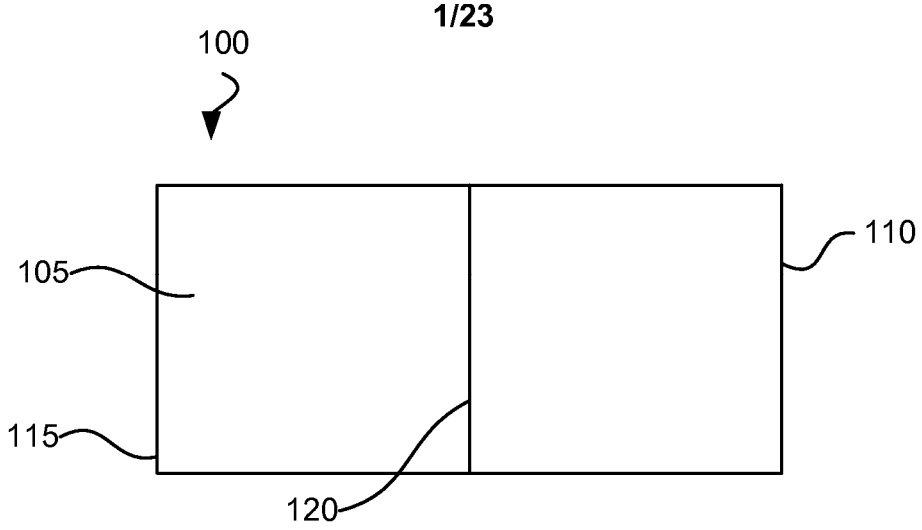


FIG. 1

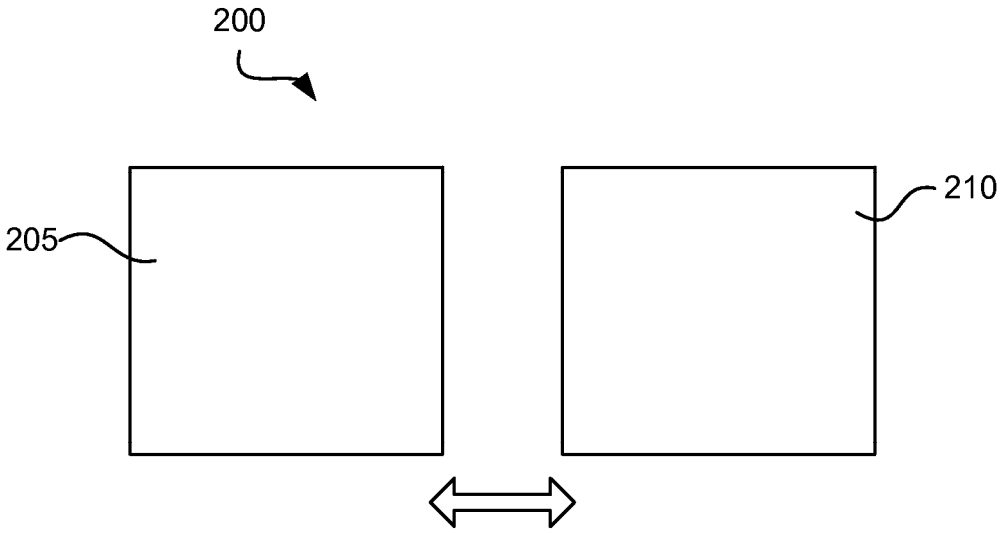


FIG. 2

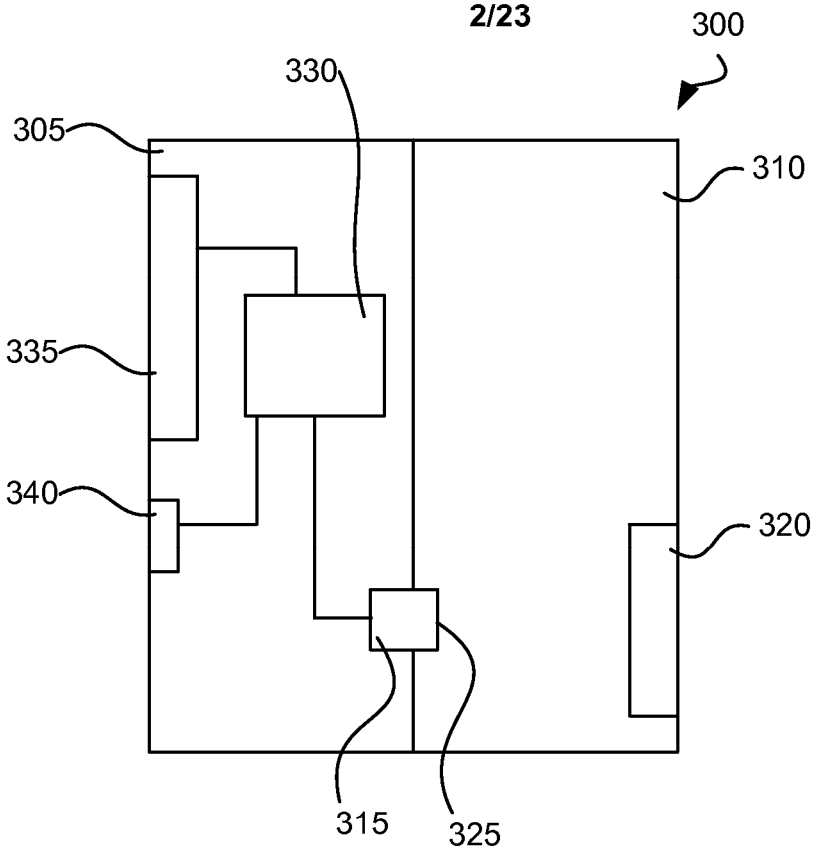

300
330
305
310
335
340
320
315
325

FIG. 3

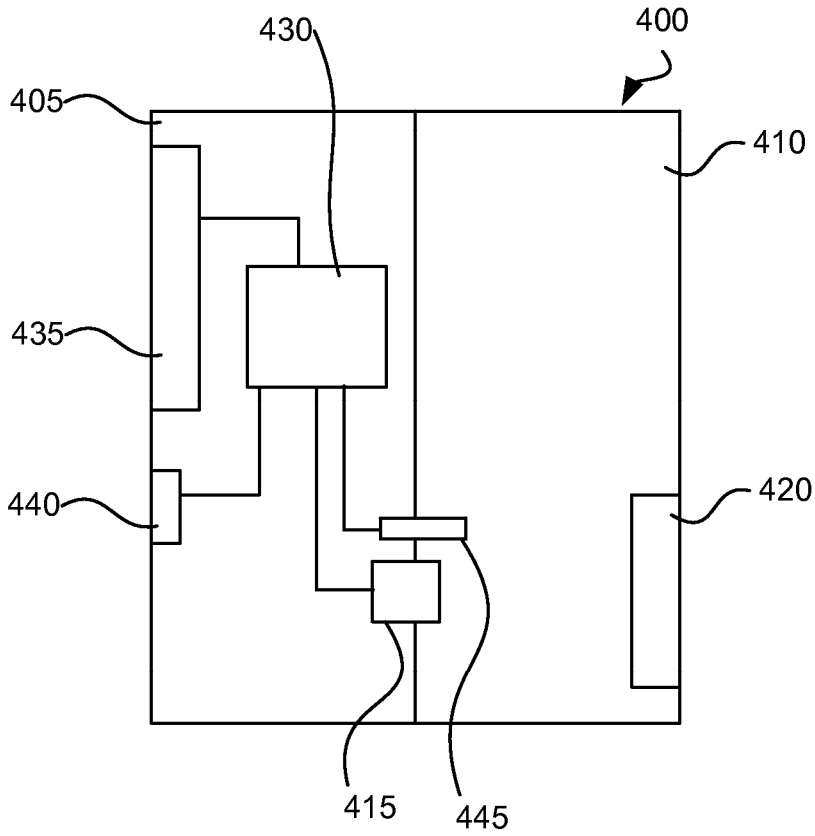

400
430
405
410
435
440
420
415
445

FIG. 4

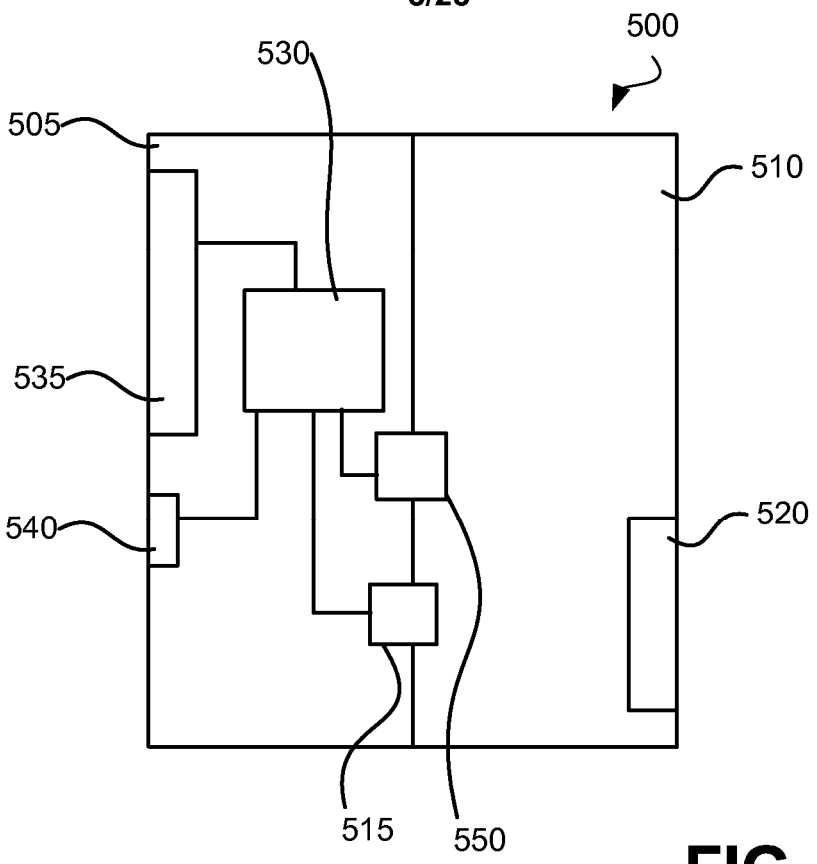


FIG. 5

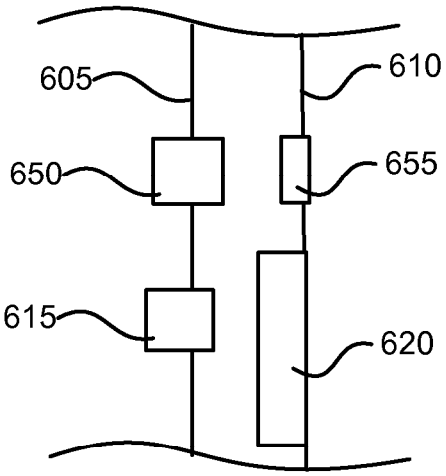


FIG. 6

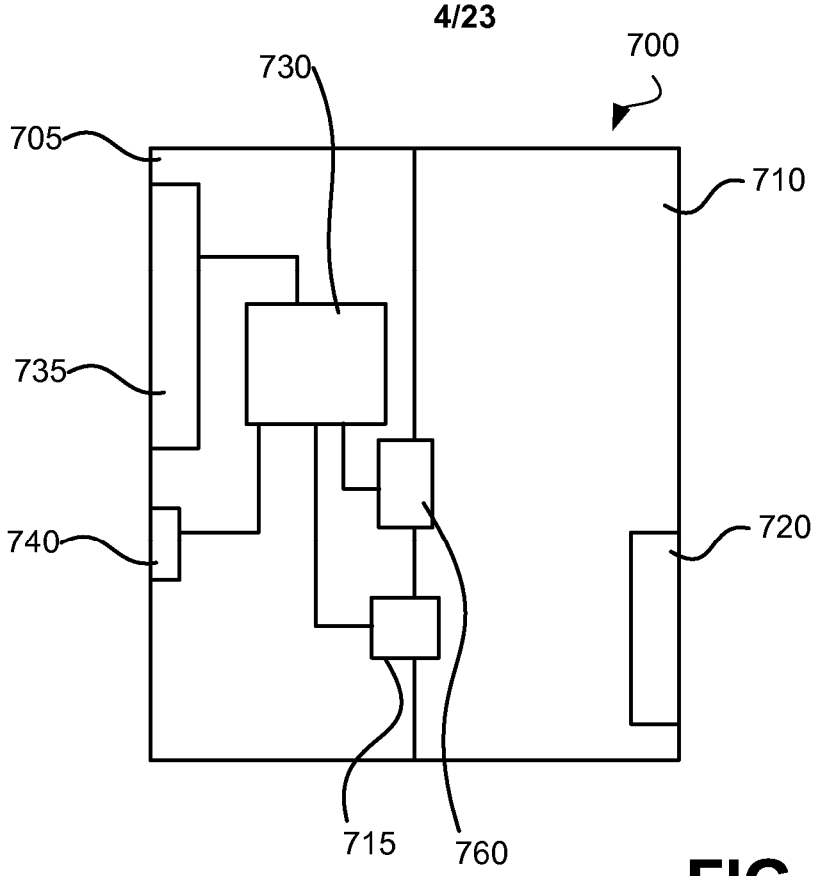


FIG. 7

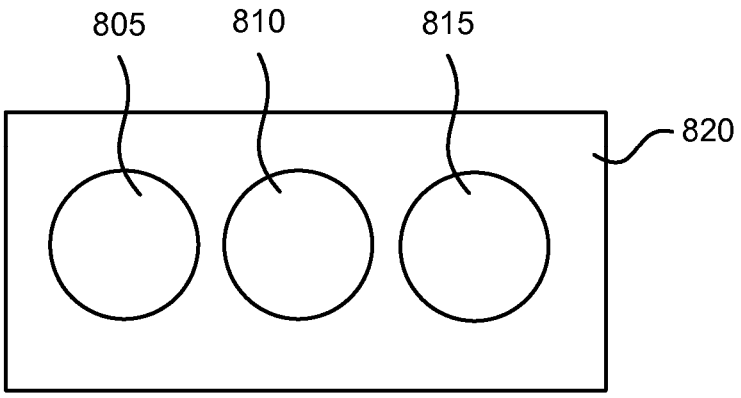


FIG. 8

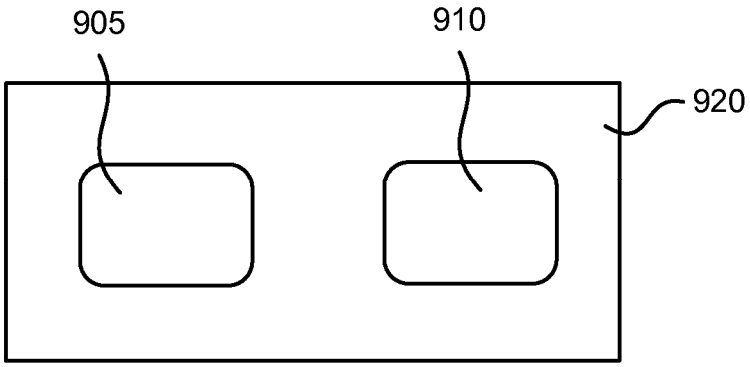


FIG. 9

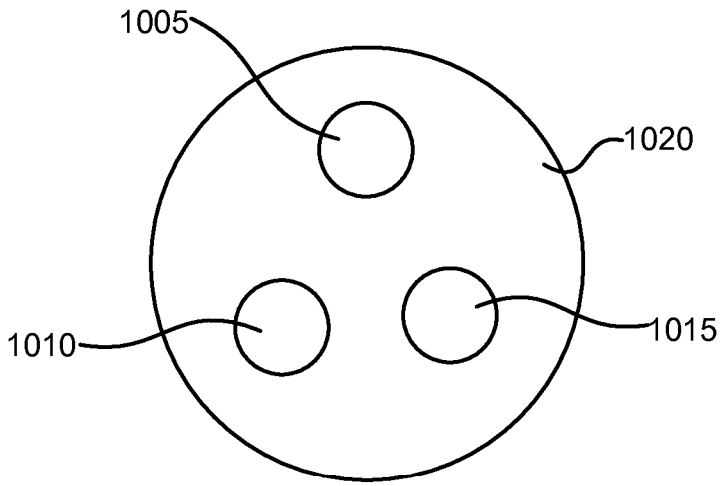


FIG. 10

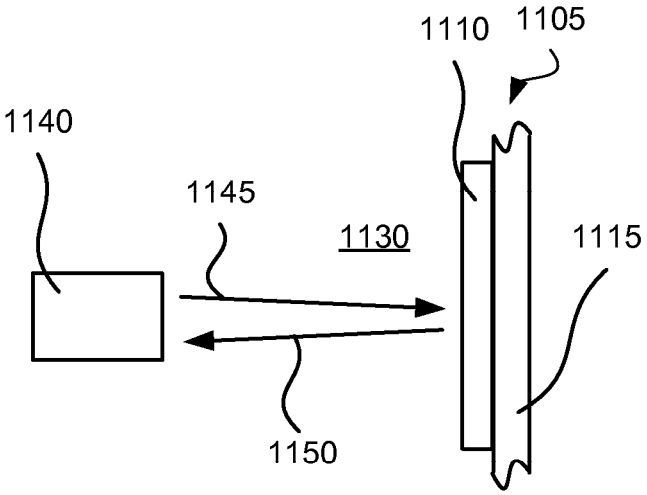


FIG. 11

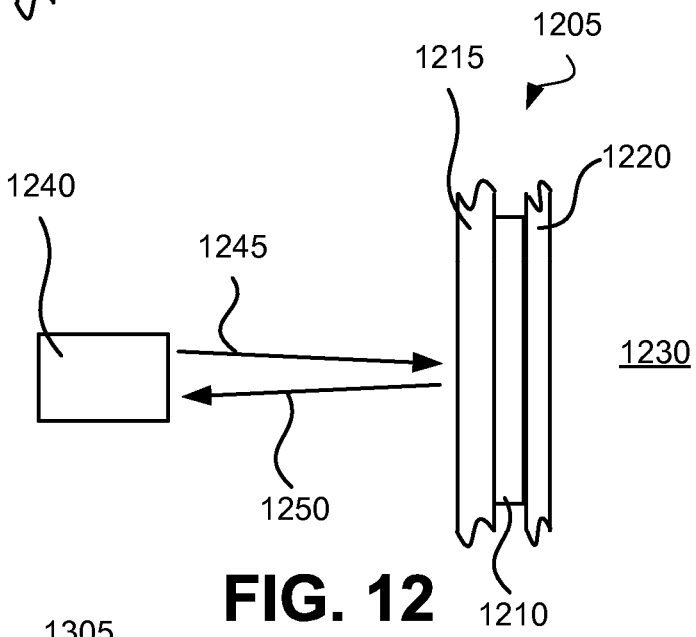


FIG. 12

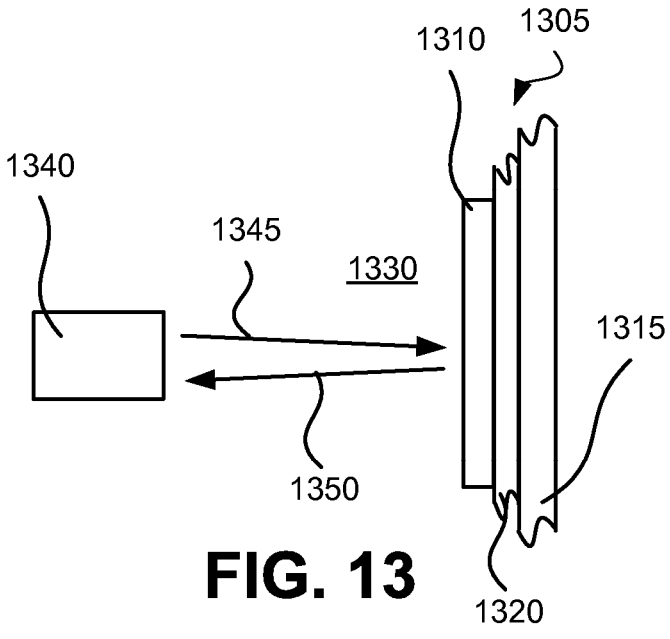


FIG. 13

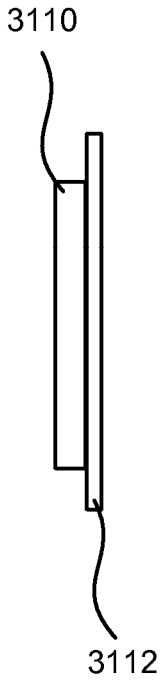


FIG. 31

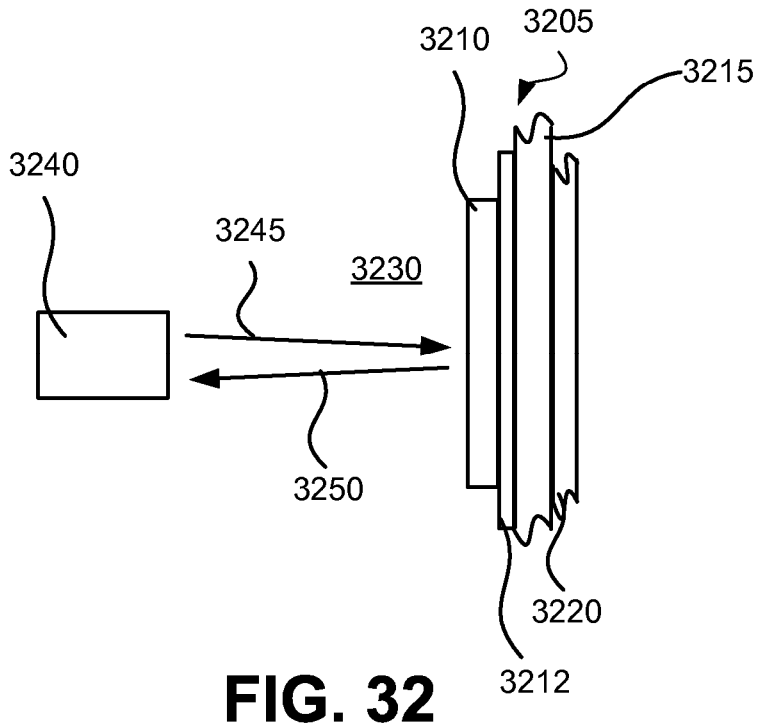


FIG. 32

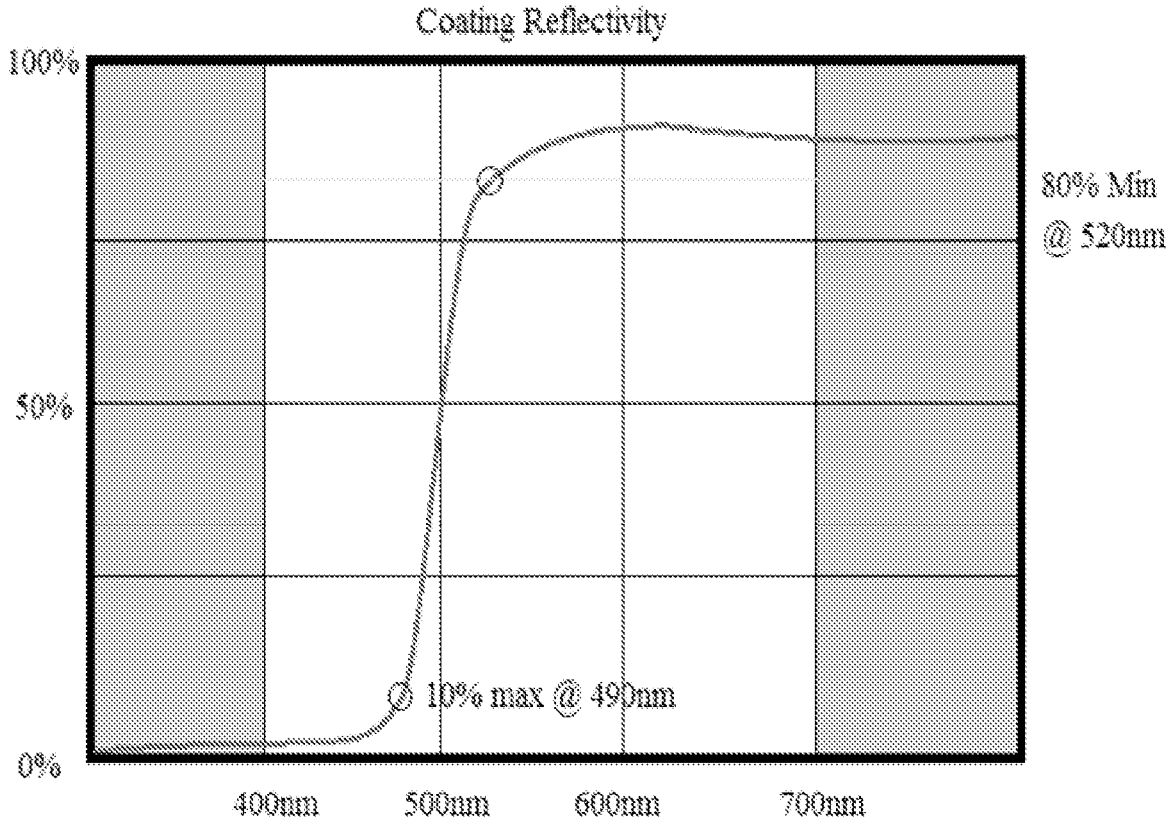

Coating Reflectivity
100%
50%
0%
400nm
500nm
600nm
700nm
80% Min
@ 520nm
10% max @ 490nm

FIG. 33

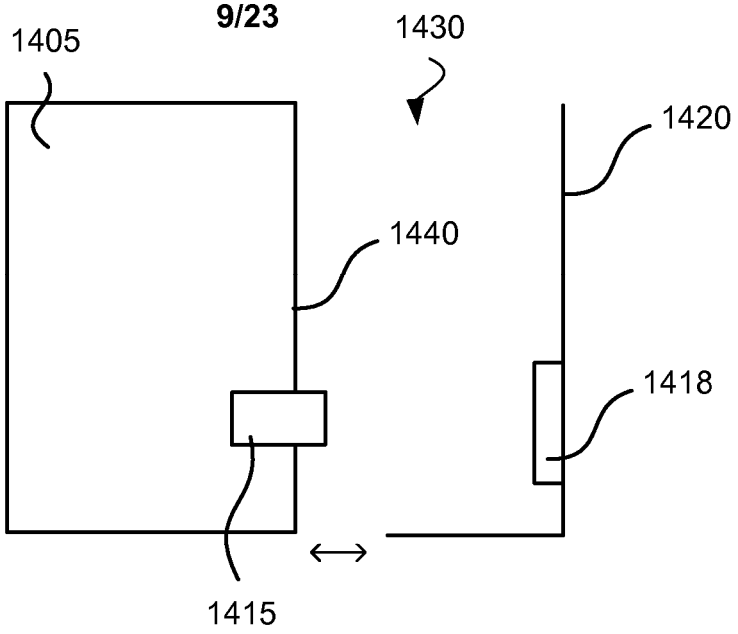


FIG. 14

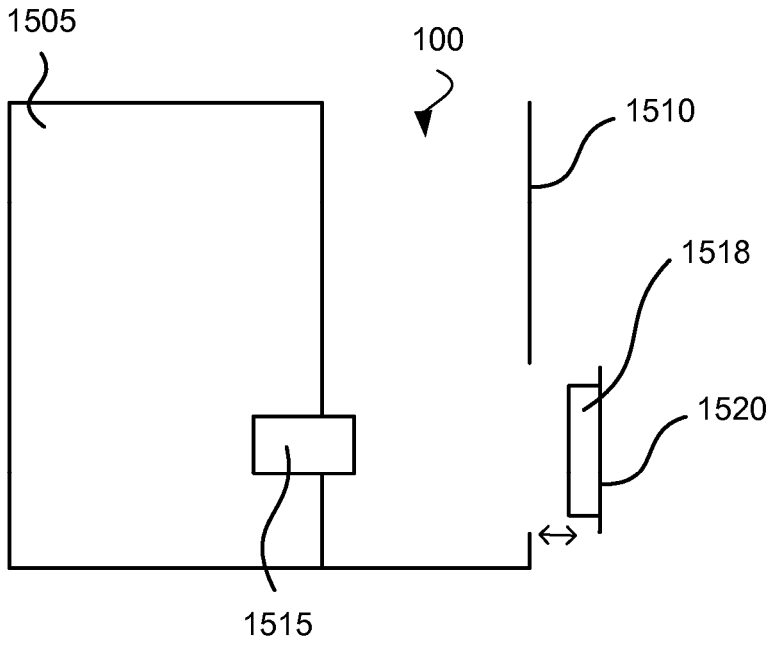


FIG. 15

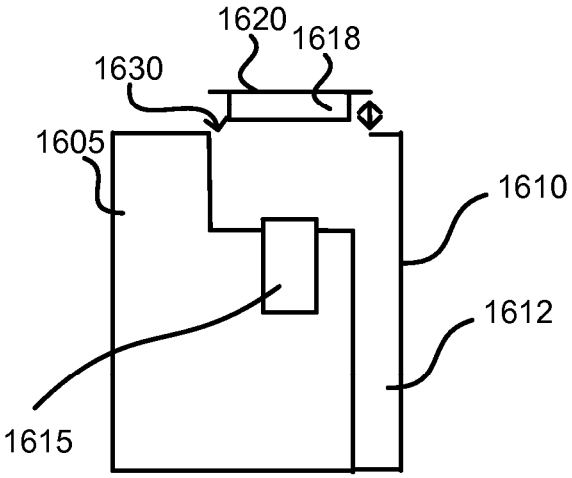


FIG. 16

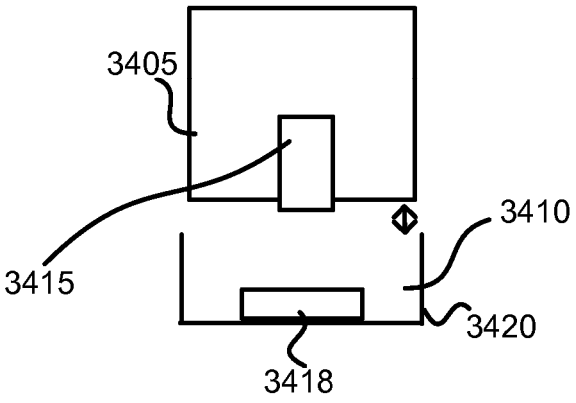


FIG. 34

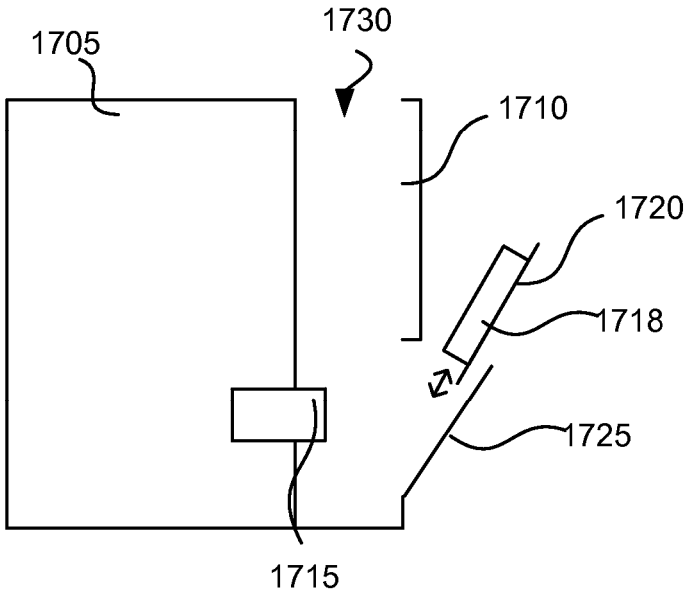


FIG. 17

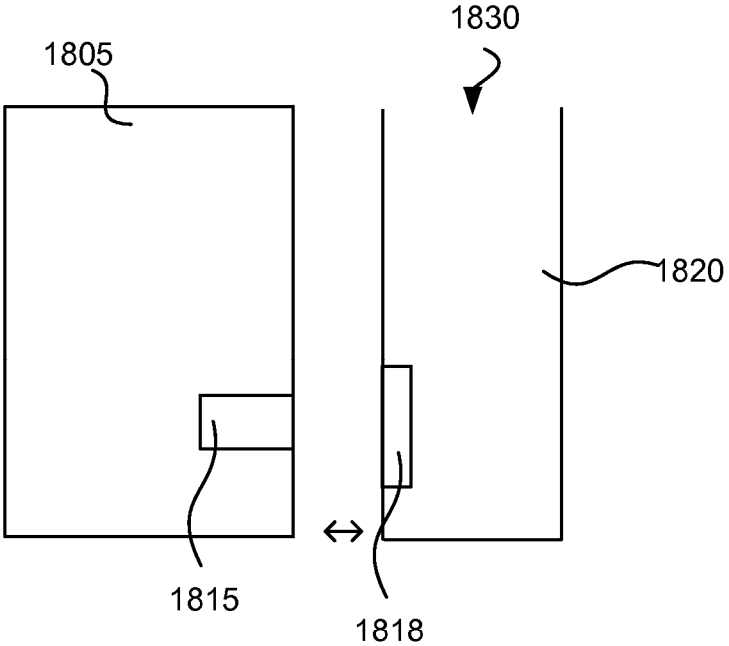


FIG. 18

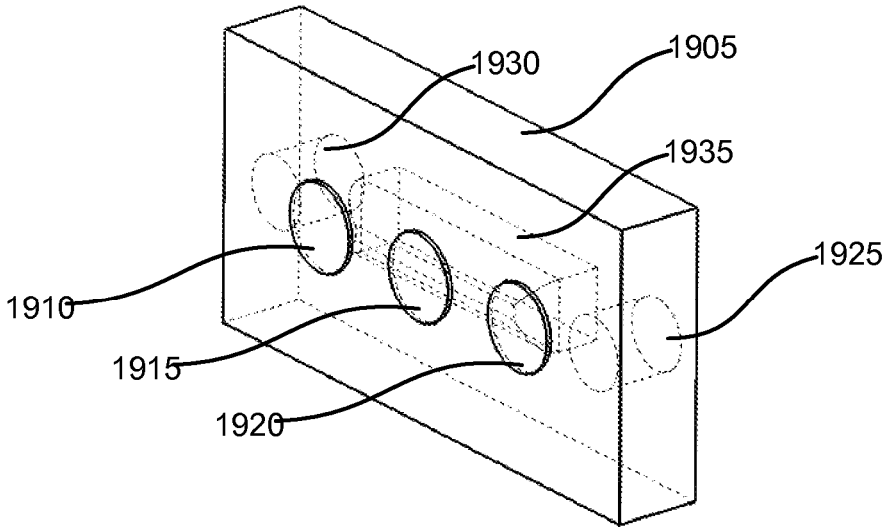

1930
1905
1935
1925
1910
1915
1920

FIG. 19

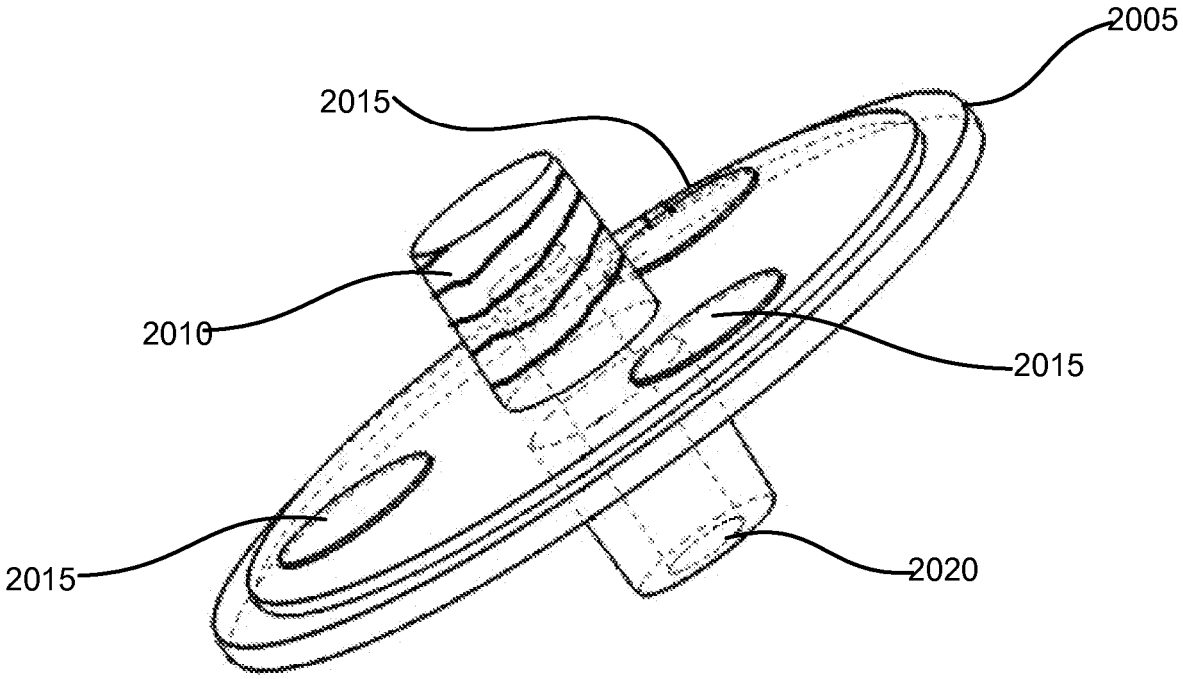

2005
2015
2010
2015
2015
2020

FIG. 20

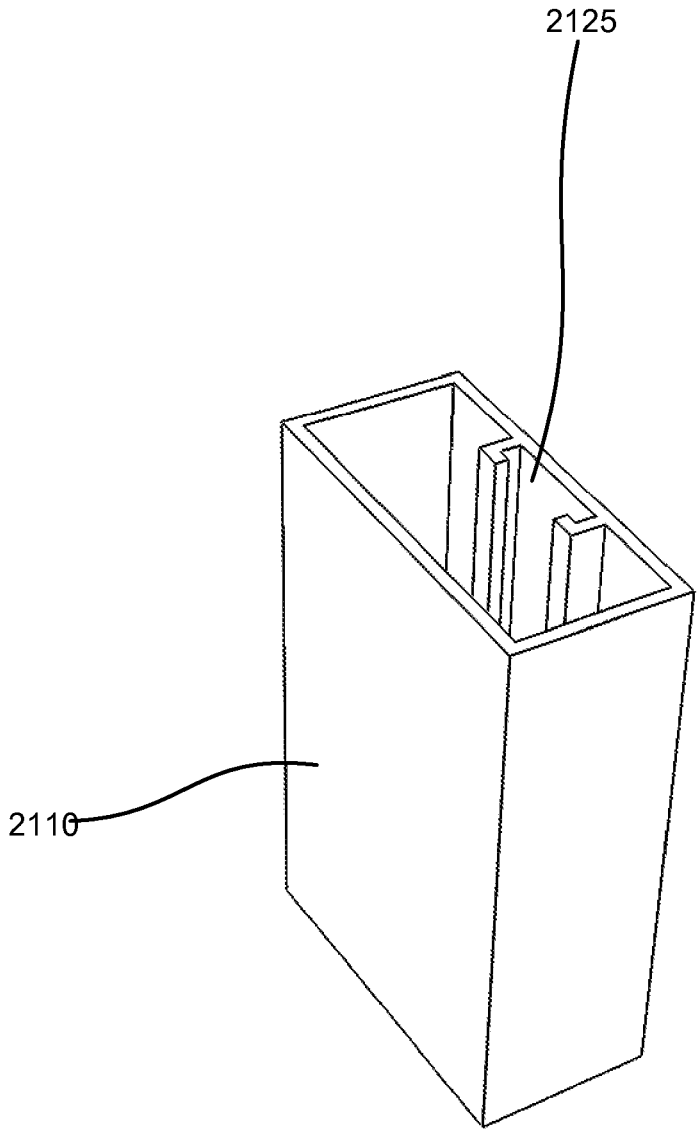


FIG. 21

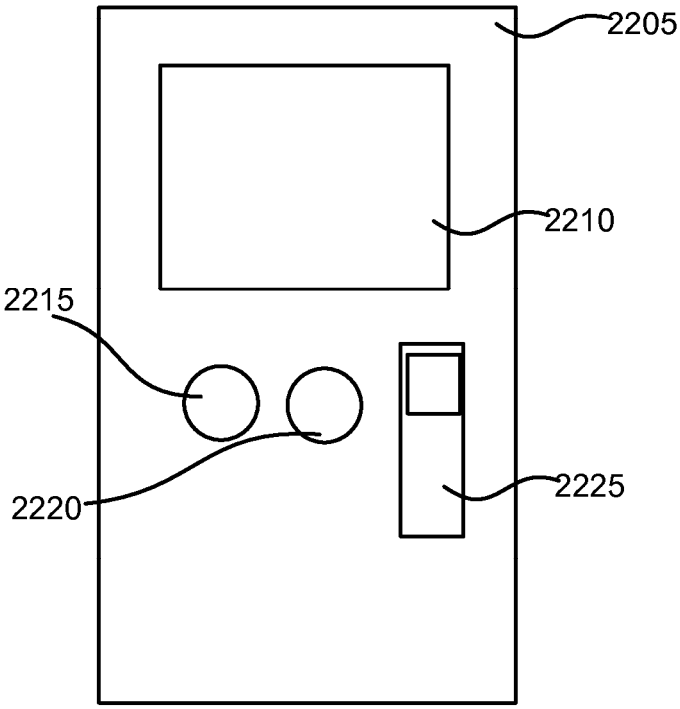


FIG. 22

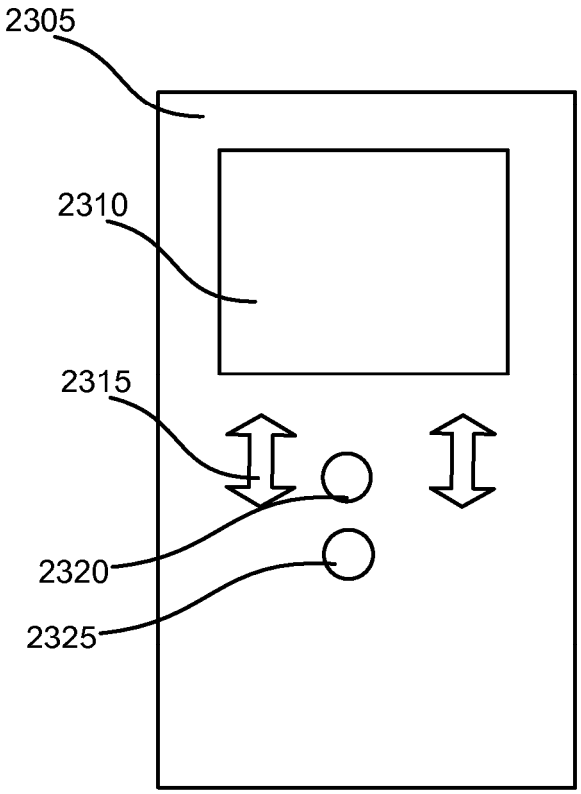


FIG. 23

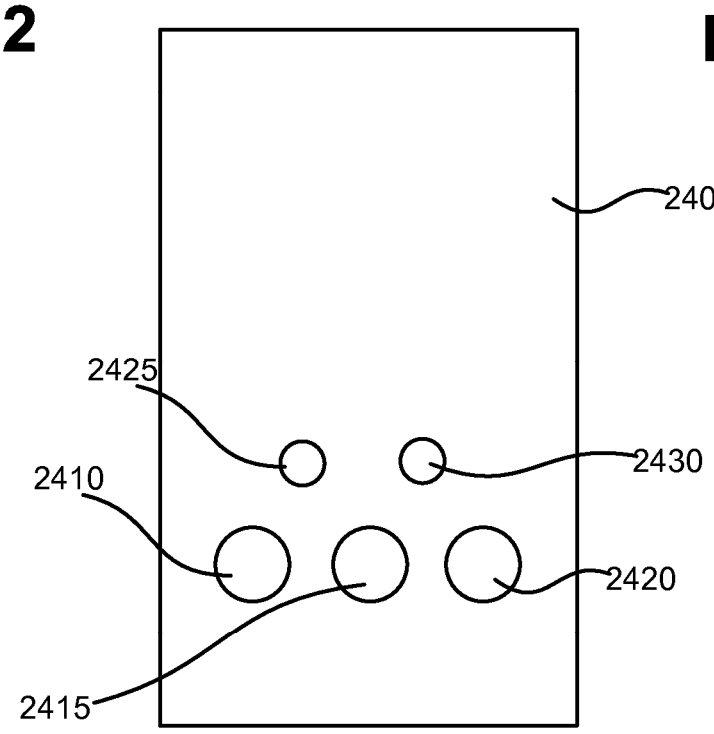


FIG. 24

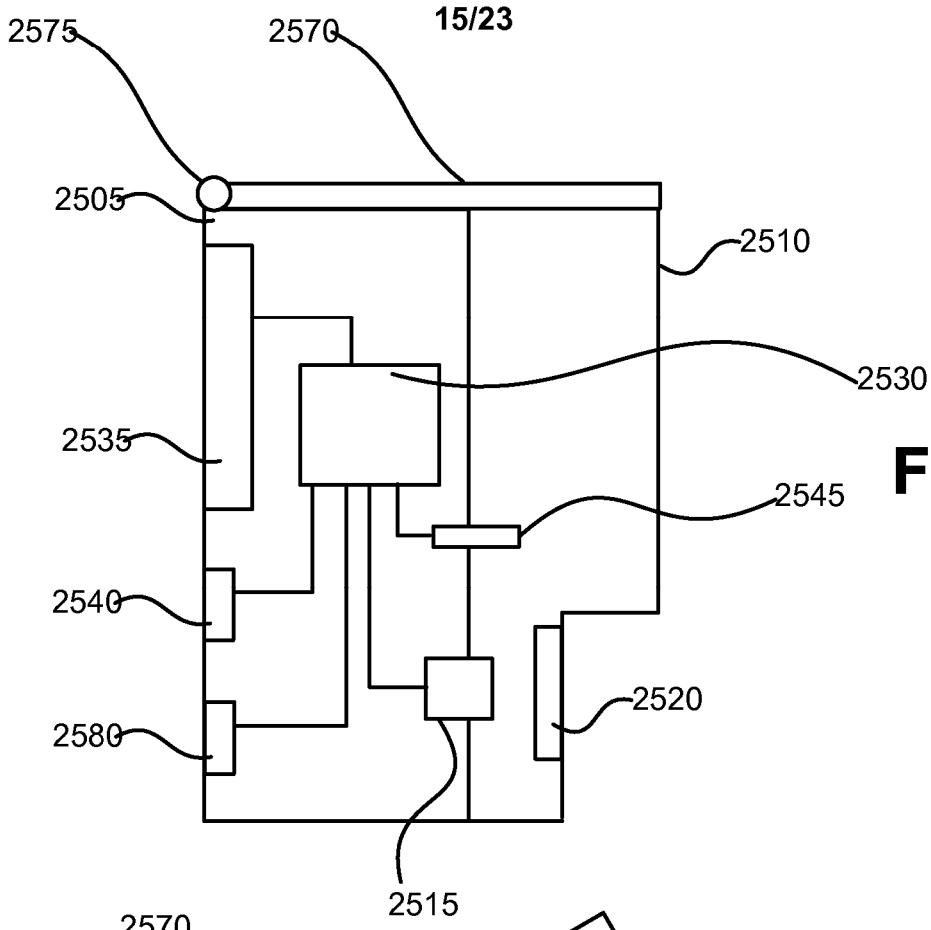


FIG. 25A

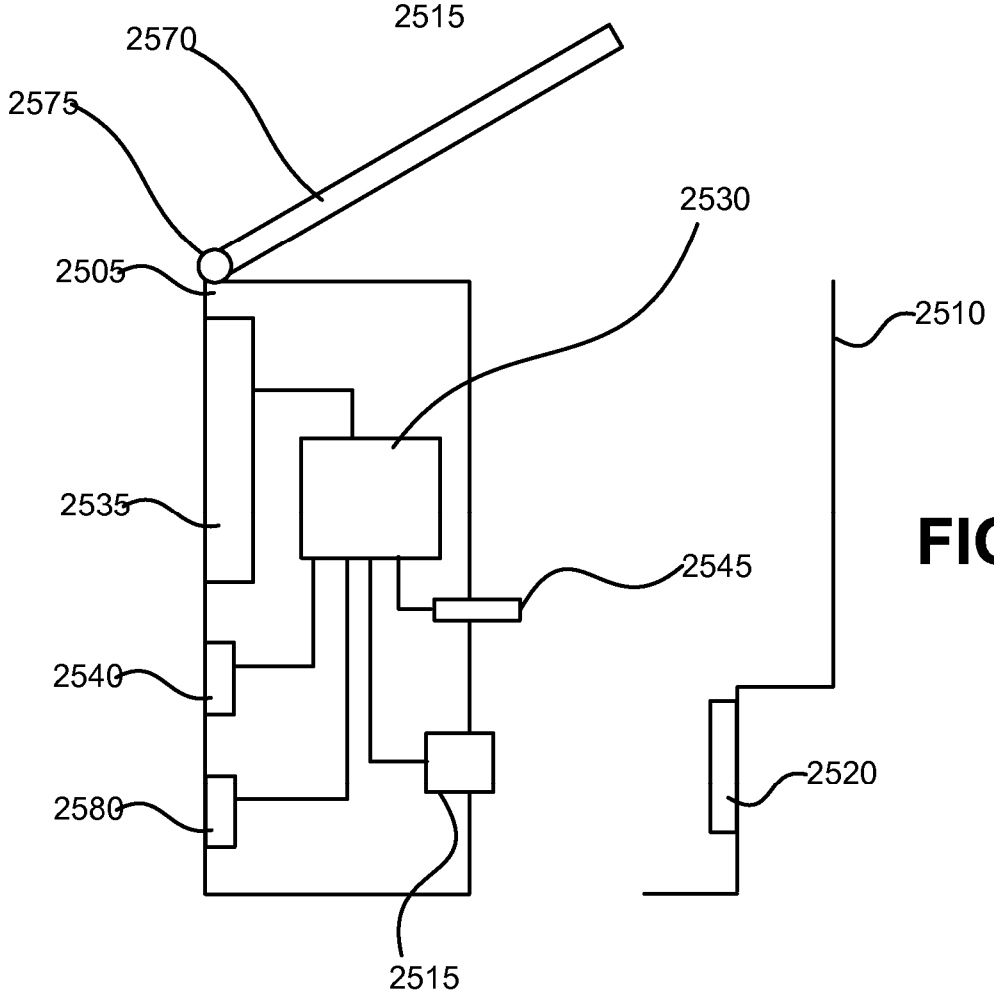


FIG. 25B

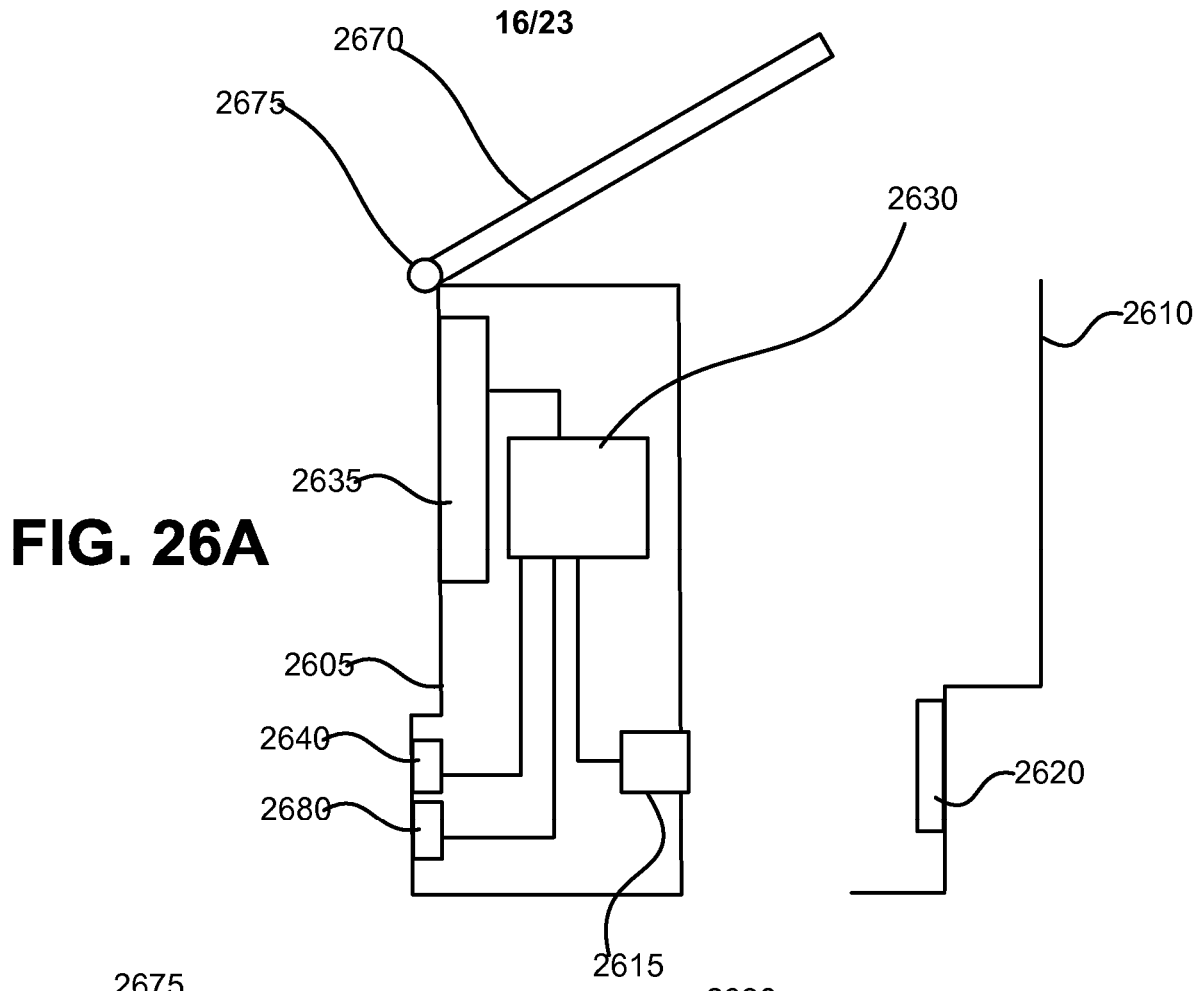


FIG. 26A

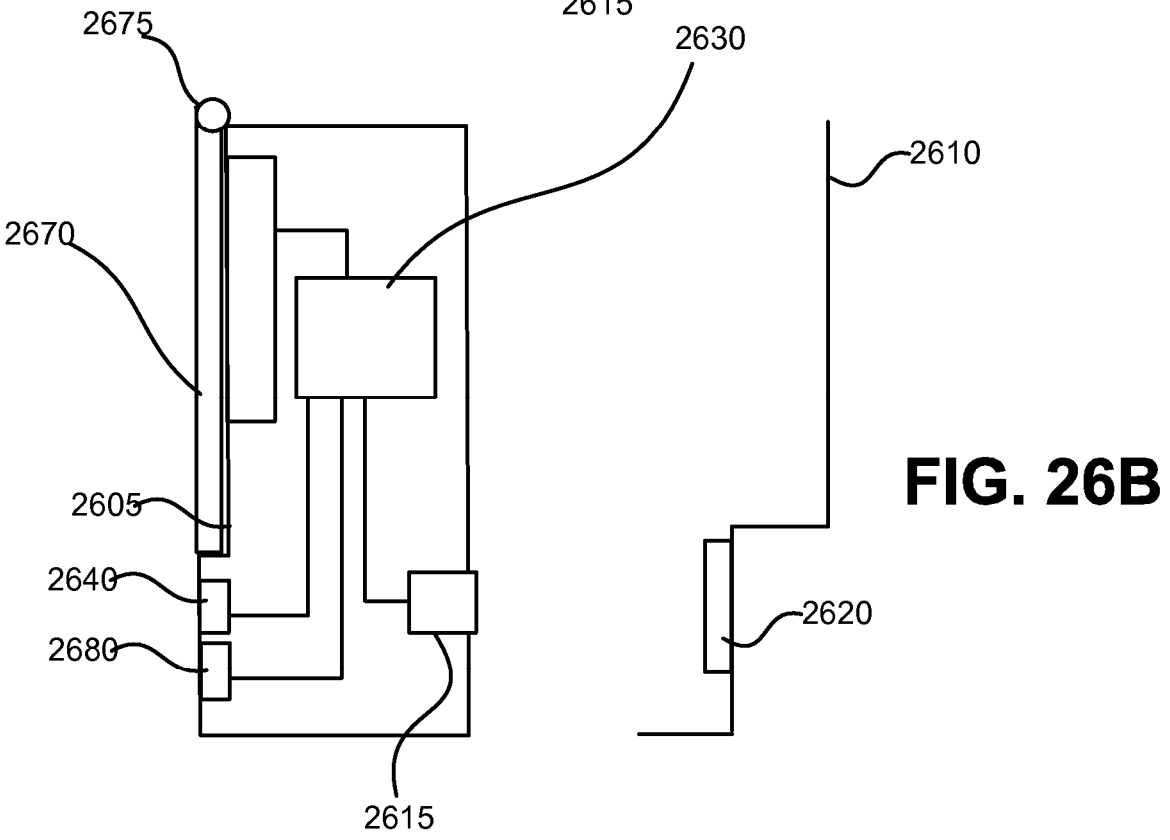


FIG. 26B

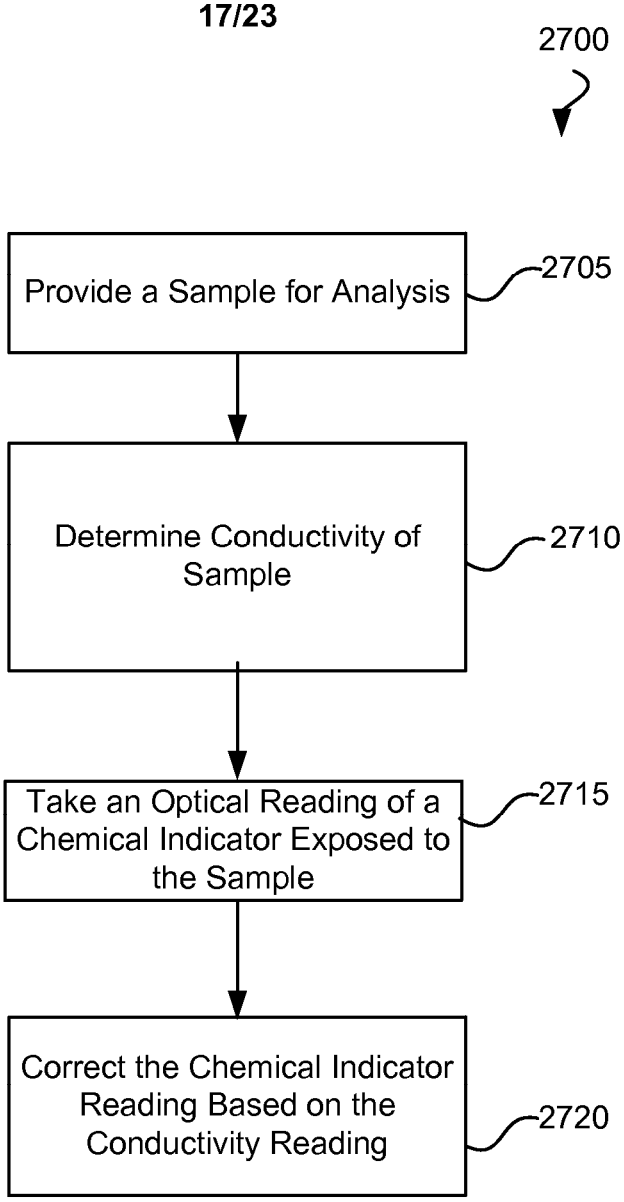

2700
Provide a Sample for Analysis
2705
Determine Conductivity of Sample
2710
Take an Optical Reading of a Chemical Indicator Exposed to the Sample
2715
Correct the Chemical Indicator Reading Based on the Conductivity Reading
2720

FIG. 27

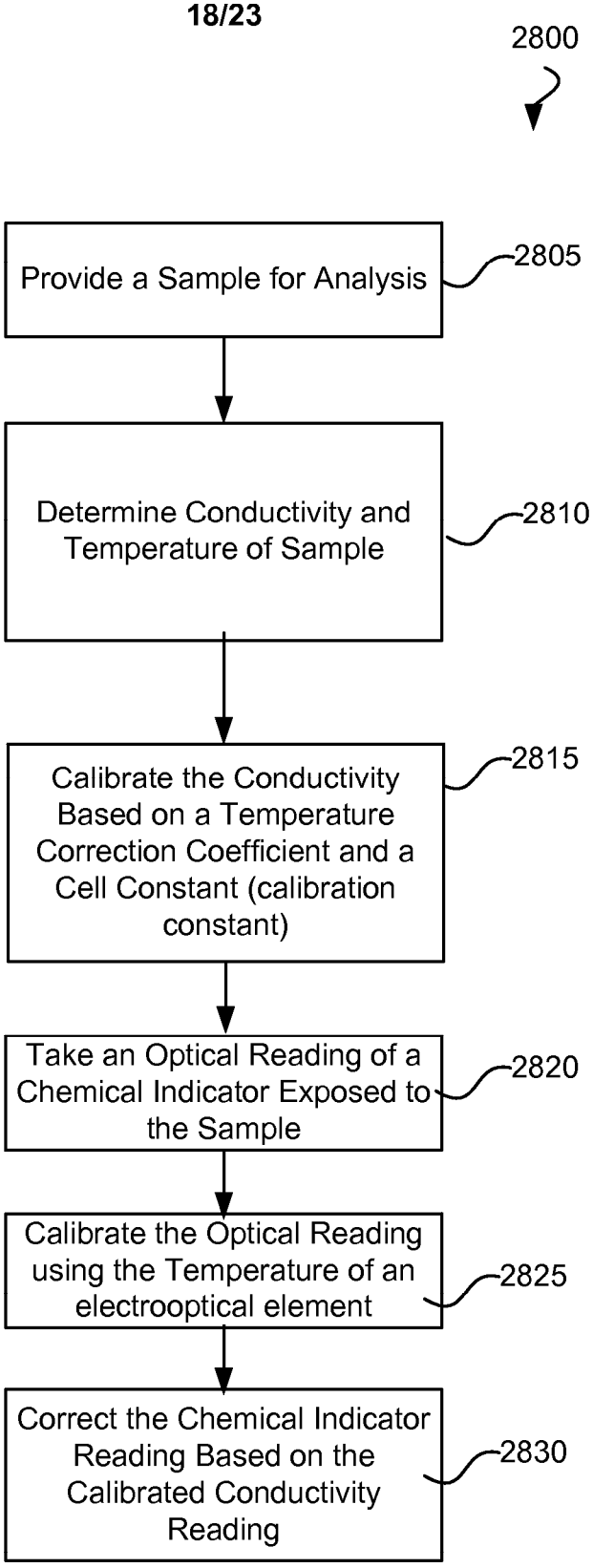

2800
Provide a Sample for Analysis
2805
Determine Conductivity and Temperature of Sample
2810
Calibrate the Conductivity Based on a Temperature Correction Coefficient and a Cell Constant (calibration constant)
2815
Take an Optical Reading of a Chemical Indicator Exposed to the Sample
2820
Calibrate the Optical Reading using the Temperature of an electrooptical element
2825
Correct the Chemical Indicator Reading Based on the Calibrated Conductivity Reading
2830

FIG. 28

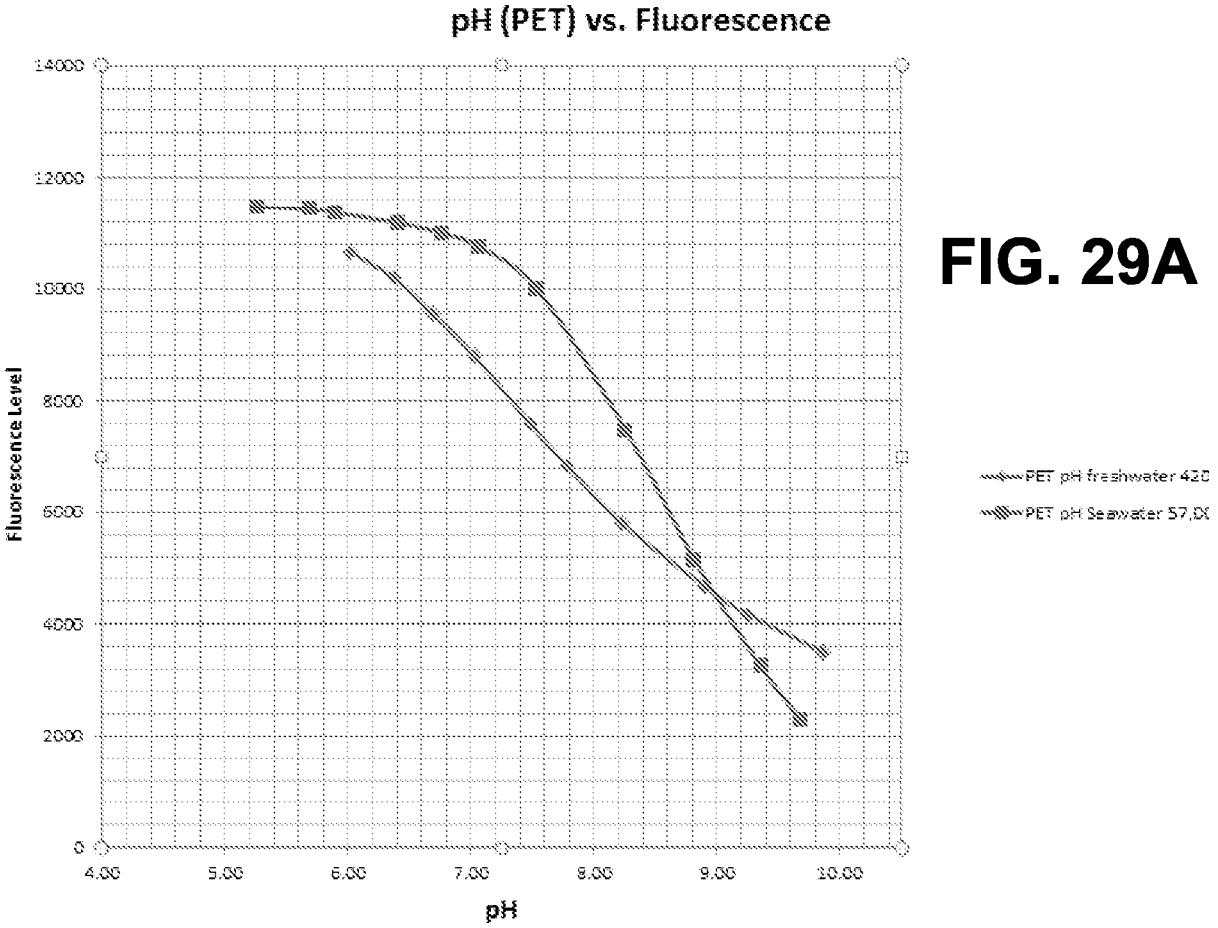


FIG. 29A

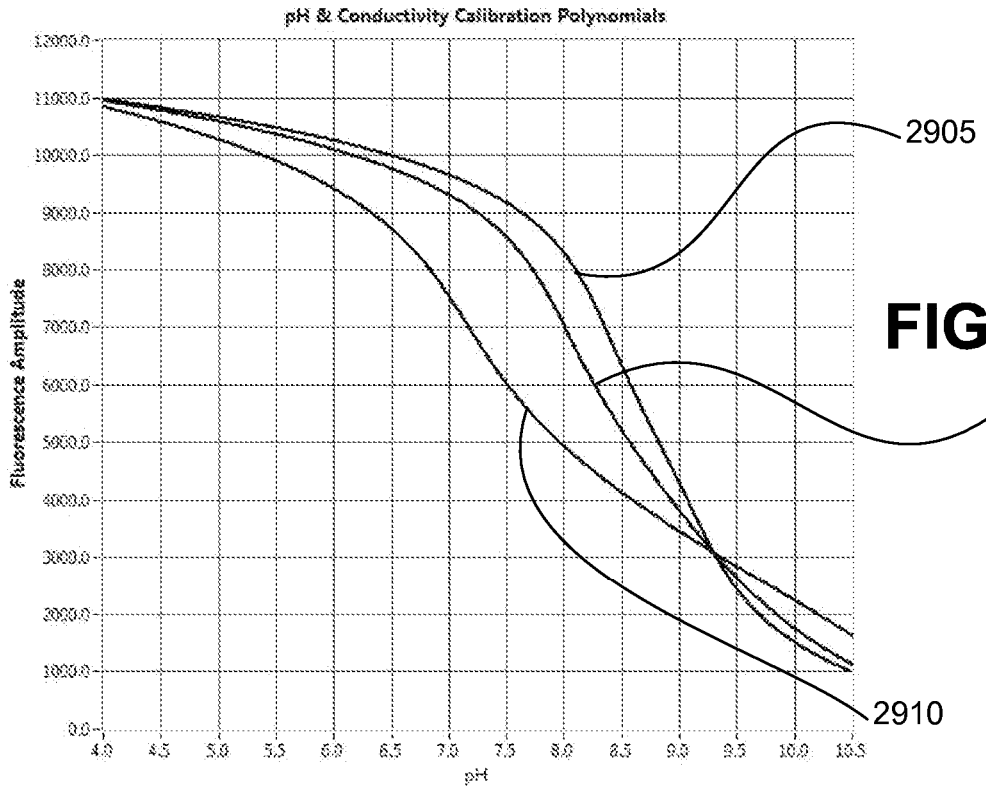


FIG. 29B

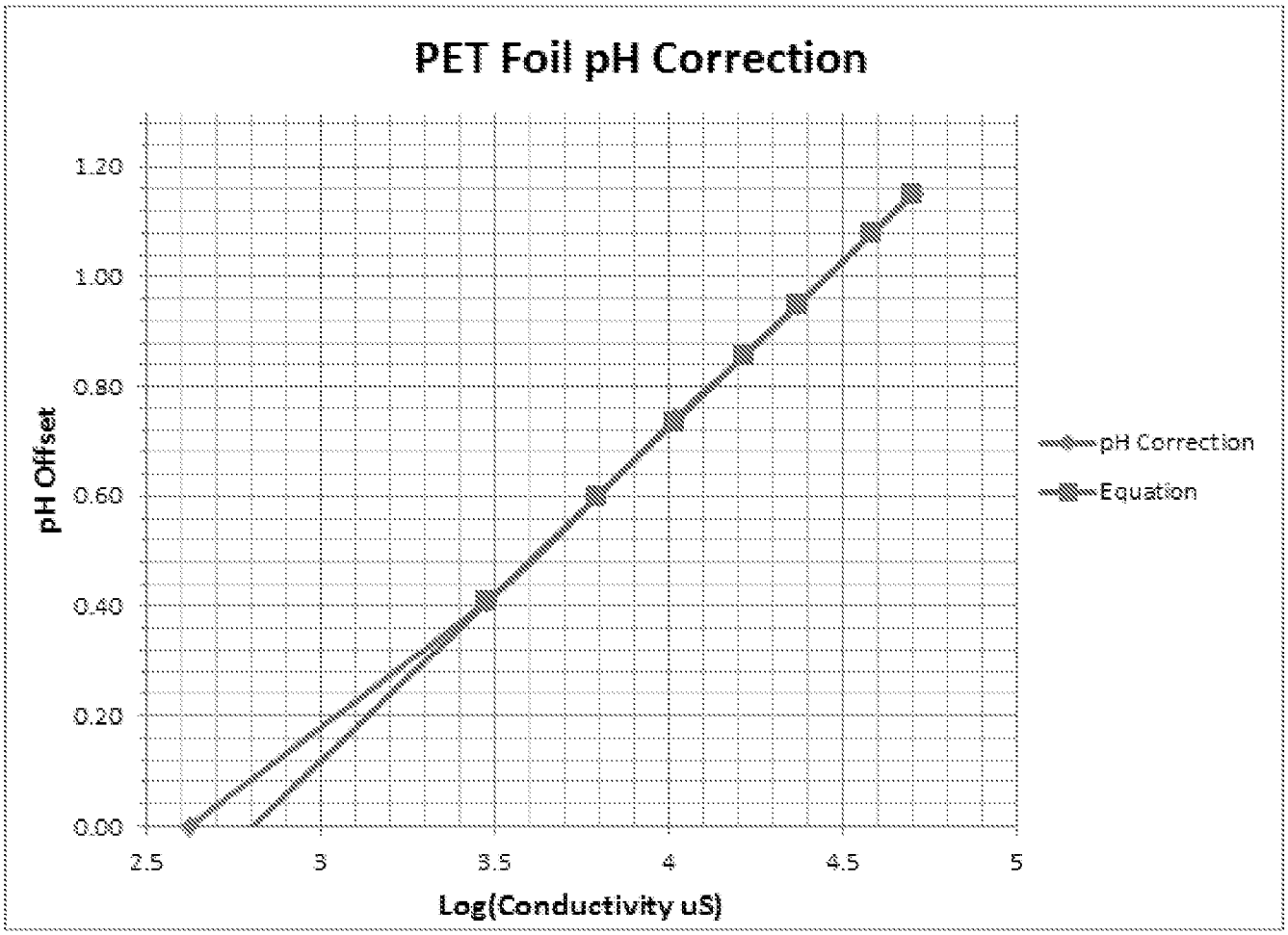

PET Foil pH Correction
1.20
1.00
0.80
0.60
0.40
0.20
0.00
pH Offset
2.5
3
3.5
4
4.5
5
Log(Conductivity uS)
pH Correction
Equation

FIG. 30

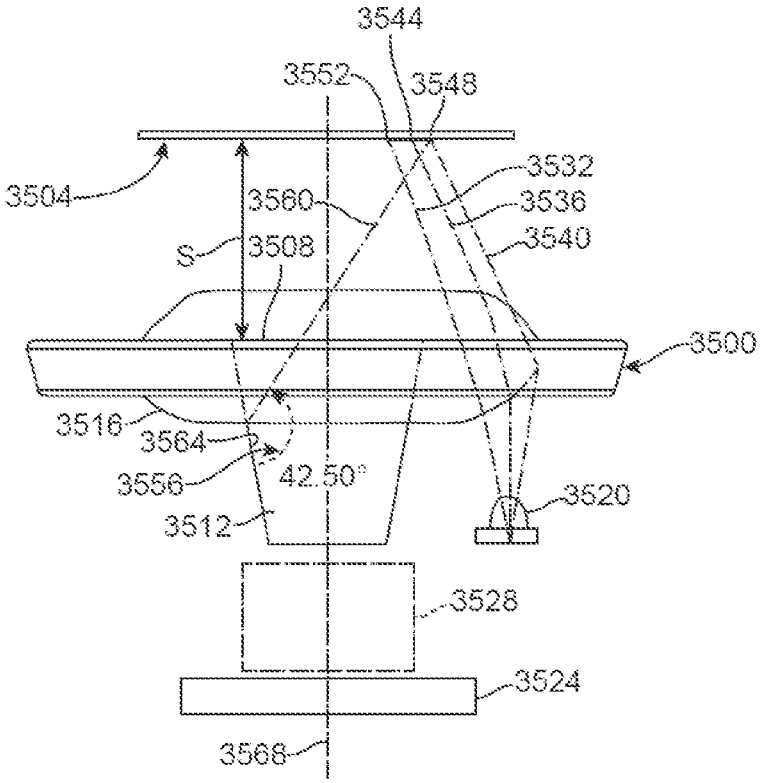

3544
3552
3548
3504
3532
3560
3536
S
3508
3540
3500
3516
3564
42.50°
3556
3520
3512
3528
3524
3568

FIG. 35

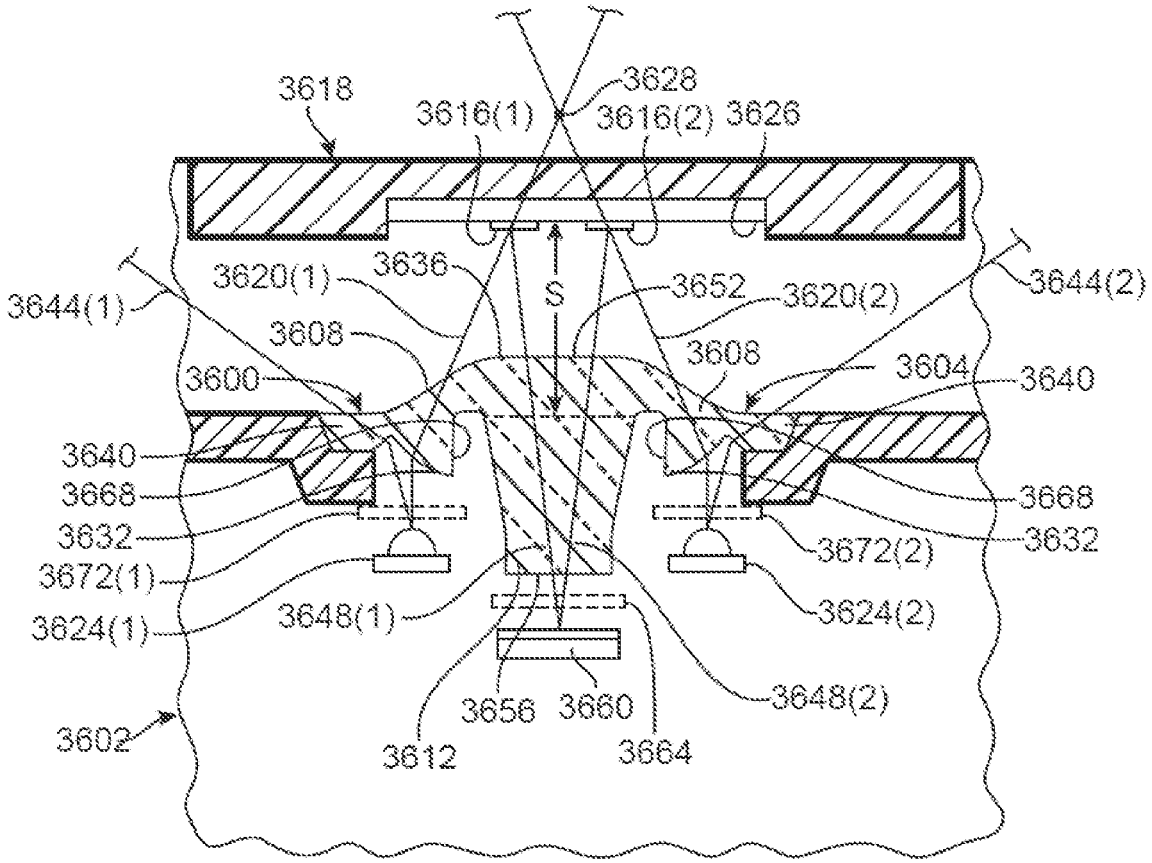

3618
3628
3616(1)
3616(2)
3626
3644(1)
3620(1)
3636
S
3652
3620(2)
3644(2)
3608
3608
3600
3604
3640
3640
3668
3668
3632
3632
3672(1)
3672(2)
3624(1)
3648(1)
3624(2)
3656
3660
3648(2)
3602
3612
3664

FIG. 36

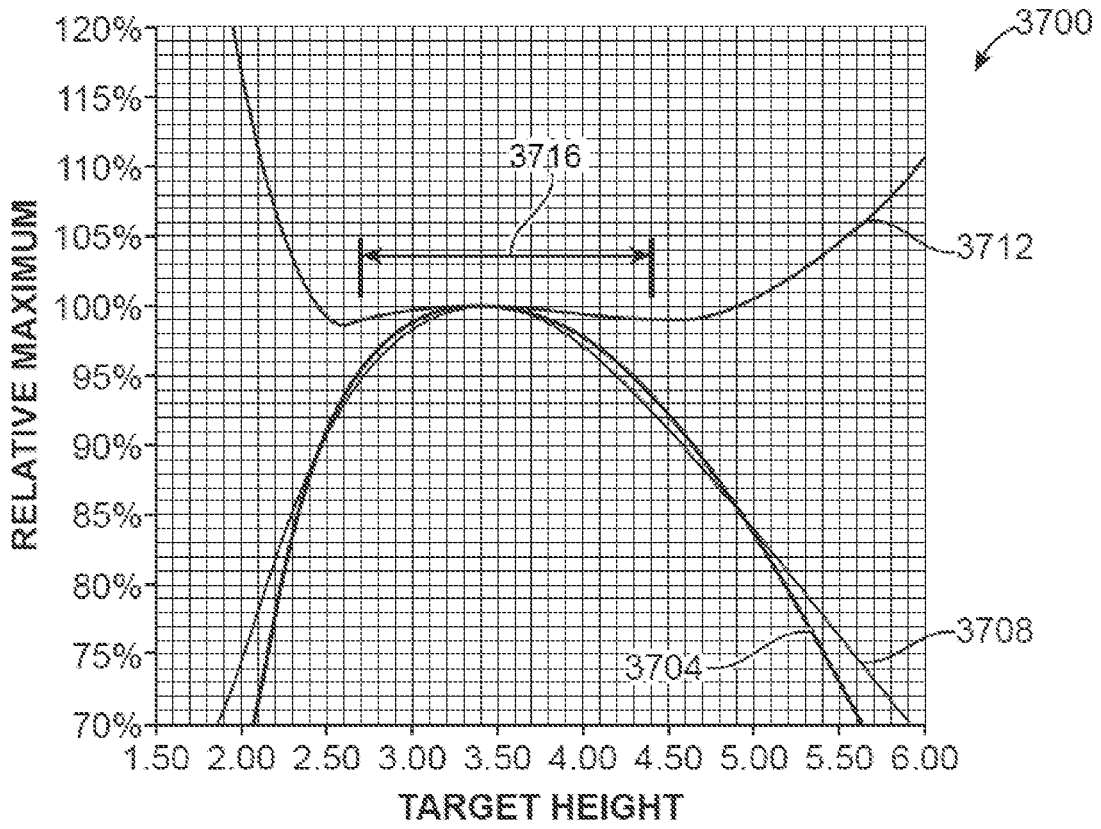

3700
120%
115%
110%
105%
100%
95%
90%
85%
80%
75%
70%
RELATIVE MAXIMUM
3716
3712
3708
3704
1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 6.00
TARGET HEIGHT

FIG. 37

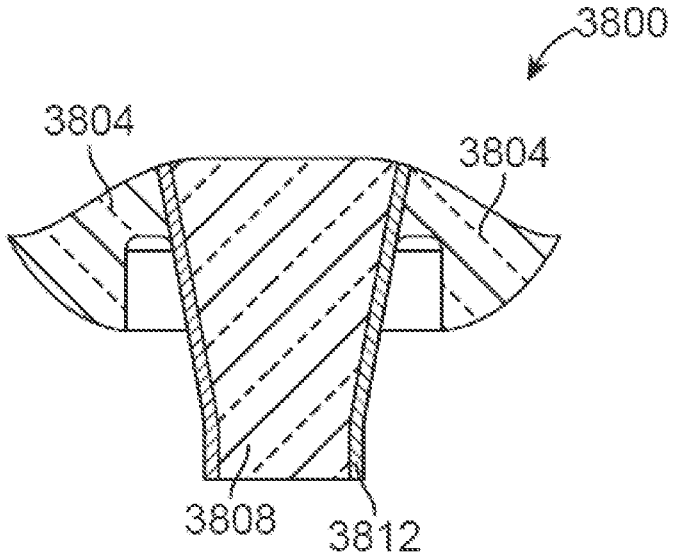

3800
3804
3804
3808
3812

FIG. 38

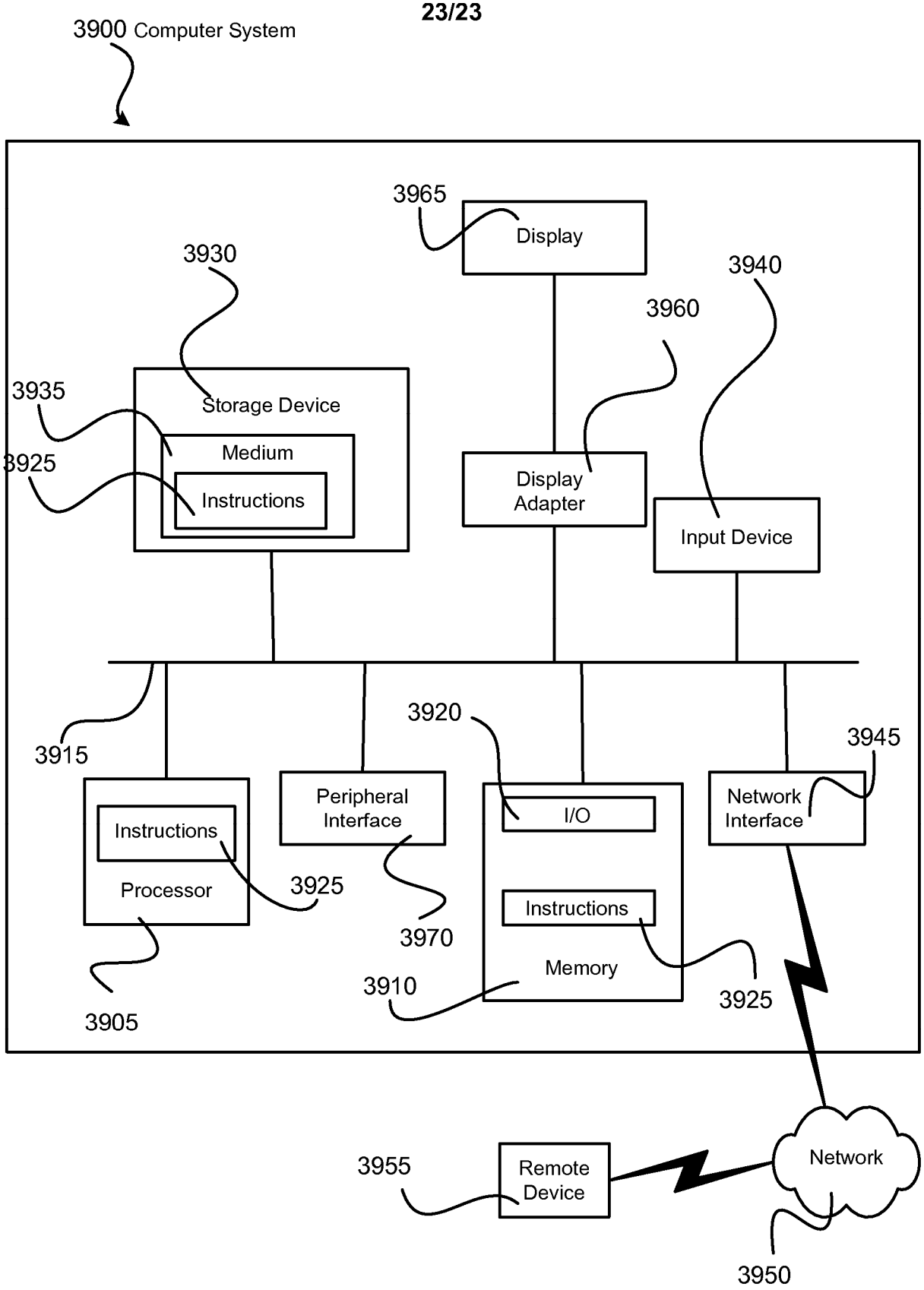

3900 Computer System
3965
Display
3930
3940
3960
3935
Storage Device
Medium
3925
Instructions
Display Adapter
Input Device
3915
3920
3945
Peripheral Interface
I/O
Network Interface
Instructions
Processor
3925
3970
Instructions
Memory
3910
3925
3905
3955
Remote Device
Network
3950

FIG. 39