FIG. 2

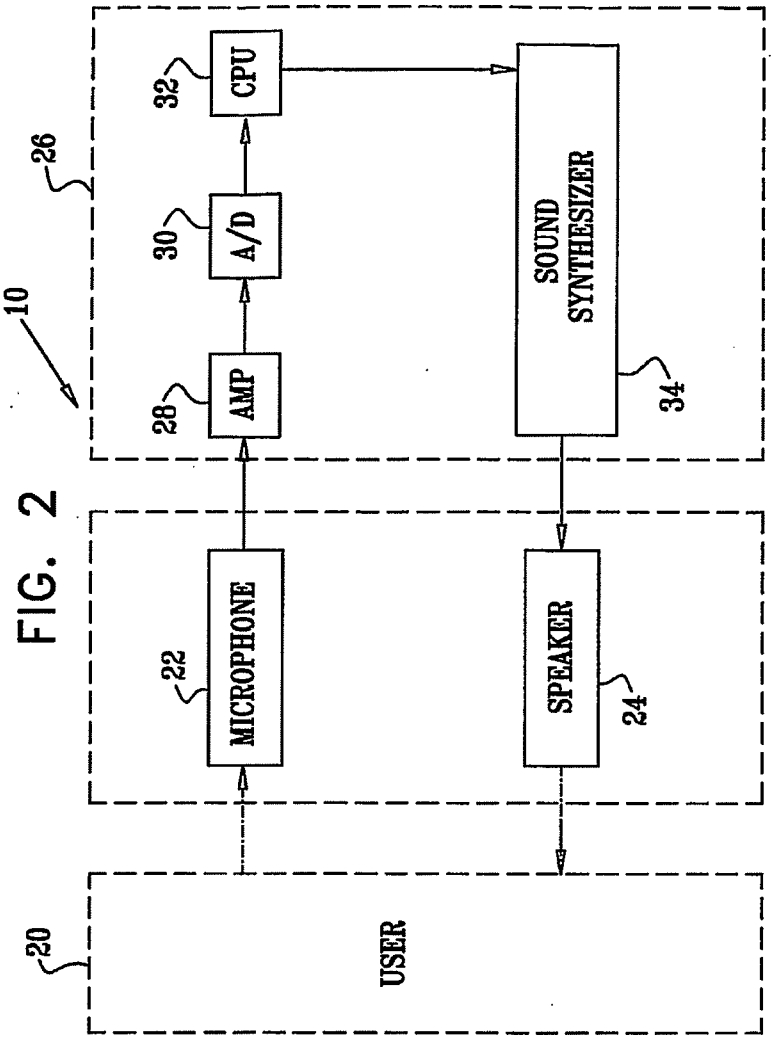

10
26
CPU
32
A/D
30
AMP
28
SOUND SYNTHESIZER
34
MICROPHONE
22
SPEAKER
24
USER
20

FIG. 1

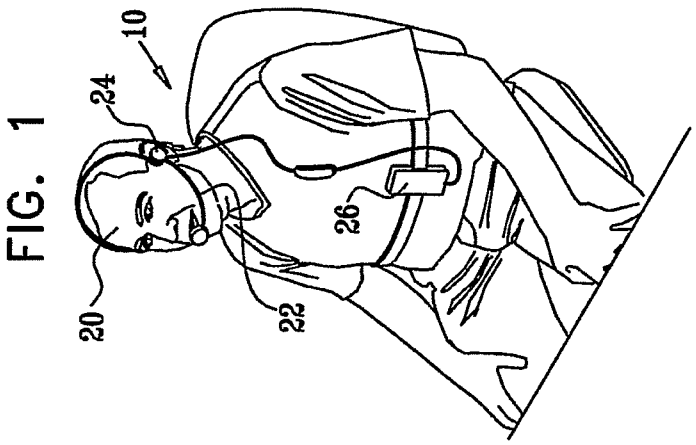
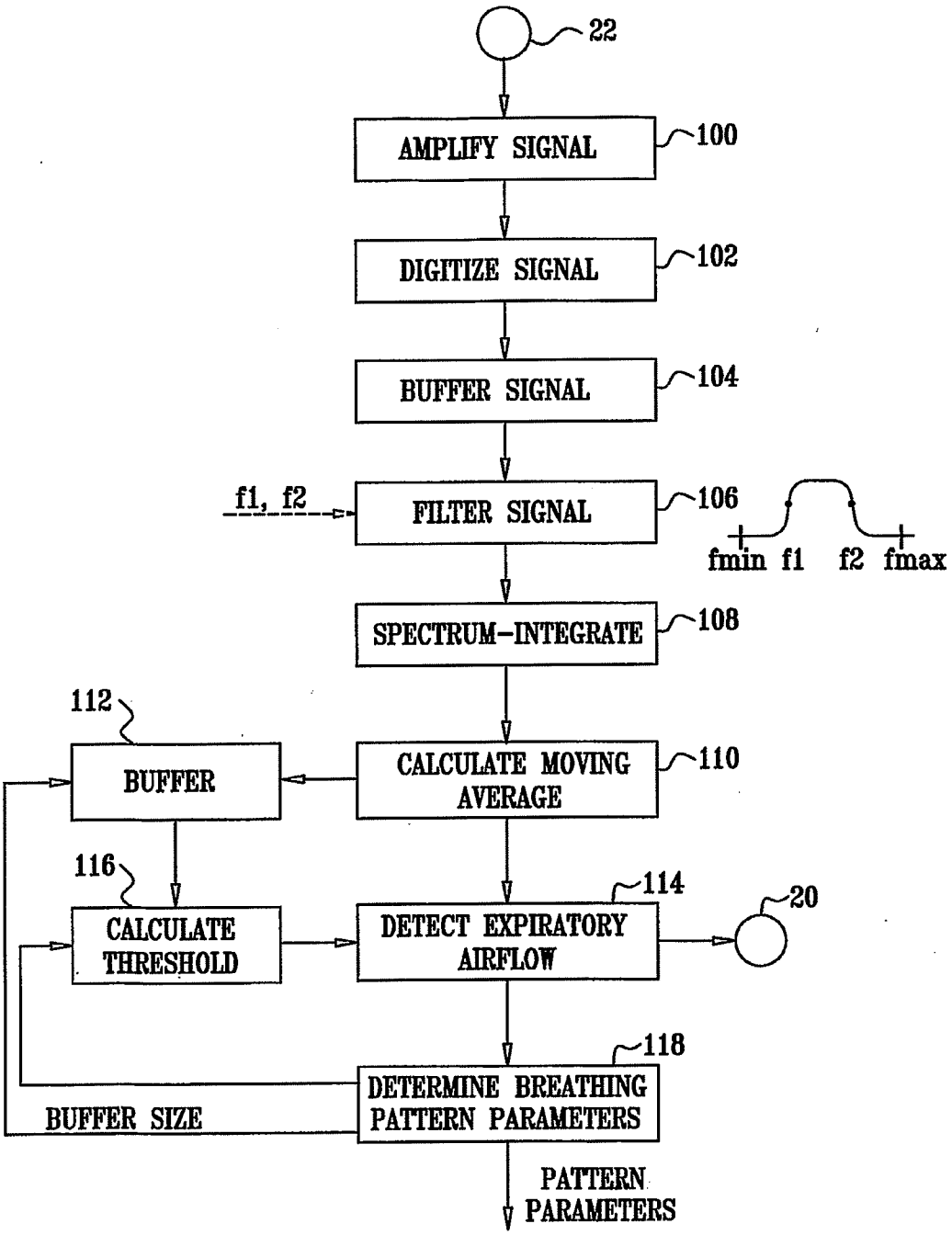

10
24
26
20
22

FIG. 3


22
AMPLIFY SIGNAL
100
DIGITIZE SIGNAL
102
BUFFER SIGNAL
104
f1, f2
FILTER SIGNAL
106
fmin f1 f2 fmax
SPECTRUM-INTEGRATE
108
112
BUFFER
CALCULATE MOVING AVERAGE
110
116
CALCULATE THRESHOLD
114
DETECT EXPIRATORY AIRFLOW
20
118
DETERMINE BREATHING PATTERN PARAMETERS
BUFFER SIZE
PATTERN PARAMETERS

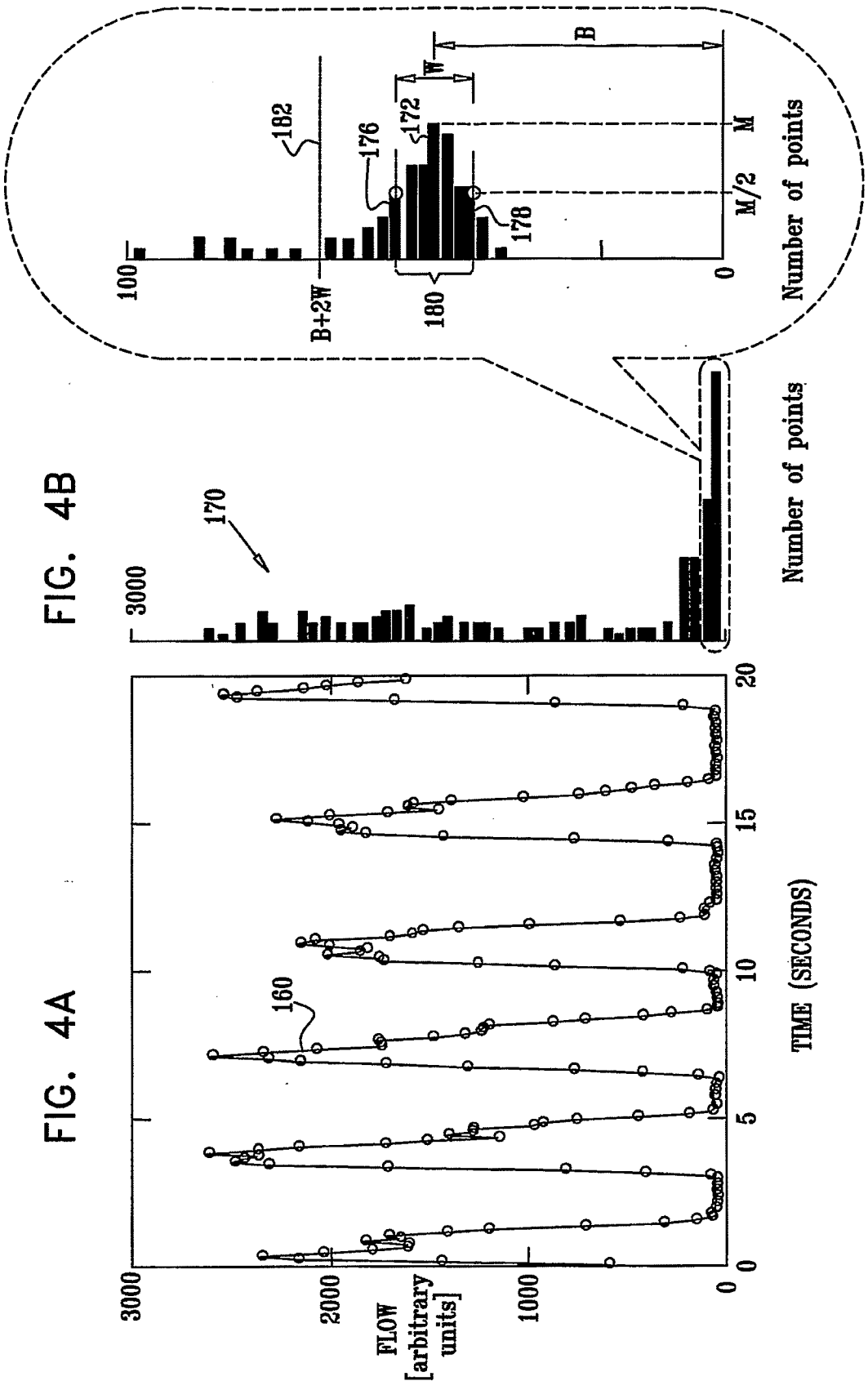

FIG. 4A
FIG. 4B
FLOW [arbitrary units]
TIME (SECONDS)
Number of points
Number of points
160
170
180
182
176
172
178
B
W
M
M/2
B+2W
100
3000
2000
1000
0
5
10
15
20

FIG. 5

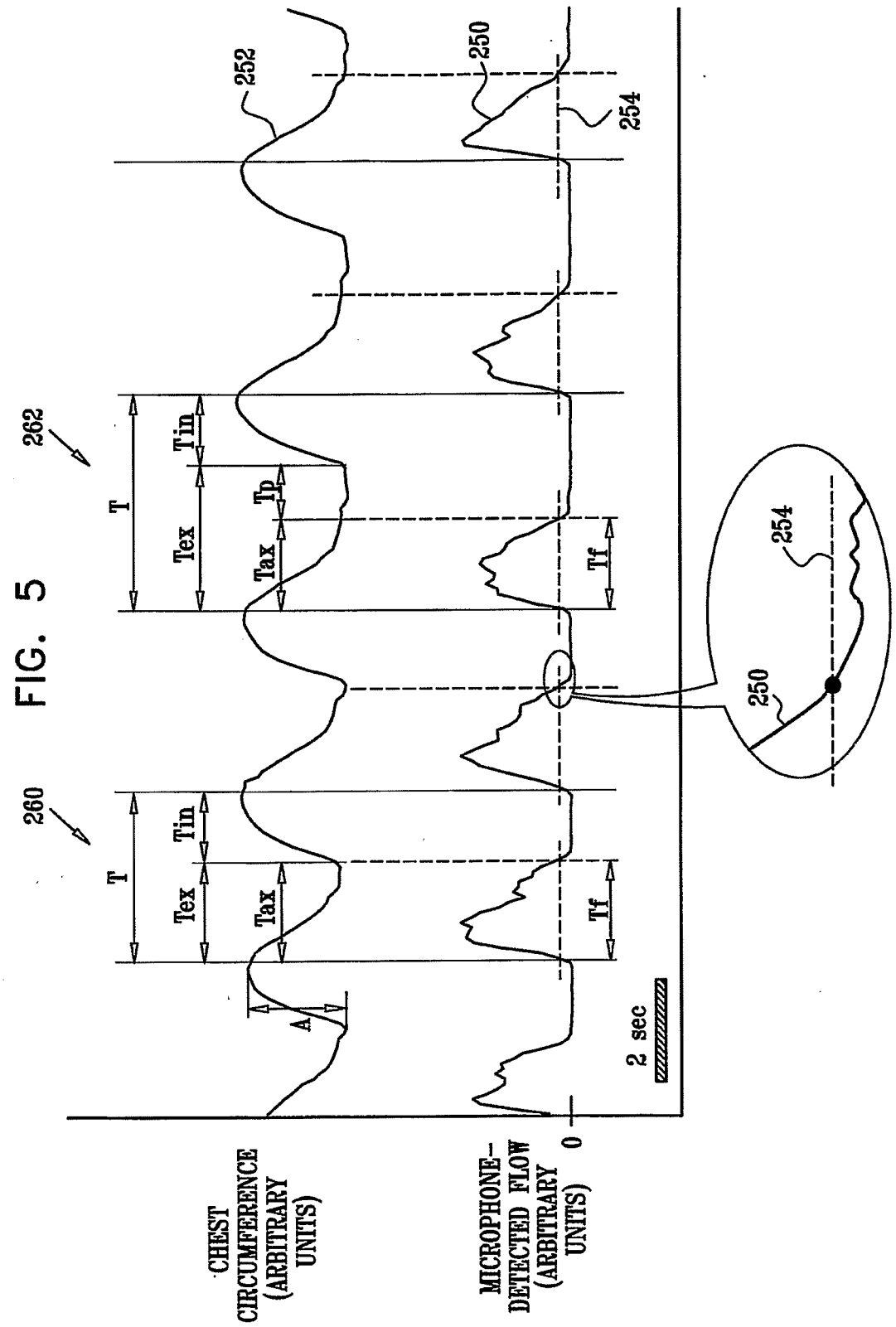

260
262
T
Tin
Tex
Tax
Tp
Tf
A
252
250
254
2 sec
0
CHEST CIRCUMFERENCE (ARBITRARY UNITS)
MICROPHONE-DETECTED FLOW (ARBITRARY UNITS)

FIG. 6

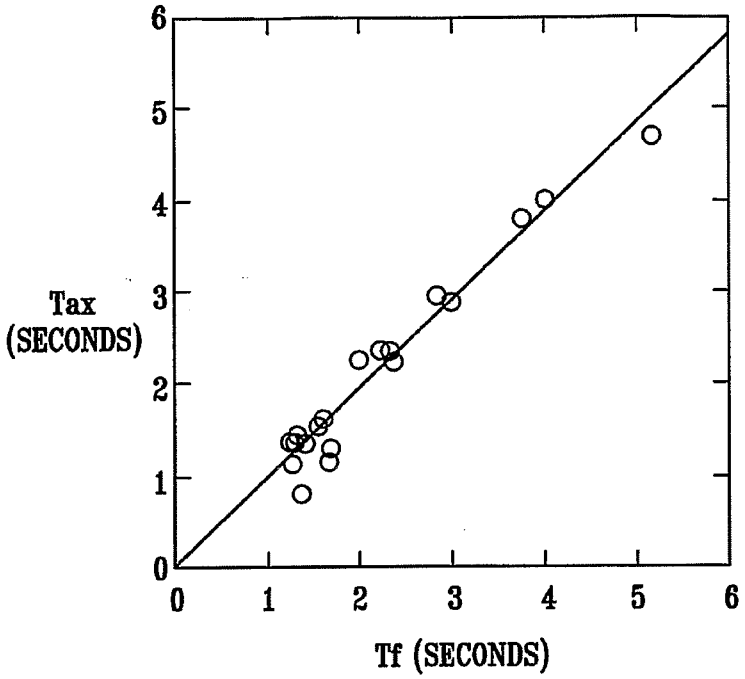

Tax
(SECONDS)
Tf (SECONDS)
0
1
2
3
4
5
6

FIG. 7

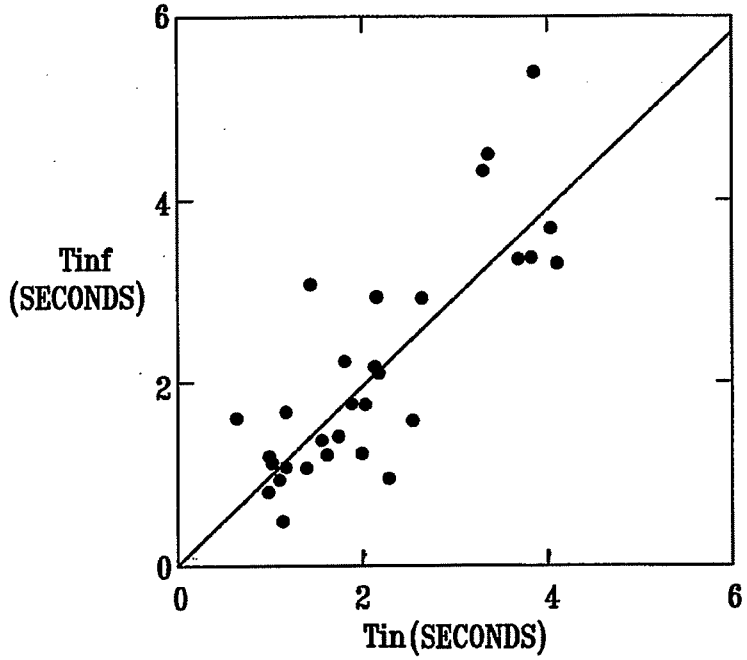

Tinf
(SECONDS)
Tin (SECONDS)
0
2
4
6

FIG. 8

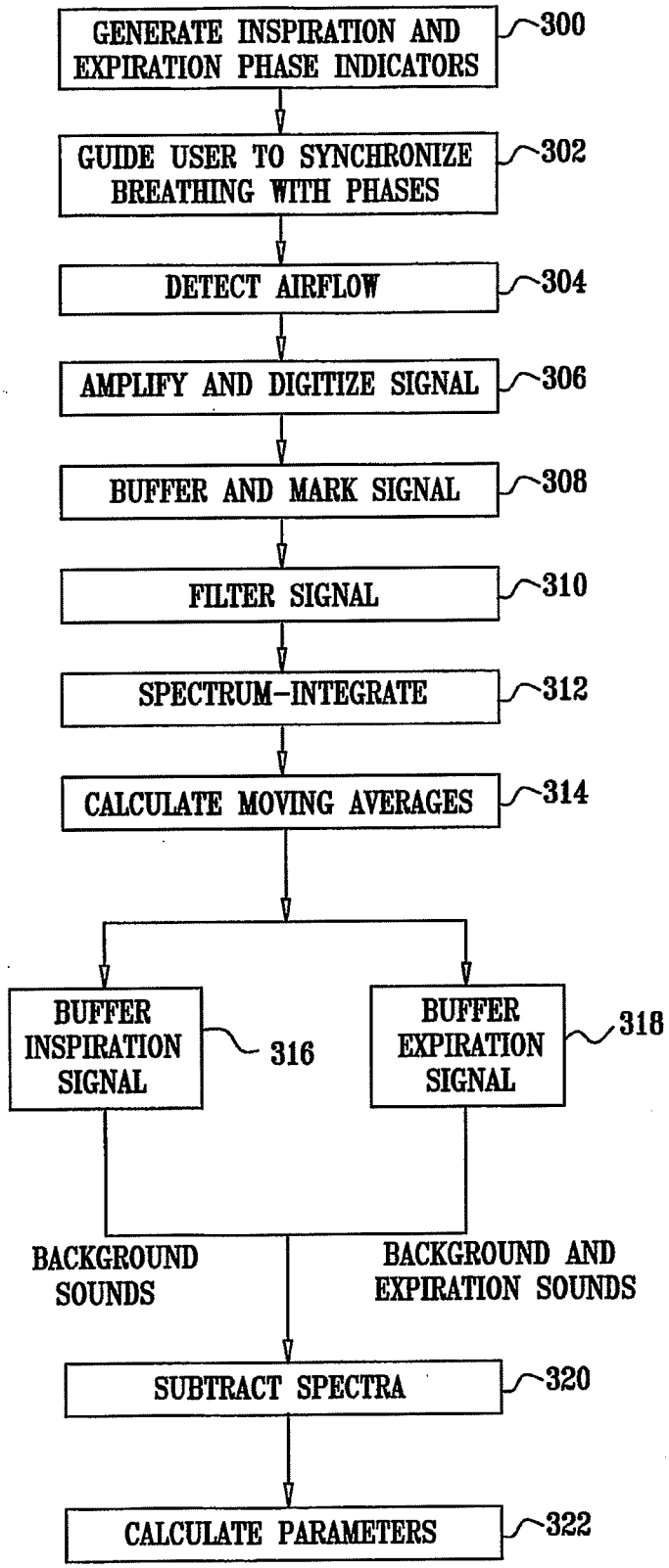


FIG. 9A

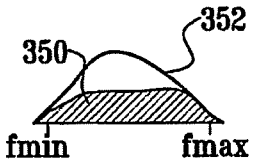


FIG. 9B

