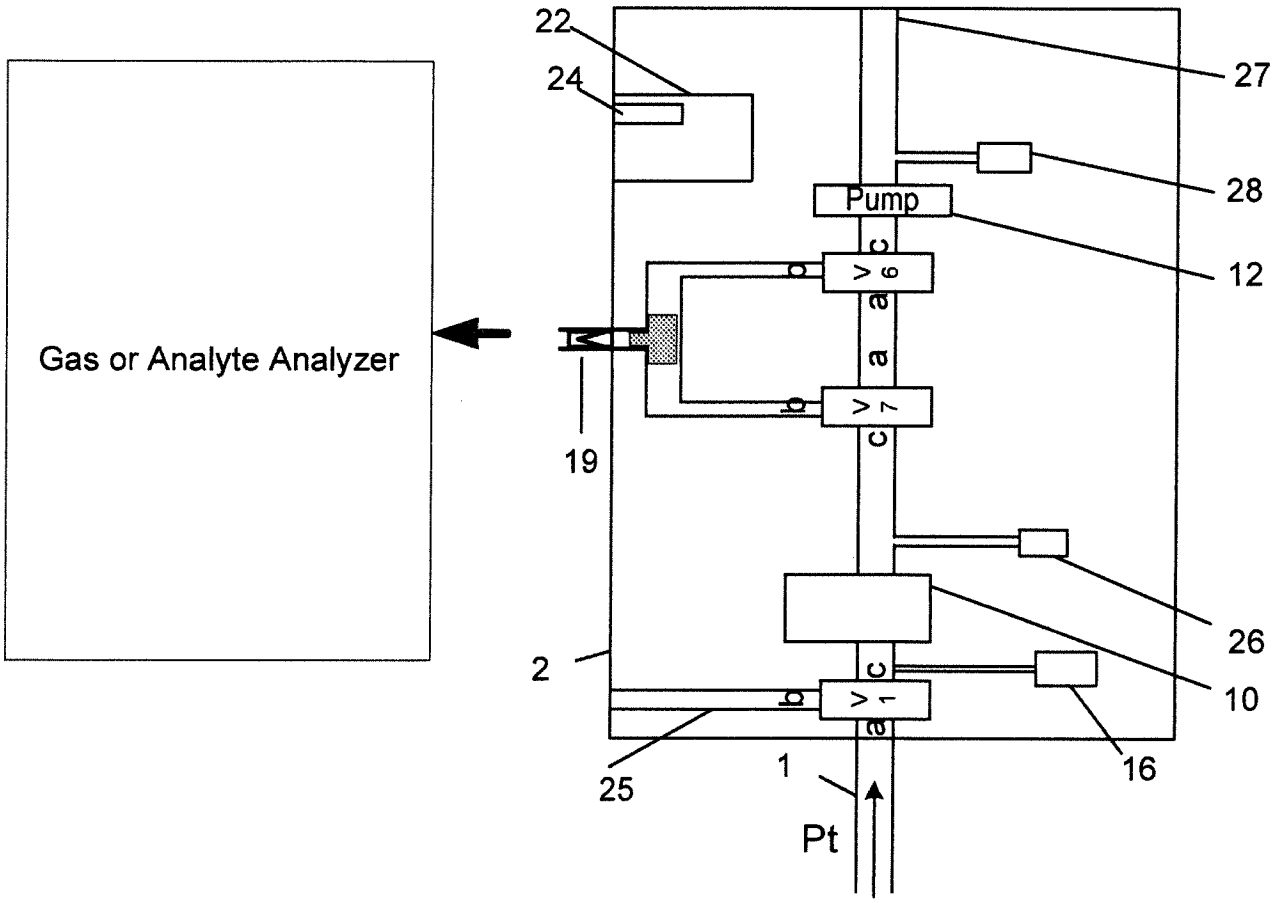

Gas or Analyte Analyzer
22
24
27
28
Pump
12
19
2
26
10
16
25
1
Pt
a
b
c
V 6
V 7
V 1

Figure 6

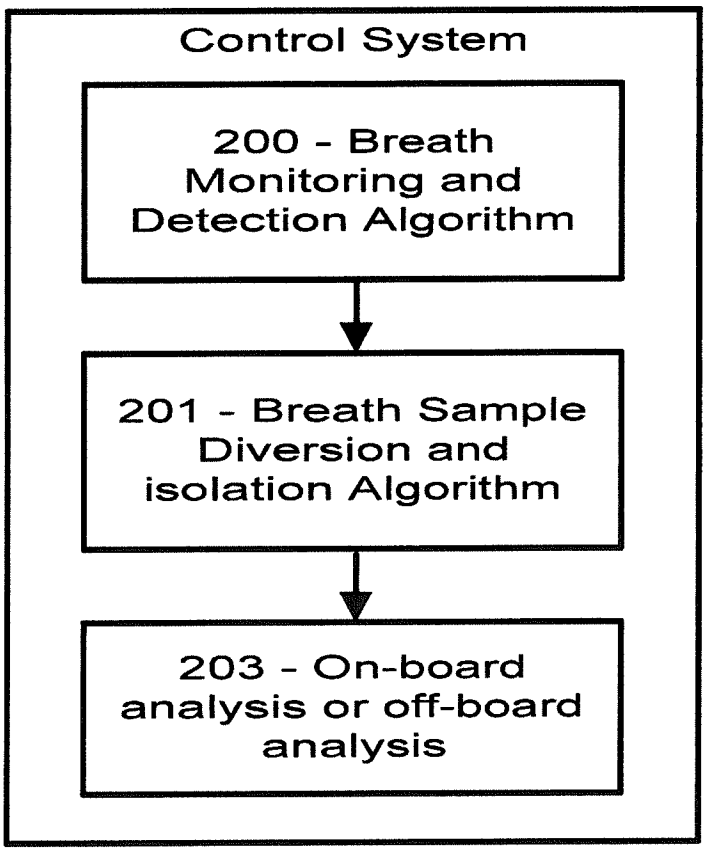
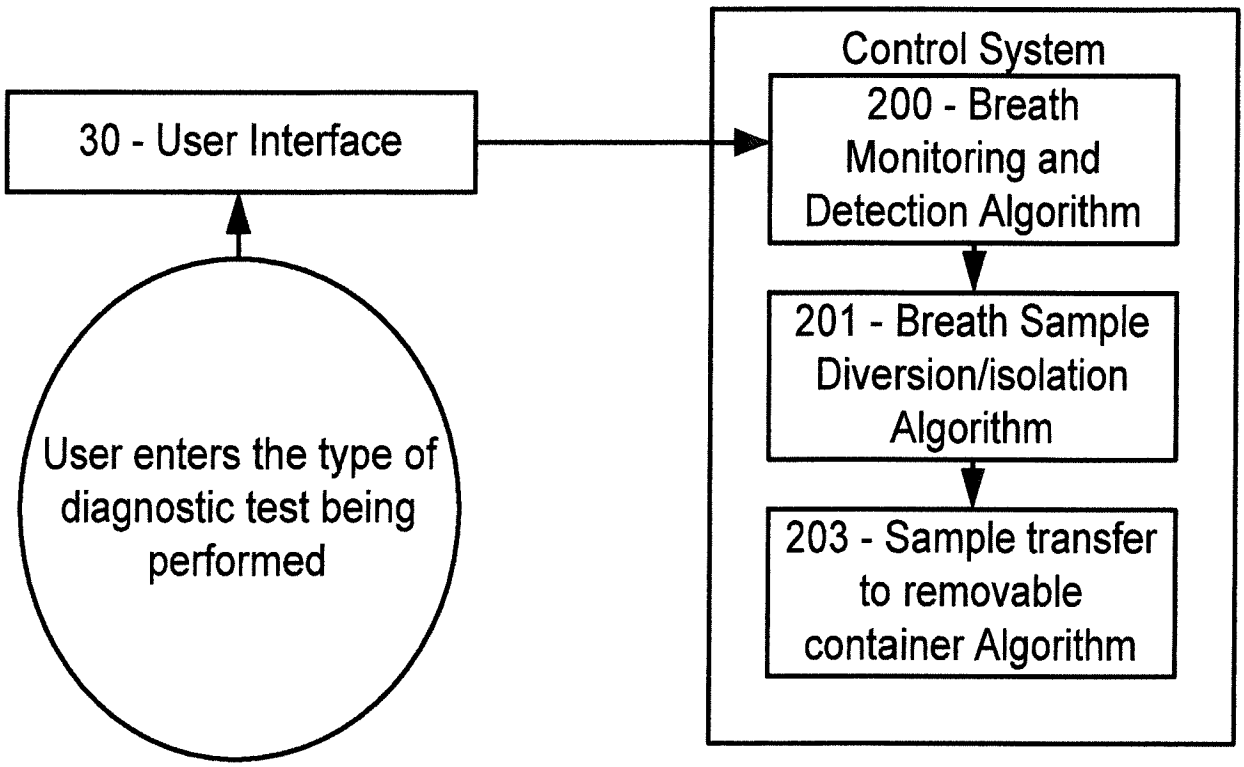

Control System
200 - Breath Monitoring and Detection Algorithm
201 - Breath Sample Diversion and isolation Algorithm
203 - On-board analysis or off-board analysis

Figure 7



[1] Type of diagnostic test examples: Hematology disorders (such as ETCO), Hydrogen, metabolic disorders (such as diabetes), respiratory disorders (such as asthma) forensic applications, behavioral screening applications, etc.

Figure 8

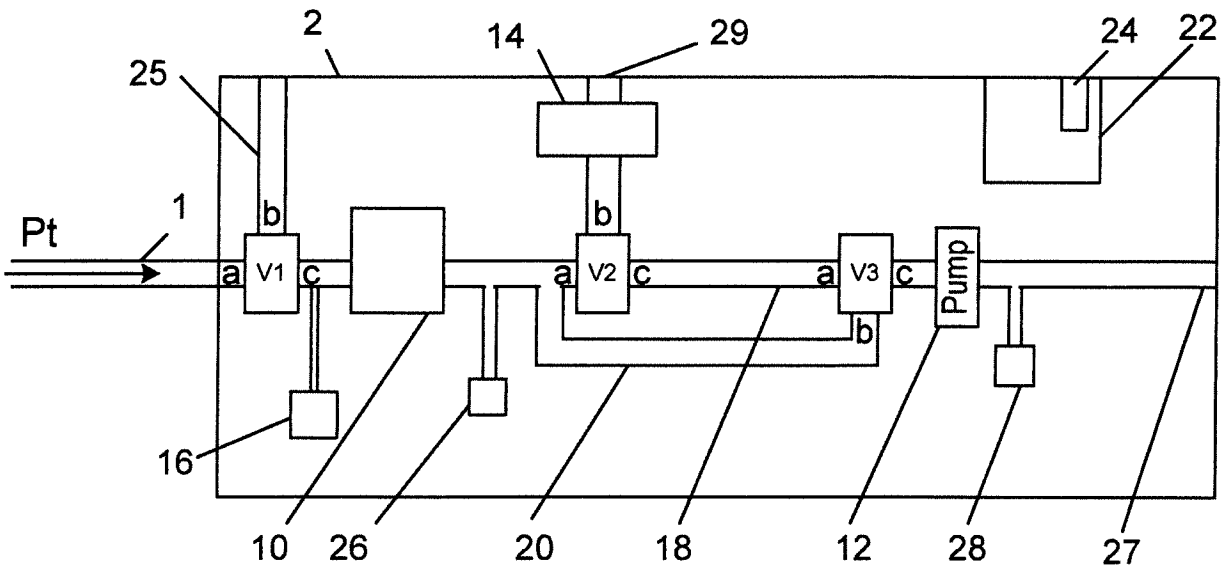


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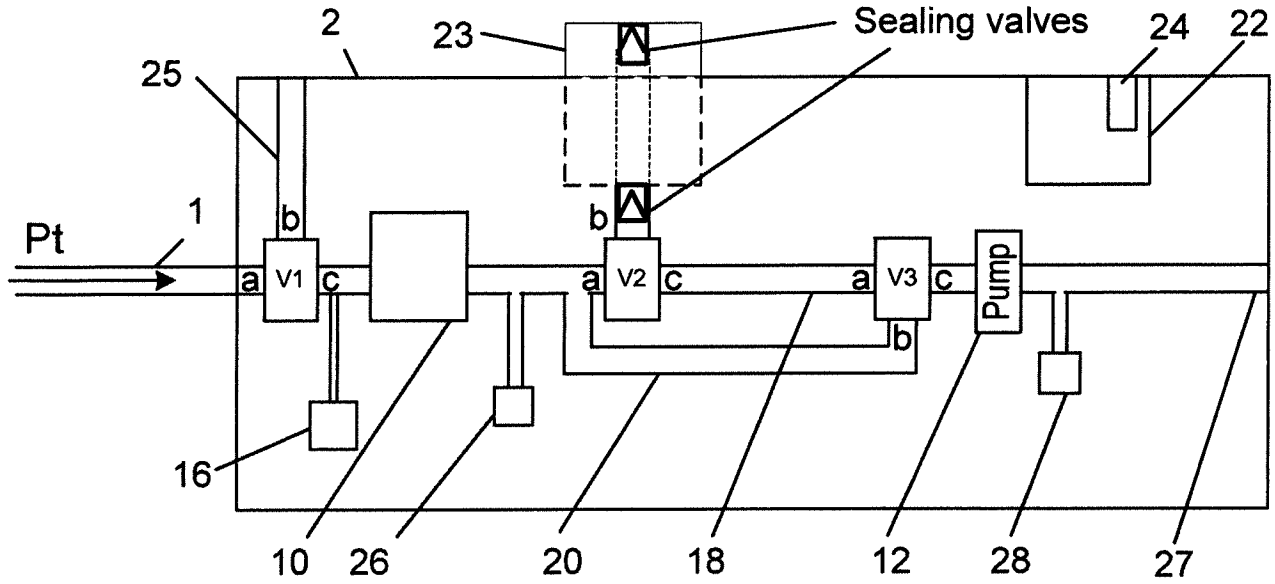


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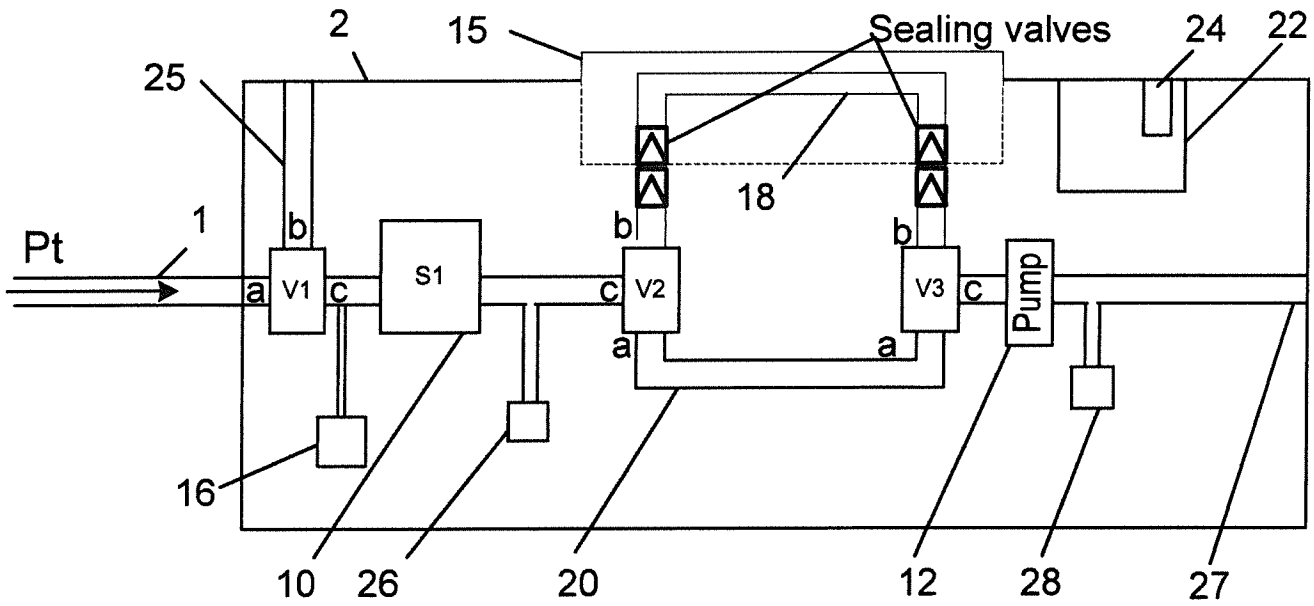


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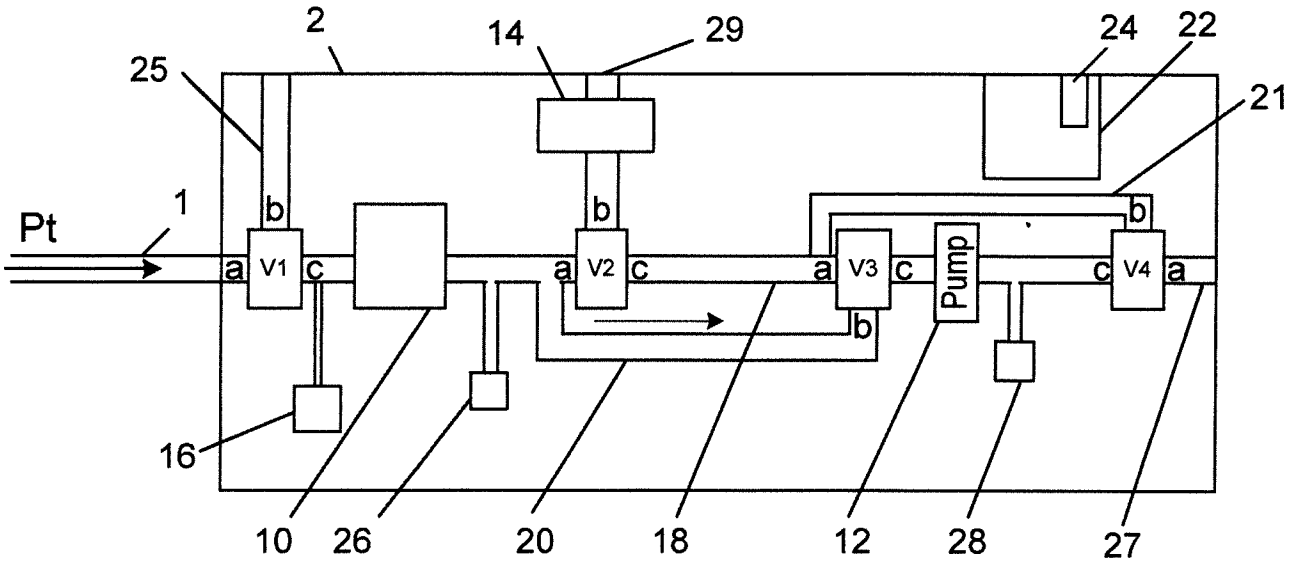

2
14
29
24
22
25
21
Pt
1
b
b
b
a
V1
c
a
V2
c
a
V3
c
Pump
c
V4
a
b
16
10
26
20
18
12
28
27

Figure 12

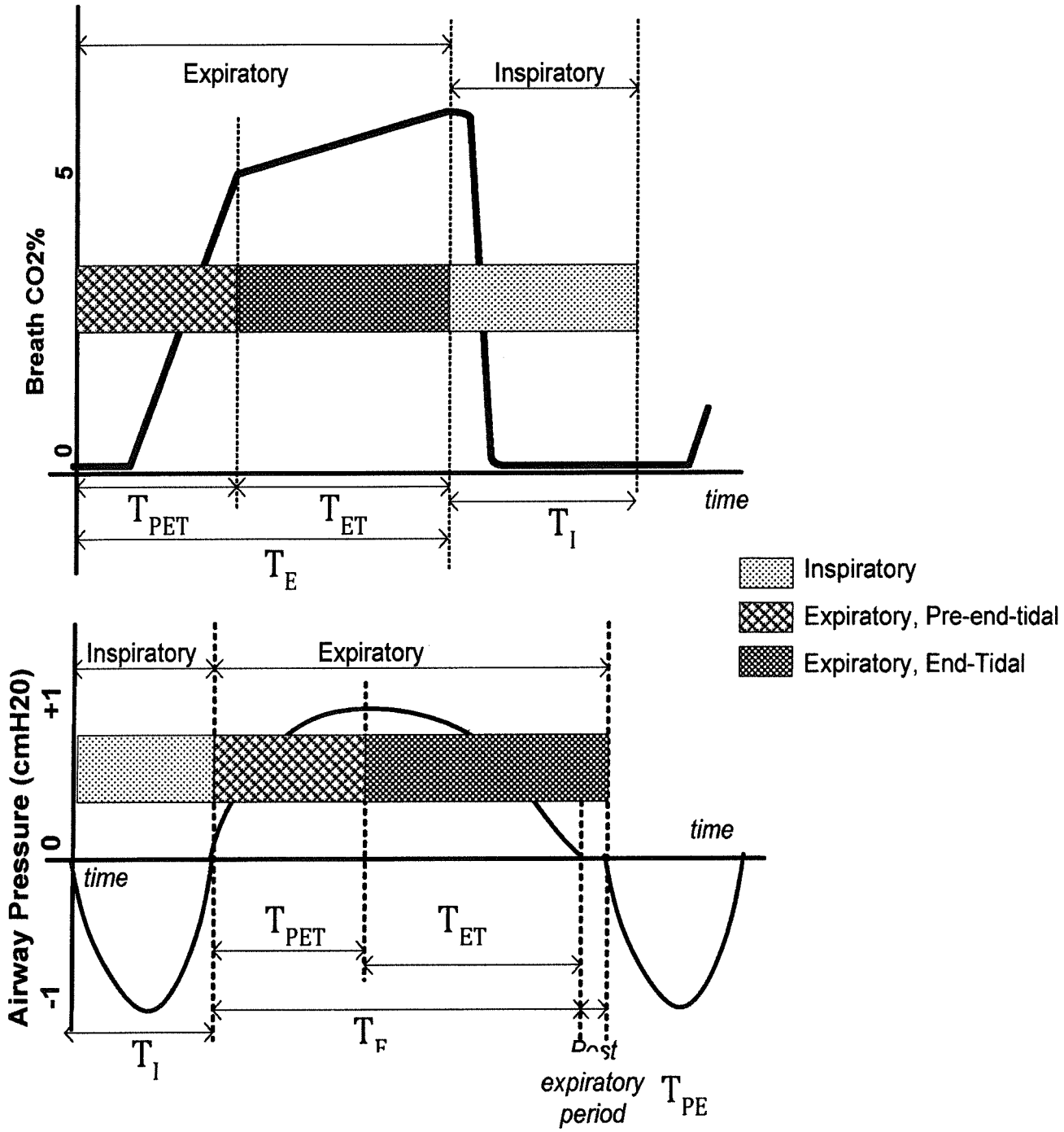

Expiratory
Inspiratory
Breath CO2%
5
0
time
T_{PET}
T_{ET}
T_I
T_E
Inspiratory
Expiratory, Pre-end-tidal
Expiratory, End-Tidal
Inspiratory
Expiratory
Airway Pressure (cmH20)
+1
0
-1
time
time
T_{PET}
T_{ET}
T_I
T_E
expiratory period
T_{PE}

Figure 13

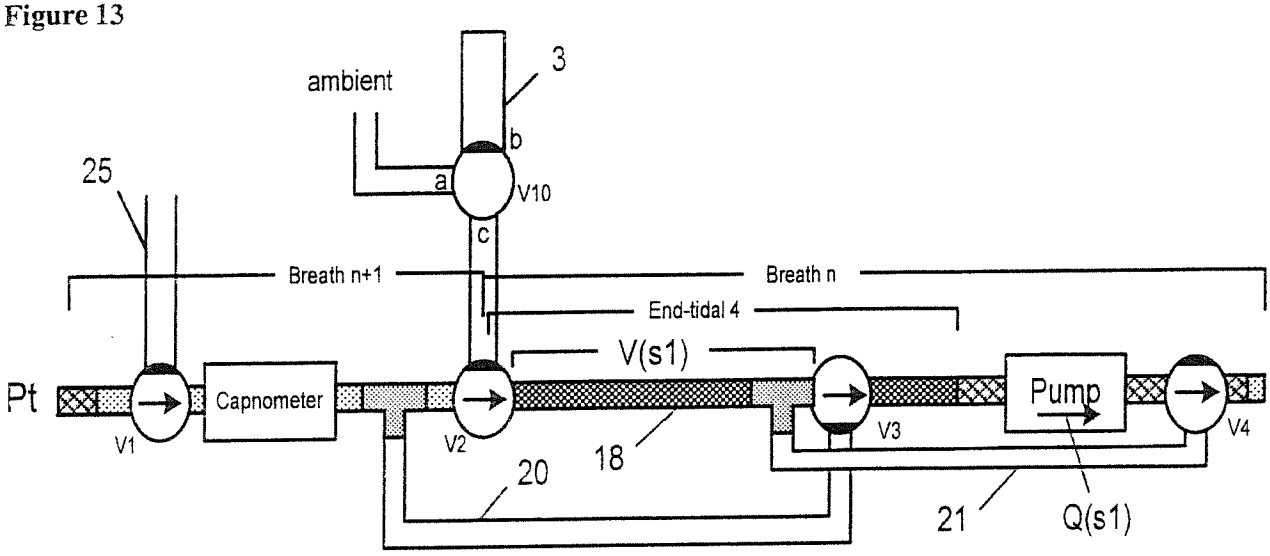


Figure 14

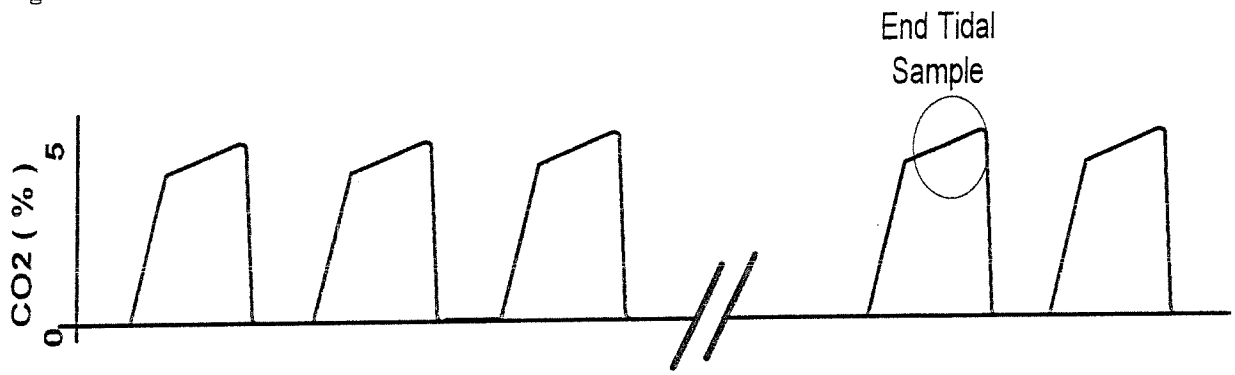


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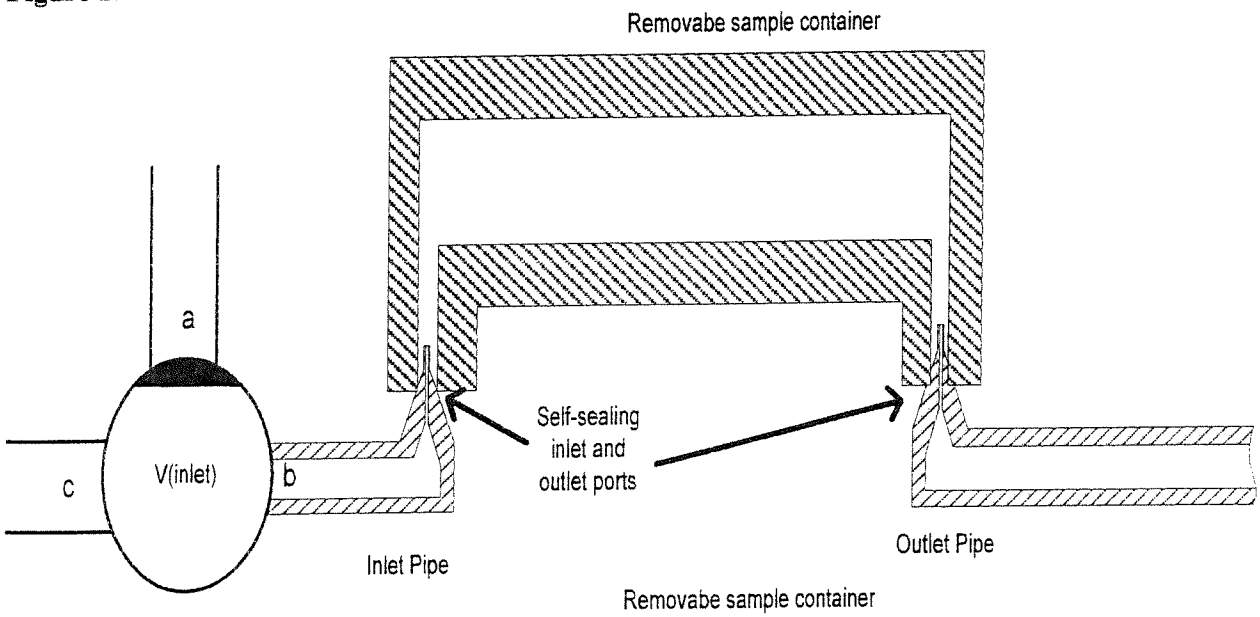


Figure 16

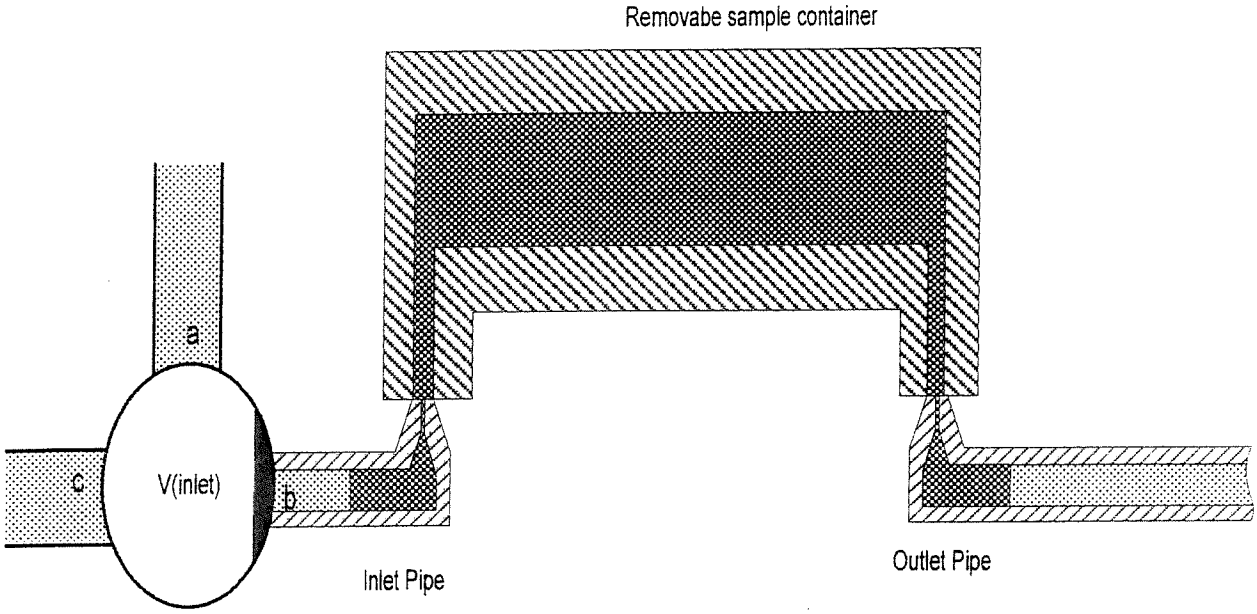


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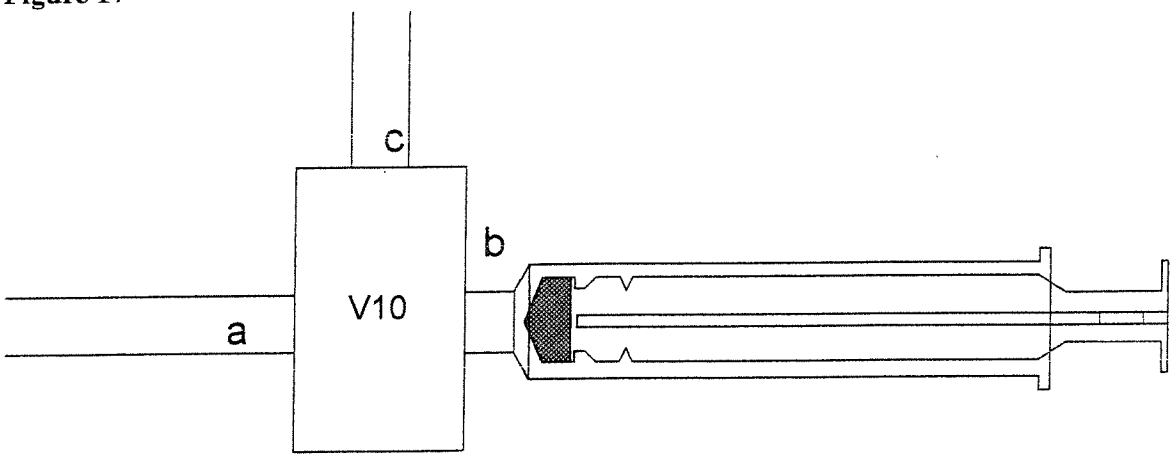


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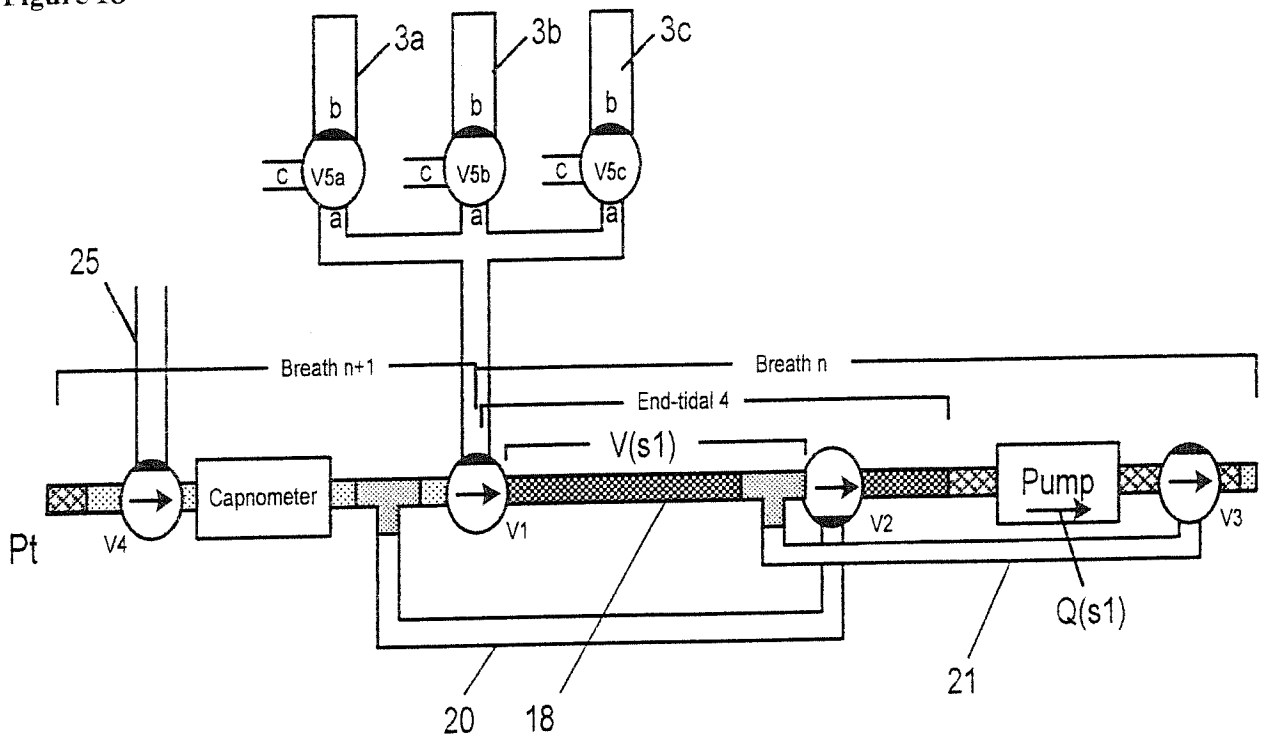


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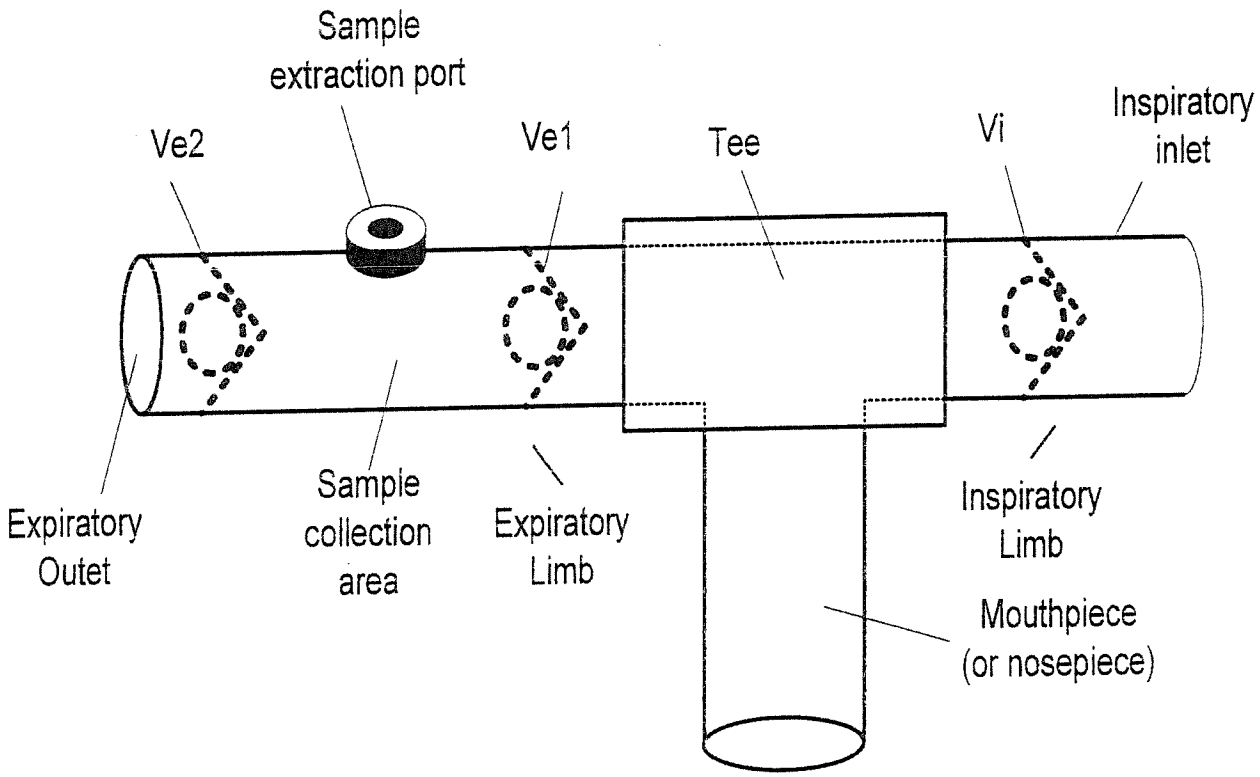


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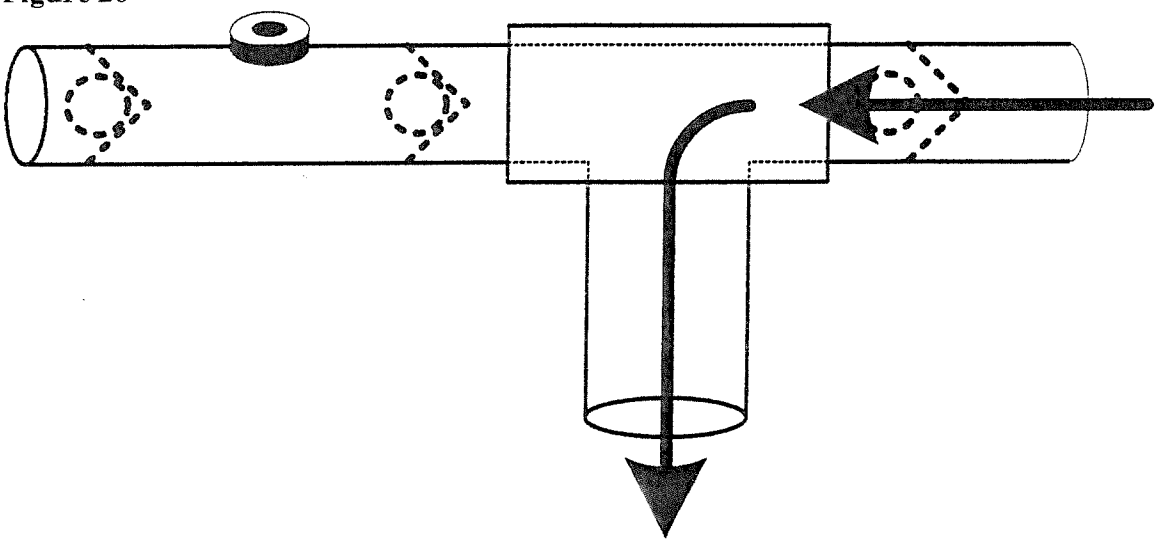


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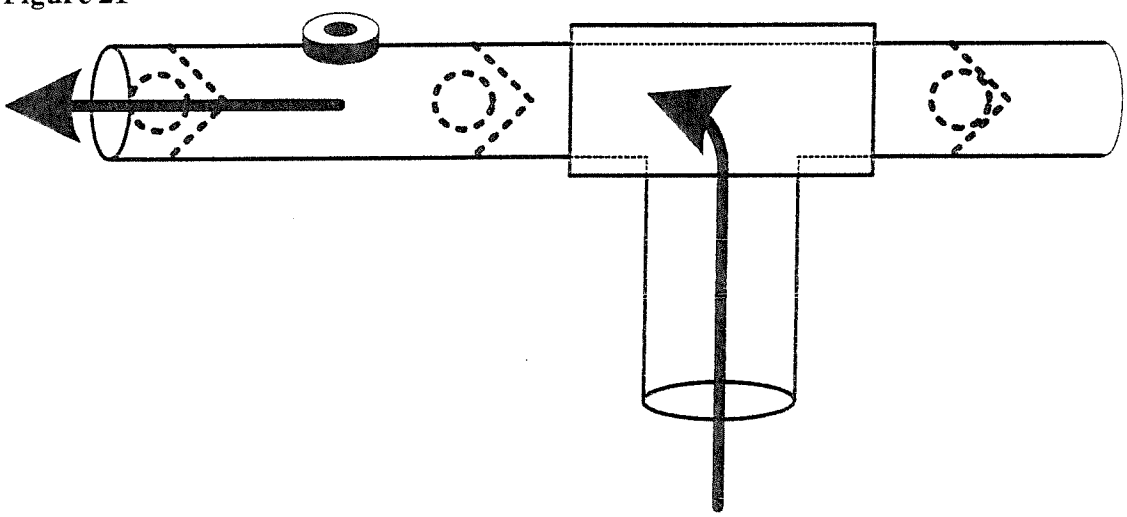


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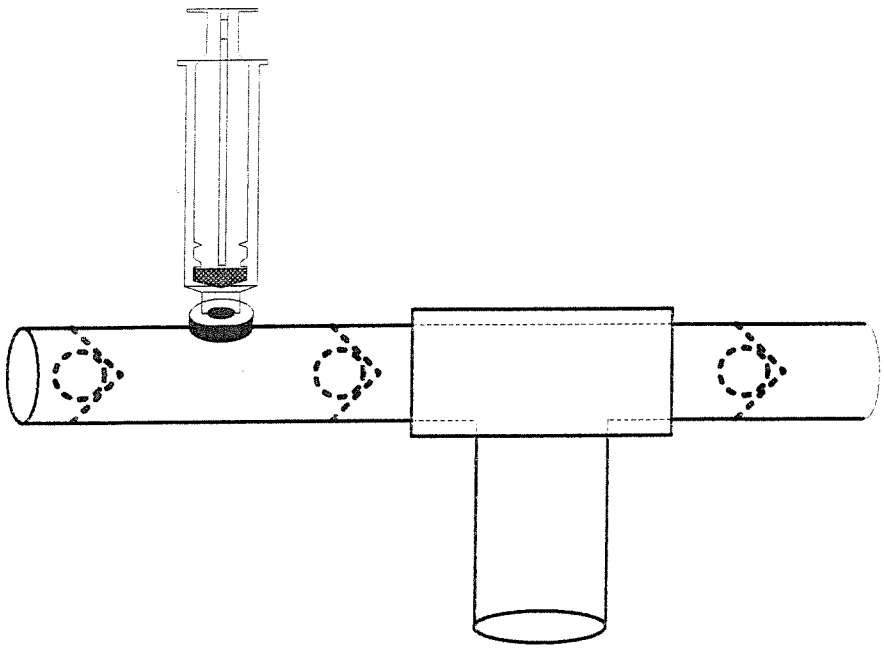


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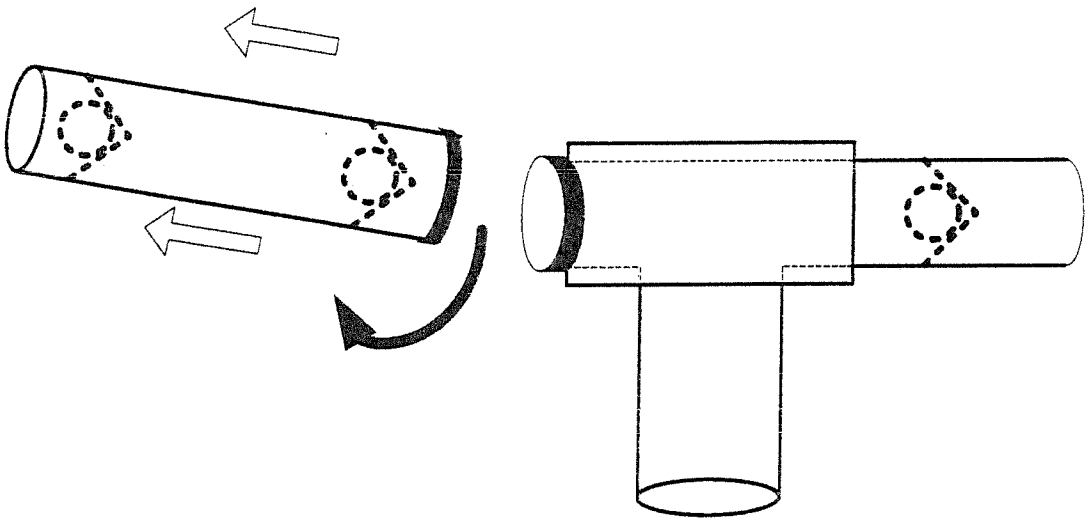


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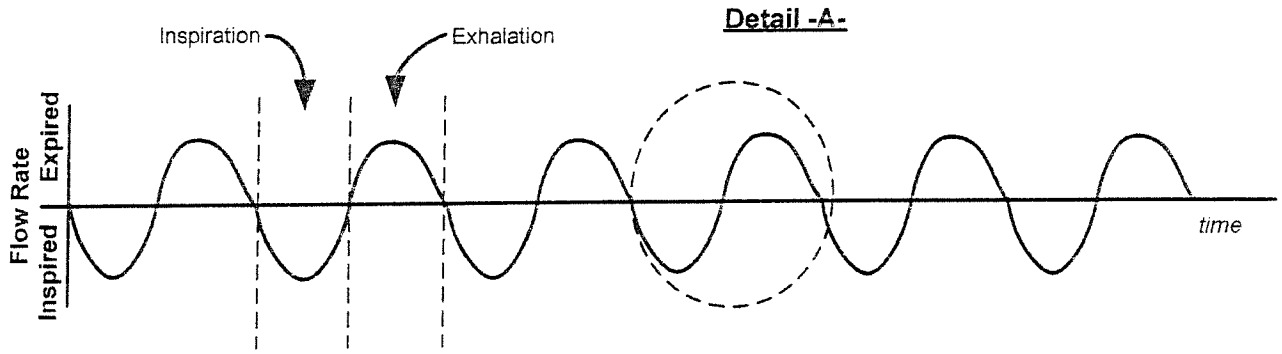


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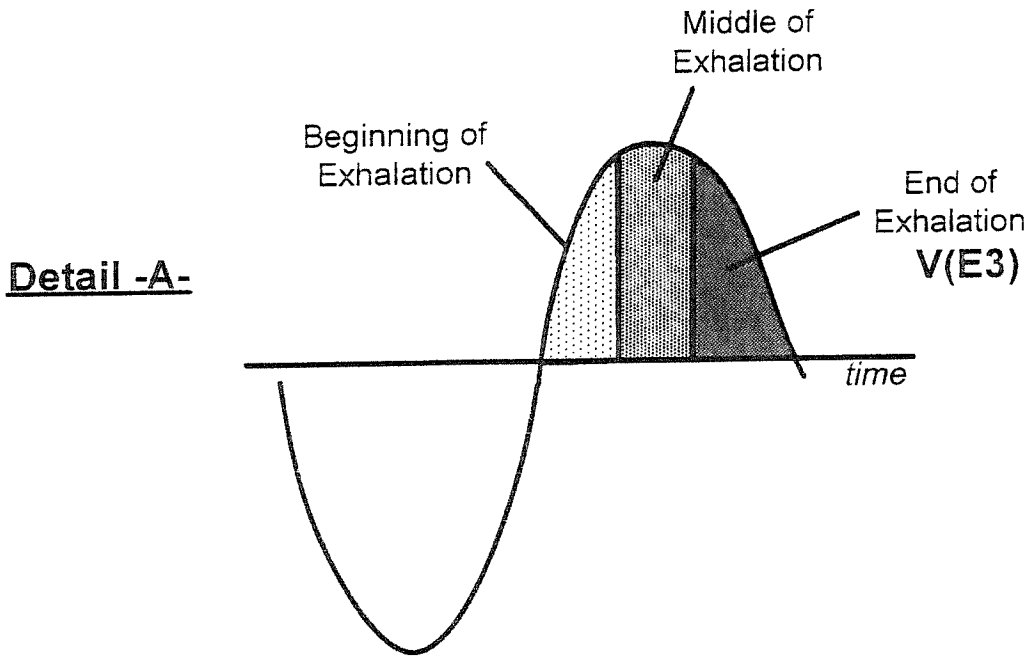


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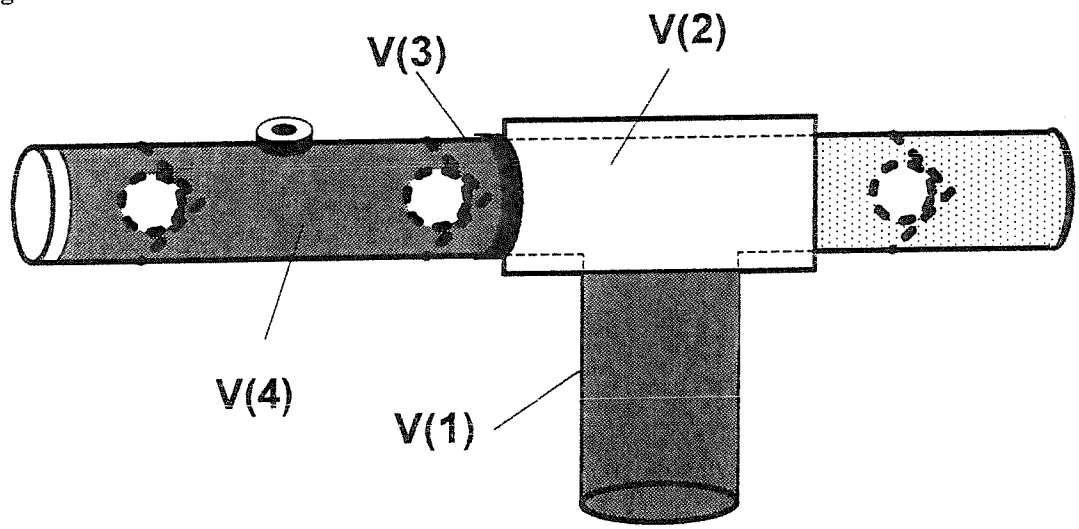


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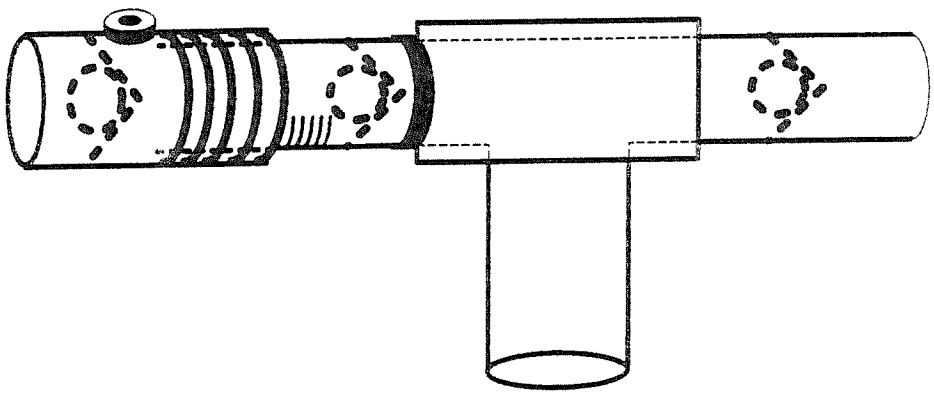


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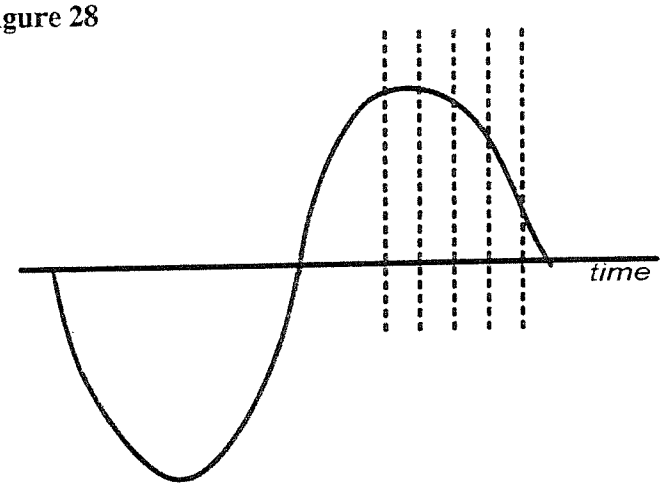


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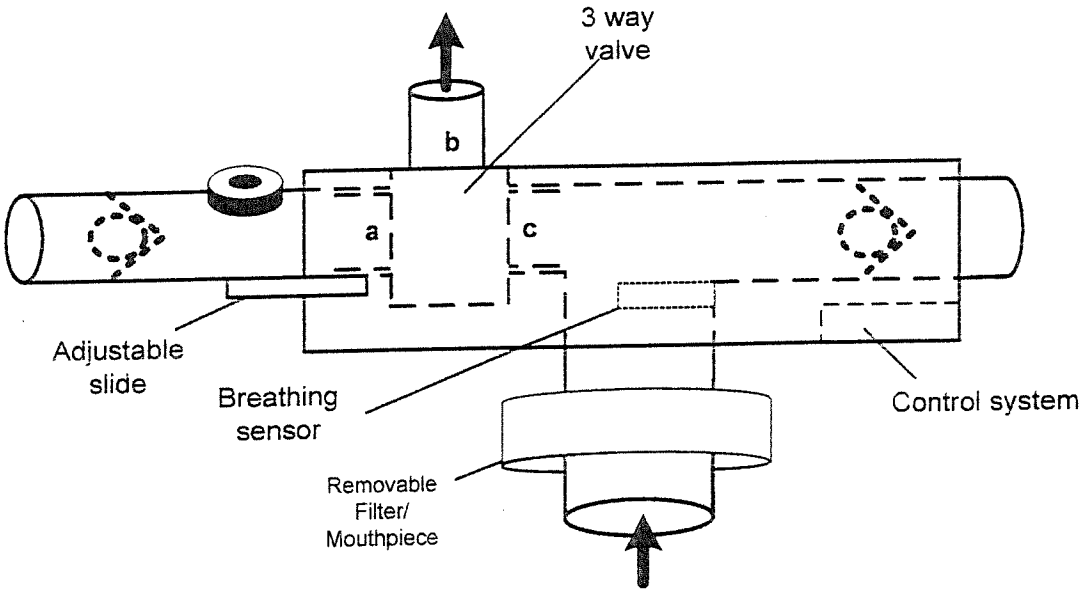


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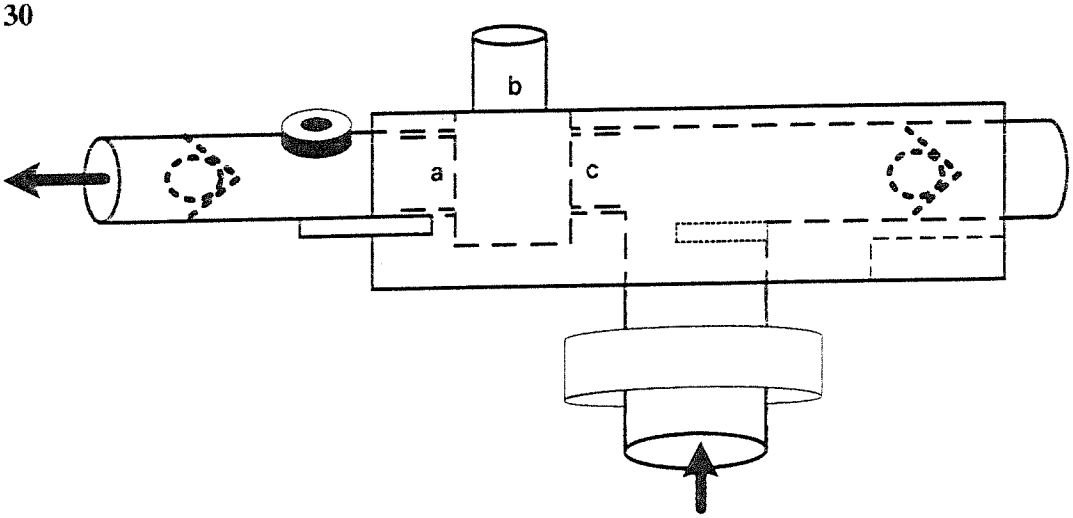


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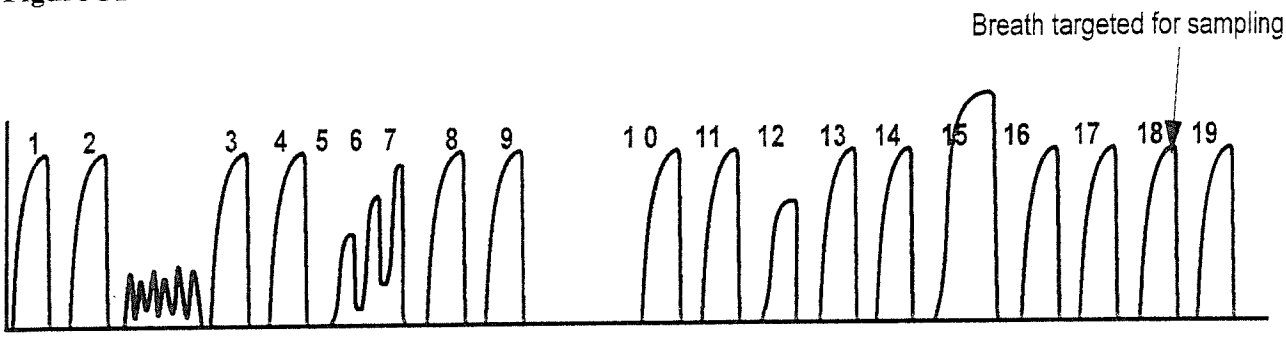


Figure 32

