

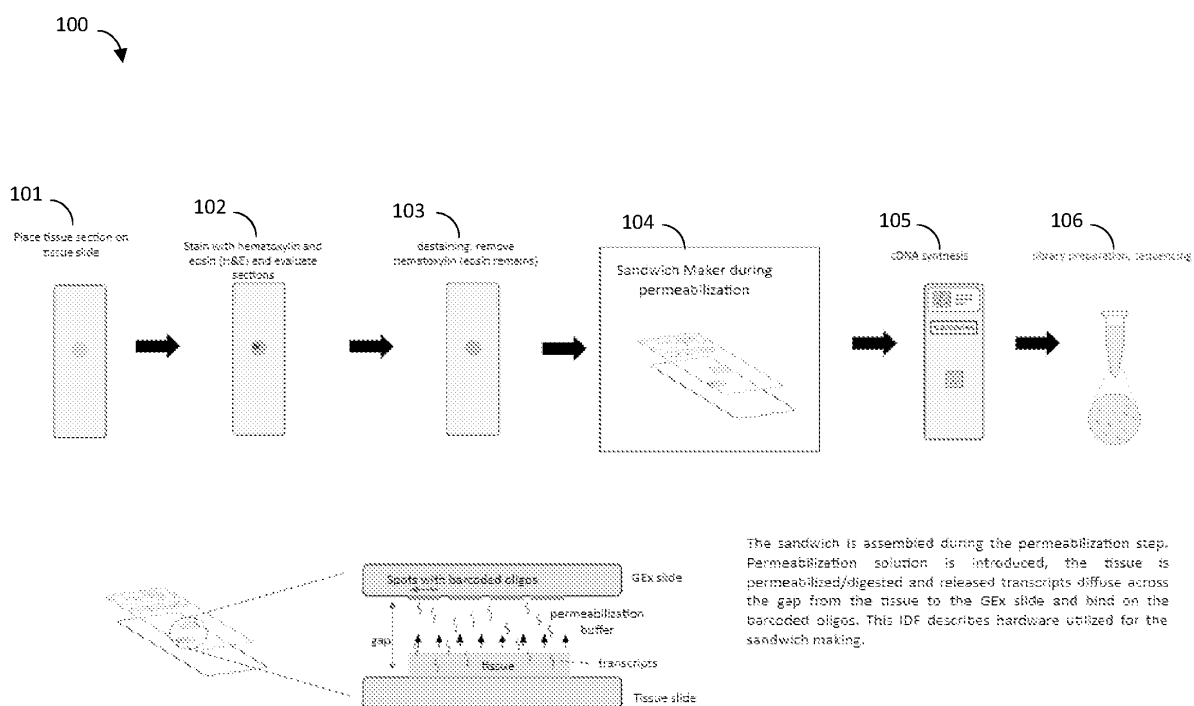


FIG. 1

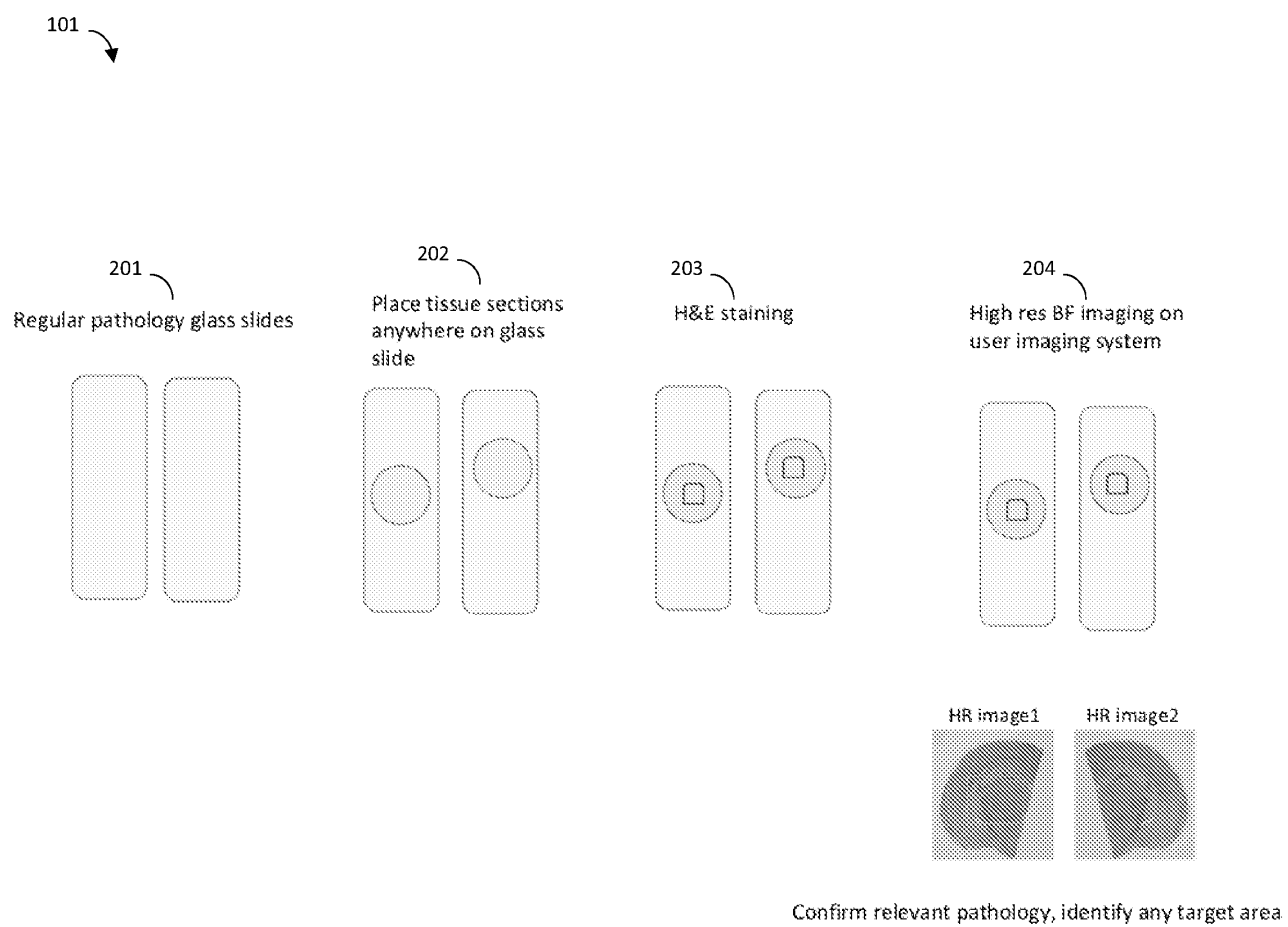


FIG. 2

104

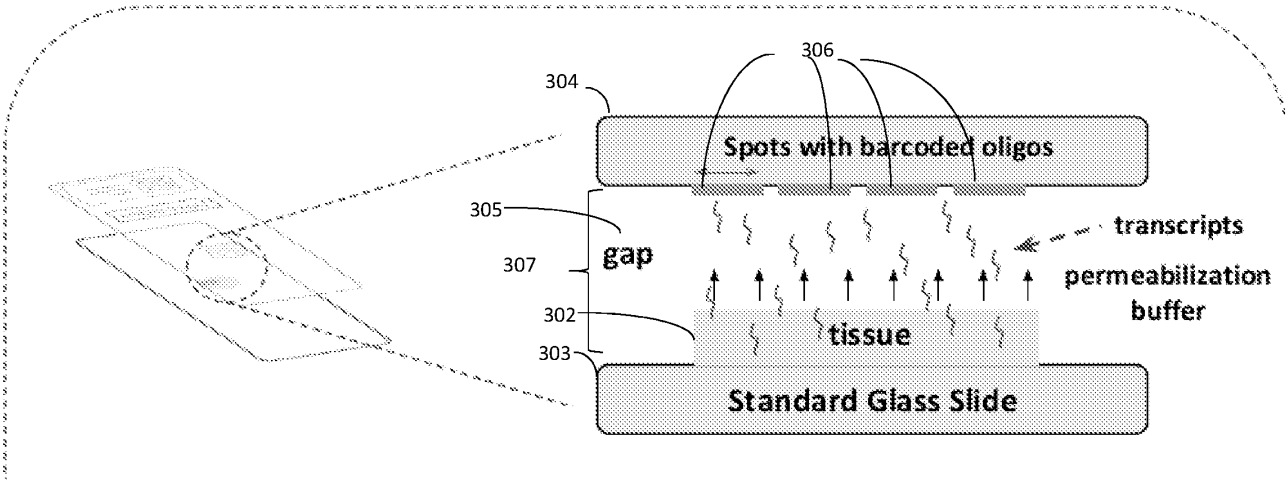


FIG. 3

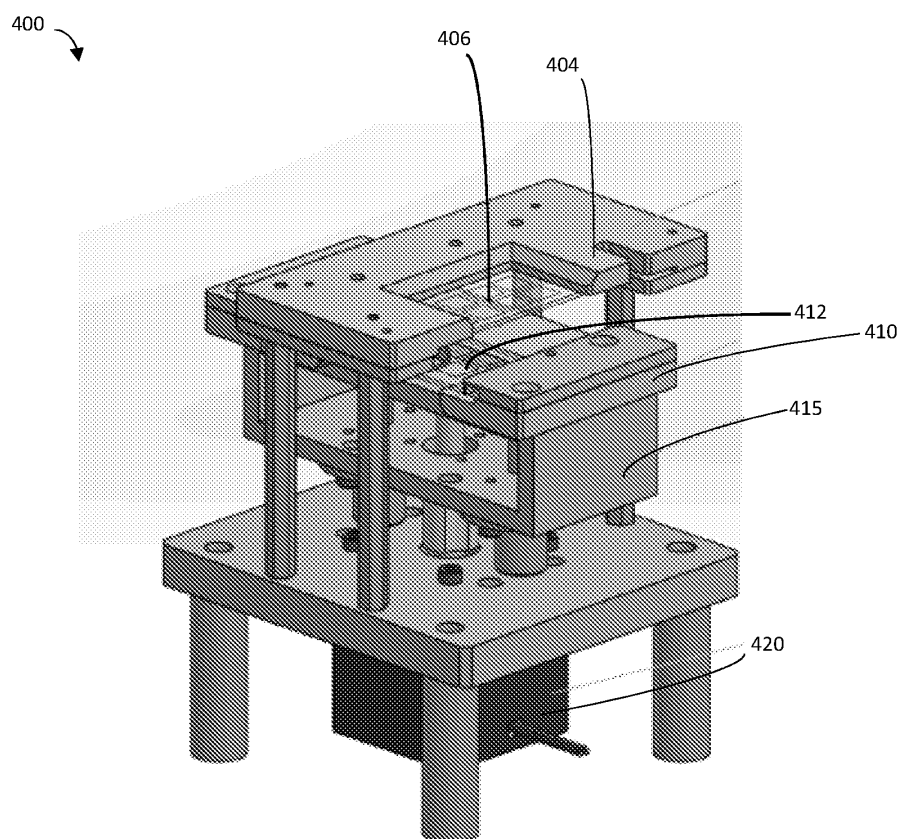


FIG. 4

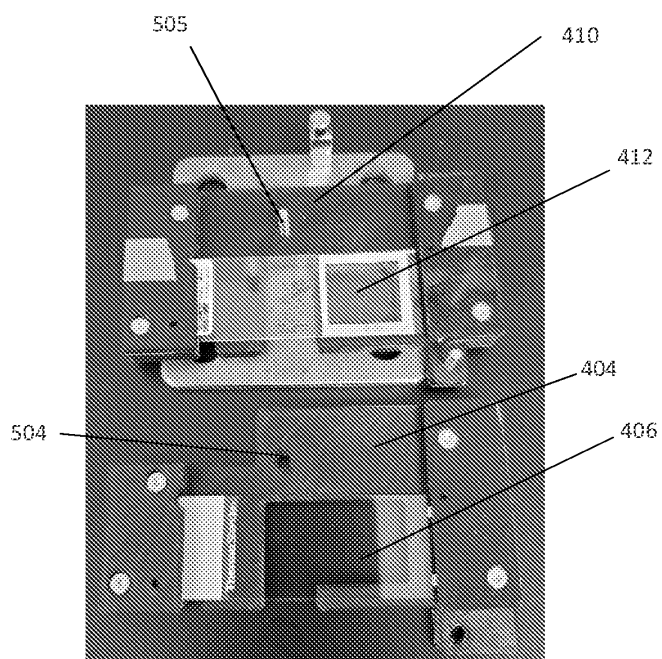


FIG. 5A

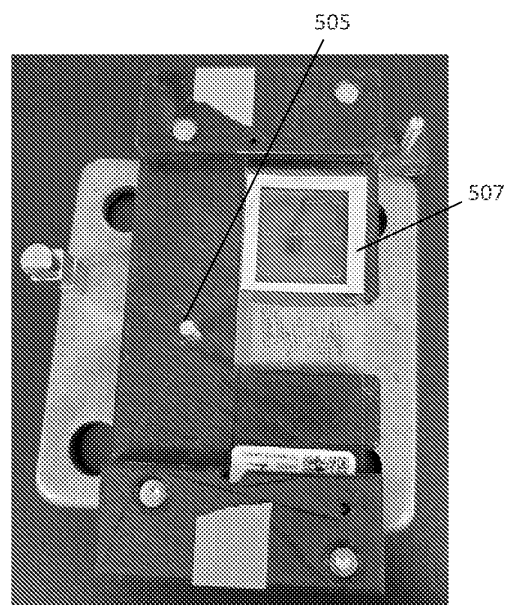


FIG. 5B

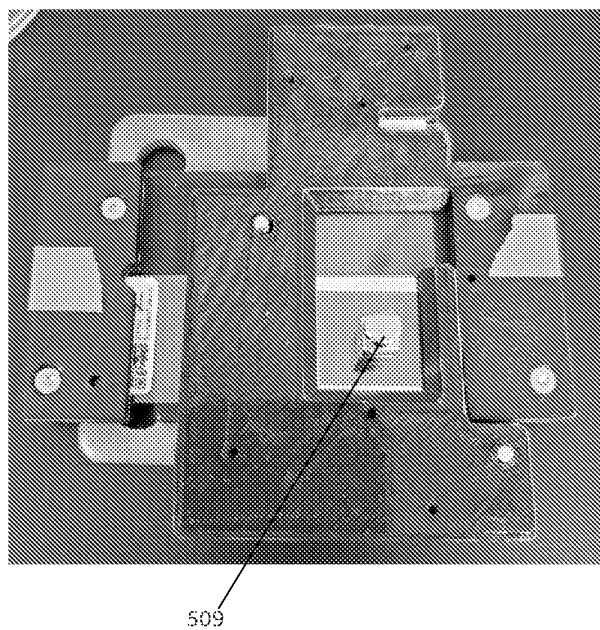


FIG. 5C

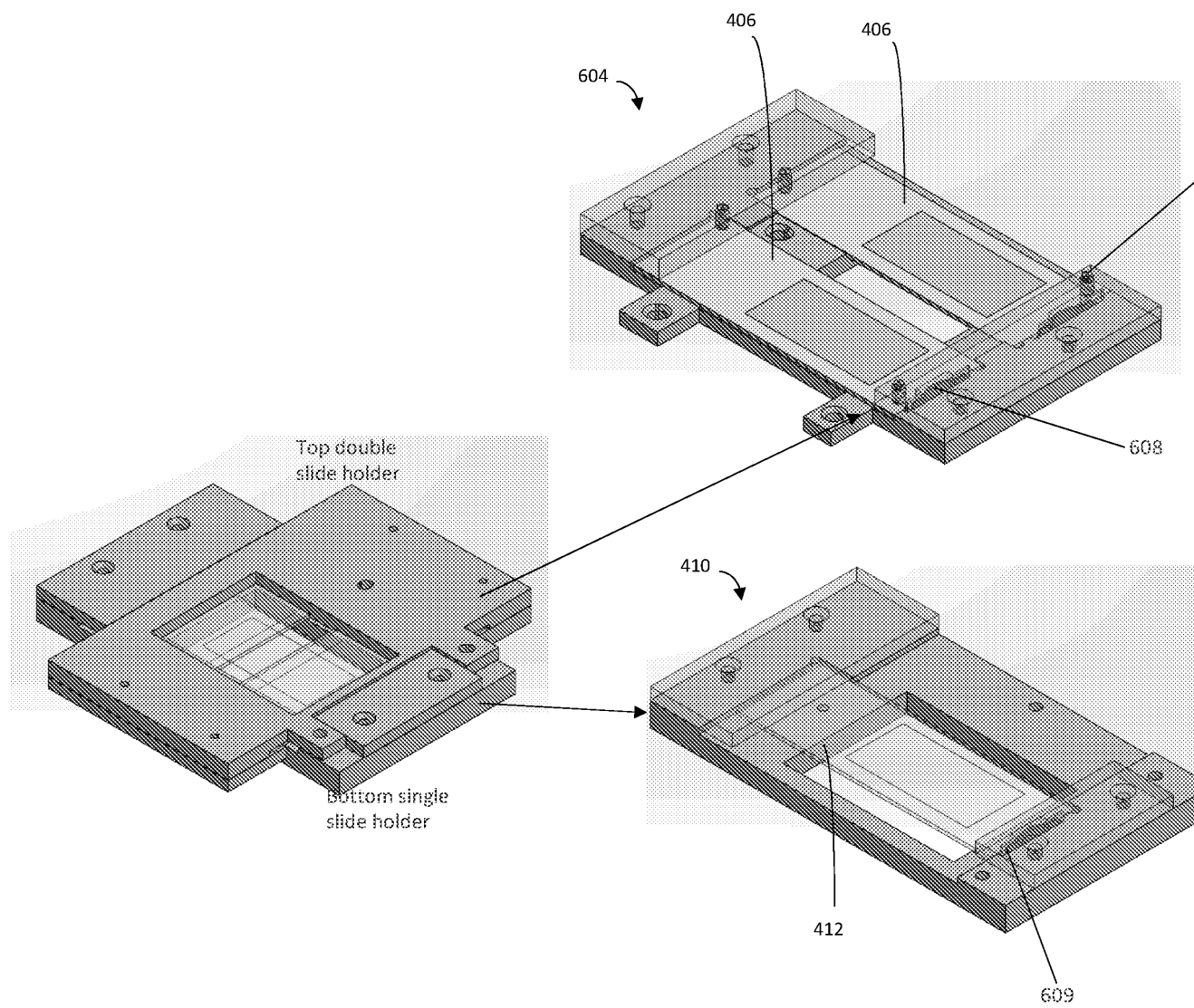


FIG. 6

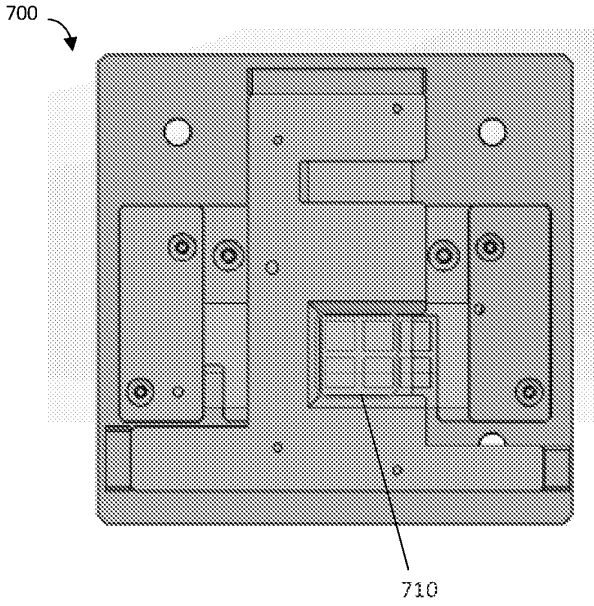
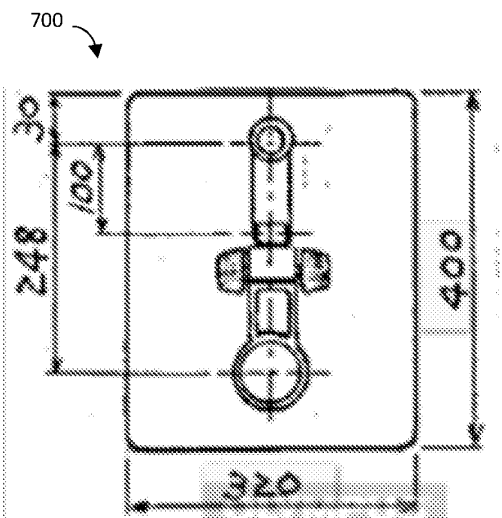


FIG. 7

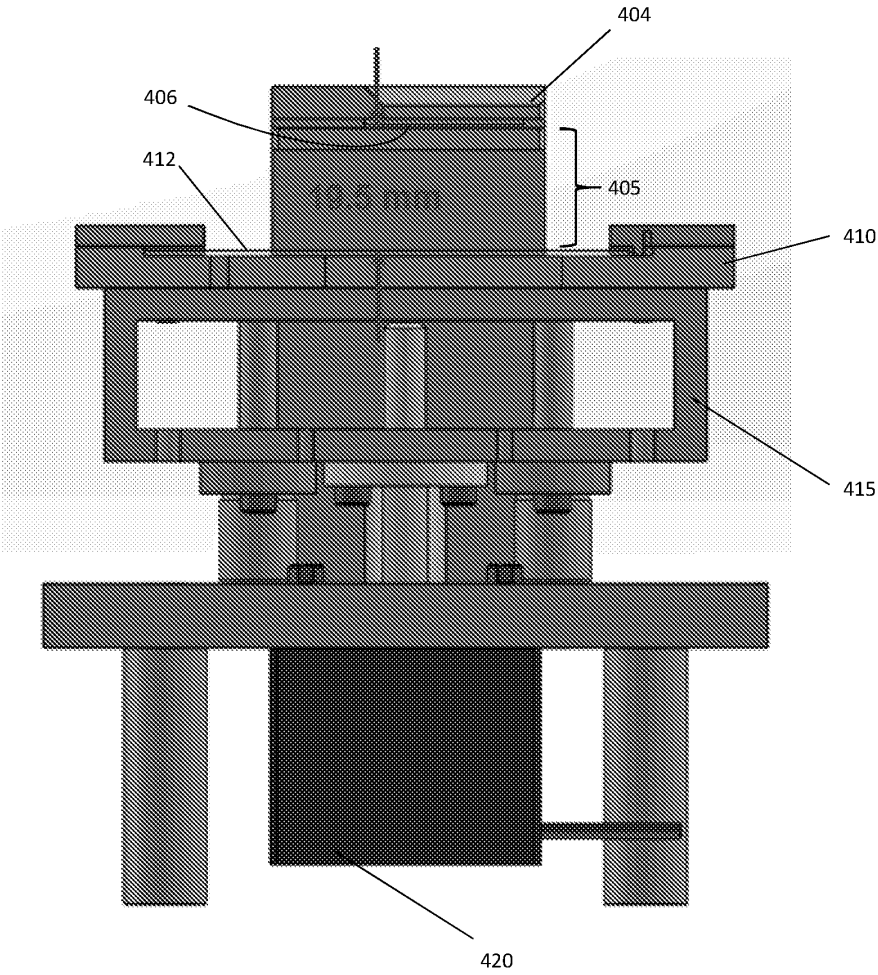


FIG. 8

415

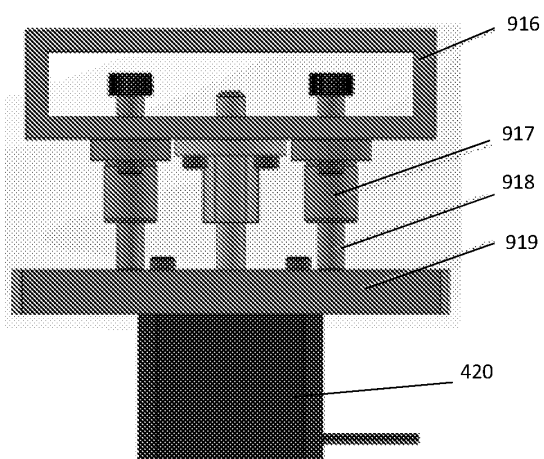


FIG. 9

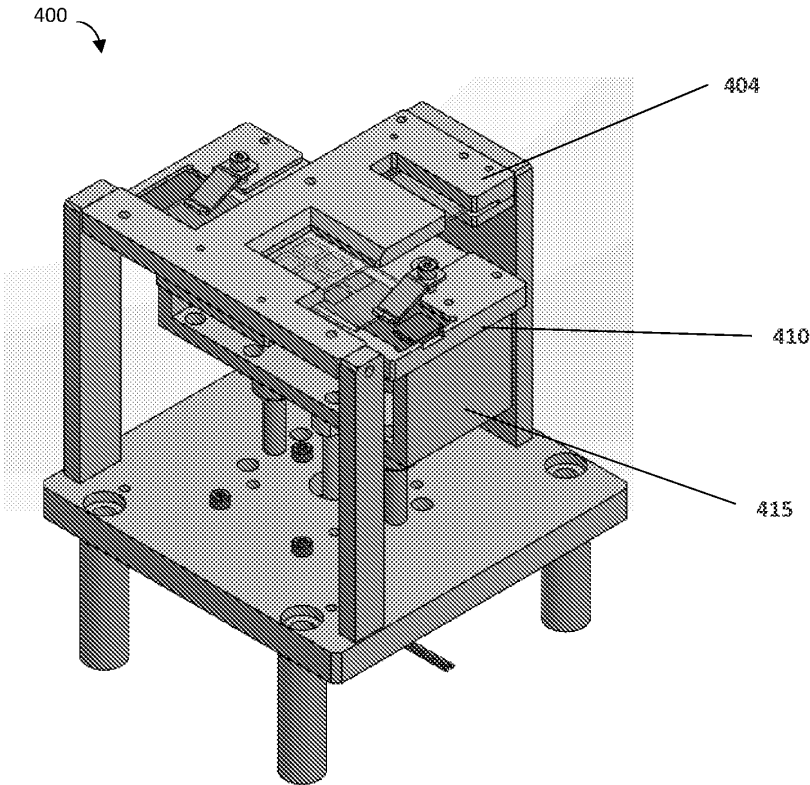


FIG. 10

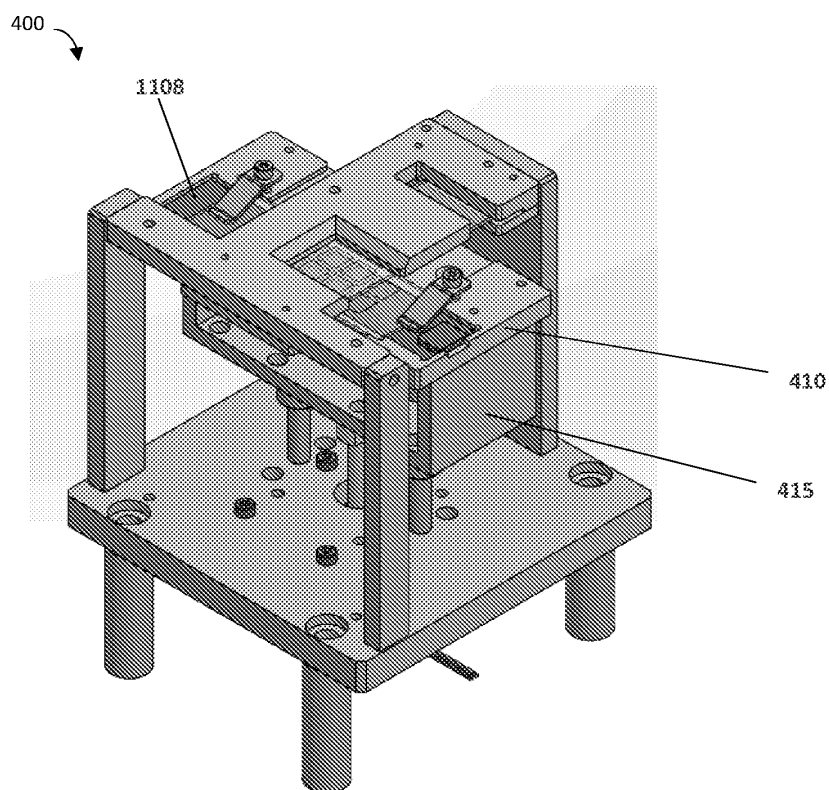


FIG. 11A

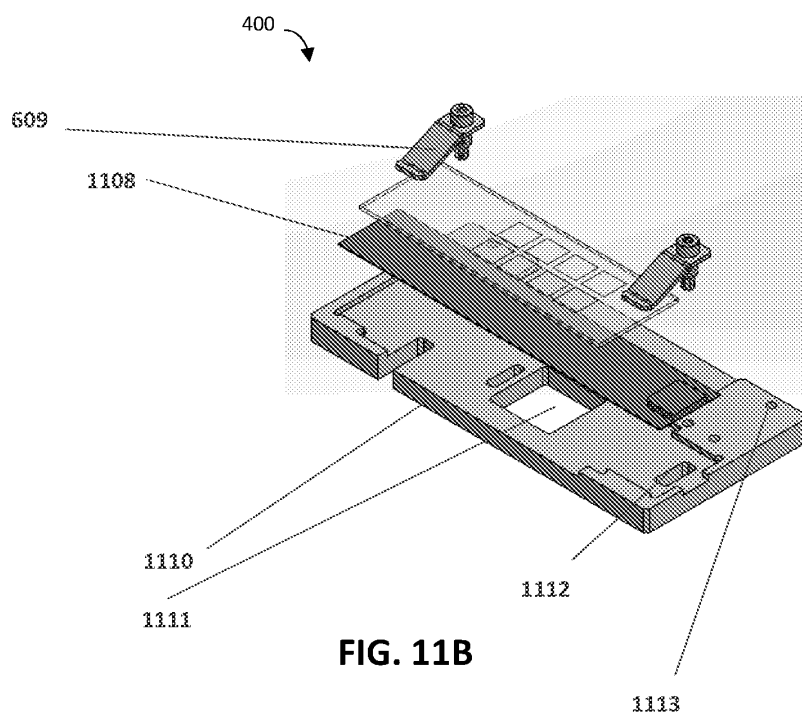


FIG. 11B

1150

Desired Slide Temperature Profile

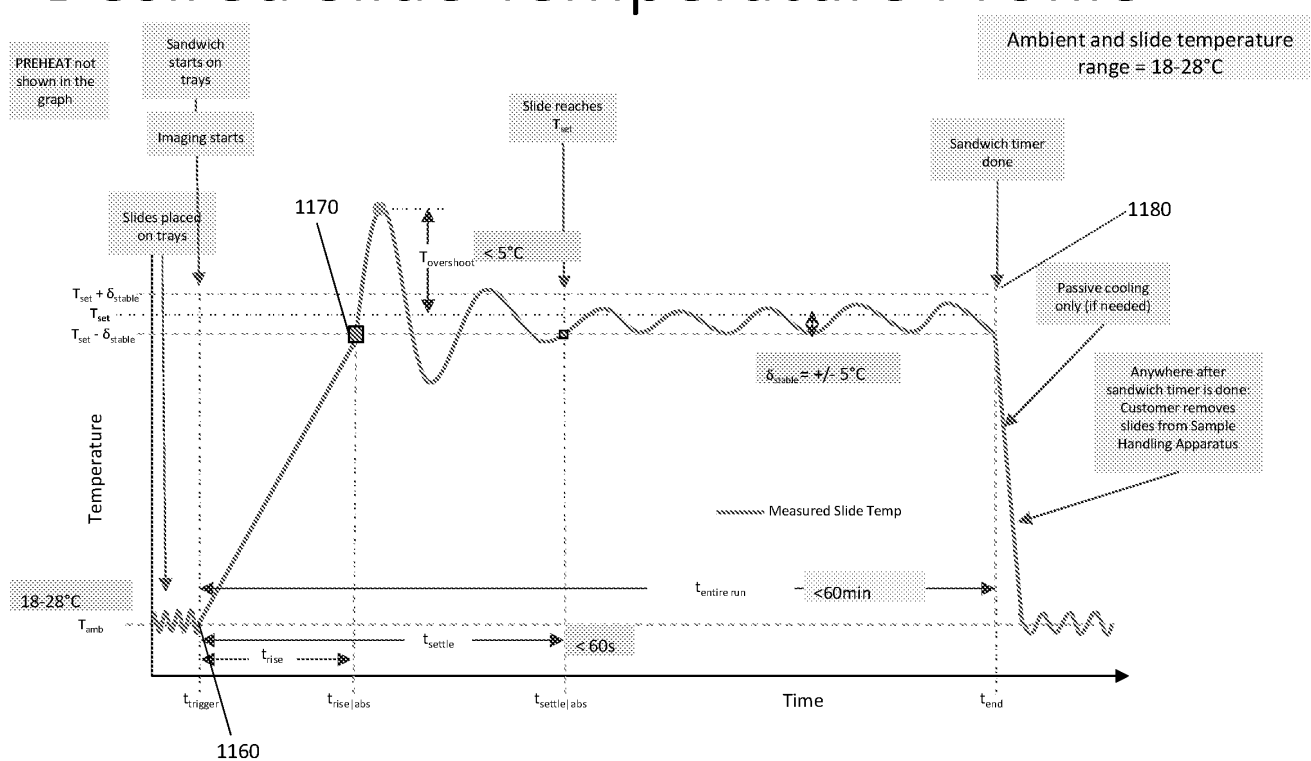


FIG. 11C

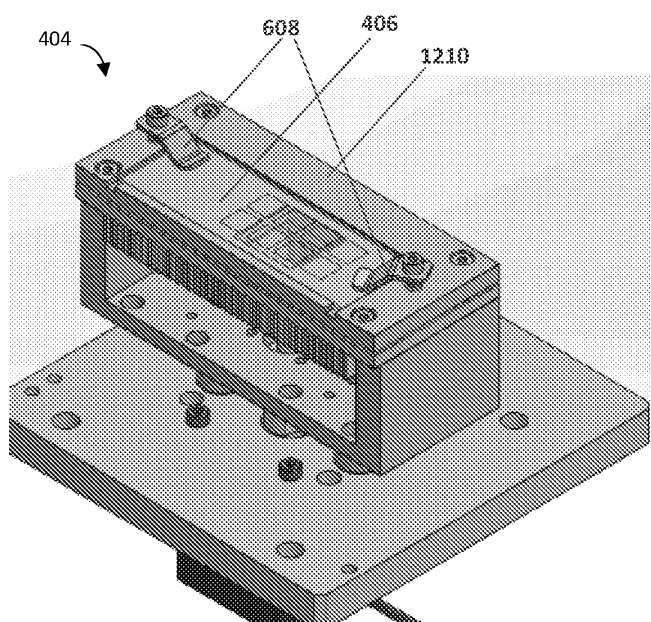


FIG. 12A

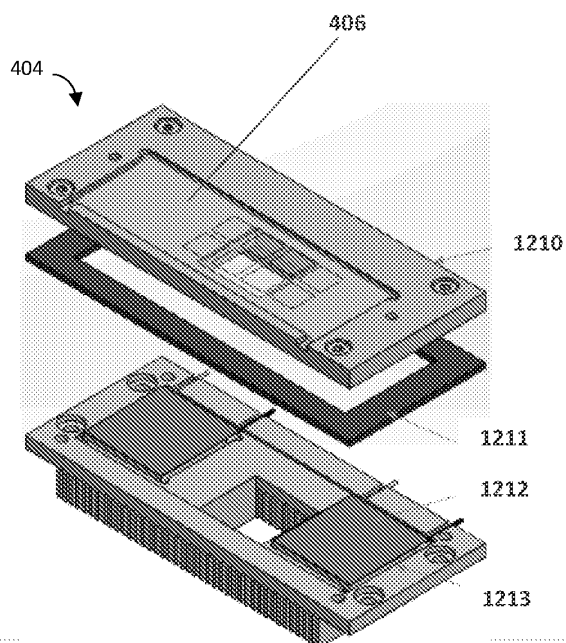


FIG. 12B

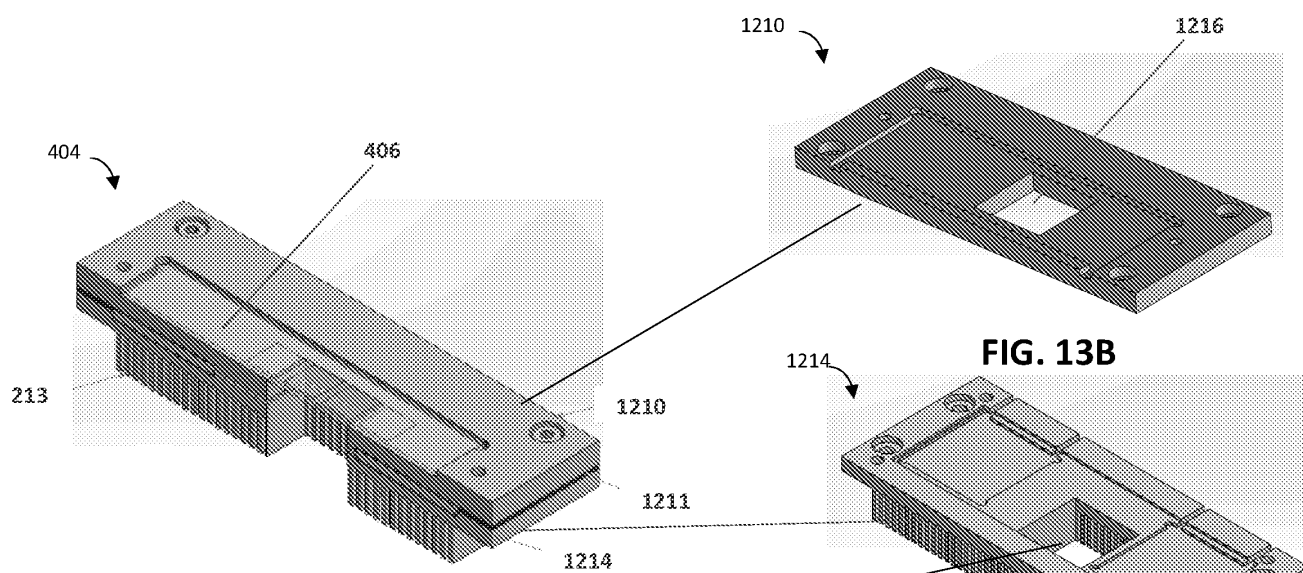


FIG. 13A

FIG. 13B

FIG. 13C

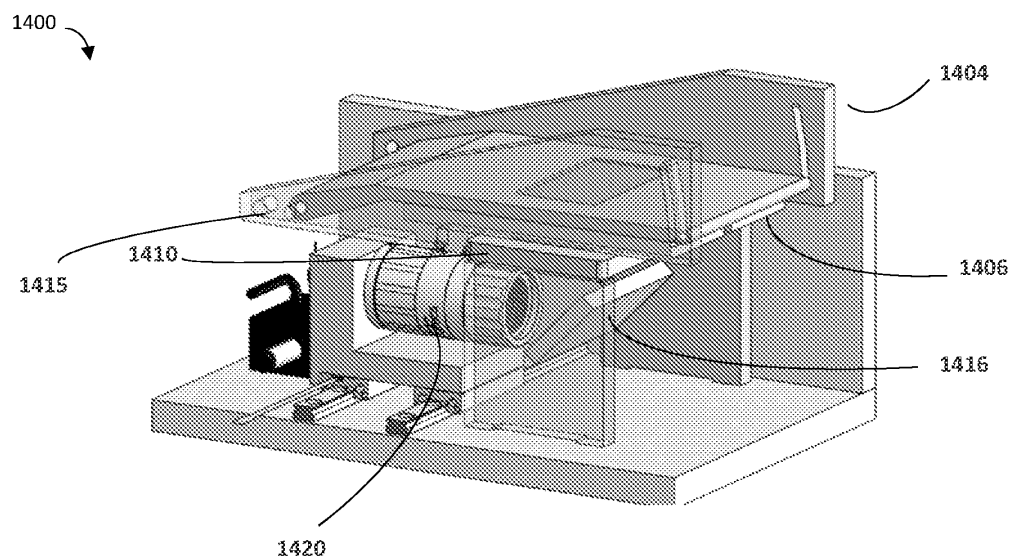


FIG. 14A

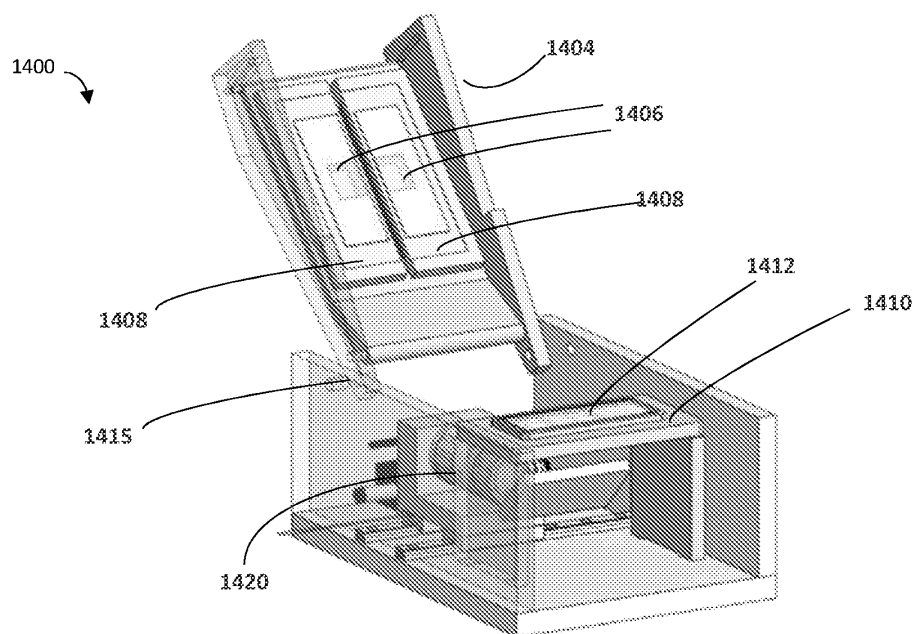


FIG. 14B

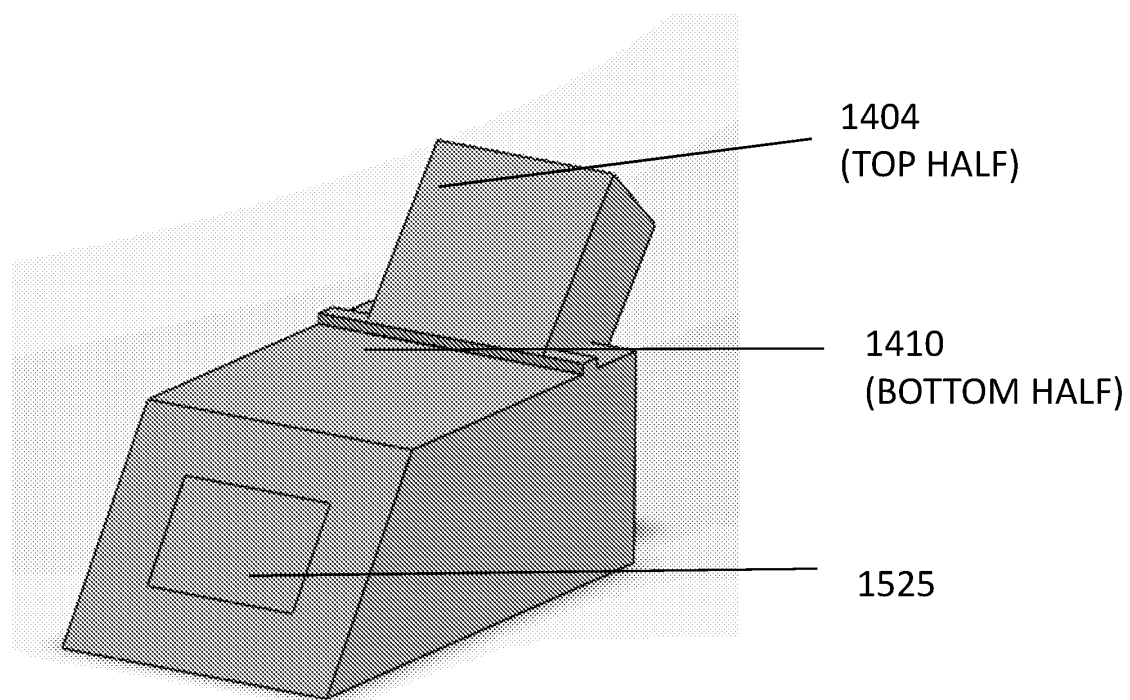


FIG. 15

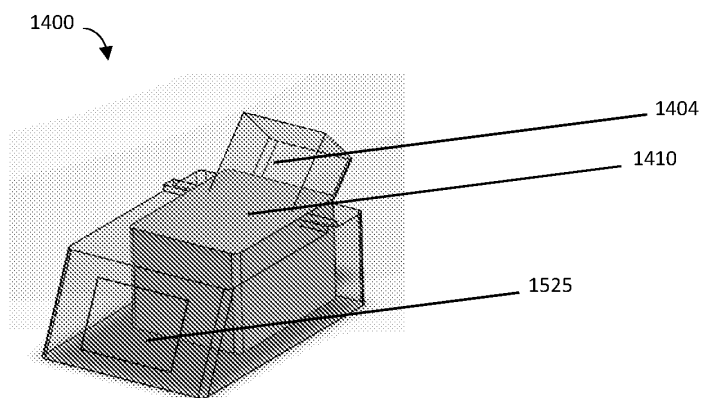


FIG. 16A

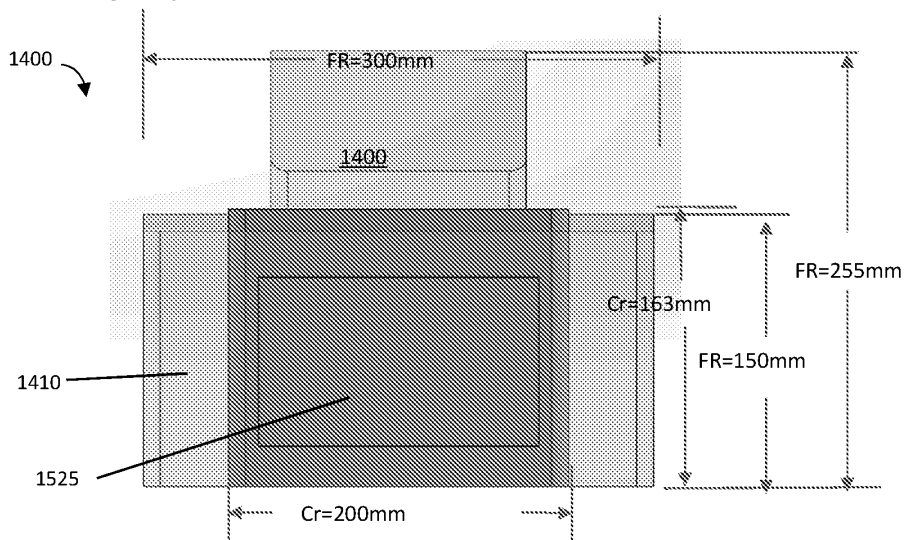


FIG. 16B

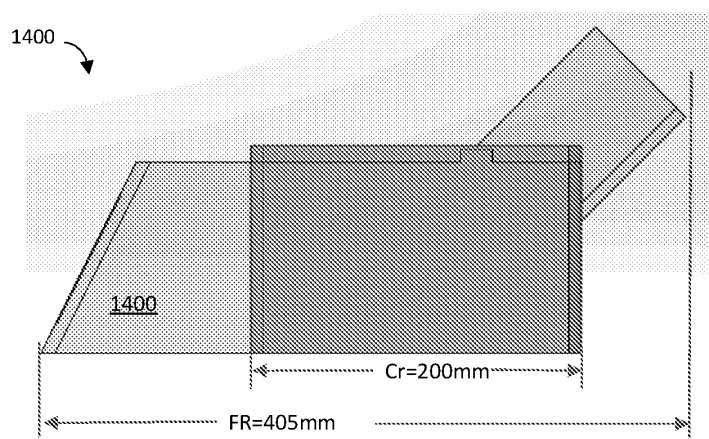


FIG. 16C

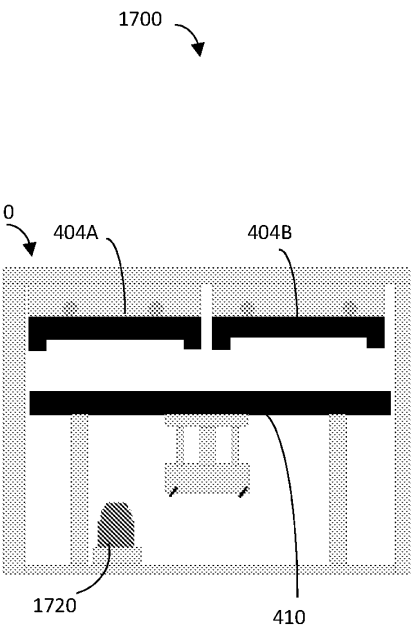


FIG. 17A

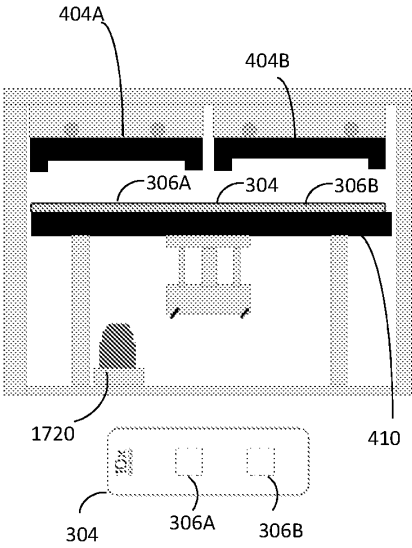


FIG. 17B

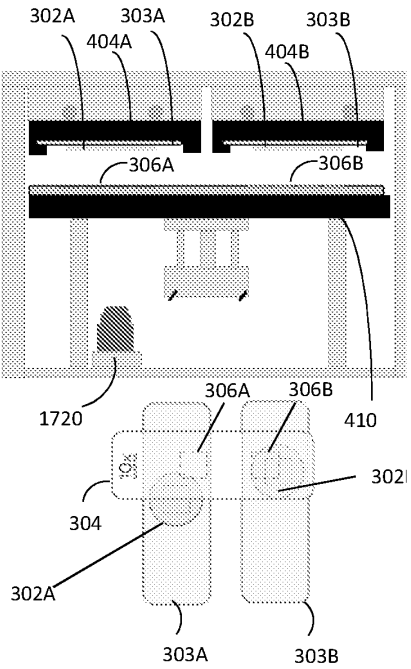


FIG. 17C

1800

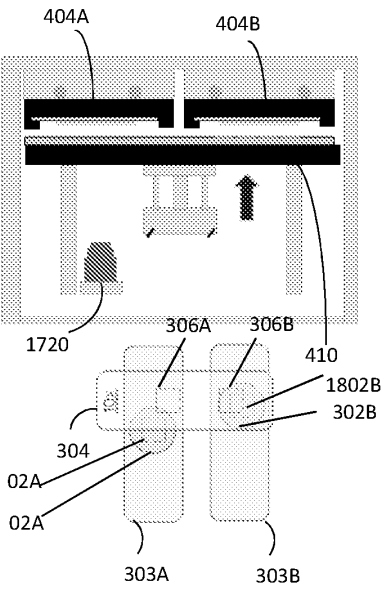


FIG. 18A

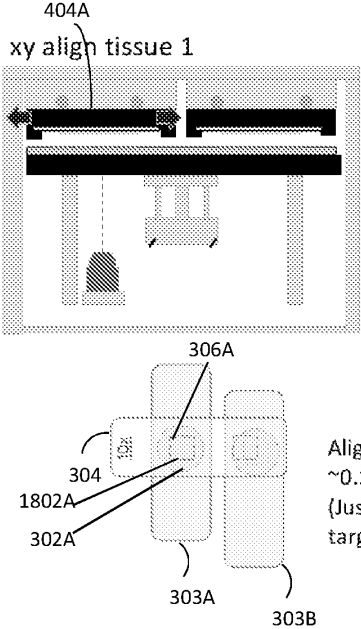


FIG. 18B

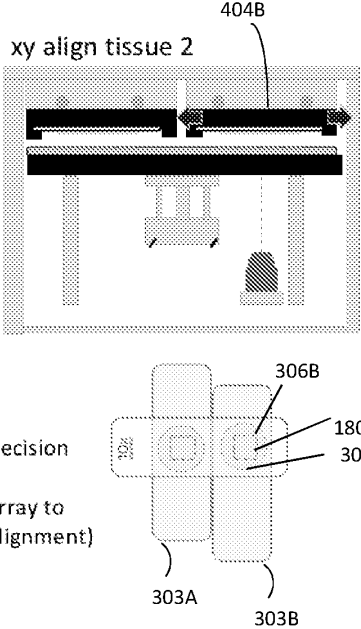
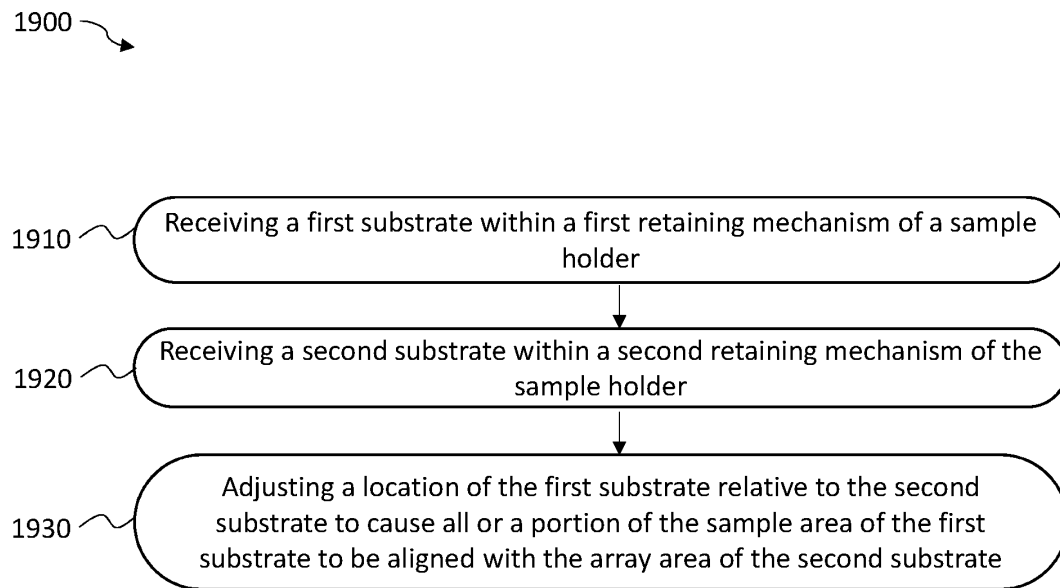


FIG. 18C

Alignment precision
~0.1-0.5 mm
(Just rough array to
target area alignment)

**FIG. 19**

2000

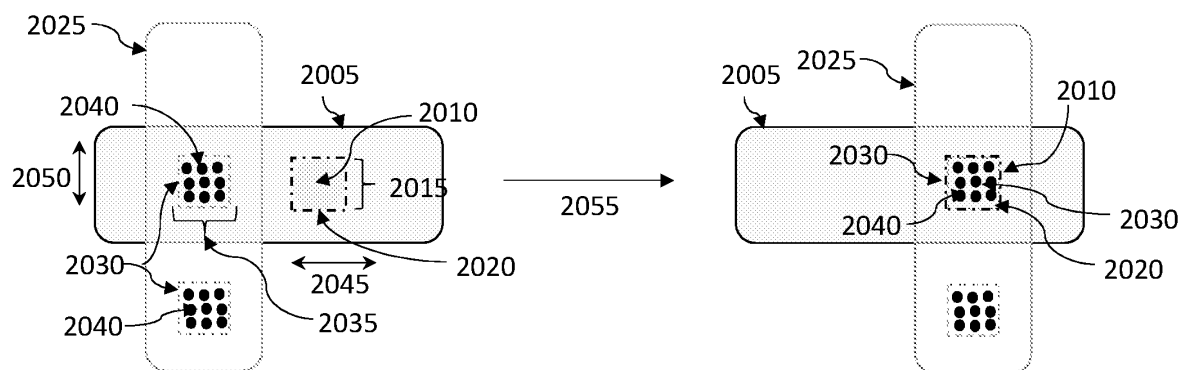


FIG. 20

2100

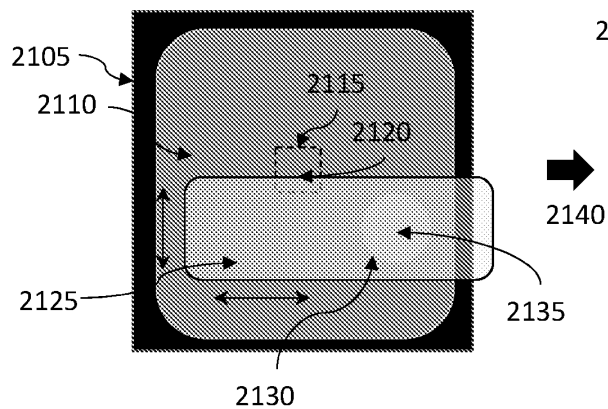


FIG. 21A

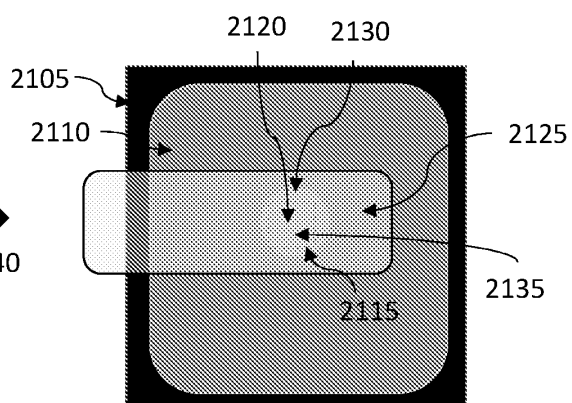


FIG. 21B

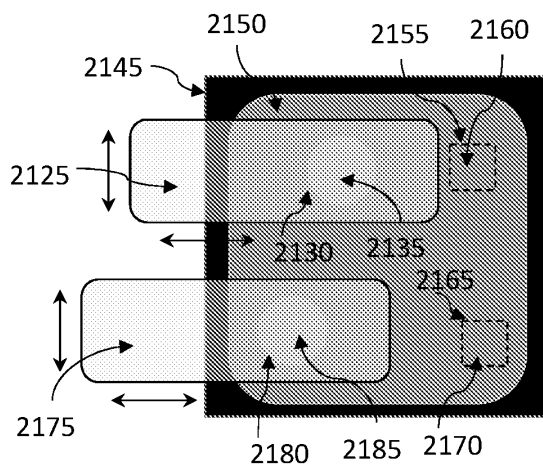


FIG. 21C

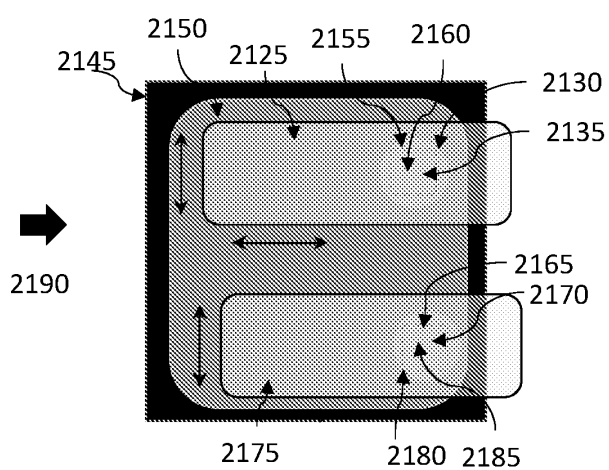


FIG. 21D

2200

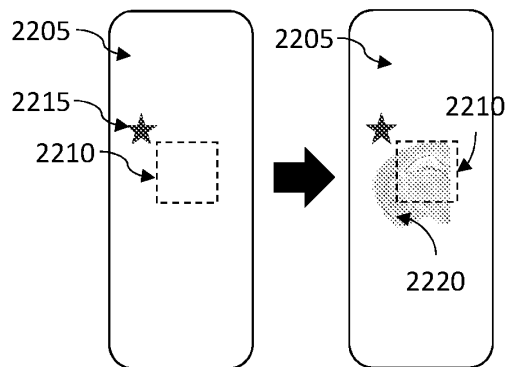


FIG. 22A

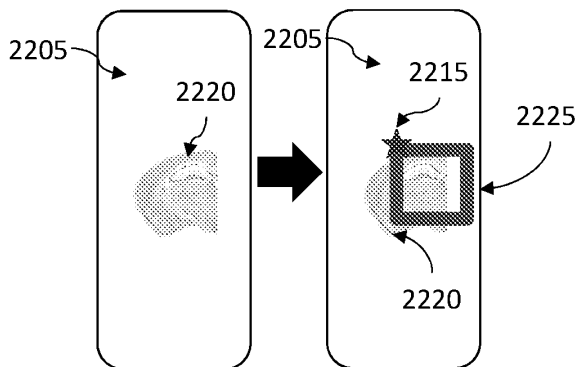


FIG. 22B

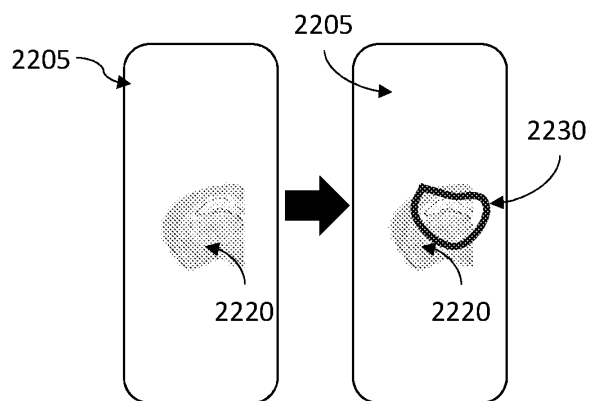
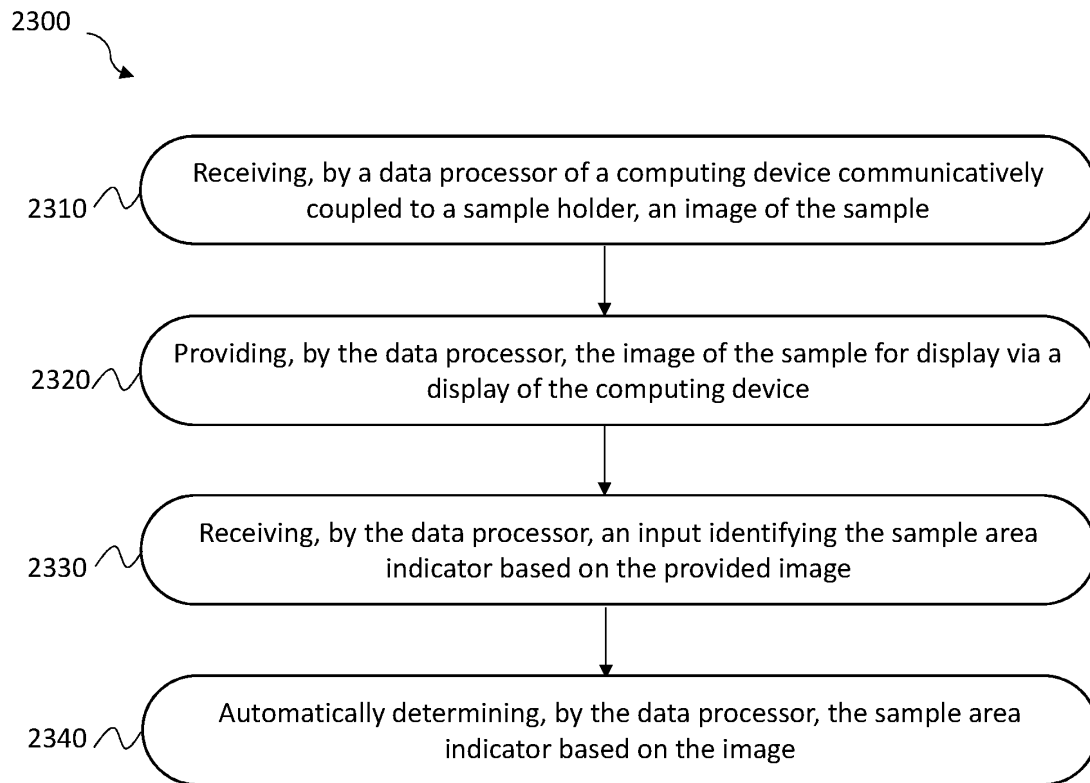


FIG. 22C

**FIG. 23**

2400

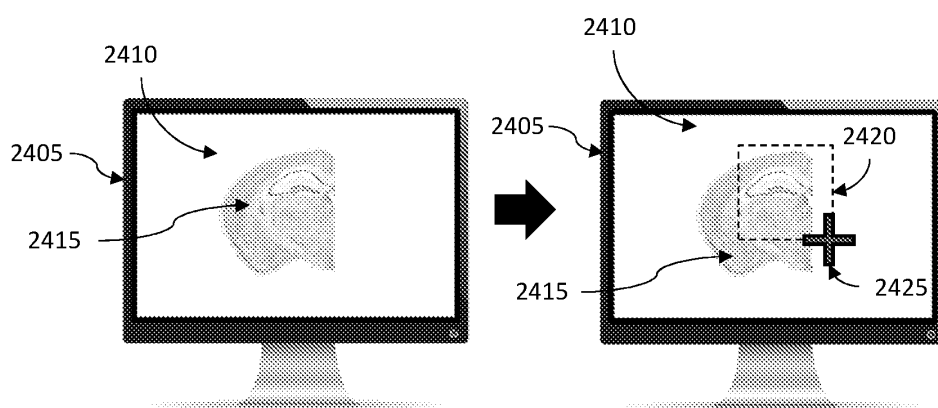


FIG. 24A

FIG. 24B

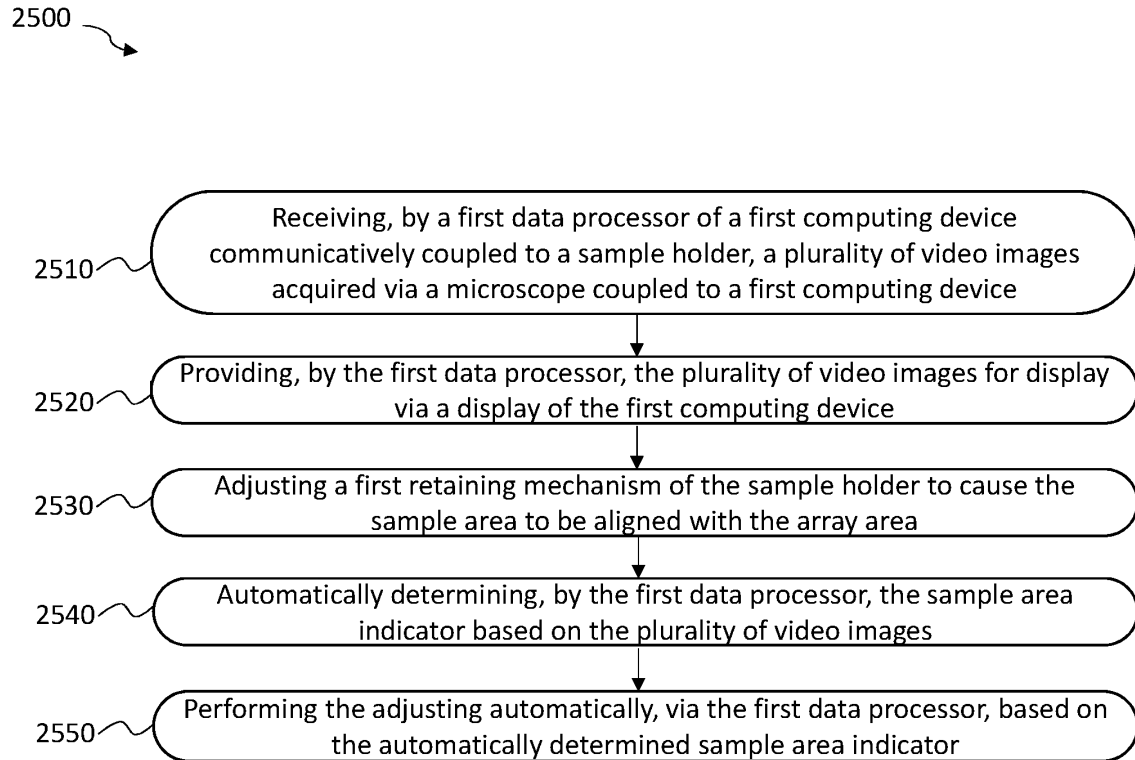
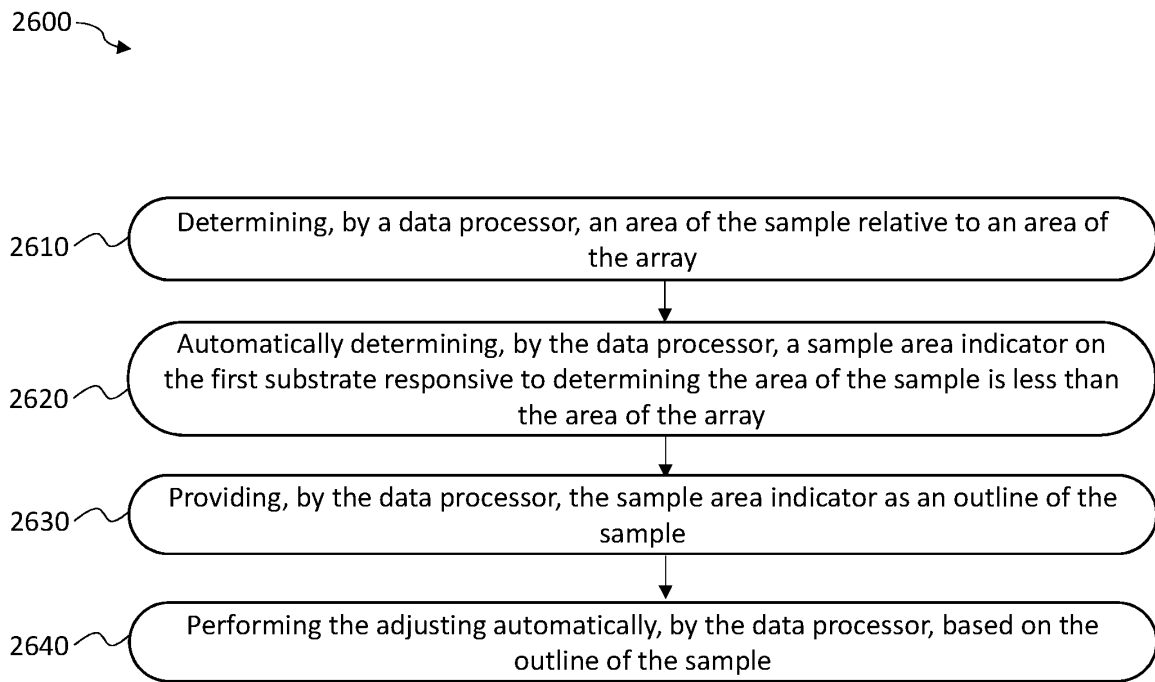


FIG. 25

**FIG. 26**

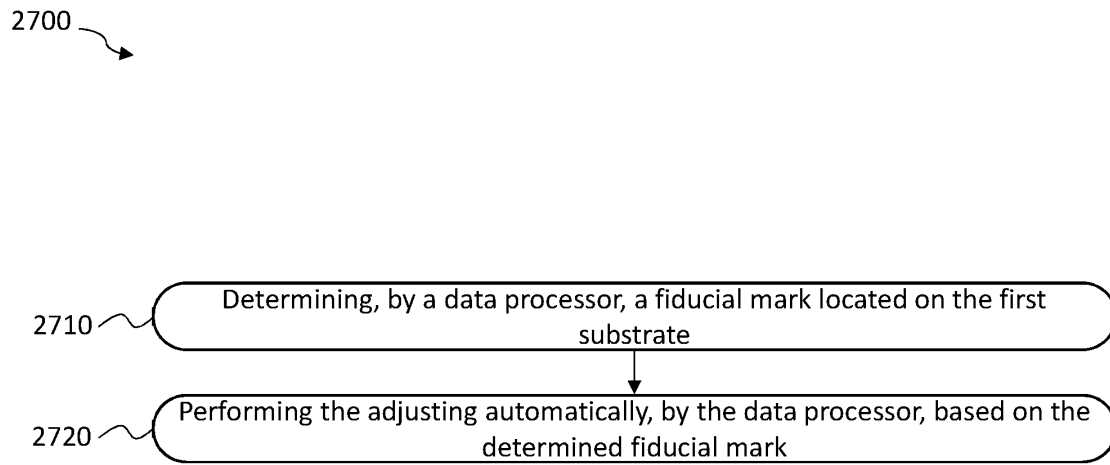
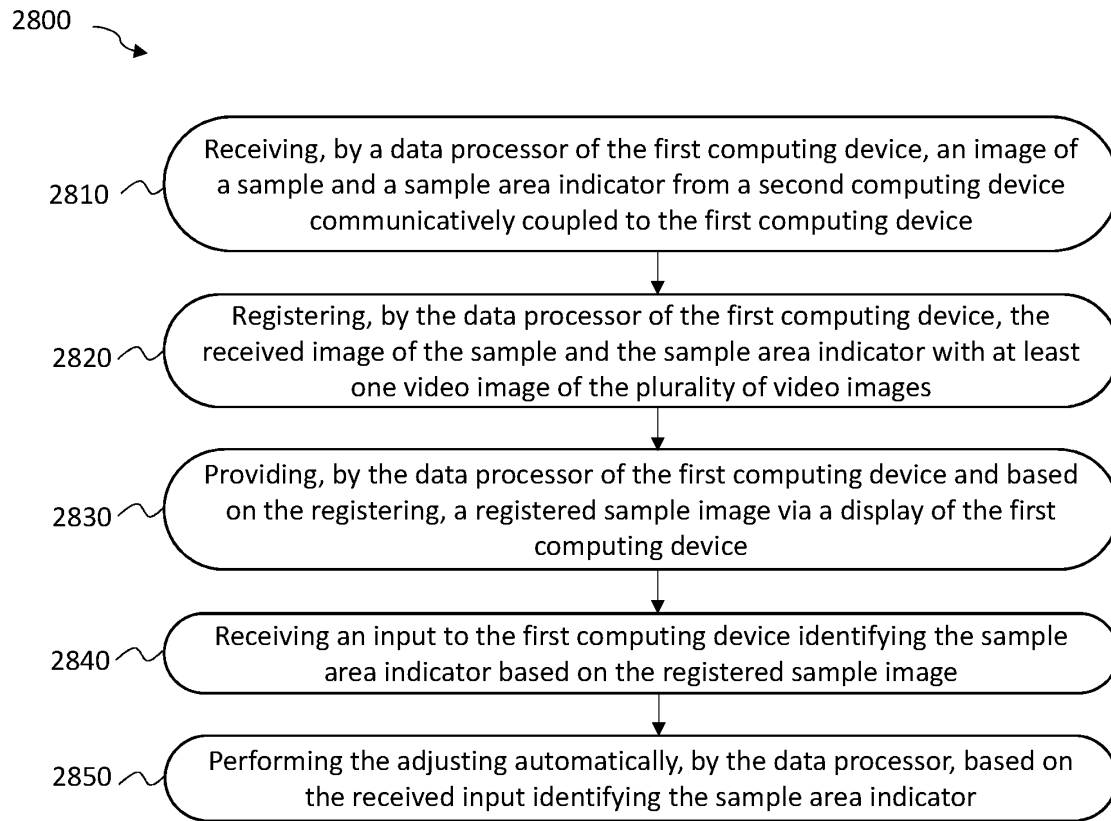


FIG. 27

**FIG. 28**

2900

Permeabilization during Sandwich

Lower GEx slide

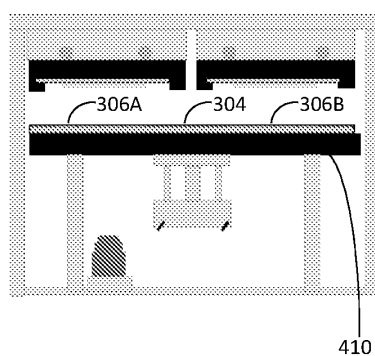


FIG. 29A

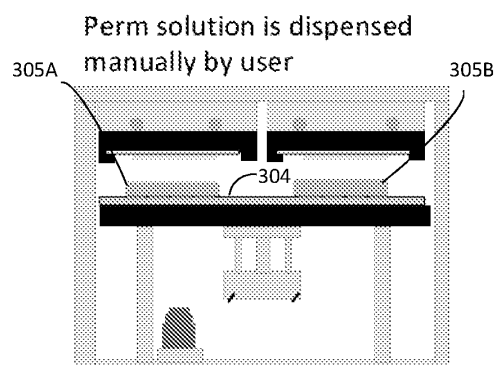


FIG. 29B

Sandwich is formed

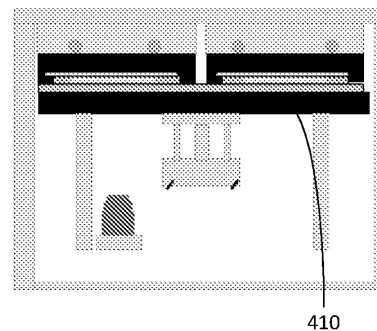


FIG. 29C

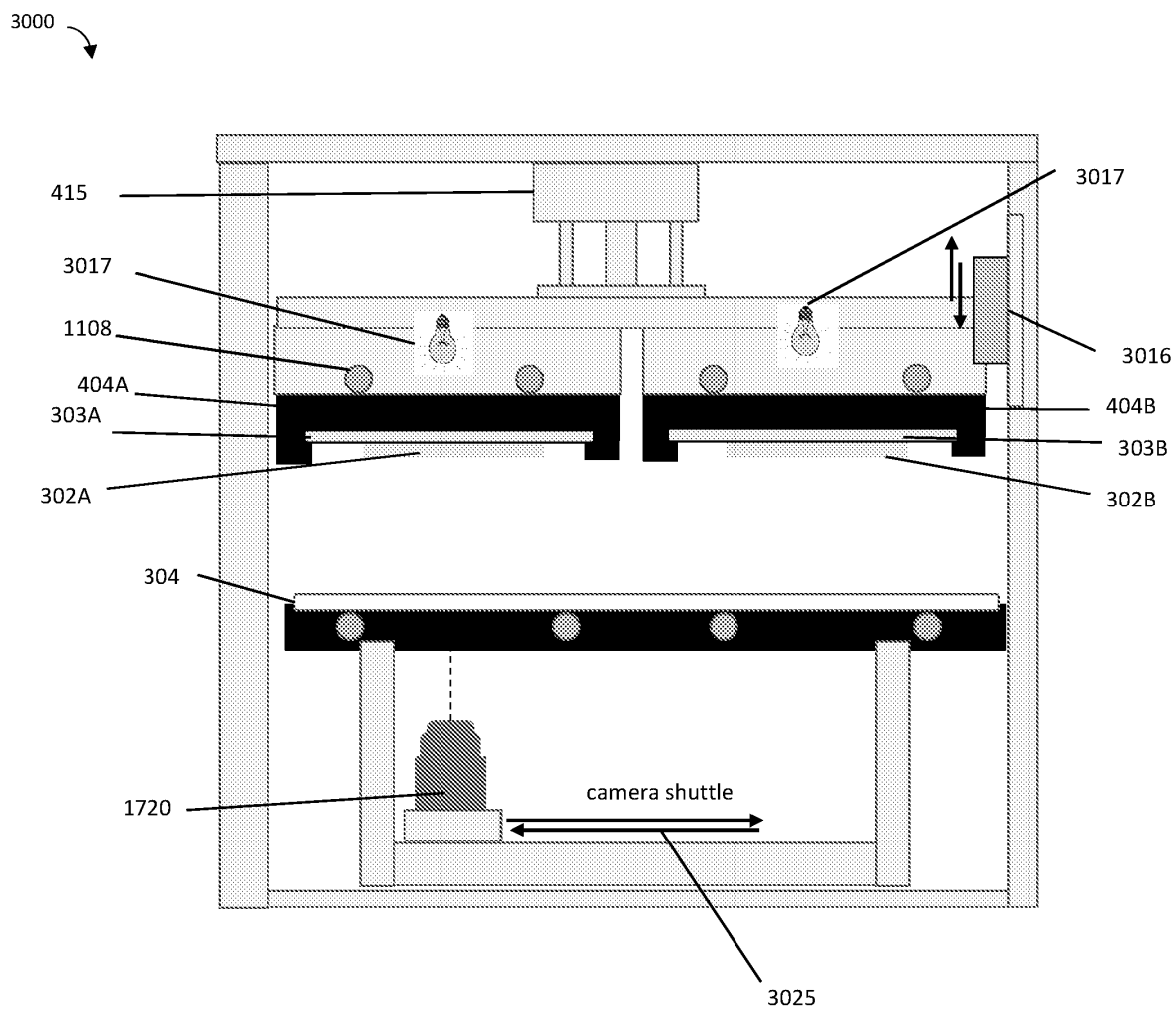


FIG. 30

3100

Registration image capture (during the 1 min permeabilization)

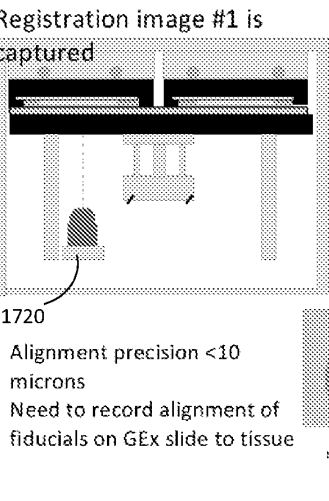


FIG. 31A

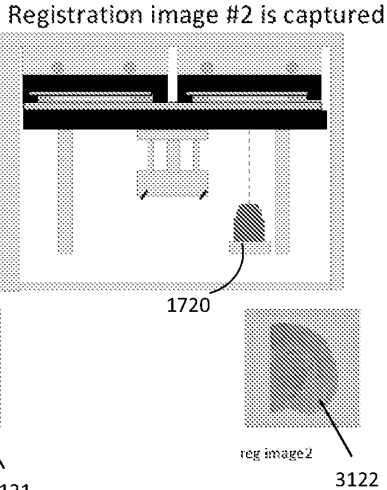


FIG. 31B

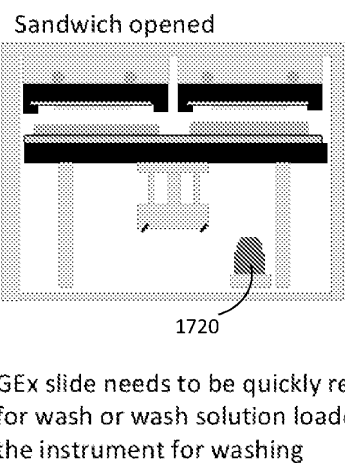
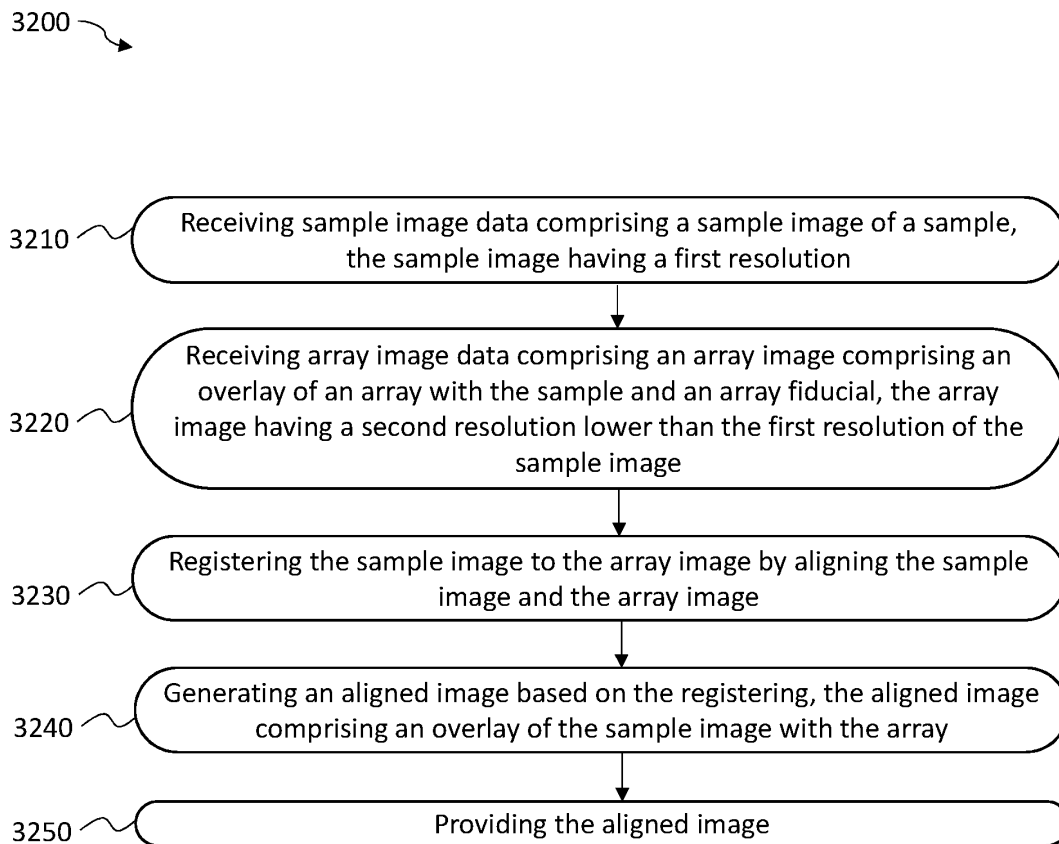
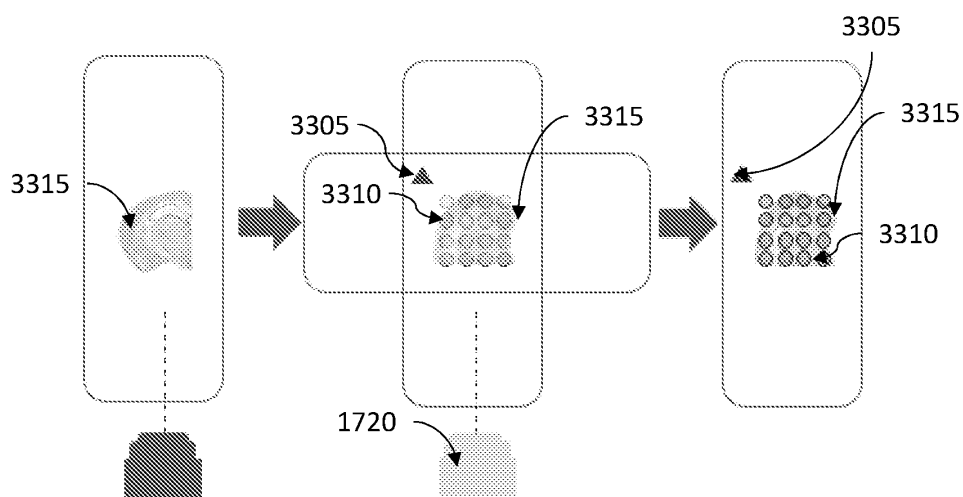
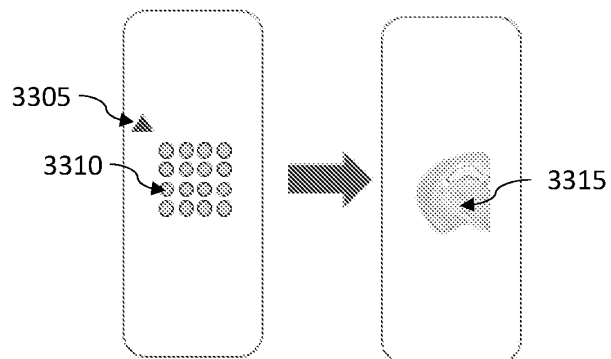
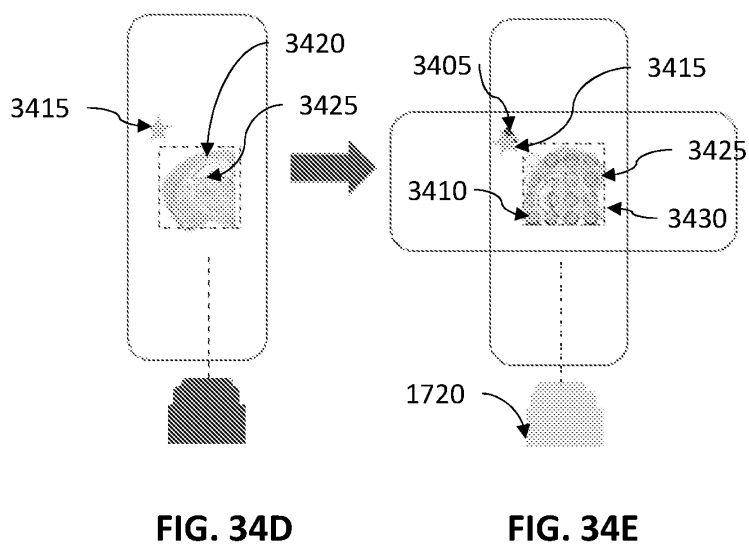
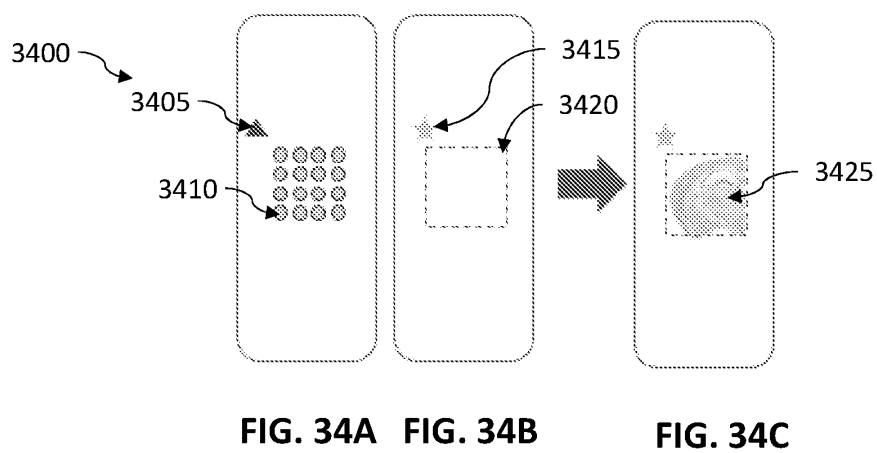


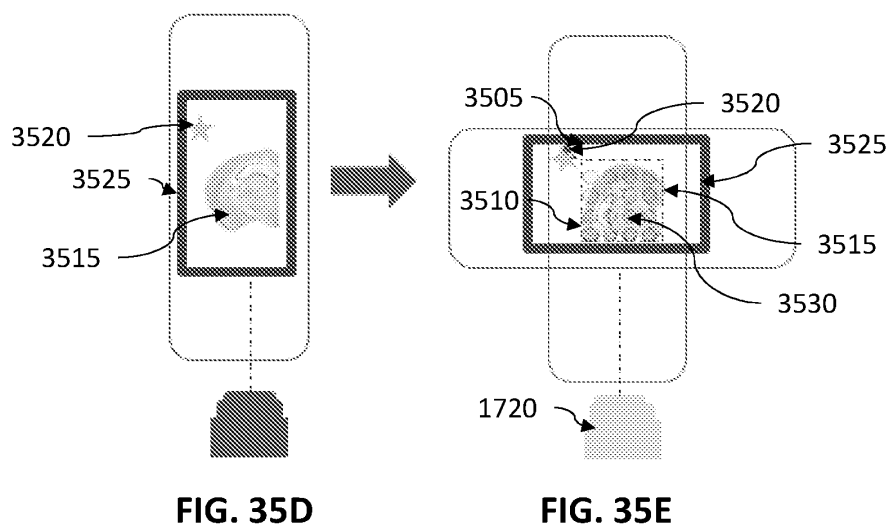
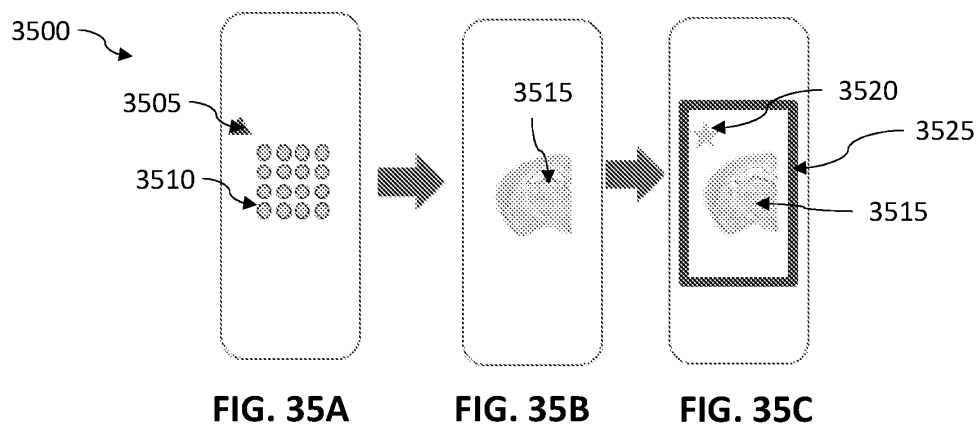
FIG. 31C

**FIG. 32**

3300







3600

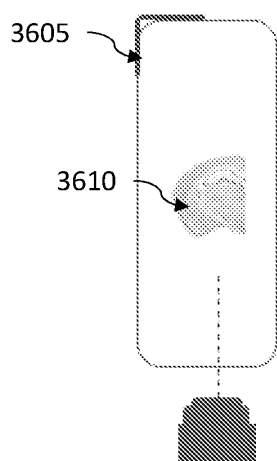


FIG. 36A

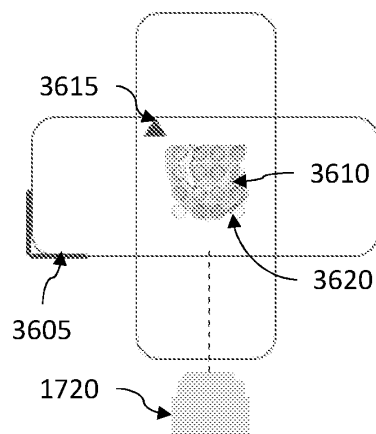


FIG. 36B

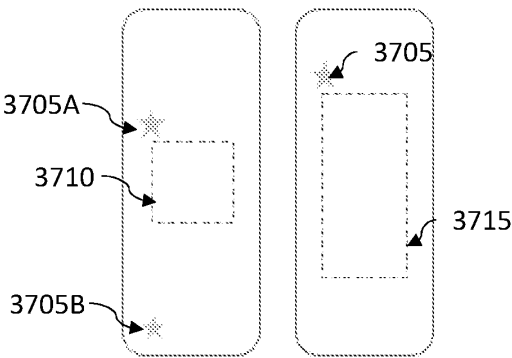


FIG. 37A FIG. 37B

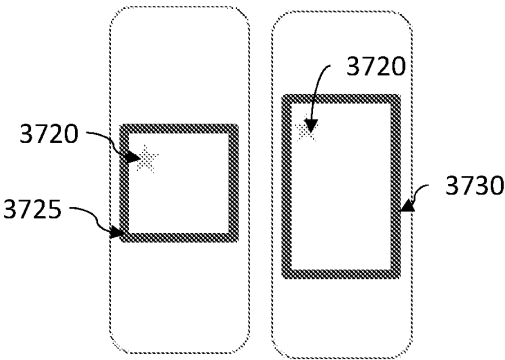


FIG. 37C FIG. 37D

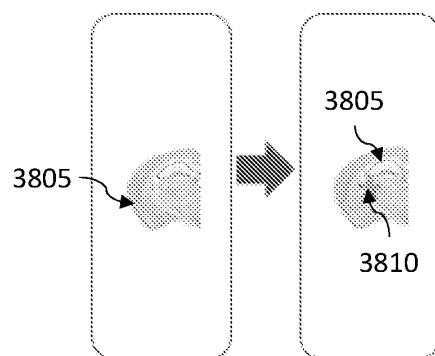


FIG. 38A **FIG. 38B**

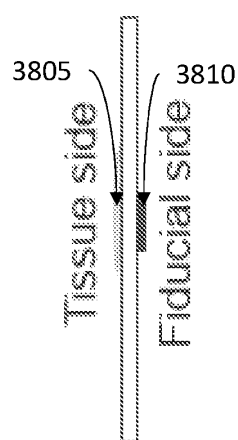
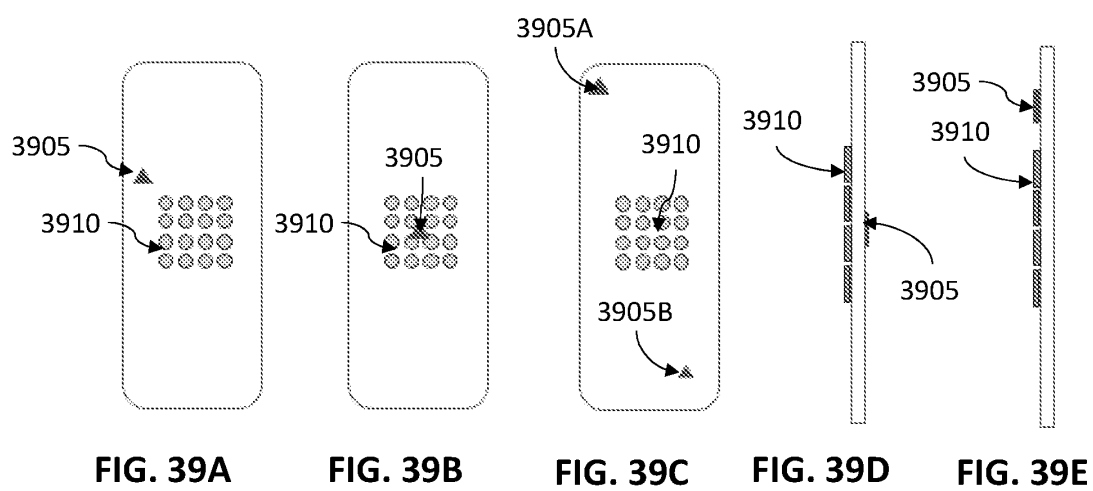


FIG. 38C



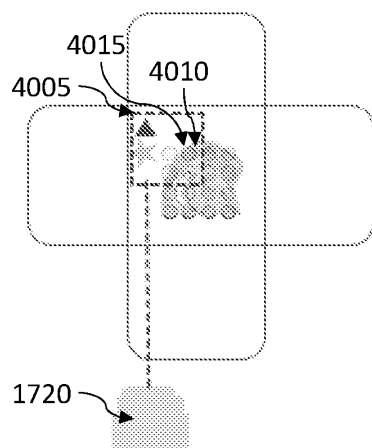


FIG. 40A

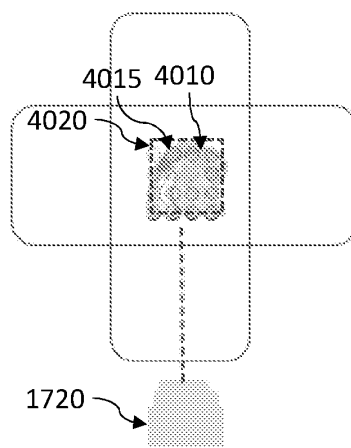


FIG. 40B

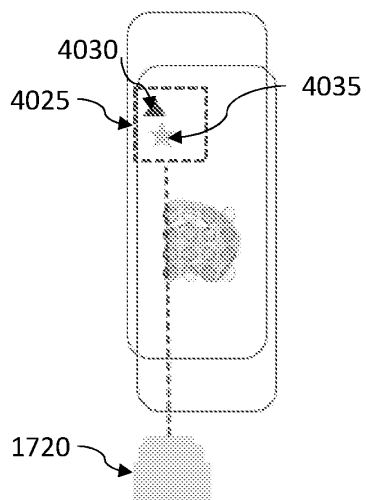


FIG. 40C

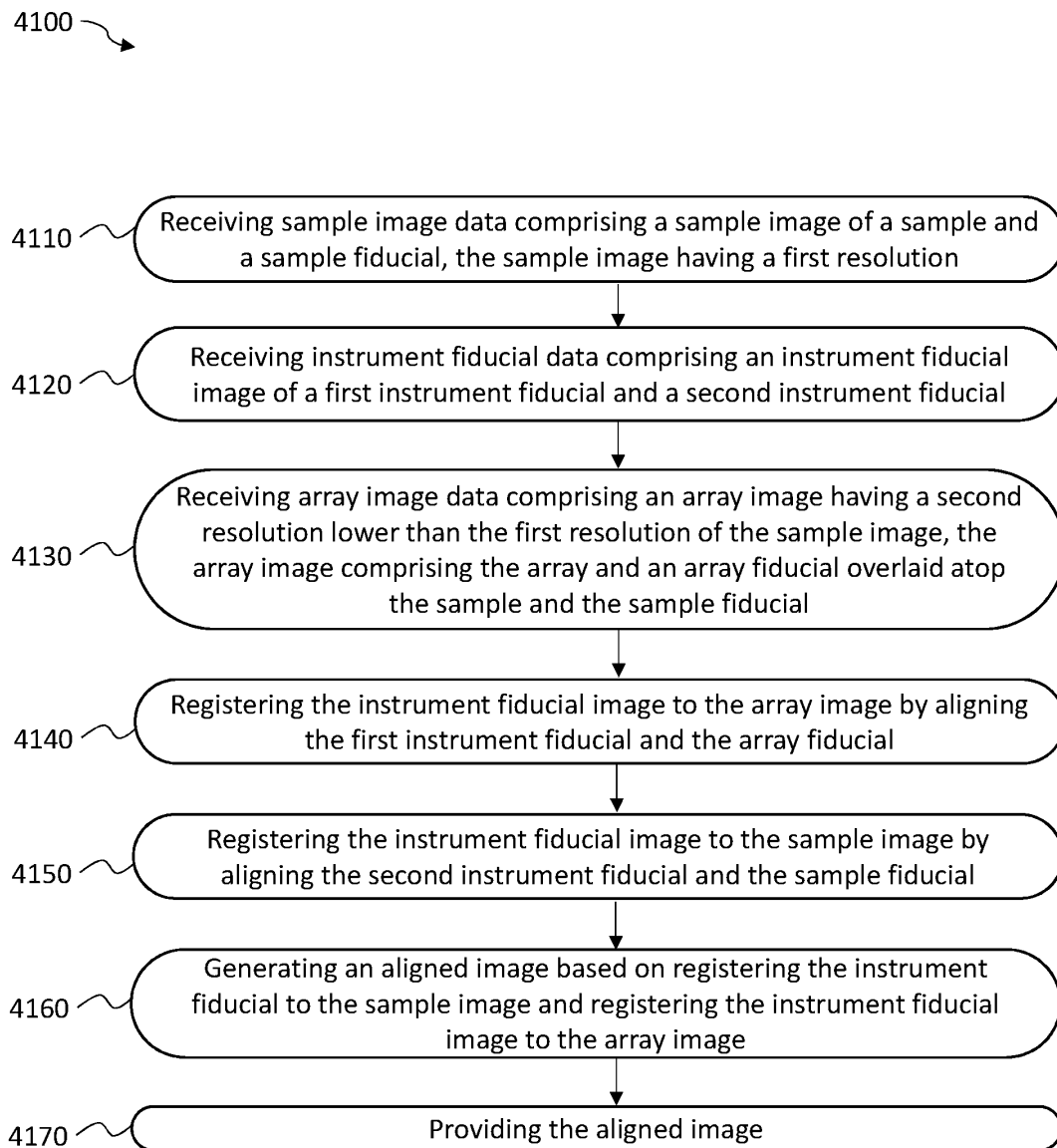


FIG. 41

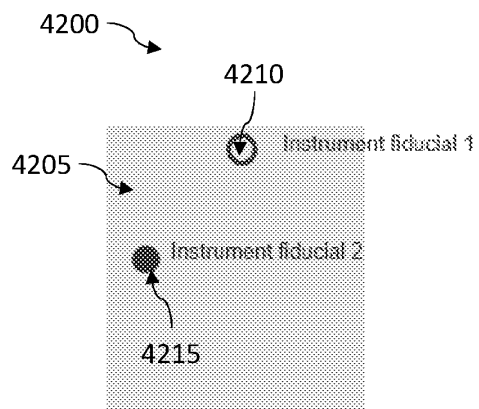


FIG. 42A

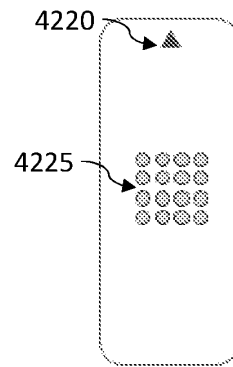


FIG. 42B

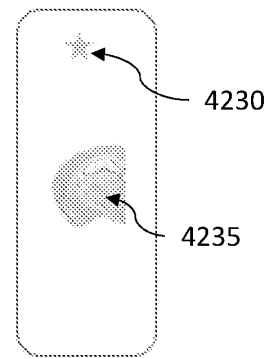


FIG. 42C

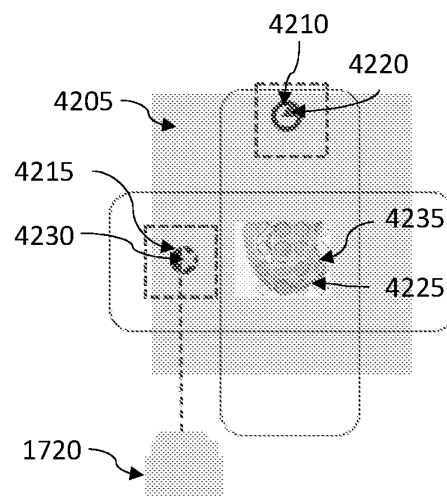


FIG. 42D

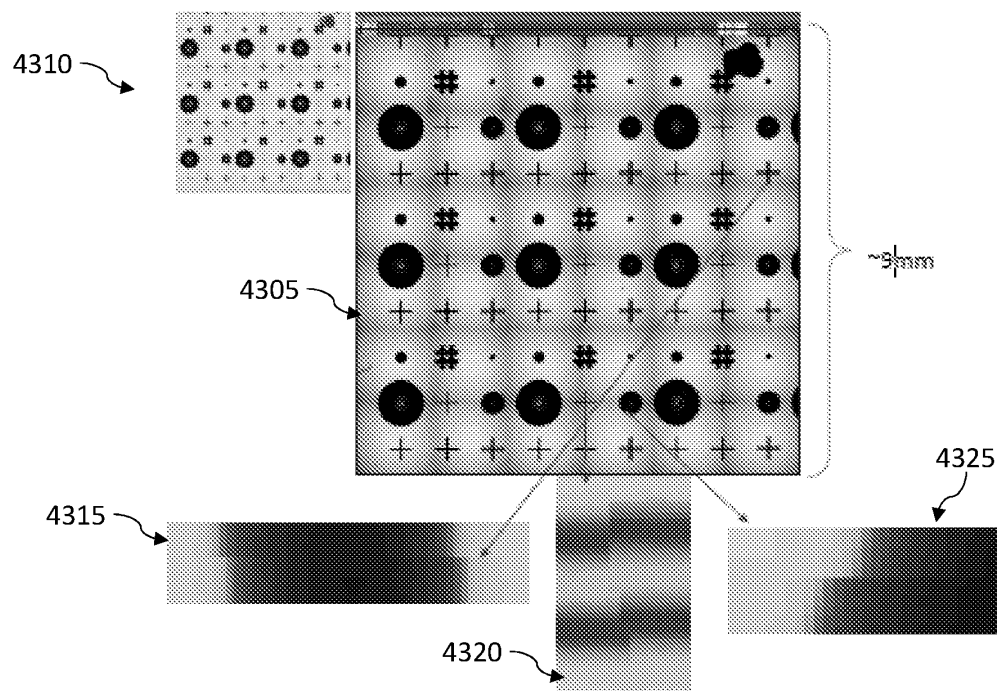


FIG. 43A

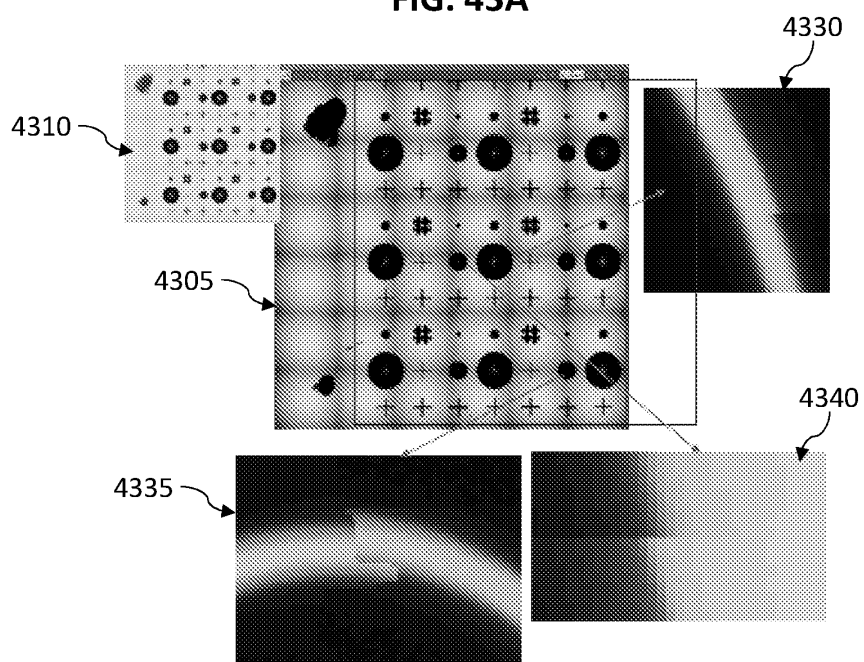
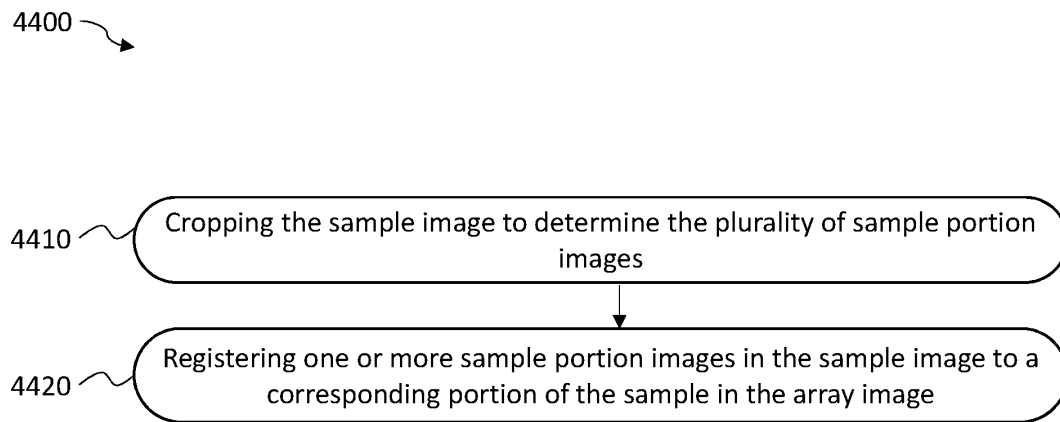


FIG. 43B

**FIG. 44**

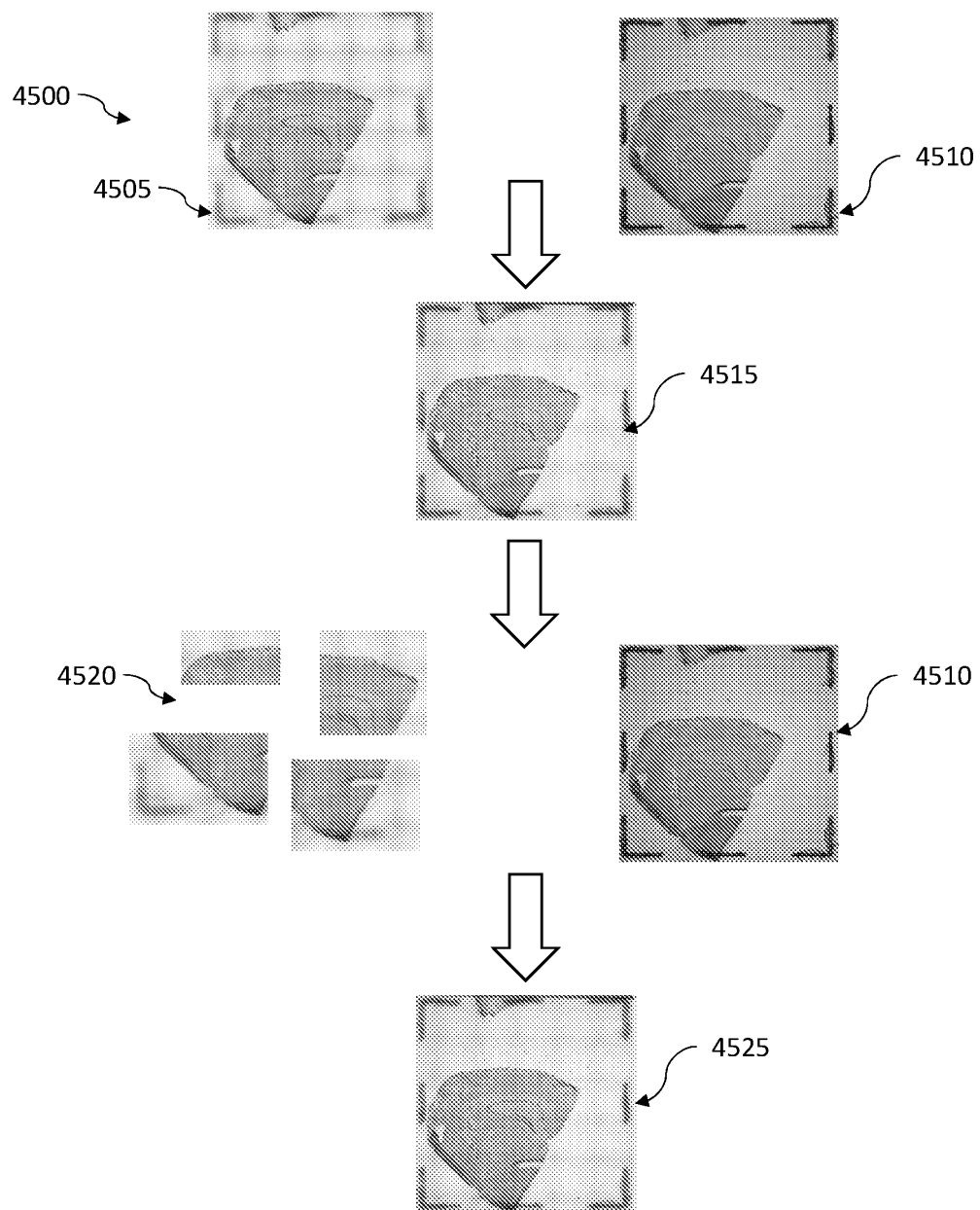
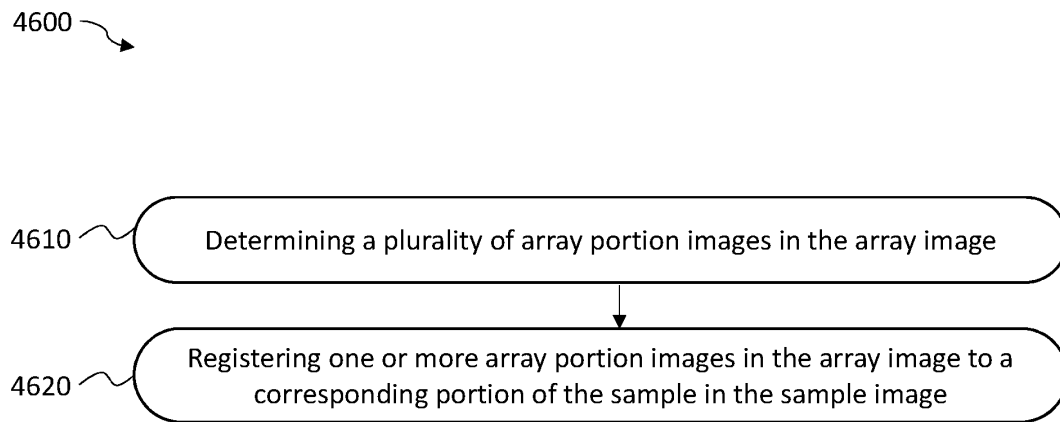


FIG. 45

**FIG. 46**

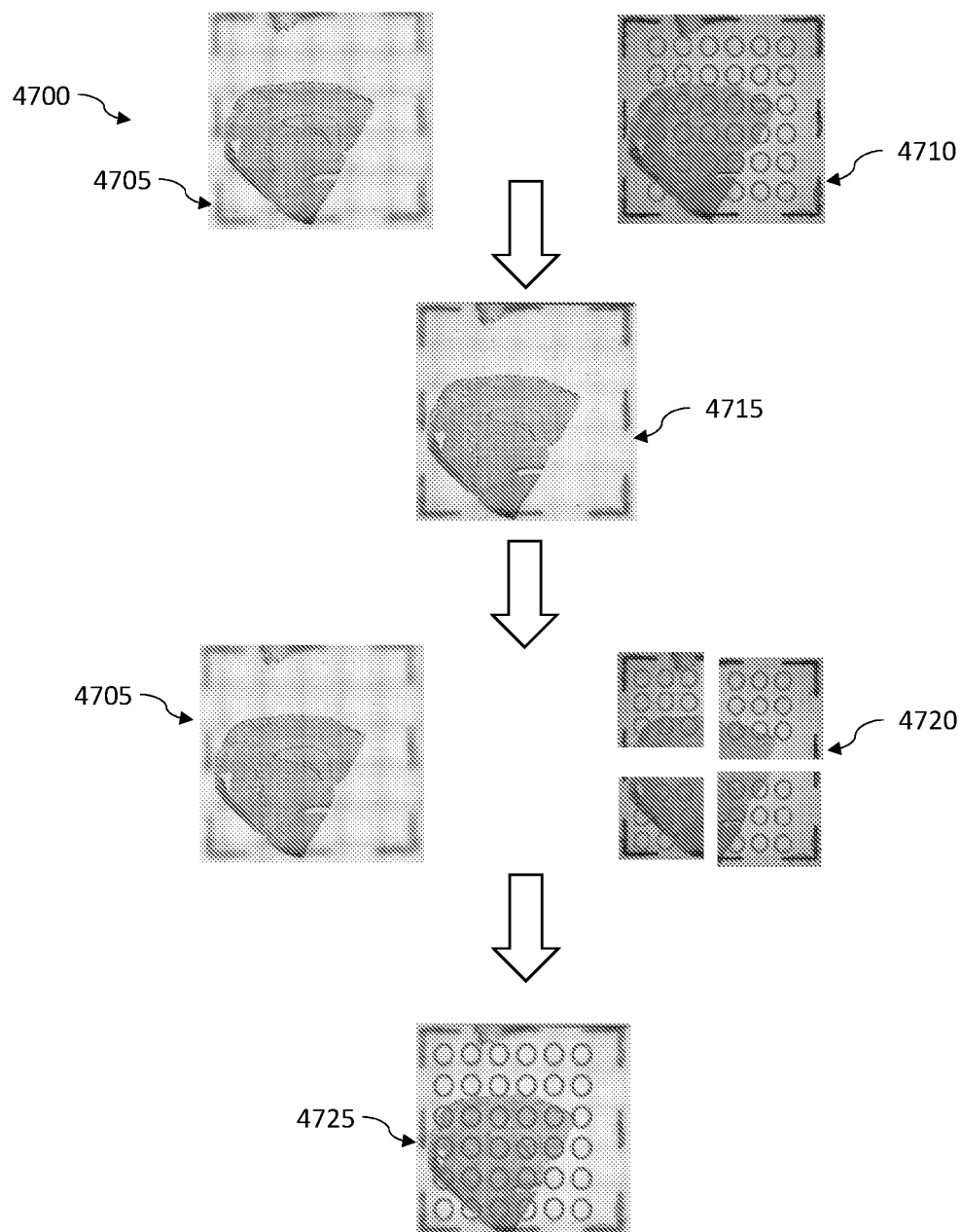
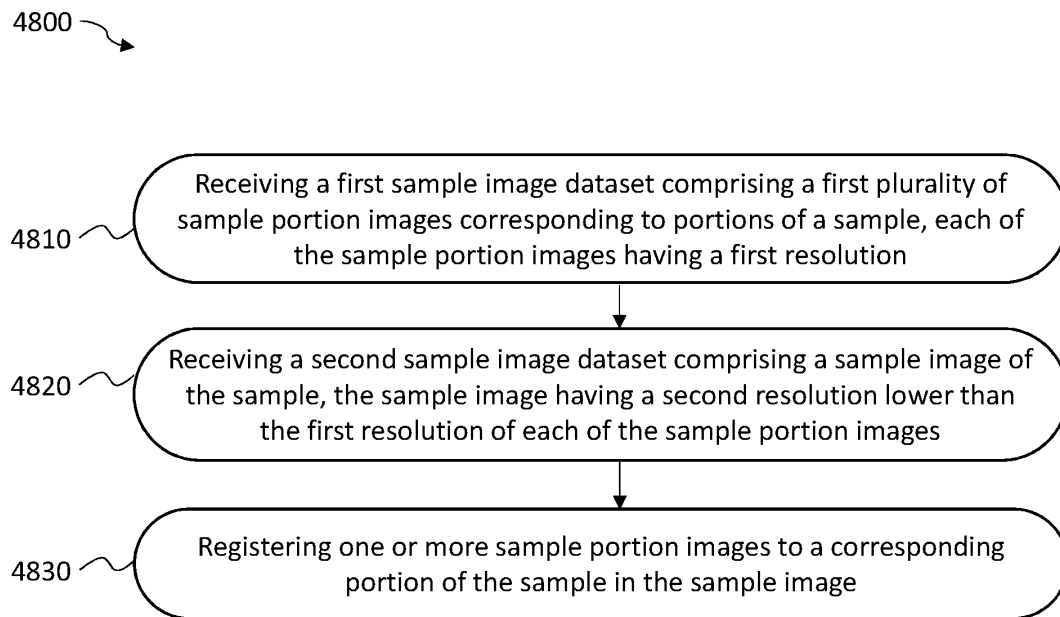


FIG. 47

**FIG. 48**

4900 →

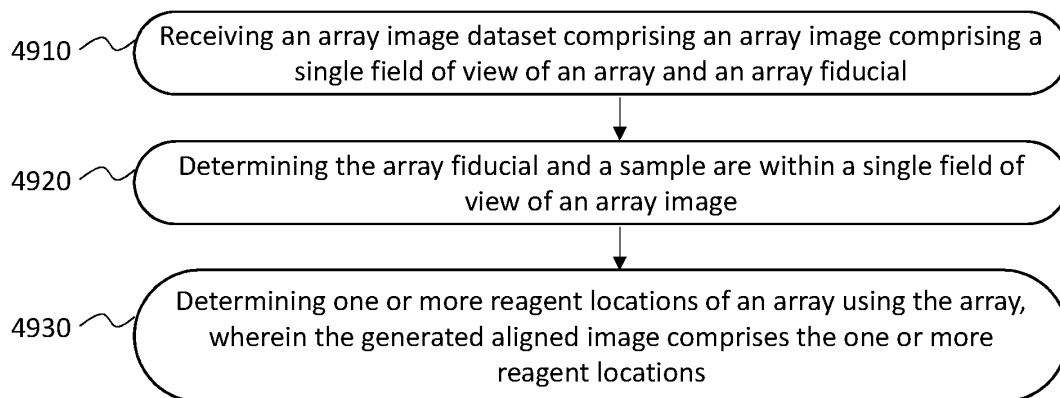


FIG. 49

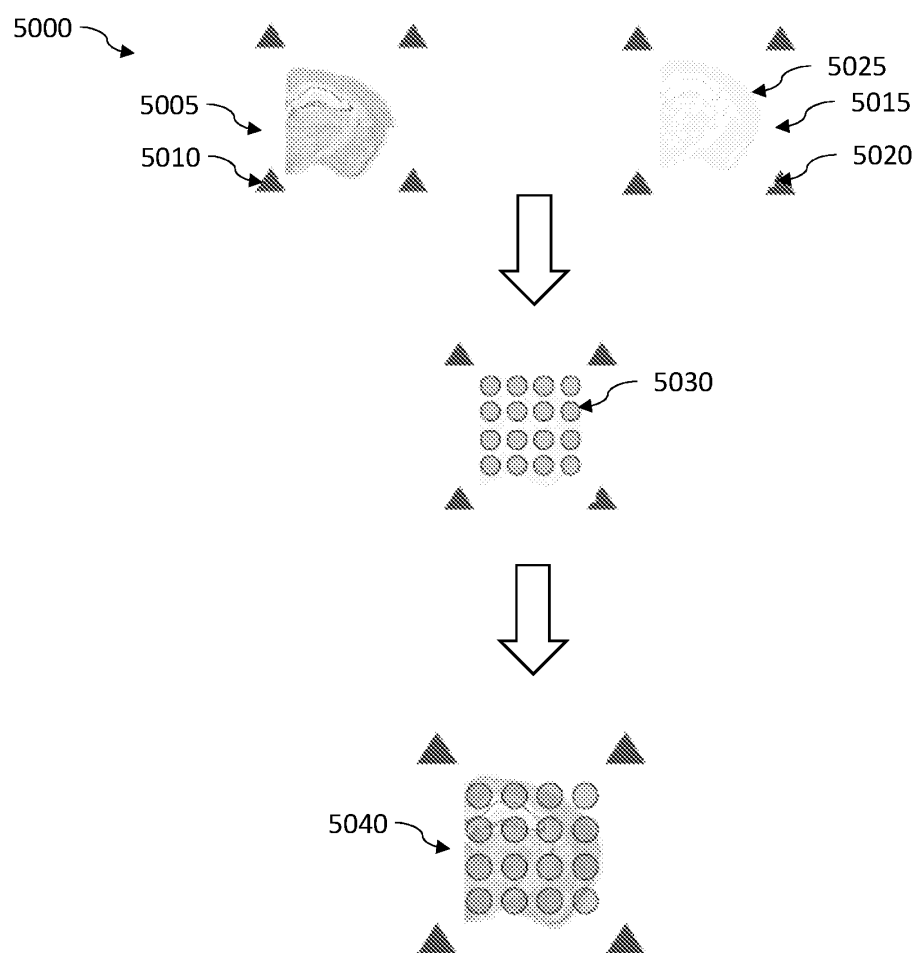


FIG. 50

5100 →

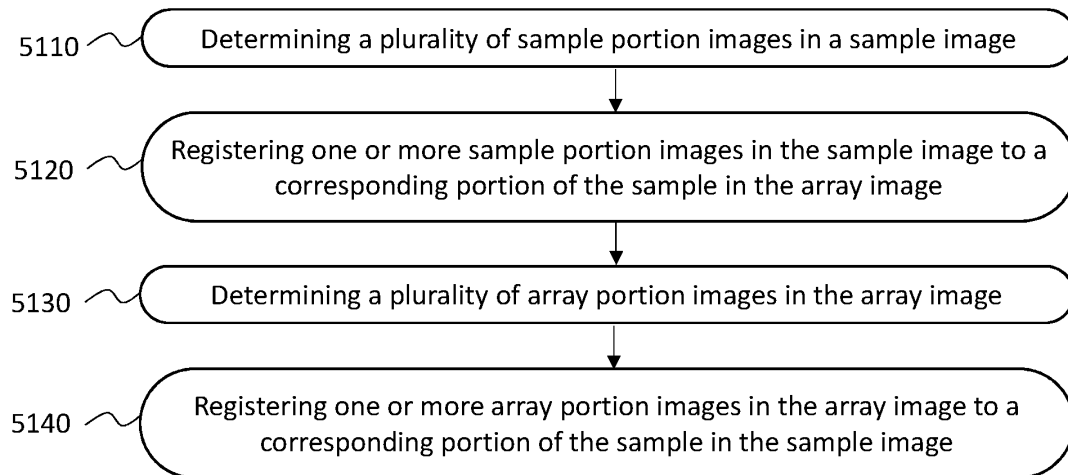


FIG. 51

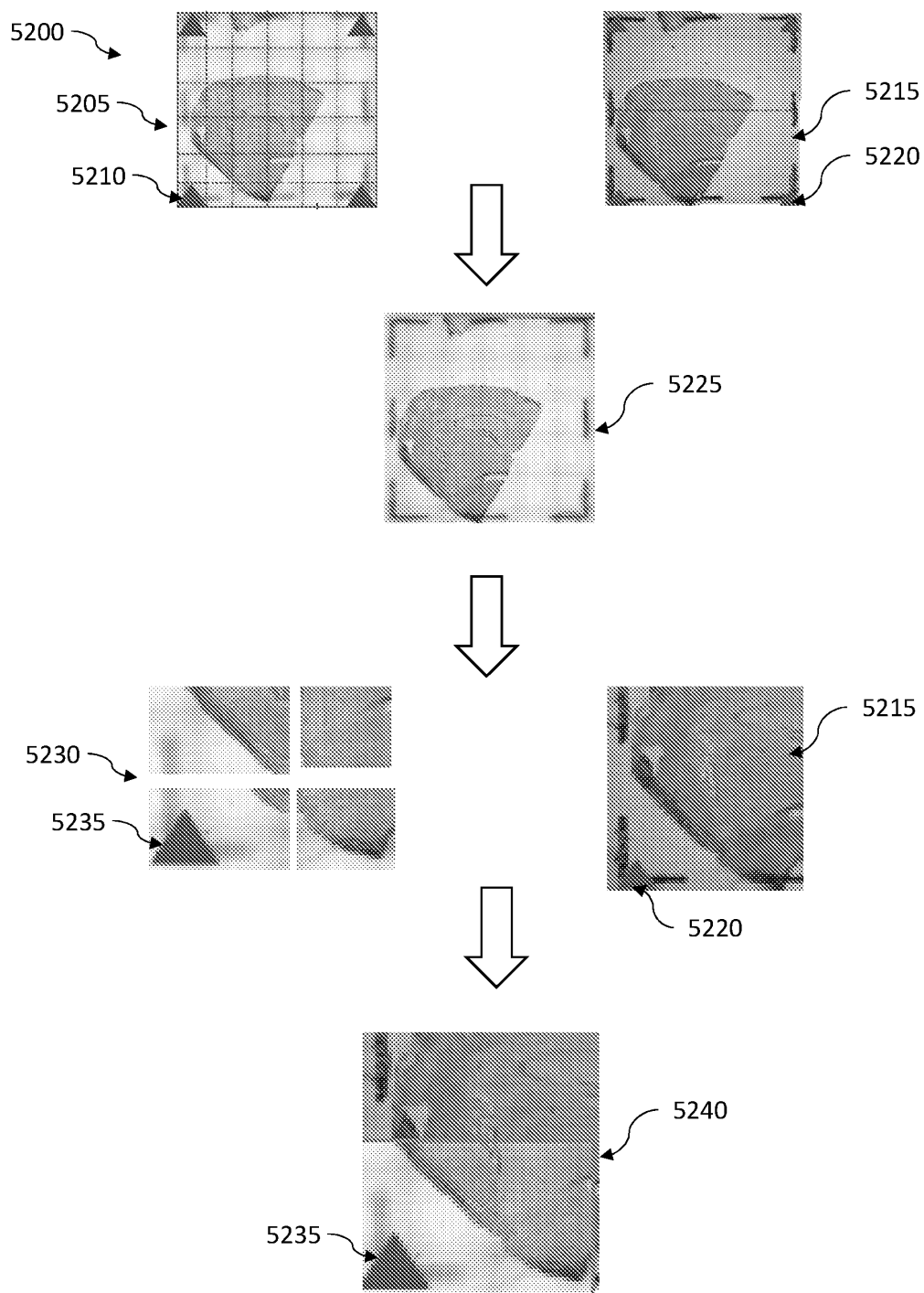


FIG. 52

5300

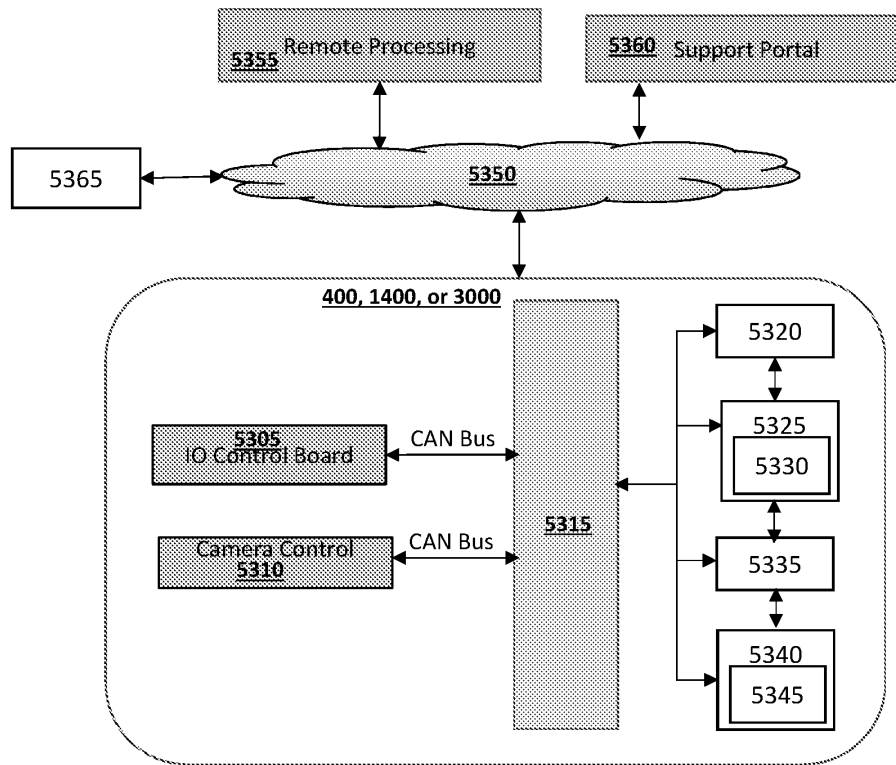


FIG. 53

5400

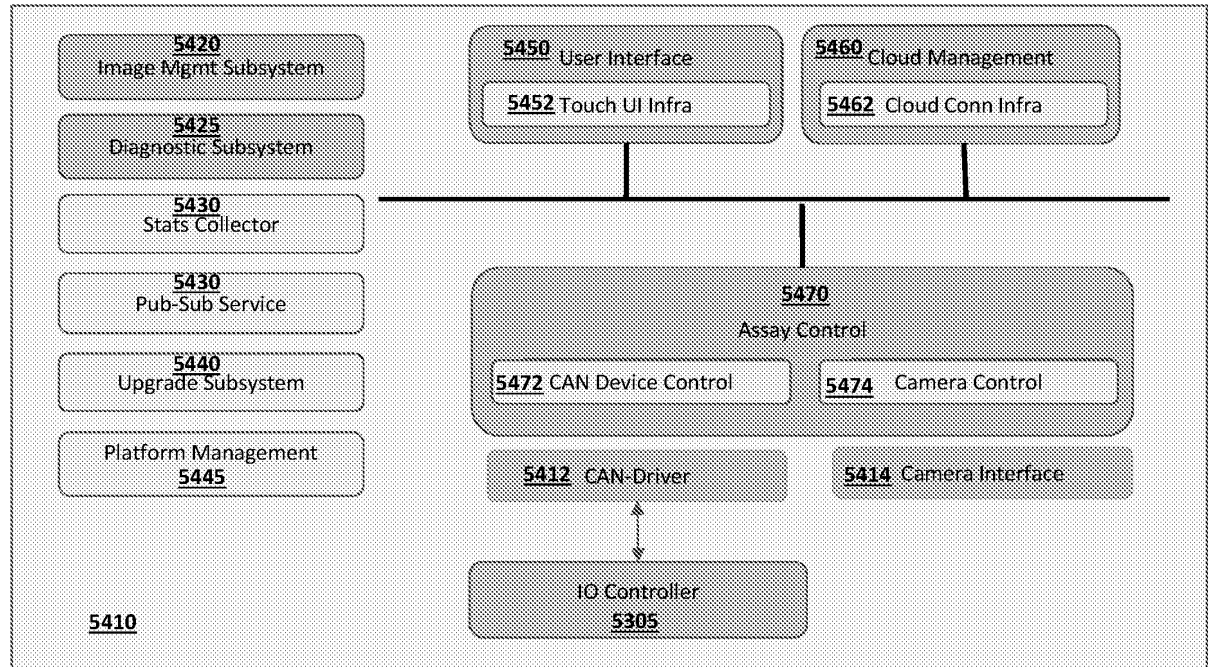
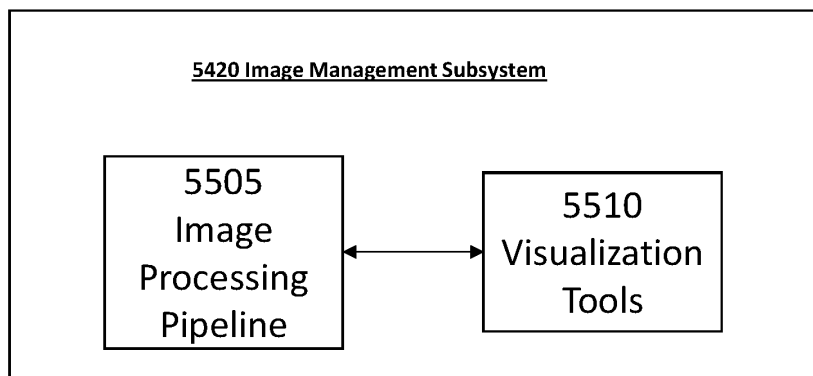


FIG. 54

5500

**FIG. 55**

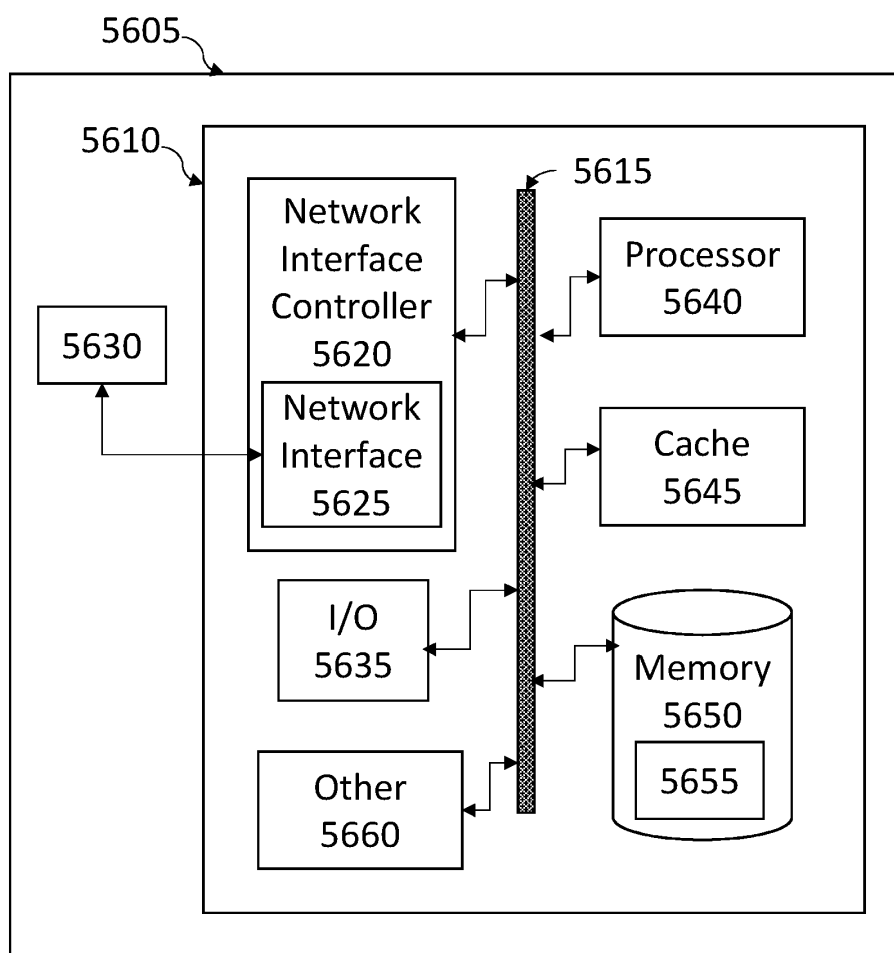


FIG. 56

5700

5715

5725

5710

5710

5705

5720

5730

FIG. 57

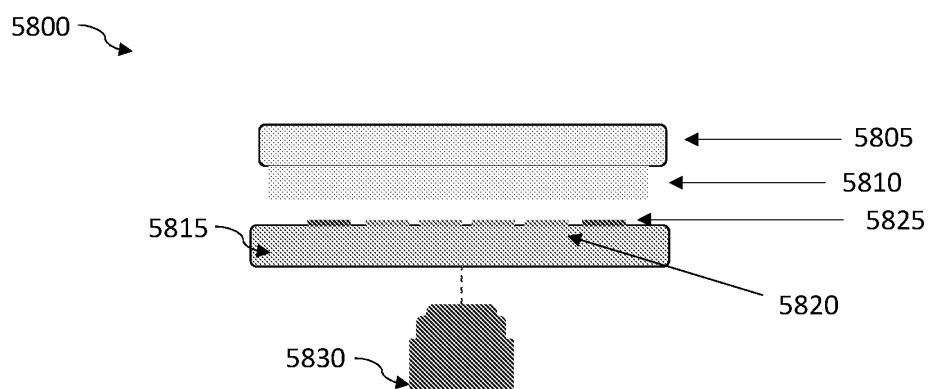


FIG. 58A

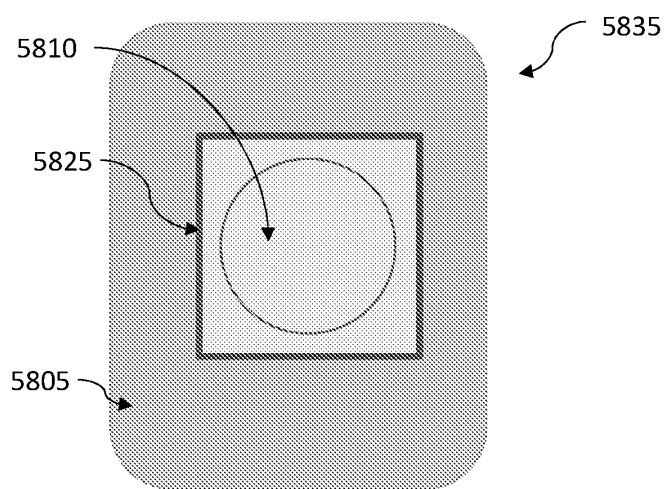
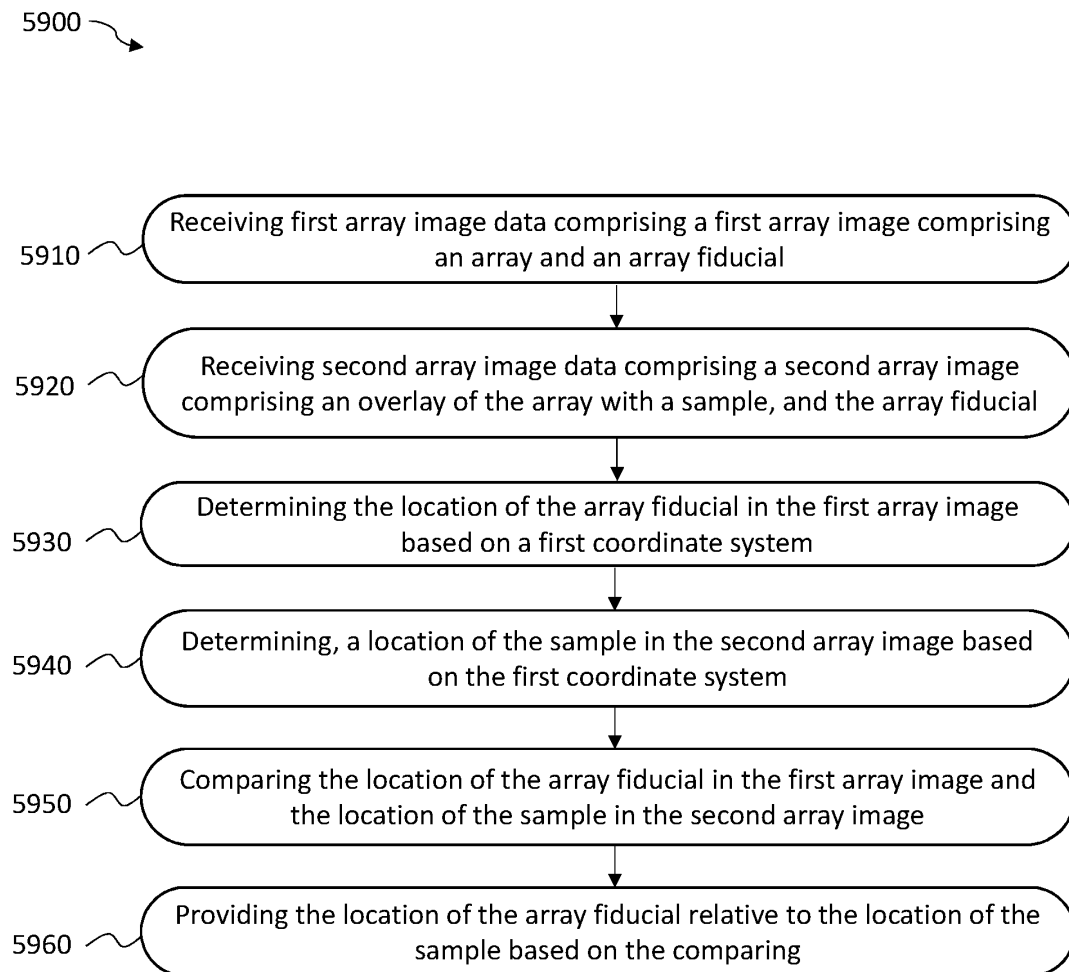
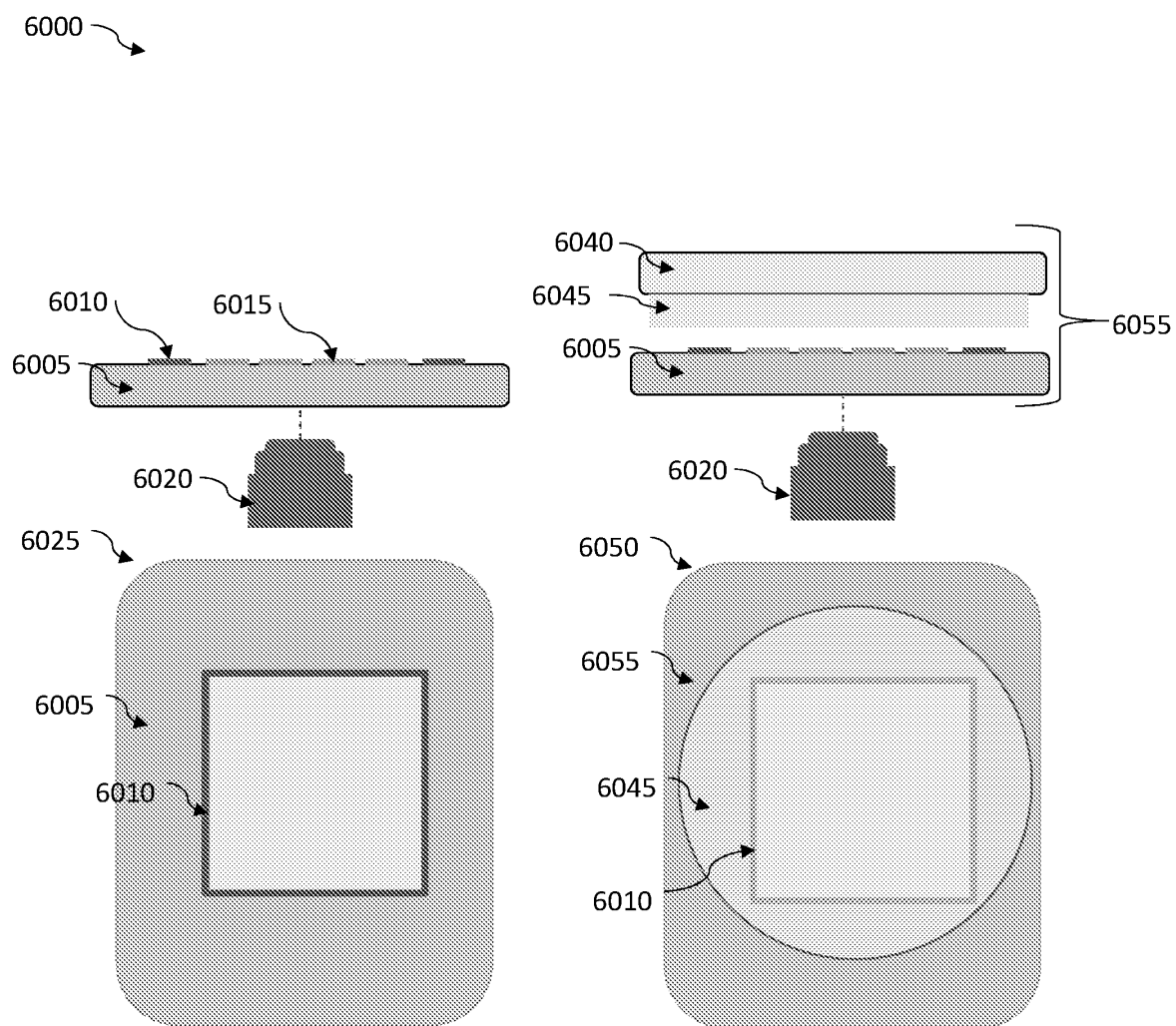
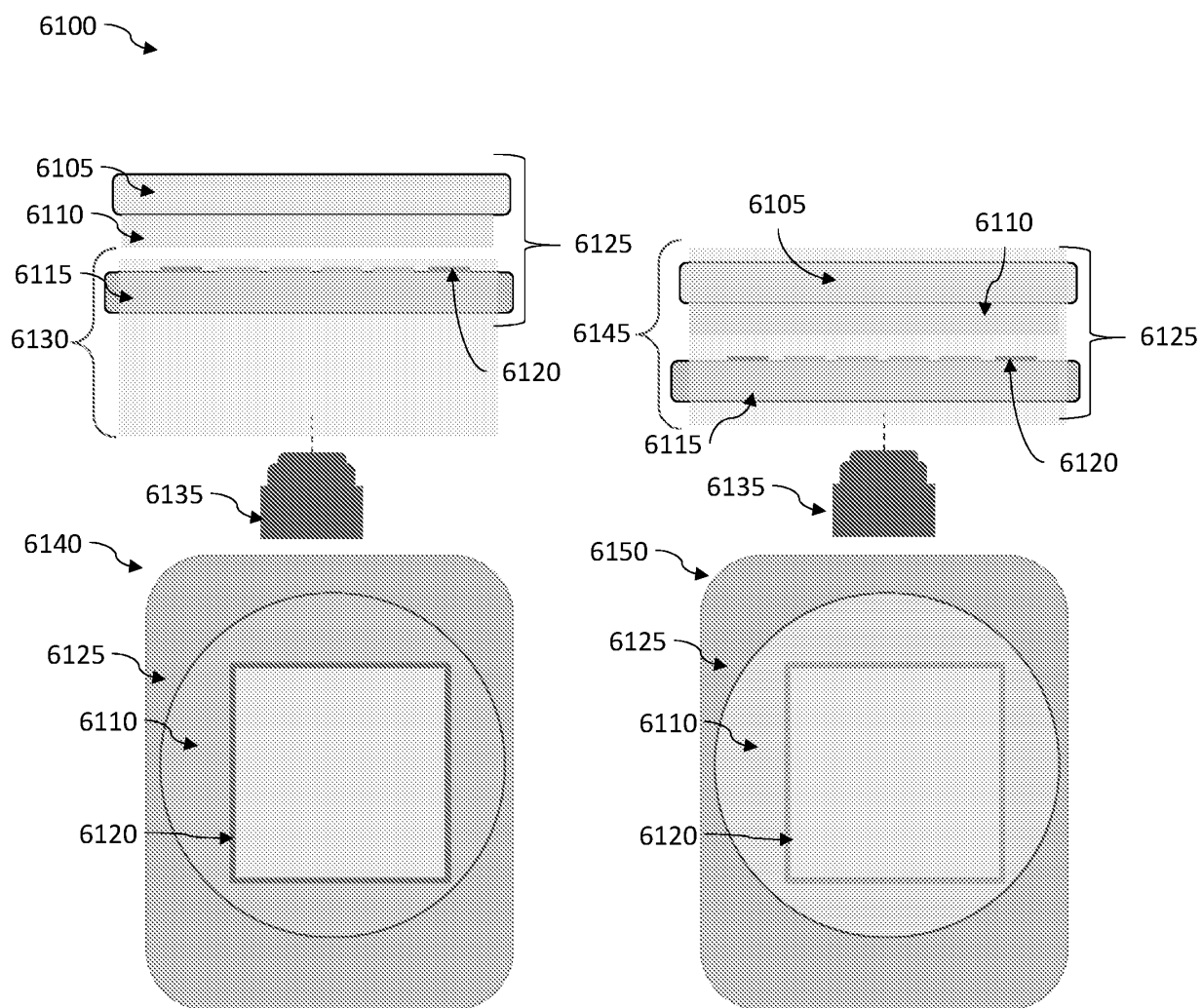


FIG. 58B

**FIG. 59**





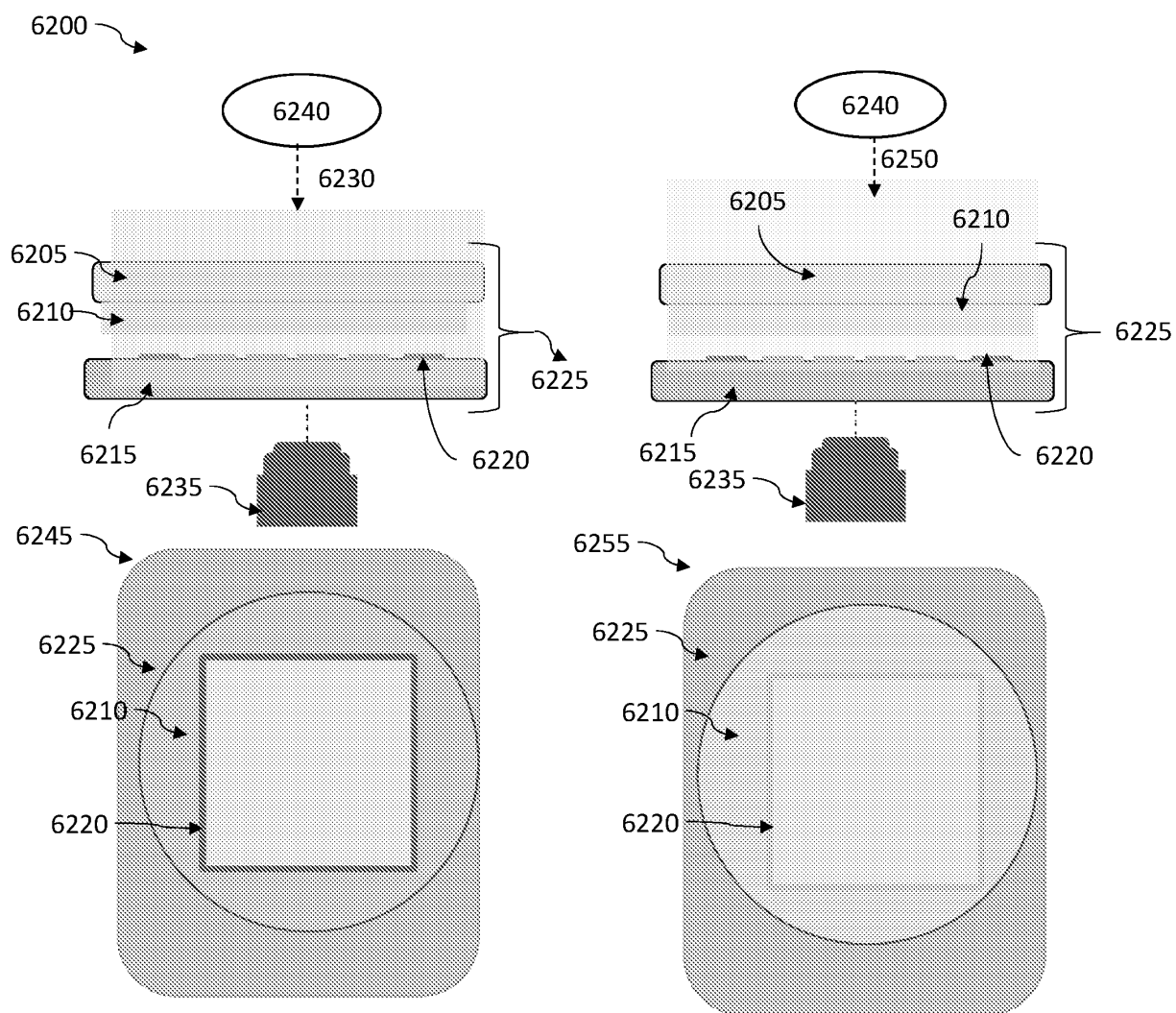


FIG. 62A

FIG. 62B

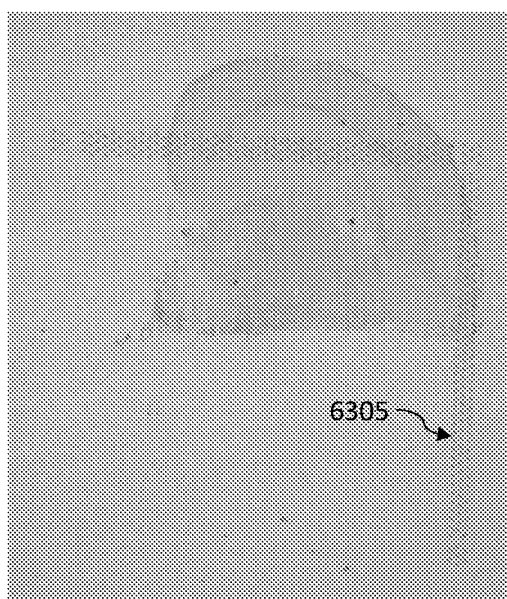


FIG. 63A

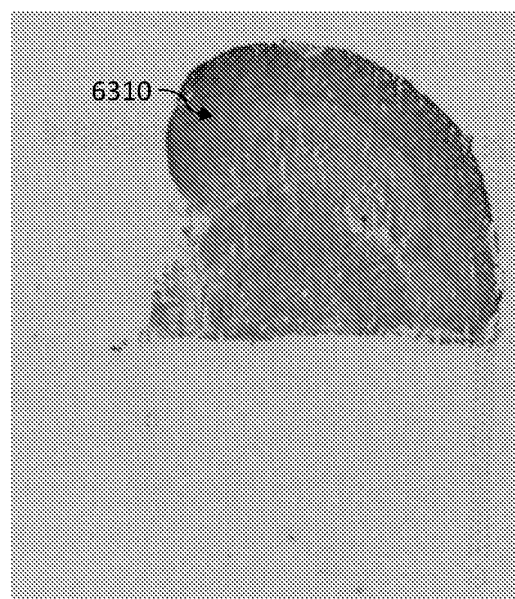


FIG. 63B

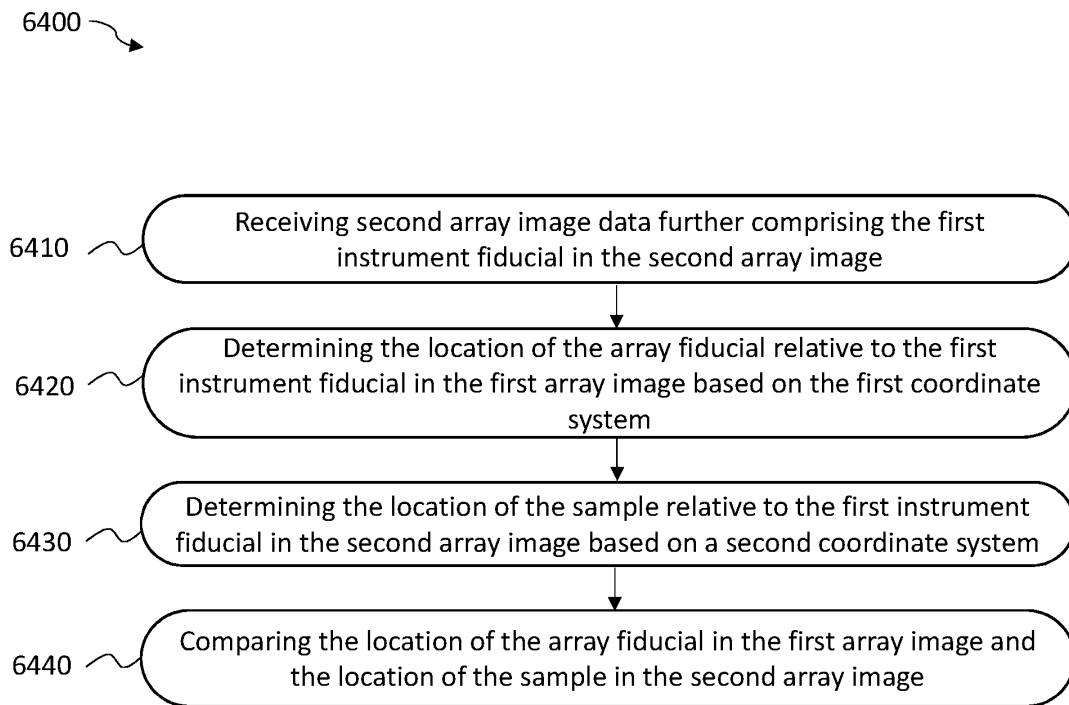


FIG. 64

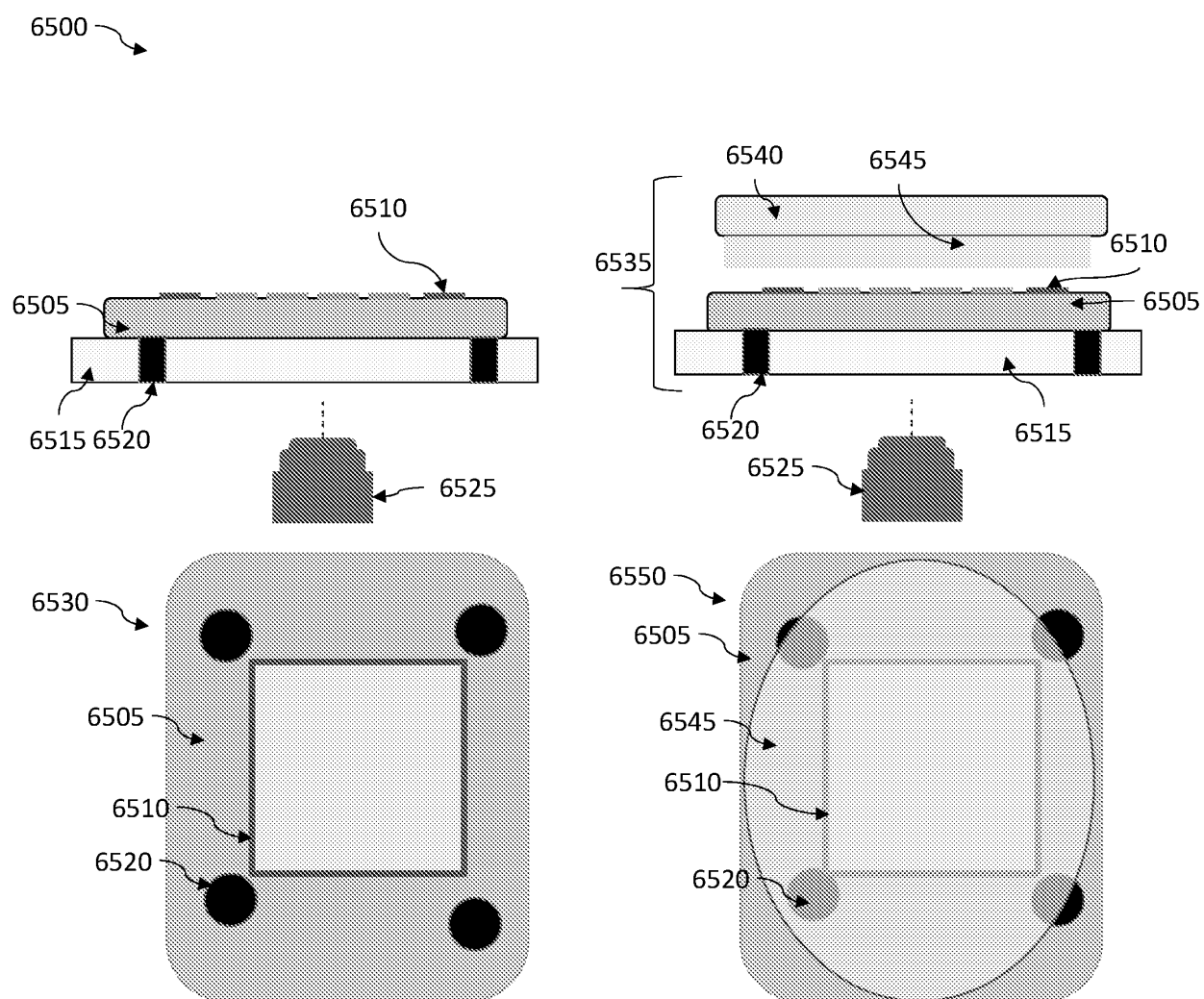
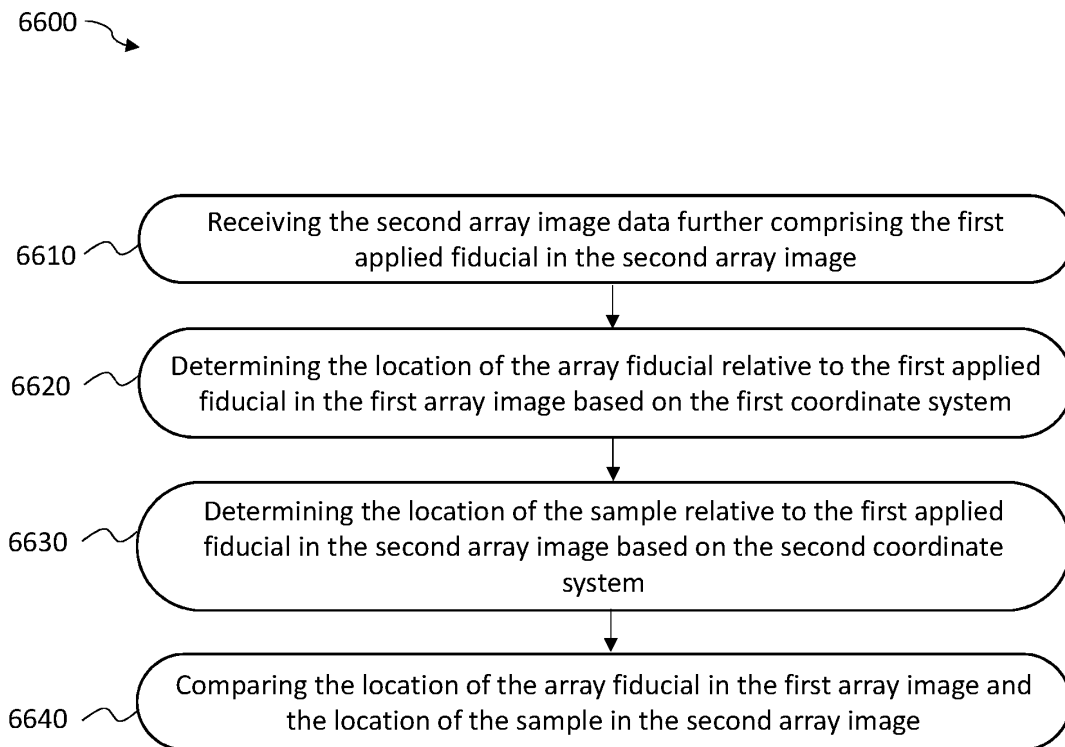


FIG. 65A

FIG. 65B

**FIG. 66**

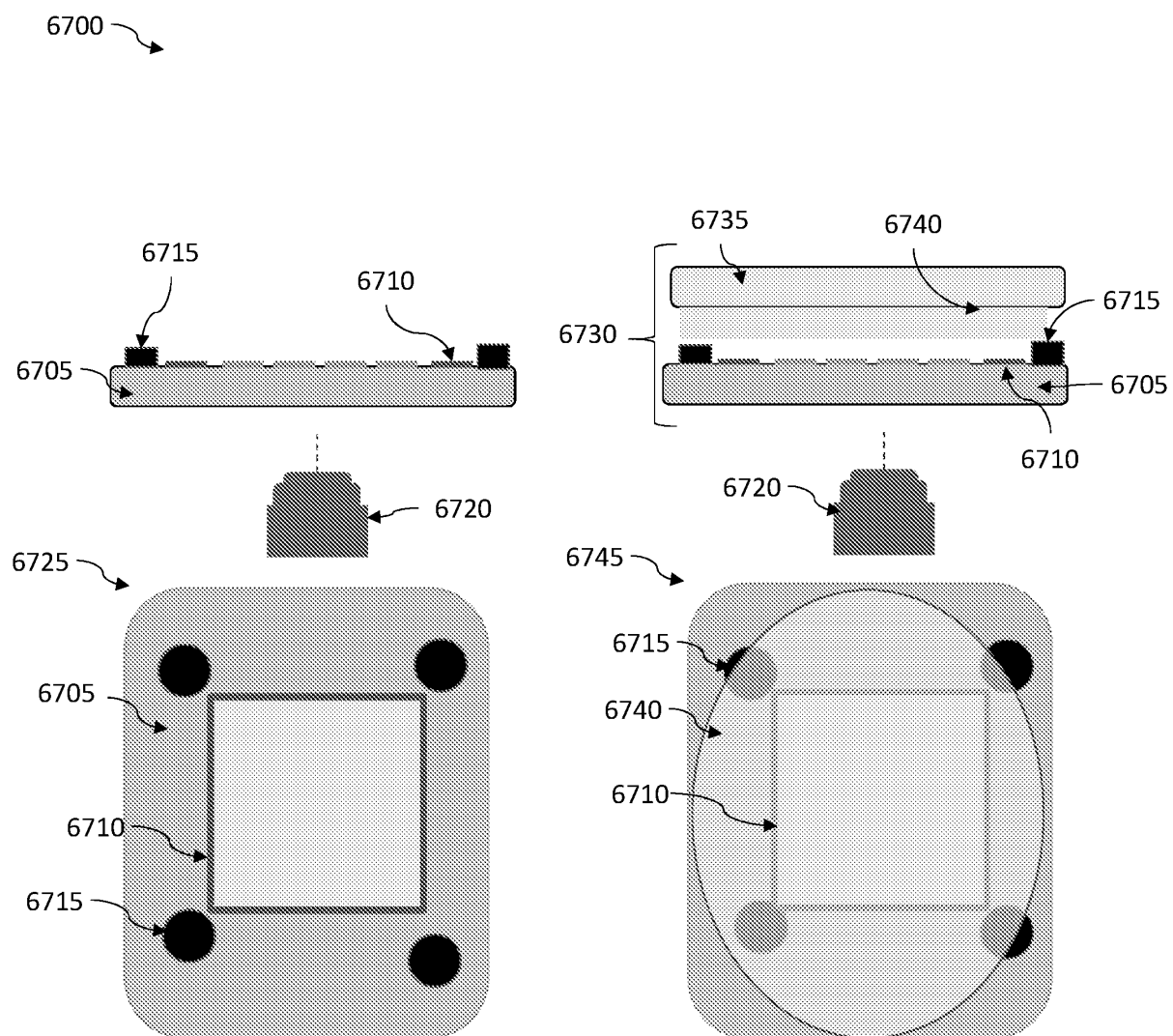


FIG. 67A

FIG. 67B

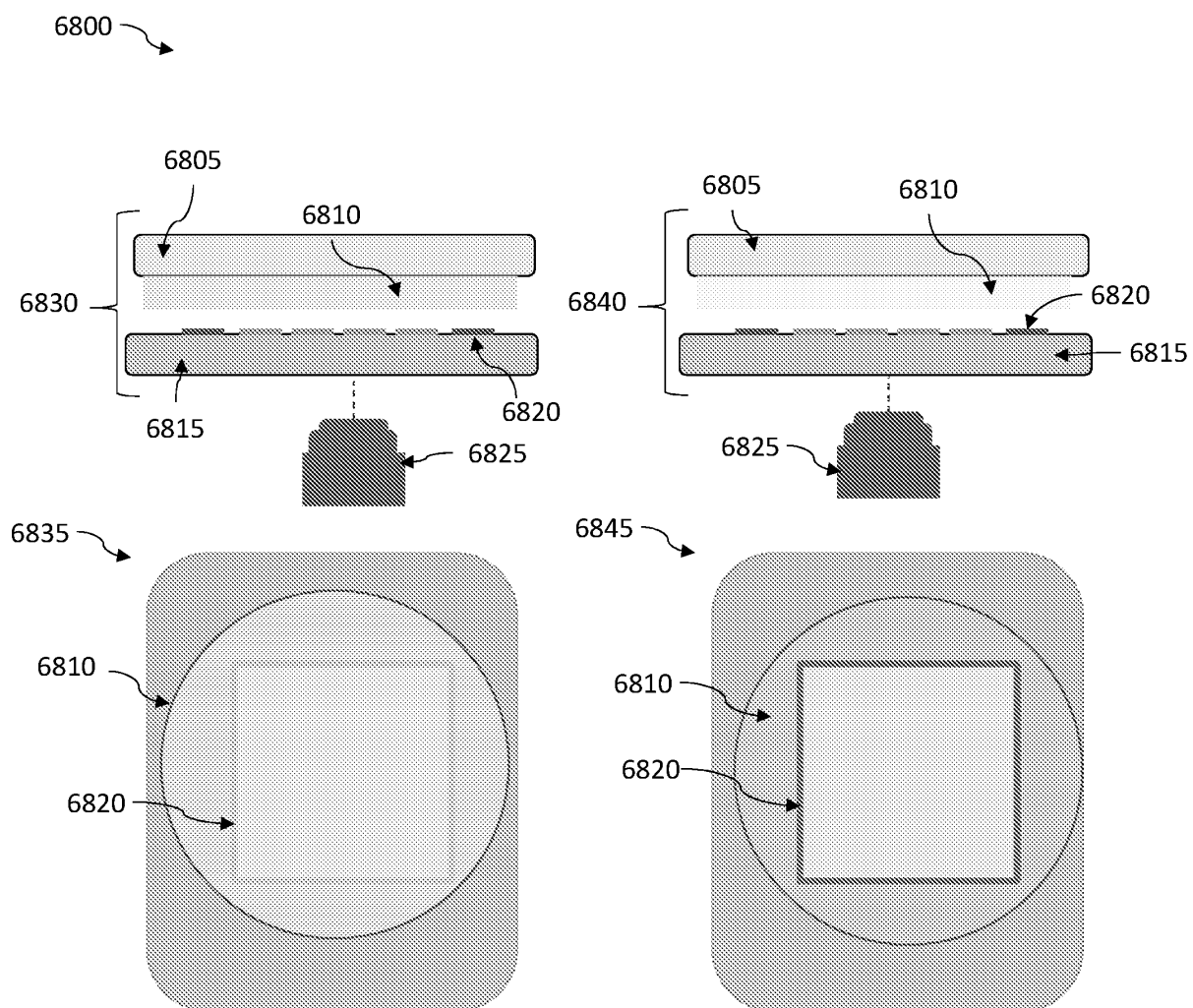
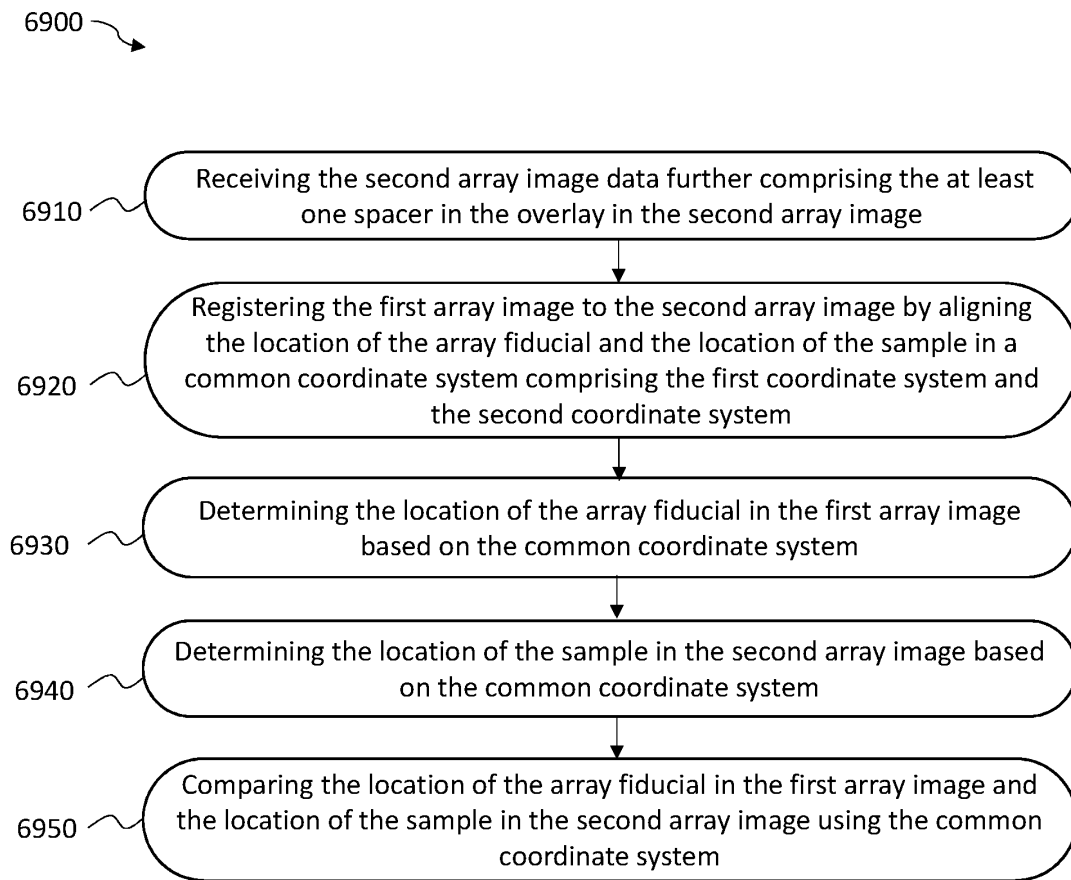


FIG. 68A

FIG. 68B

**FIG. 69**

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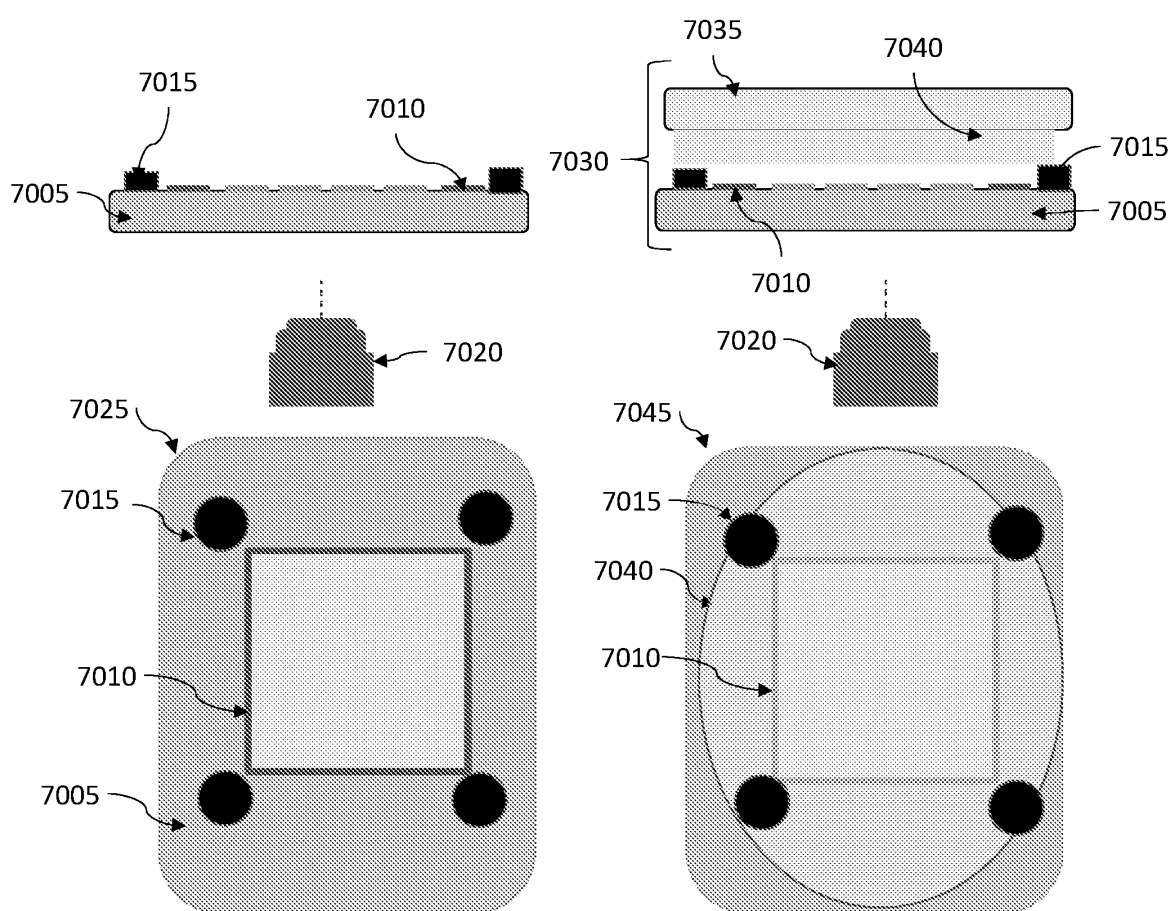


FIG. 70A

FIG. 70B

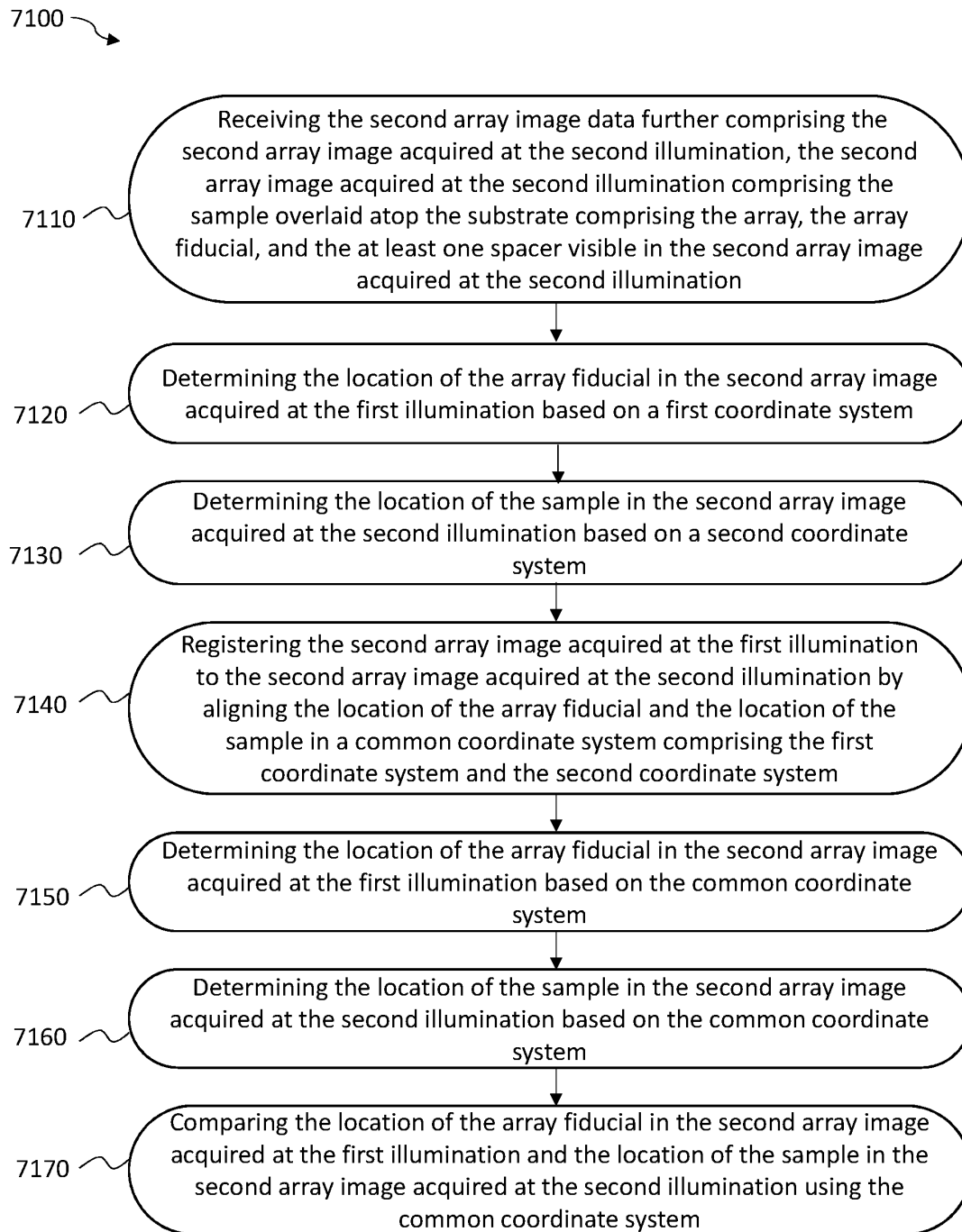


FIG. 71

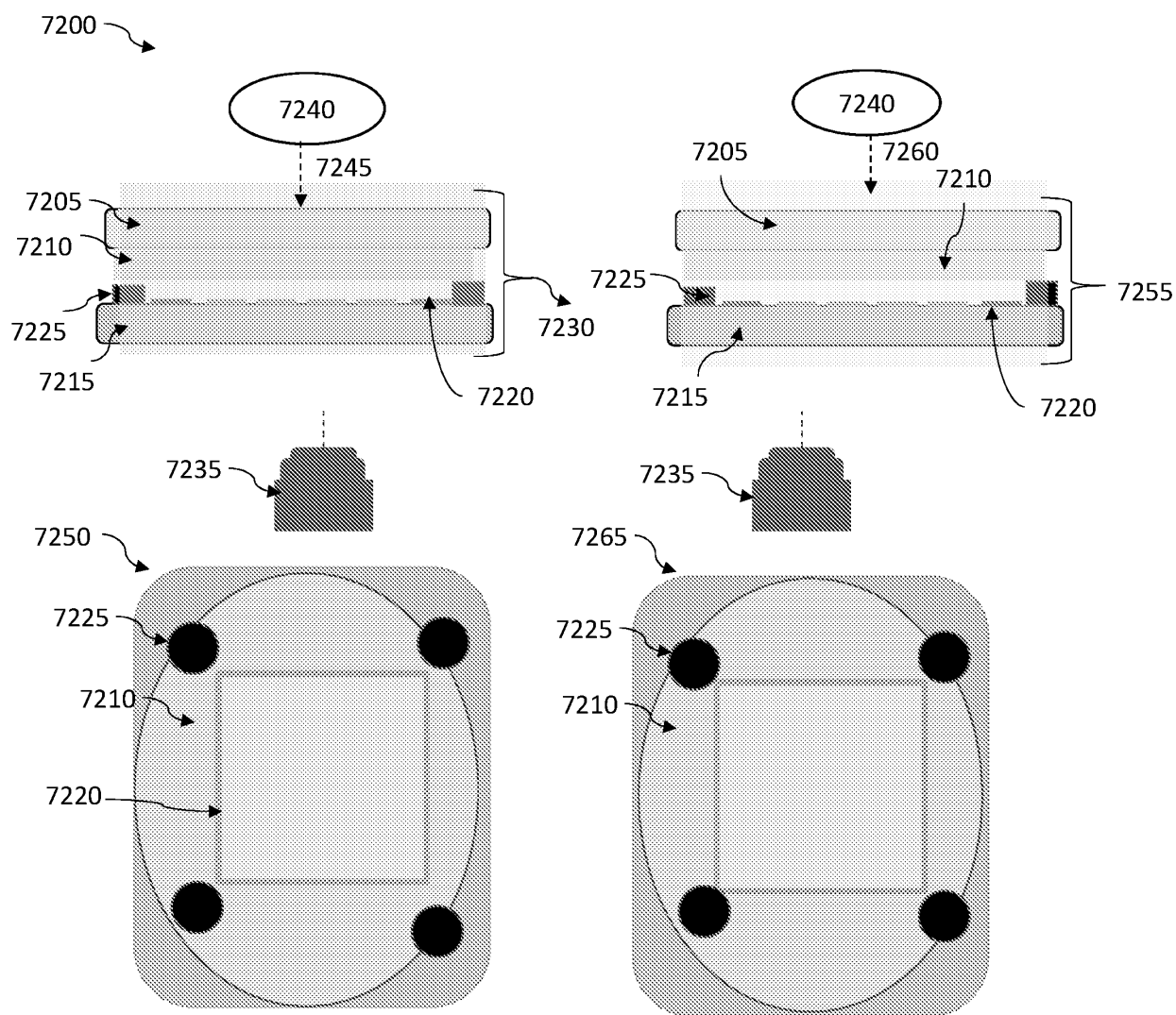


FIG. 72A

FIG. 72B

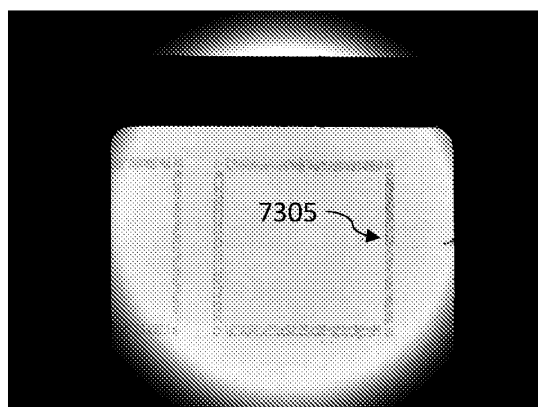


FIG. 73A

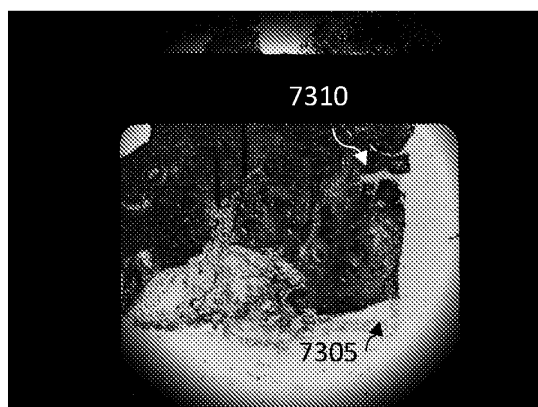


FIG. 73B

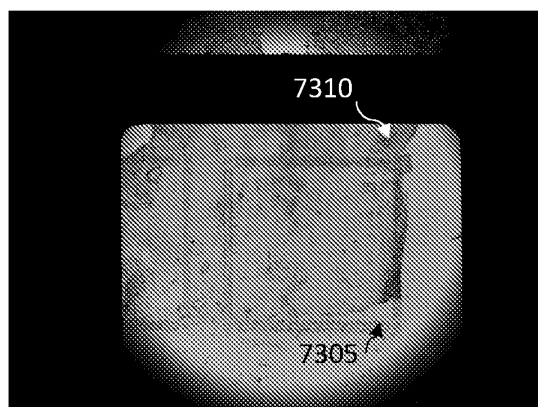


FIG. 73C

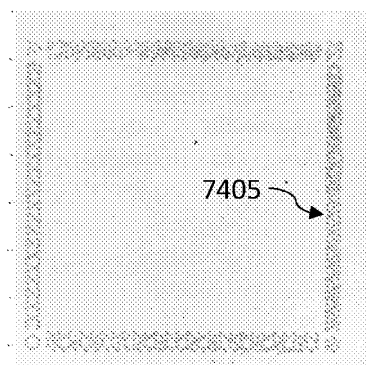


FIG. 74A

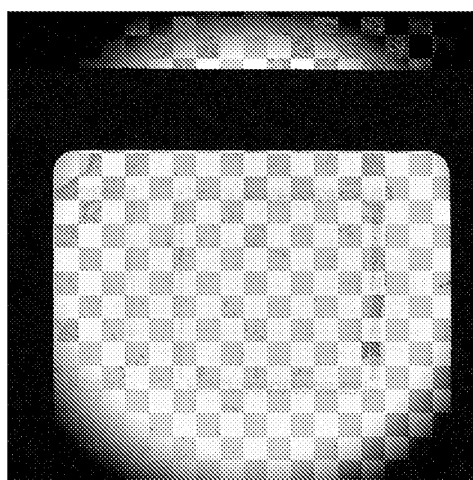


FIG. 74B

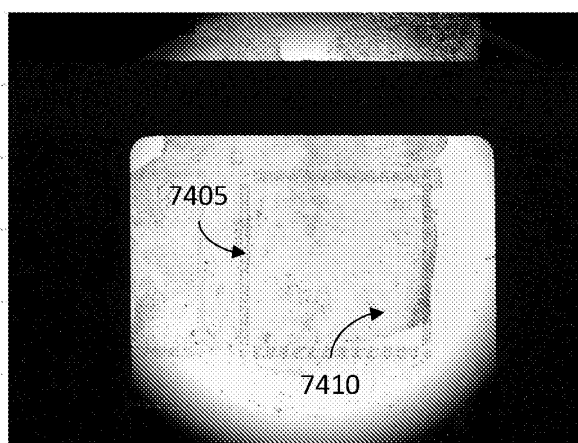


FIG. 74C

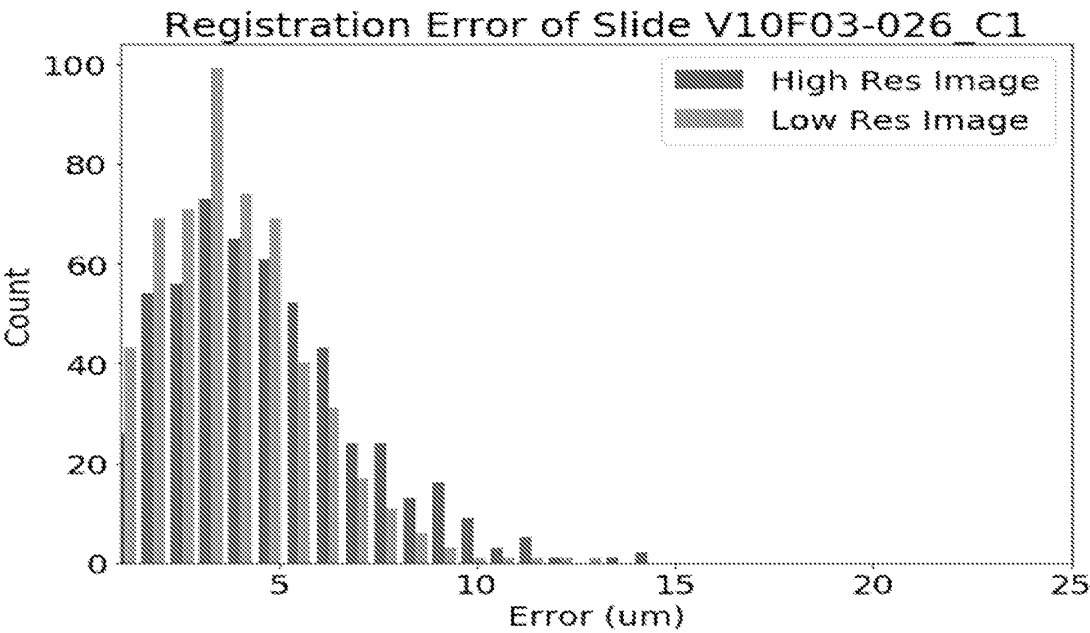


FIG. 75A

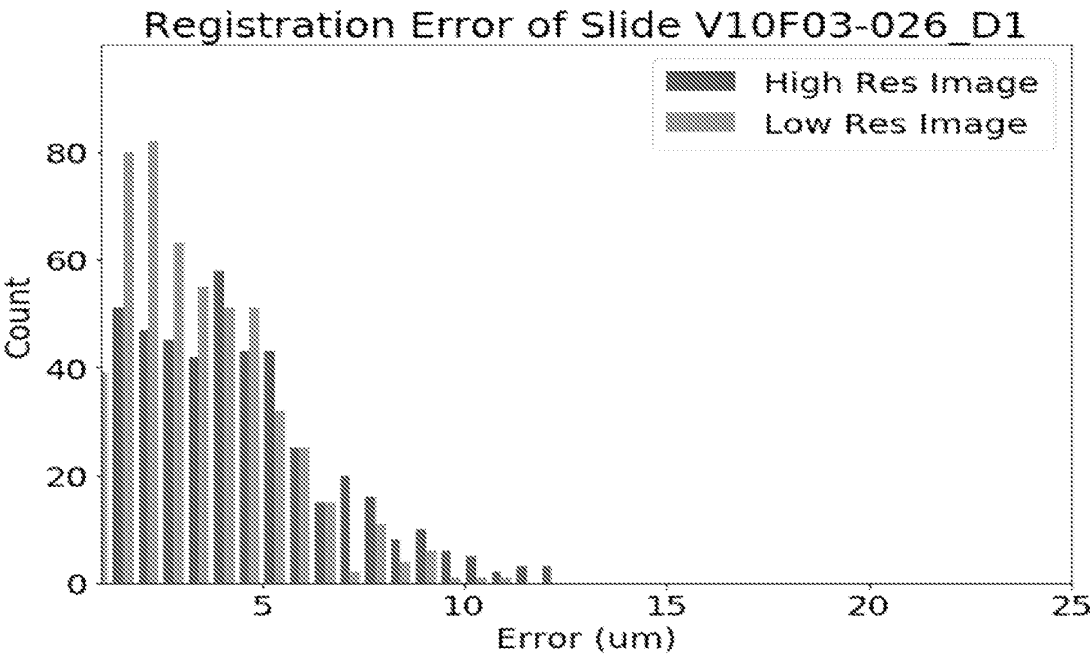


FIG. 75B

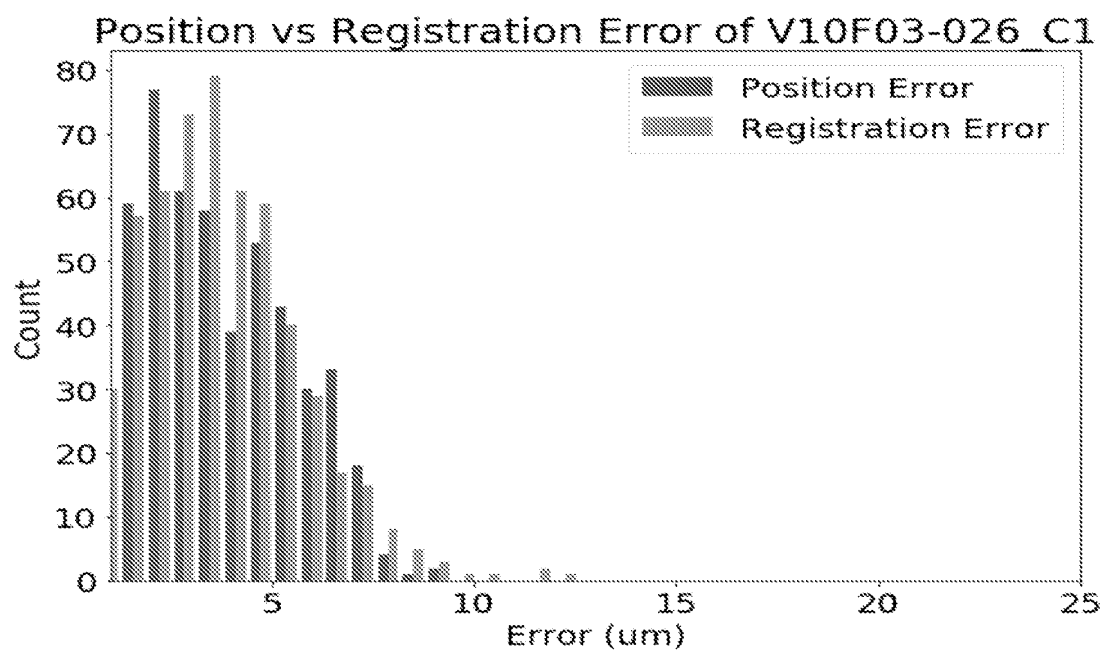


FIG. 75C

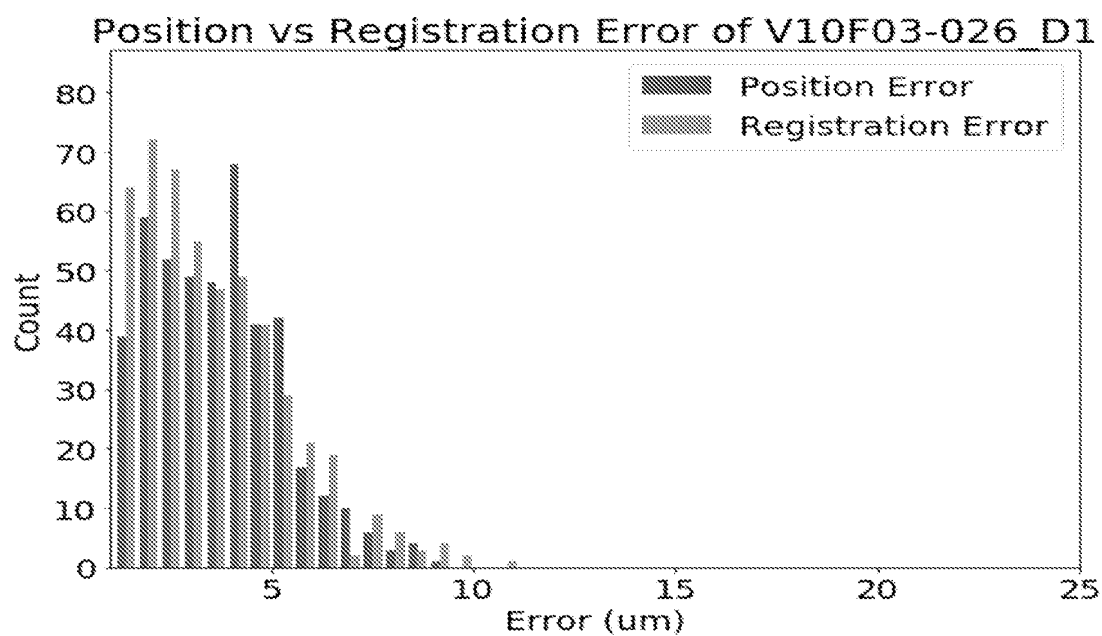


FIG. 75D

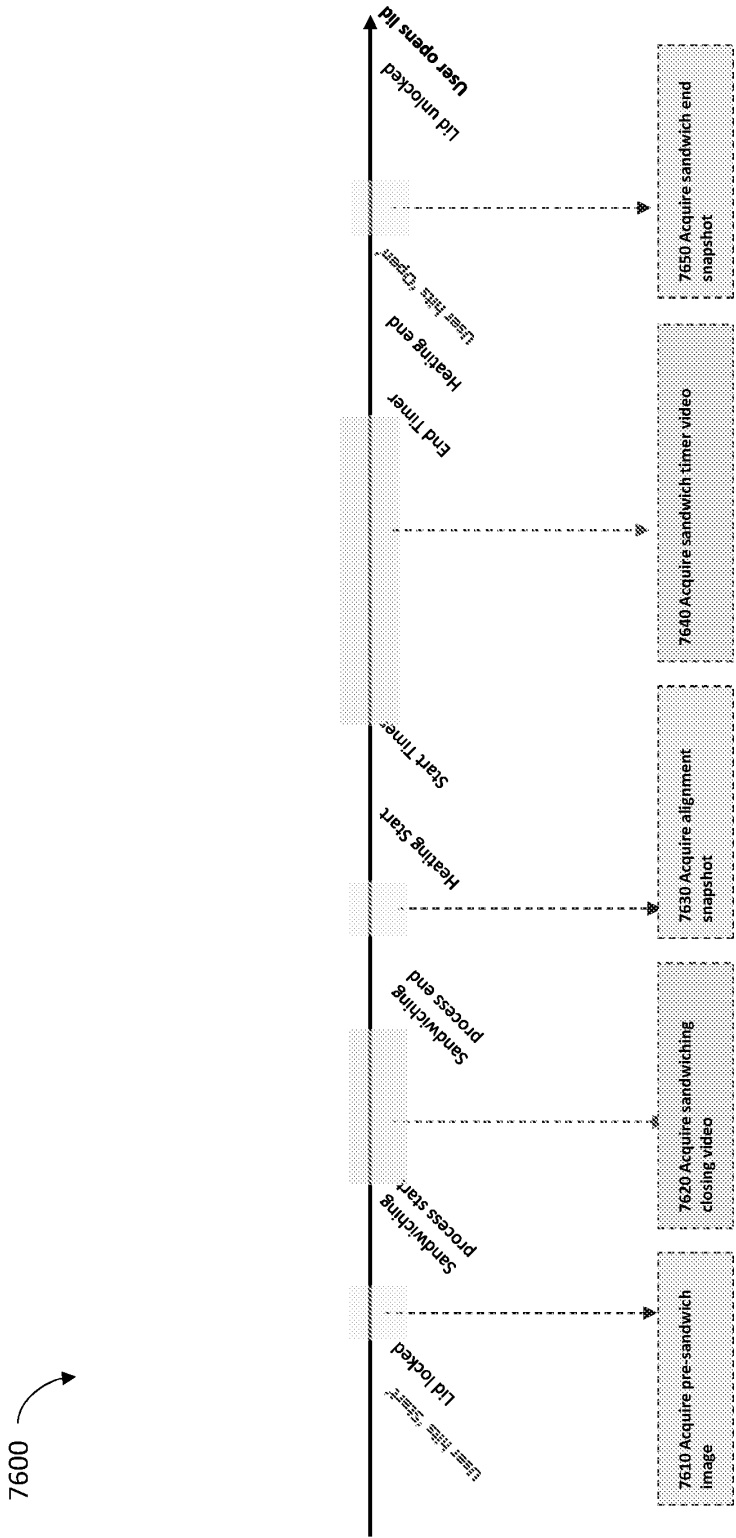


FIG. 76