

FIG. 1A

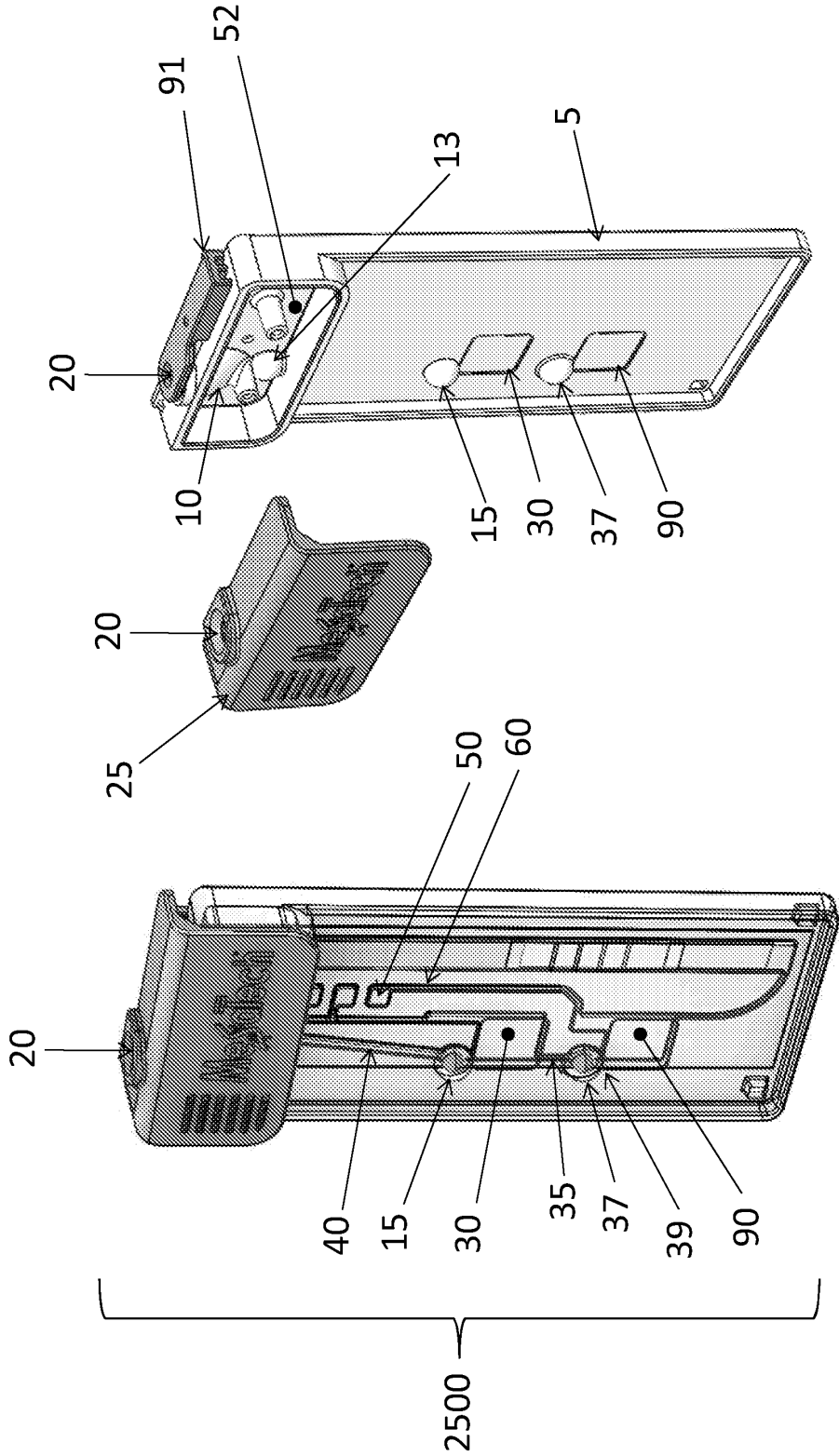
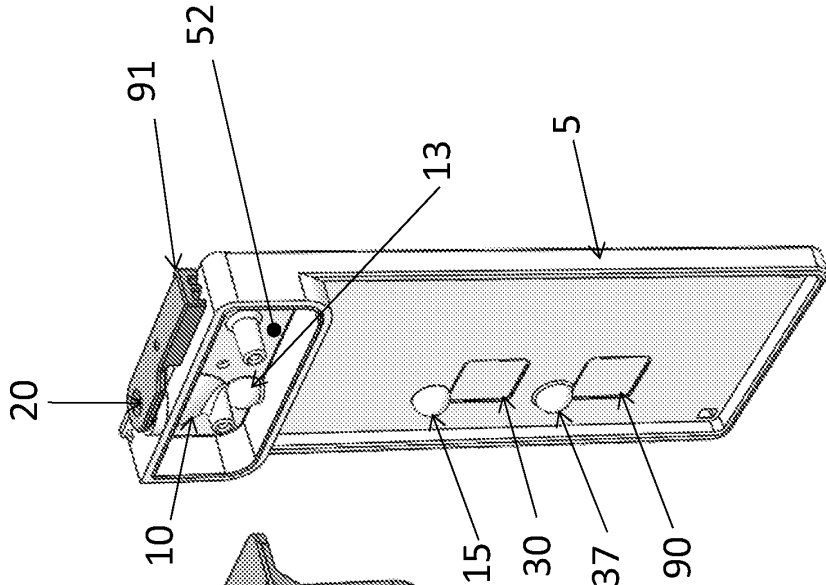


FIG. 1B



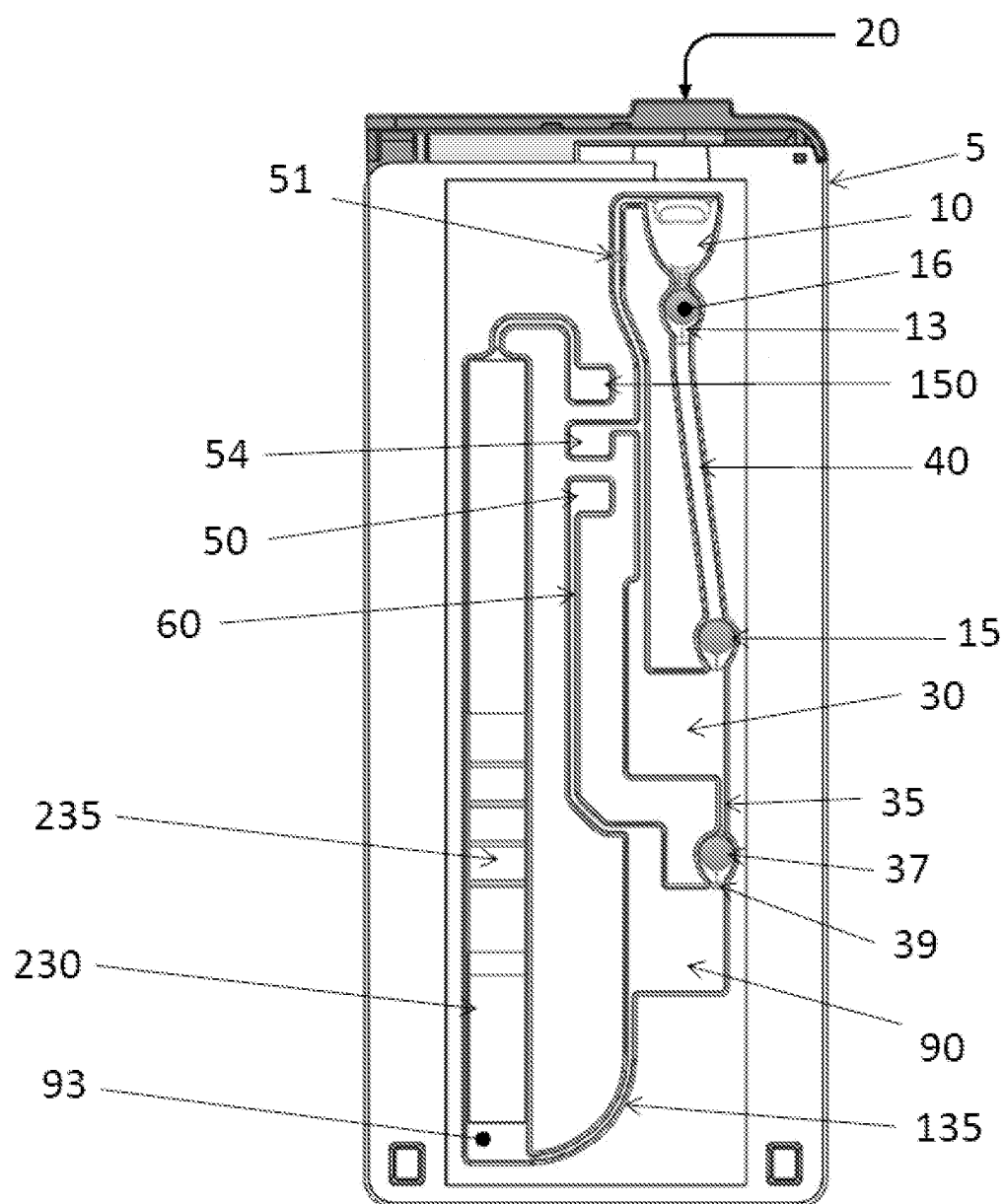


FIG. 2A

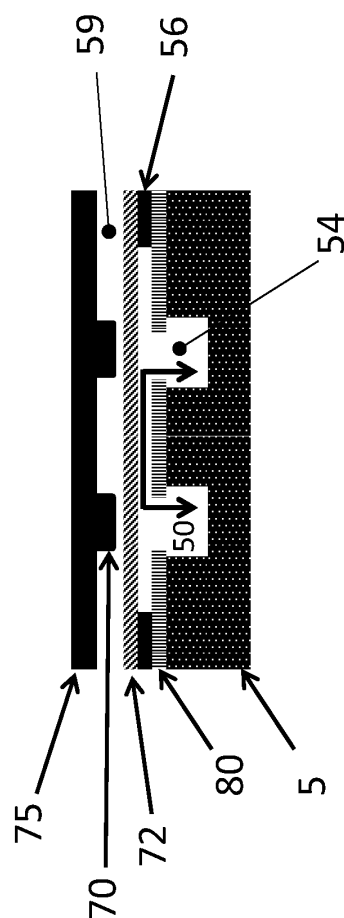


FIG. 2C

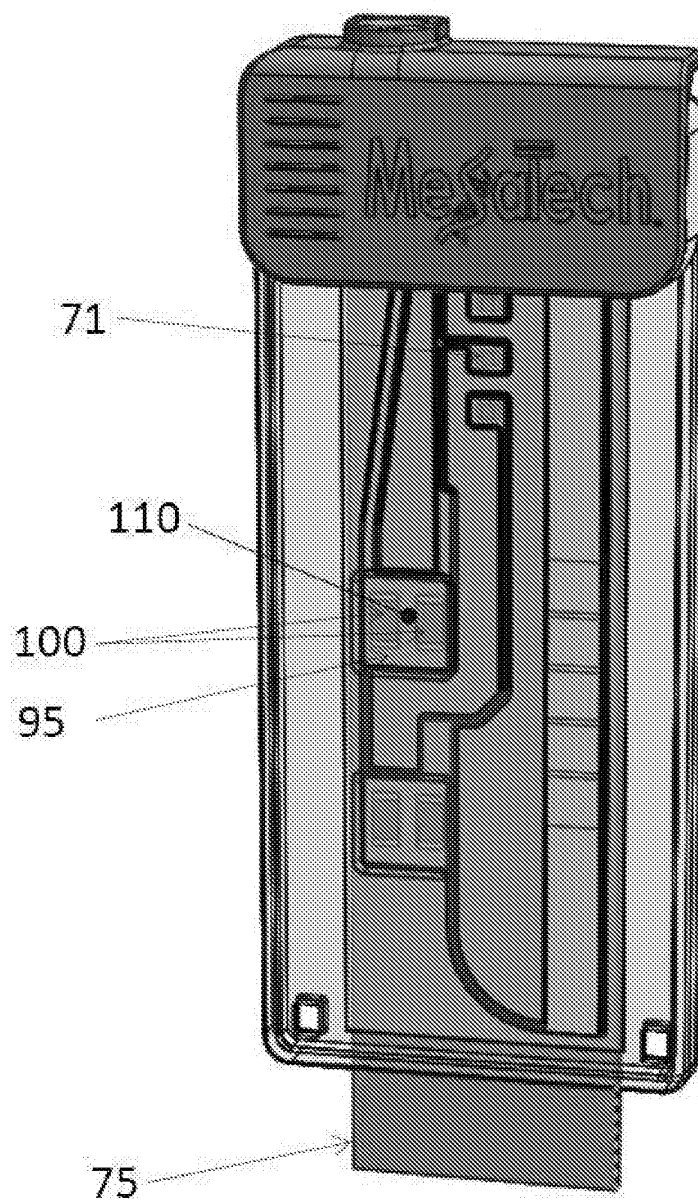


FIG. 2D

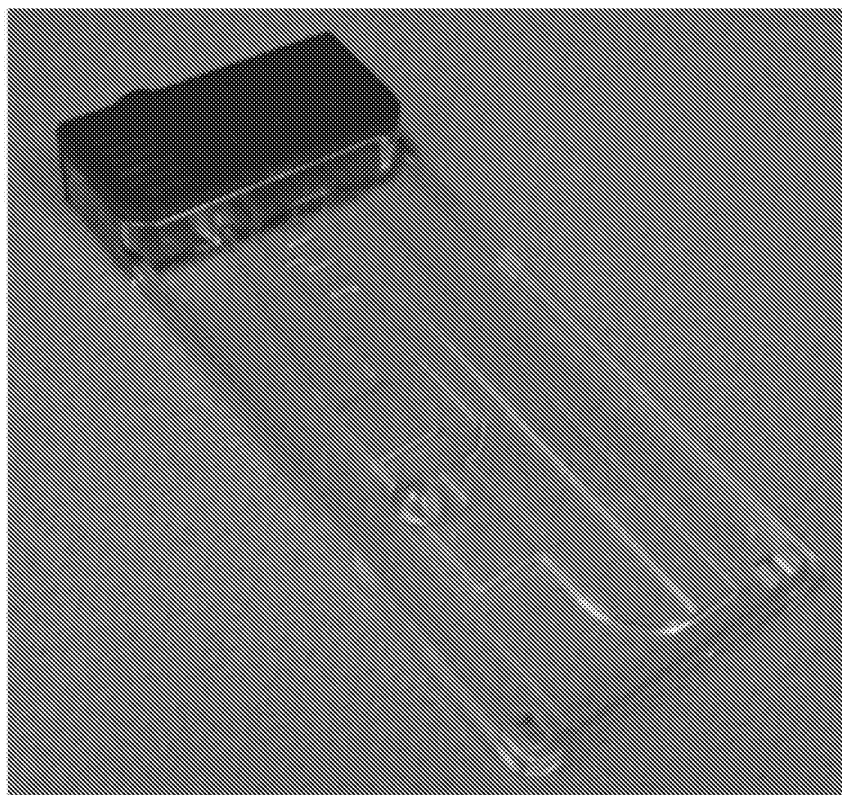


FIG. 2E

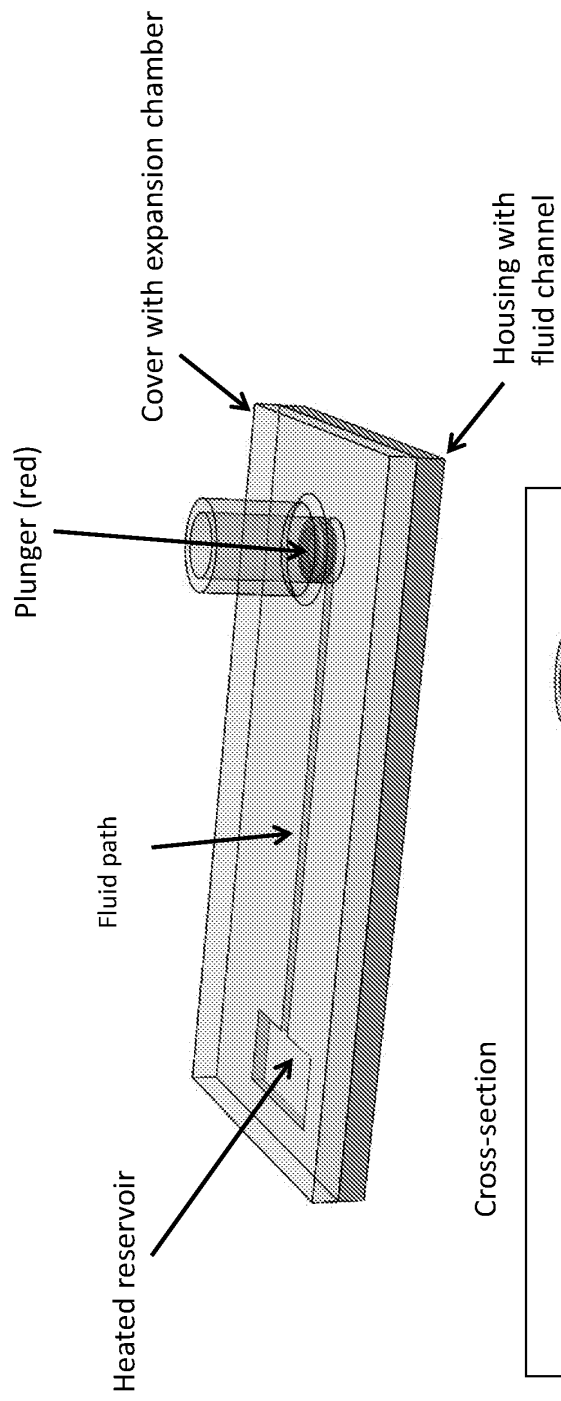


FIG. 3A

Cross-section

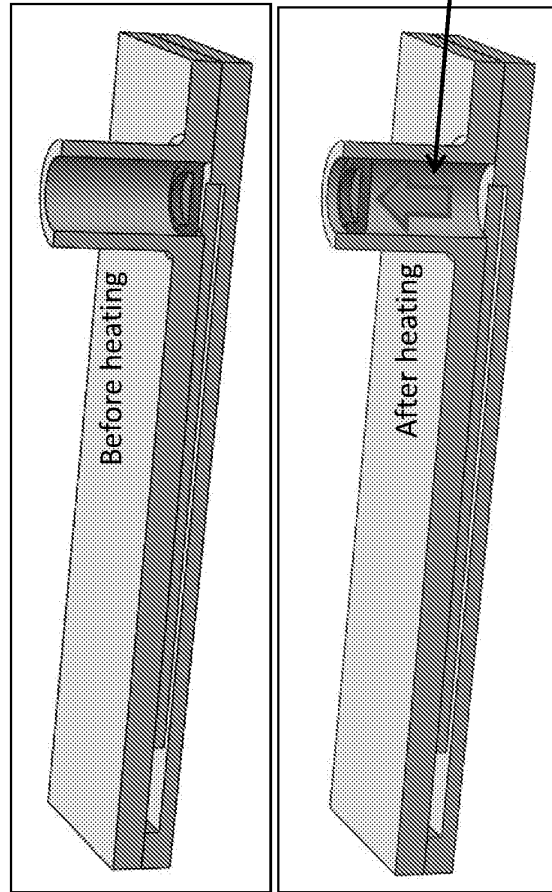
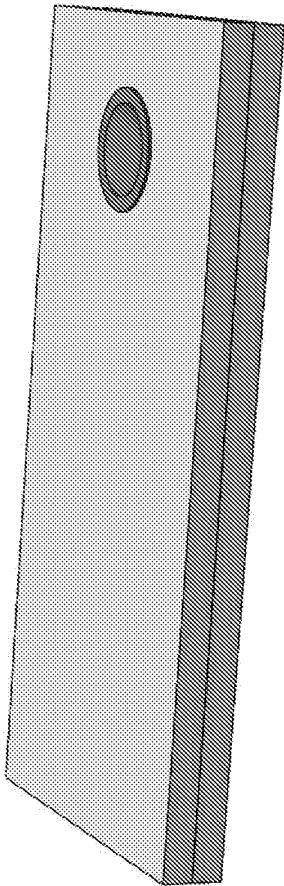


FIG. 3B

FIG. 3C

FIG. 4A



Flexible bladder

Cross-section

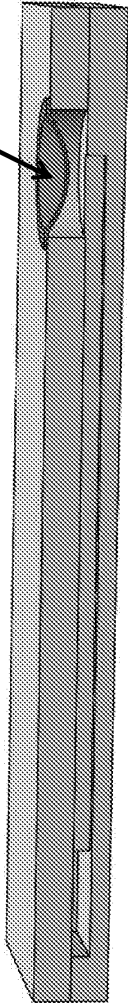
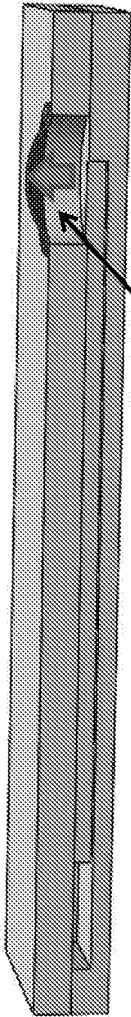


FIG. 4B

Cross-section



Volume expansion deflects bladder

FIG. 4C

FIG. 5A

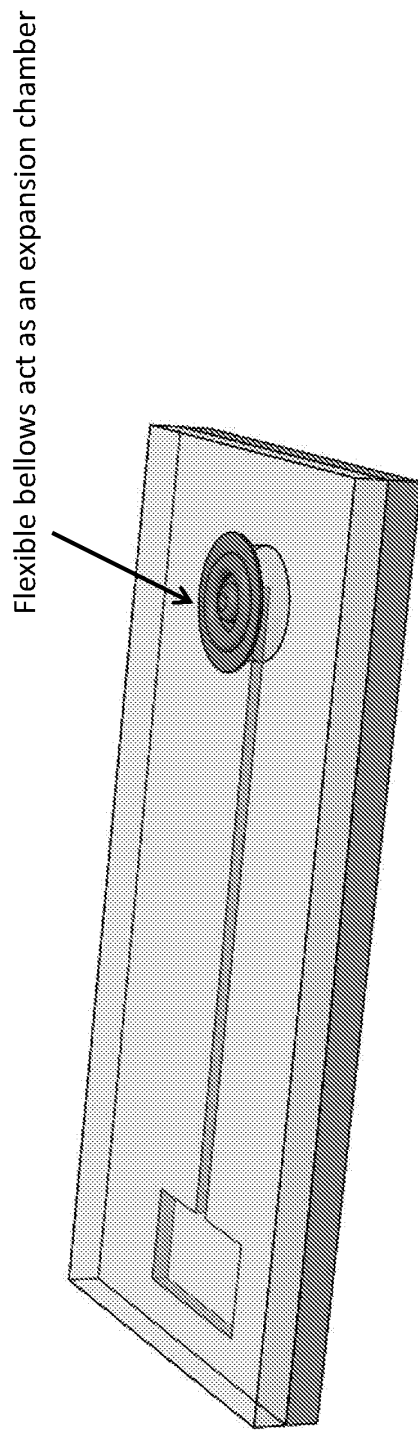
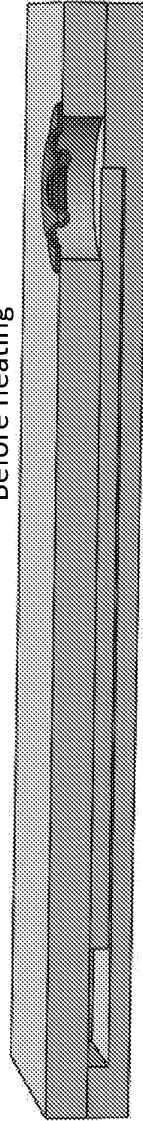


FIG. 5B

Cross-section

Before heating



Cross-section

After heating

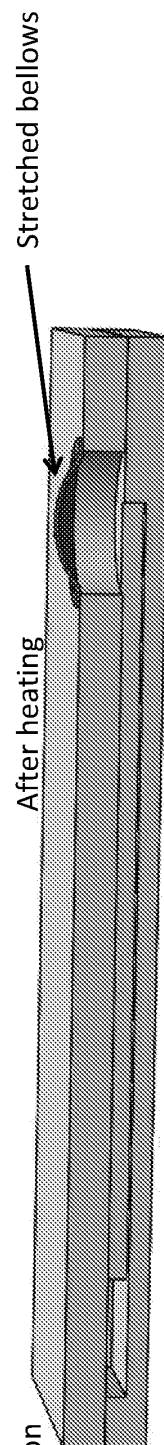


FIG. 5C

Hydrophobic membrane

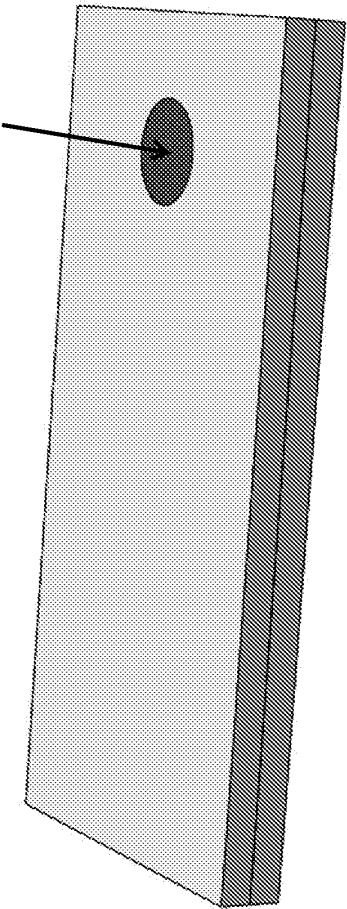
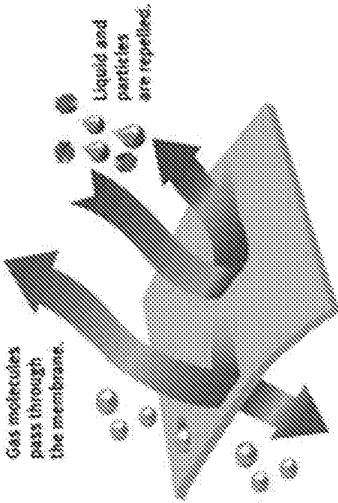


FIG. 6A



Cross-section

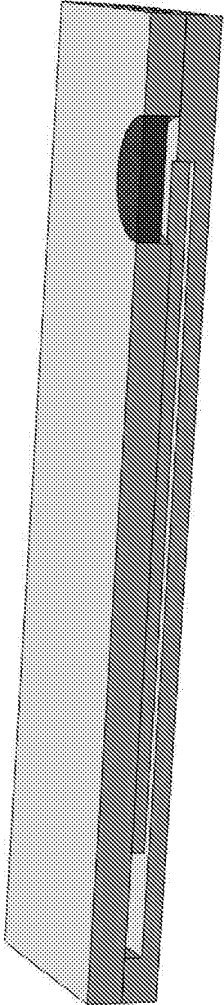


FIG. 6B

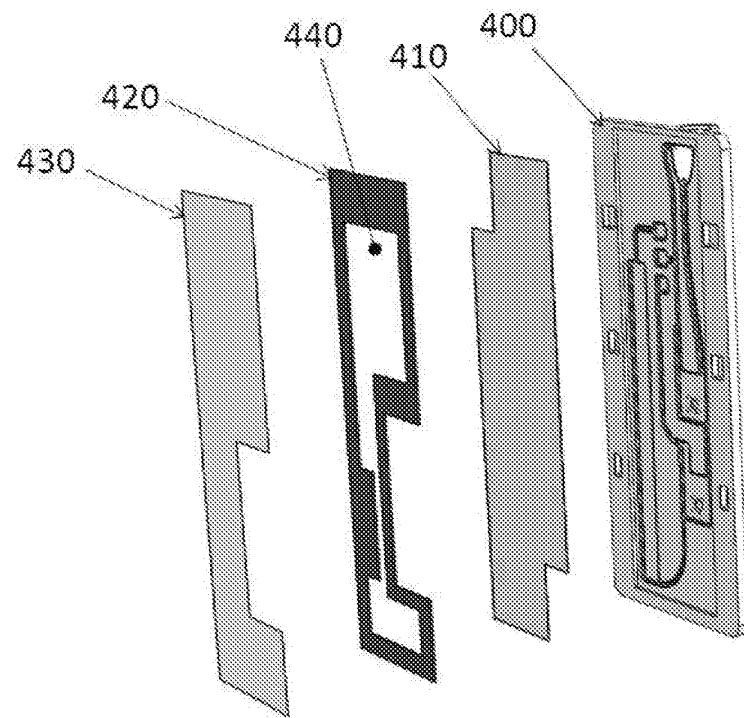


FIG. 7

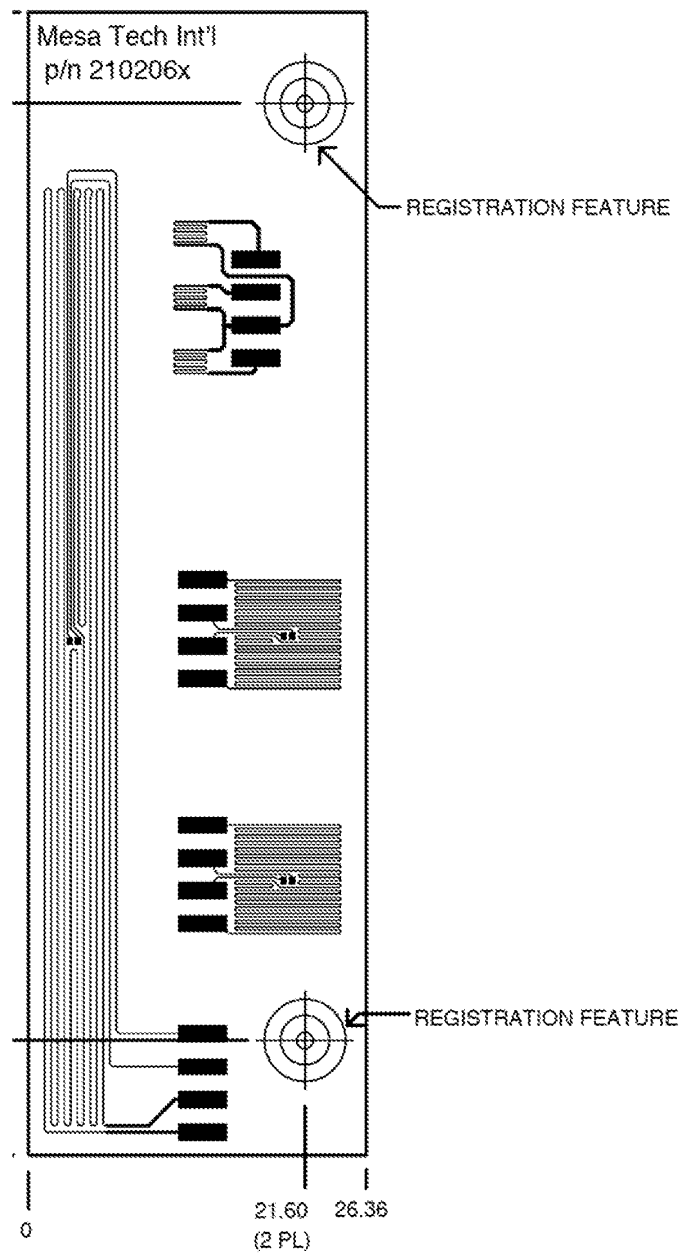


FIG. 8A

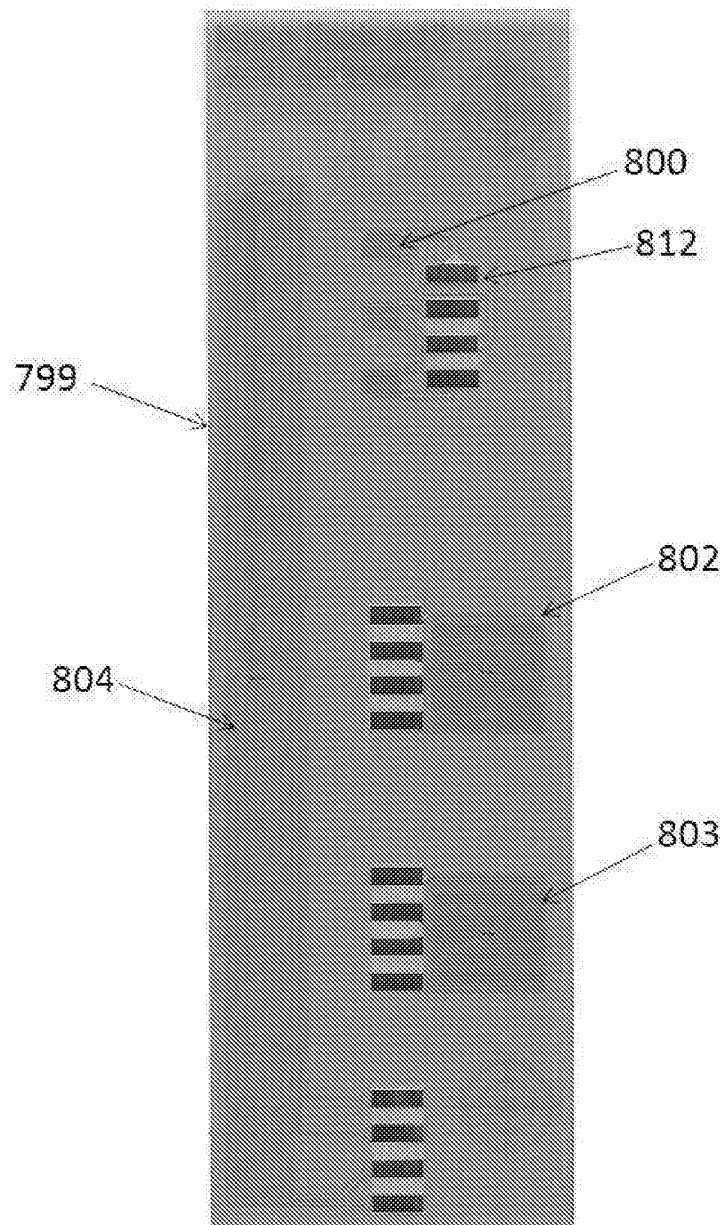


FIG. 8B

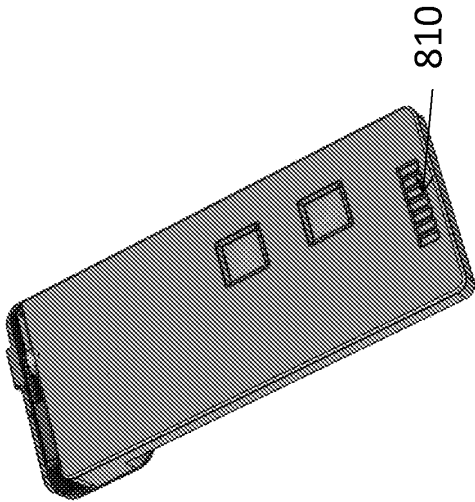


FIG. 8D

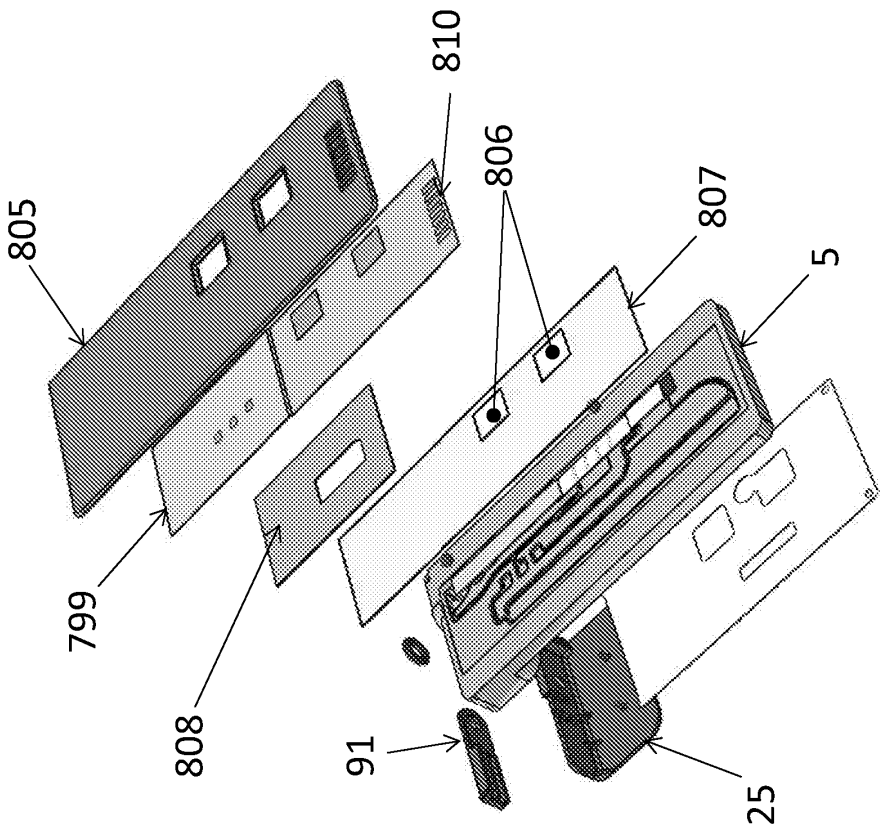


FIG. 8C

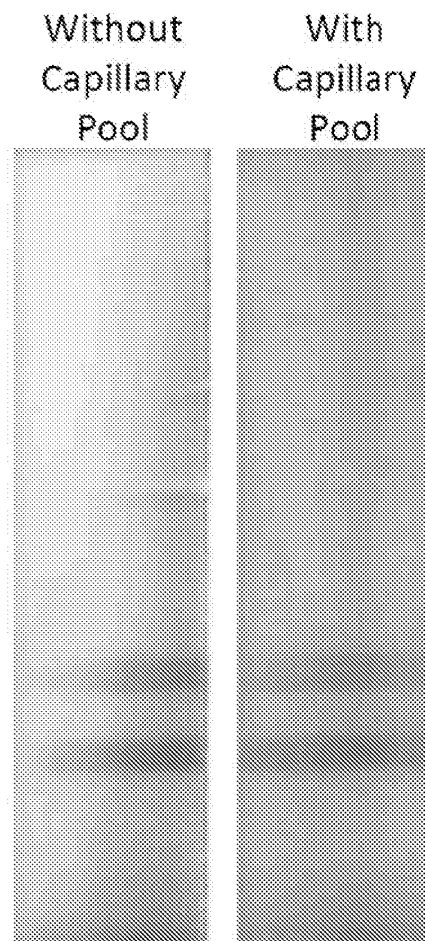
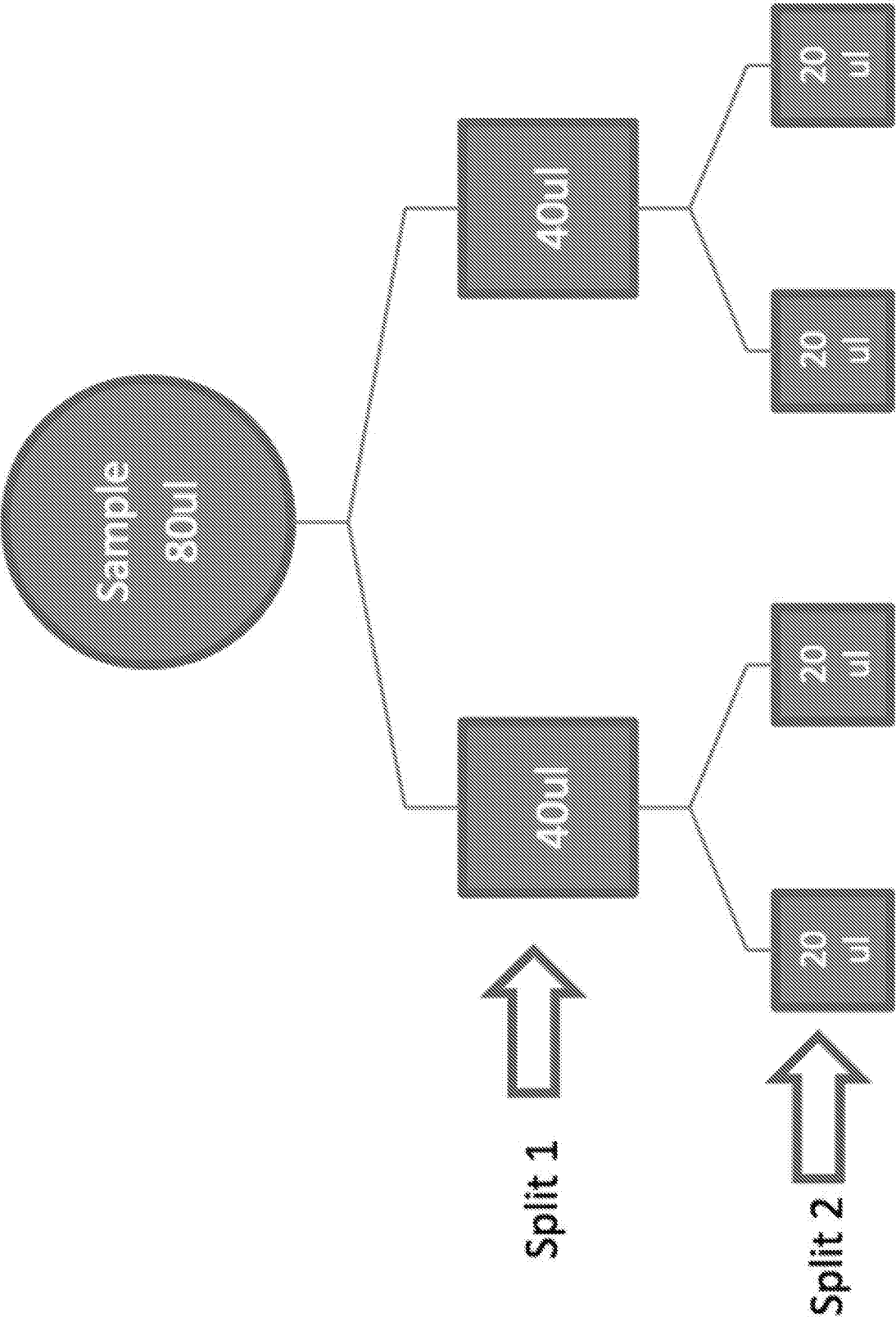
**FIG. 9**

FIG. 10



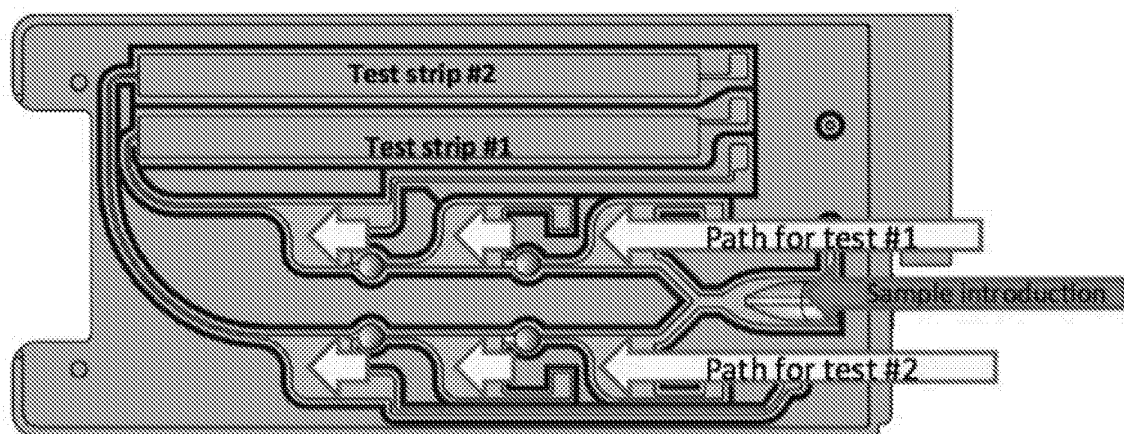


FIG. 11

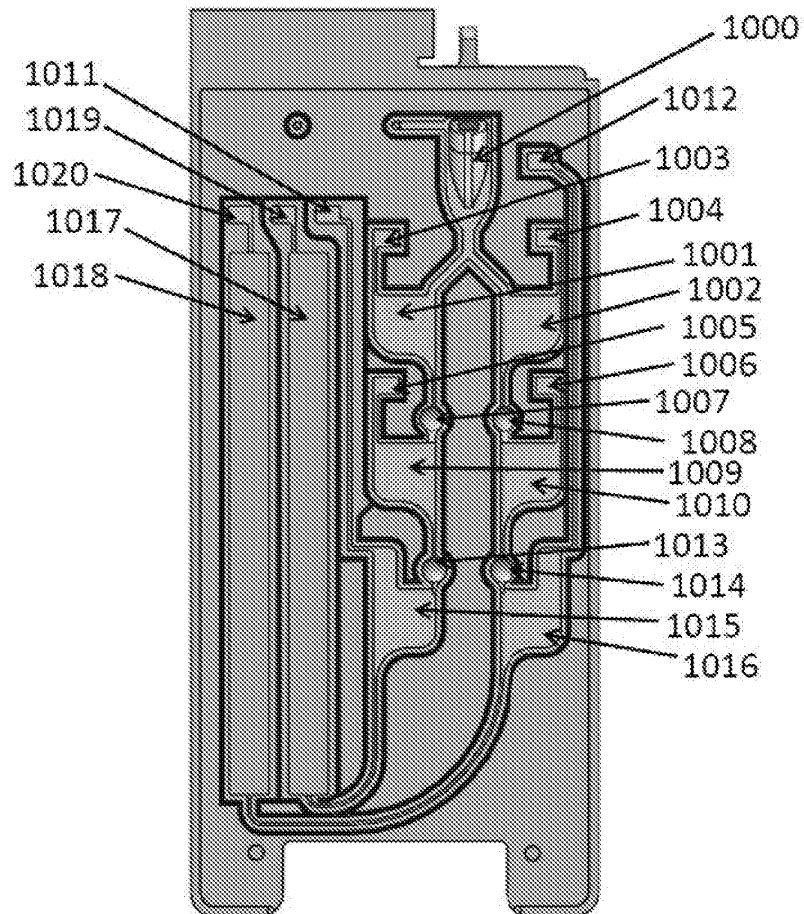


FIG. 12

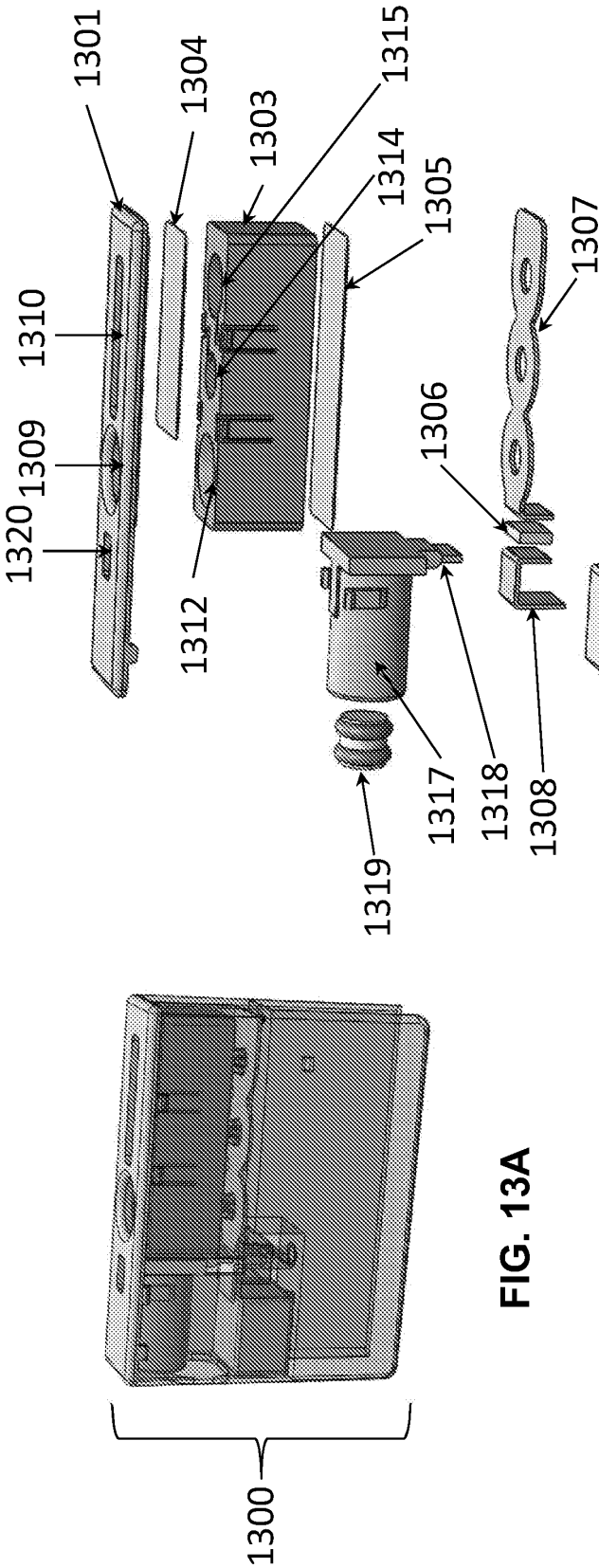


FIG. 13A

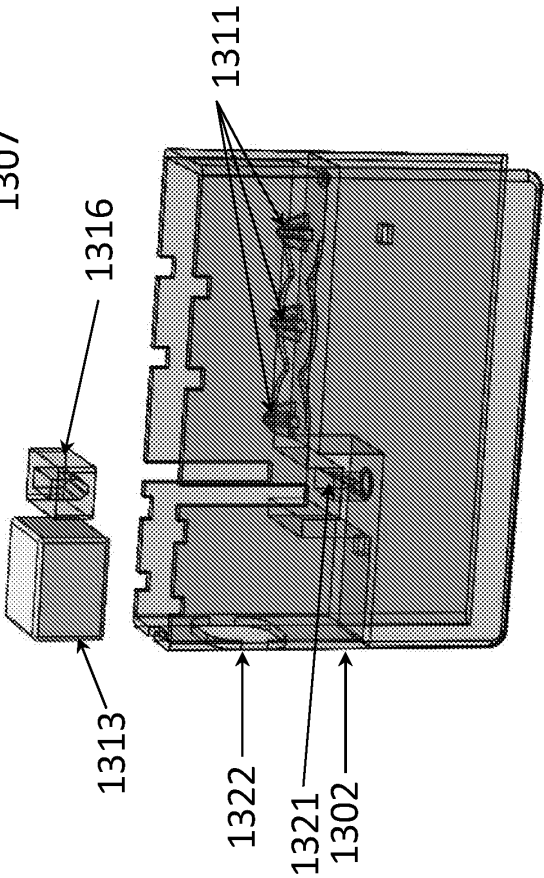


FIG. 13B

FIG. 14

Before sample processing After sample processing

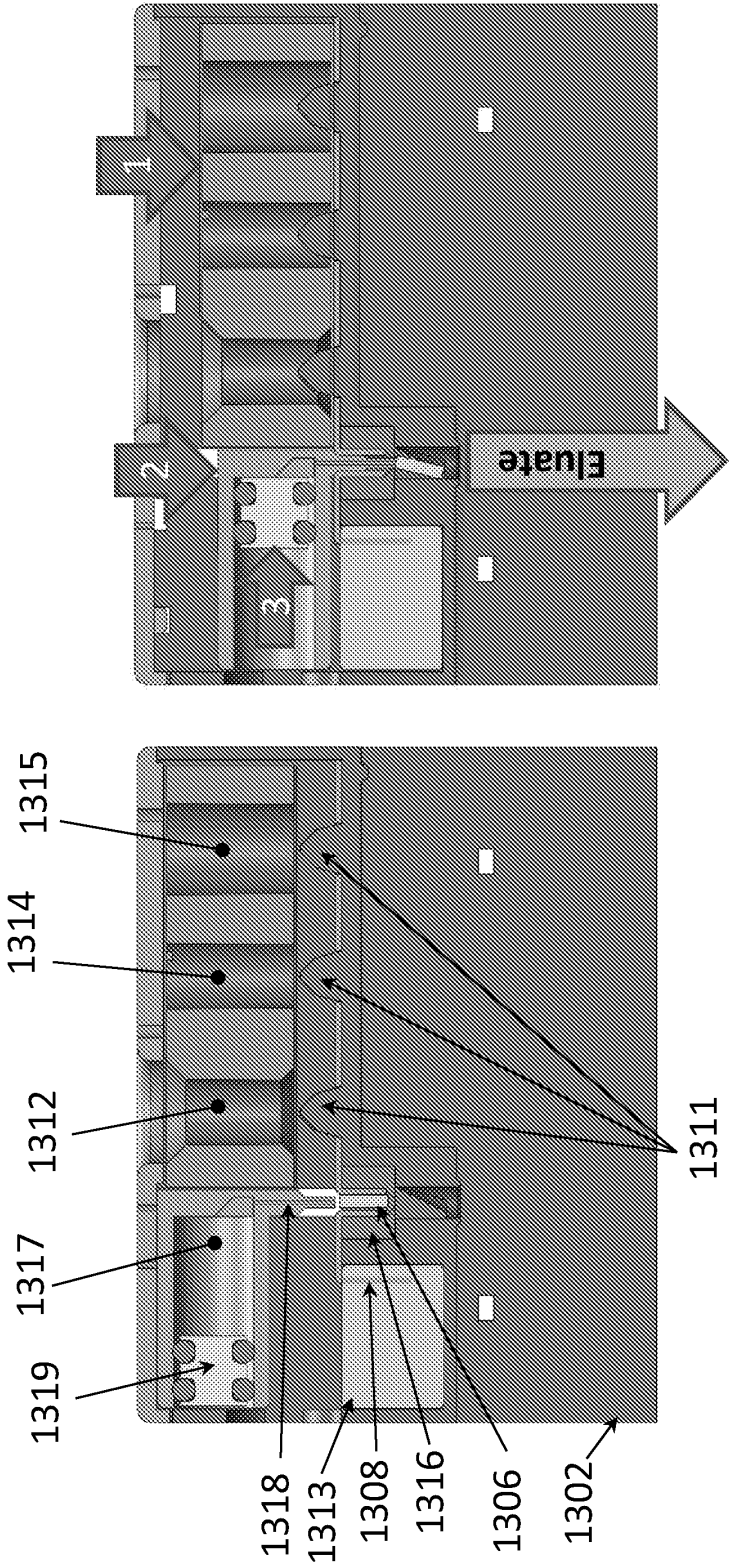


FIG. 15

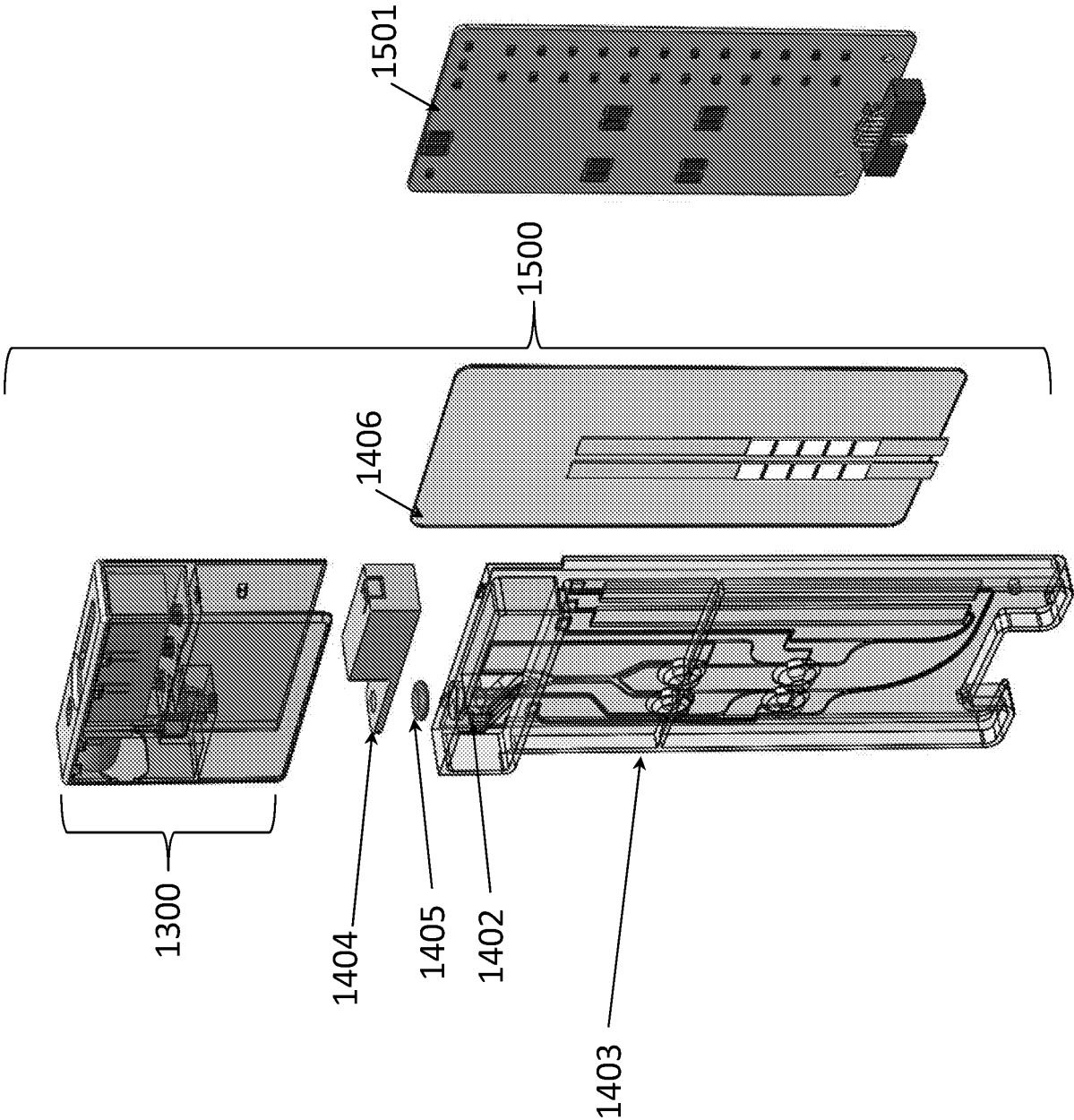


FIG. 16

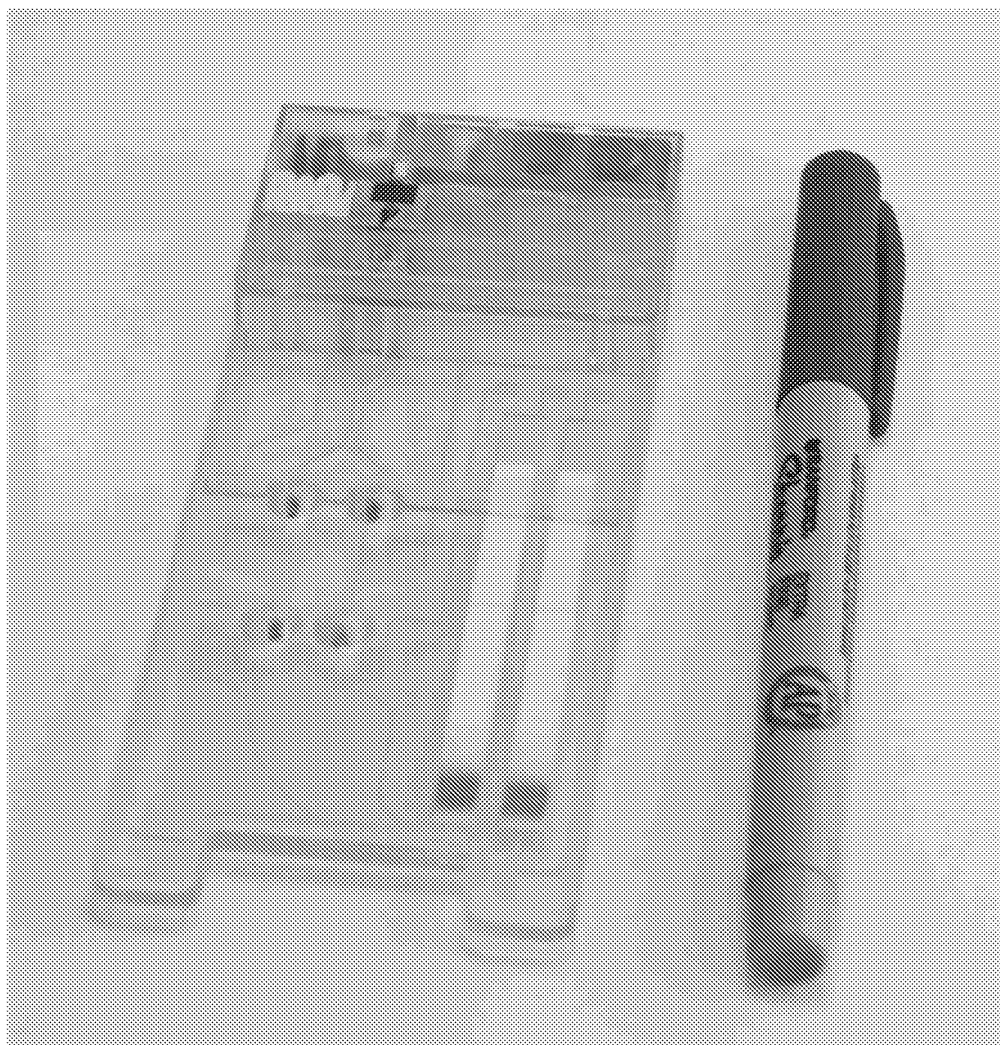


FIG. 17C

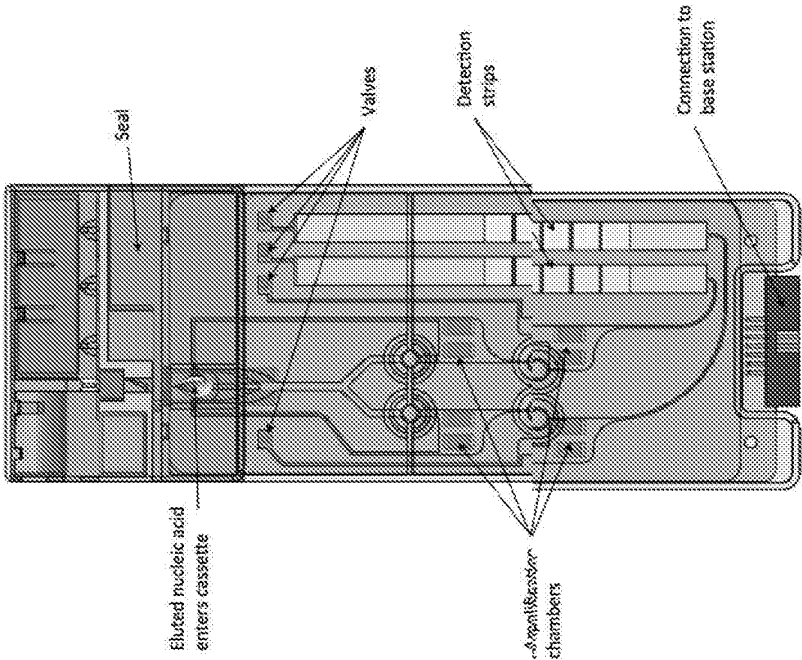


FIG. 17B

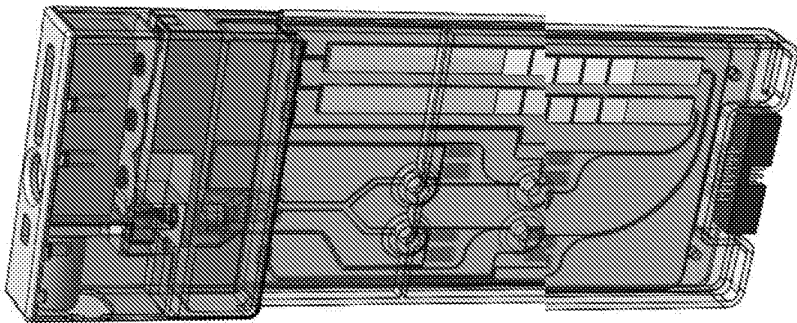
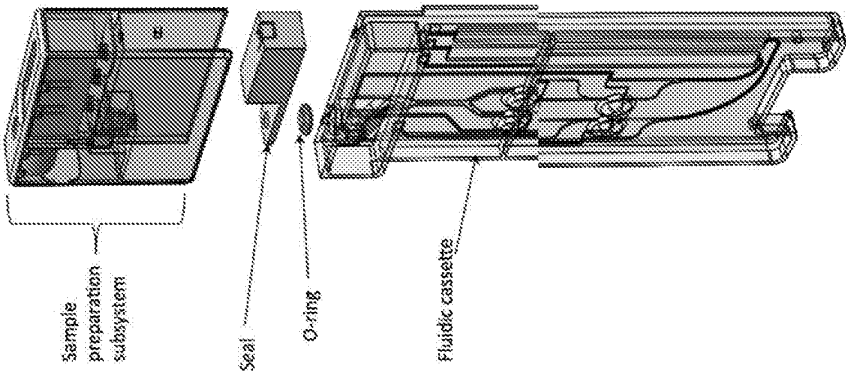


FIG. 17A



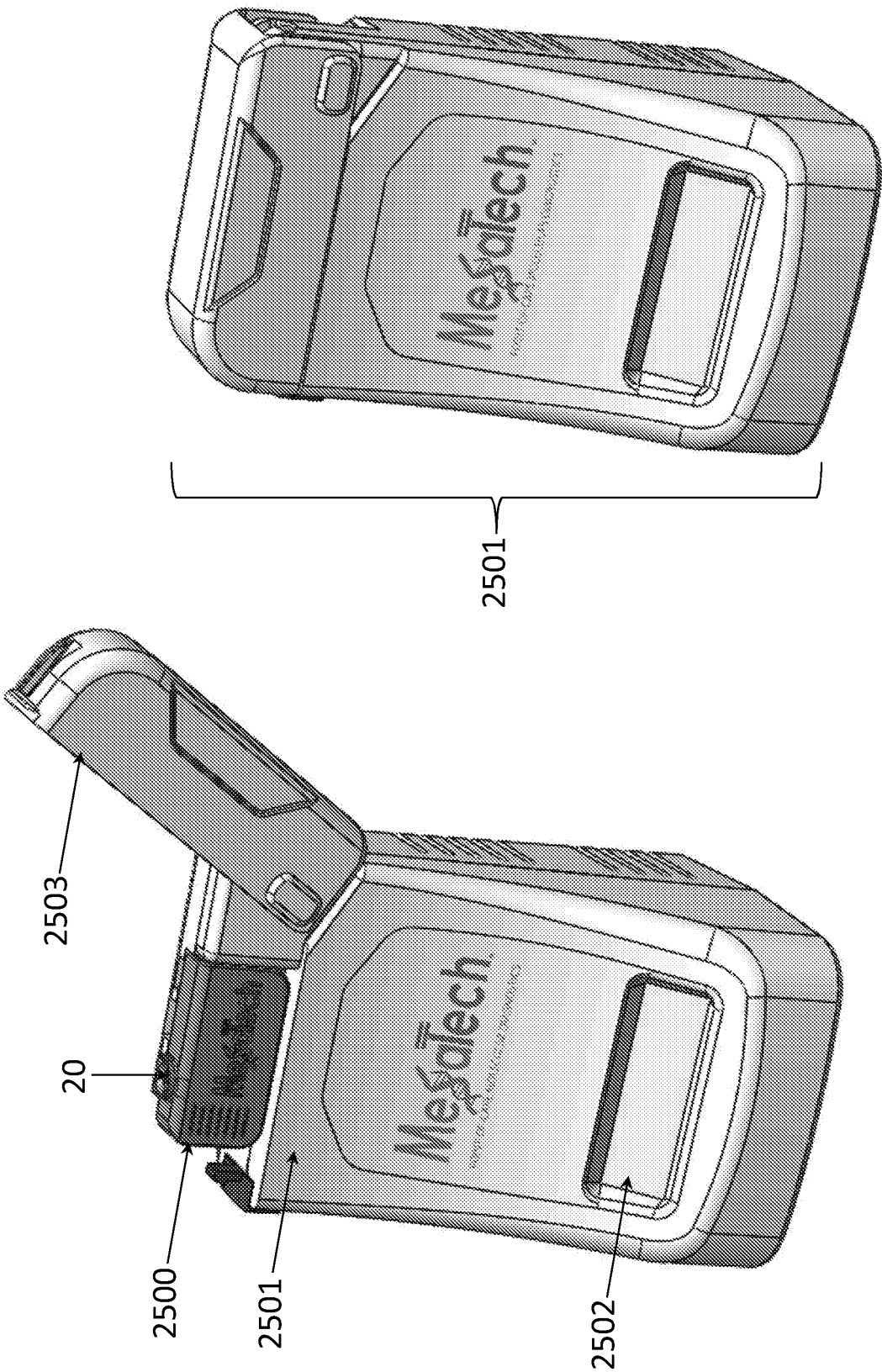


FIG. 18B

FIG. 18A

**FIG. 19**

FIG. 20

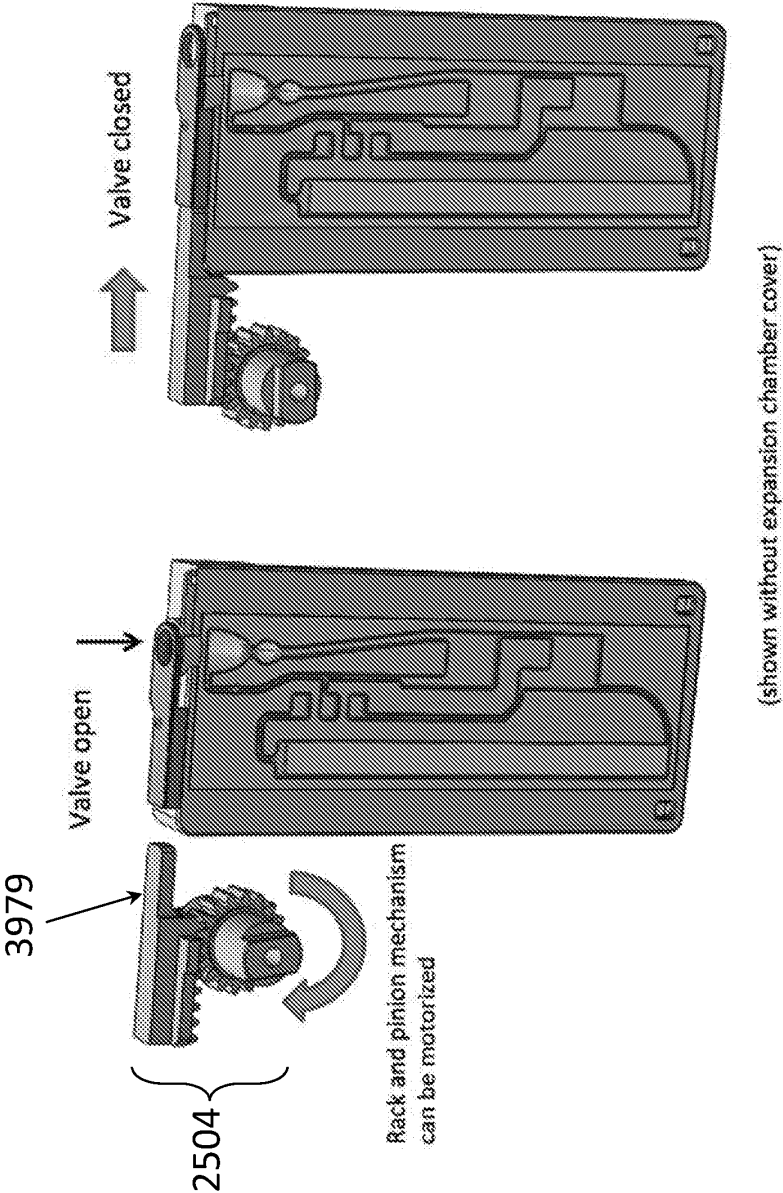


FIG. 21C
CLOSED

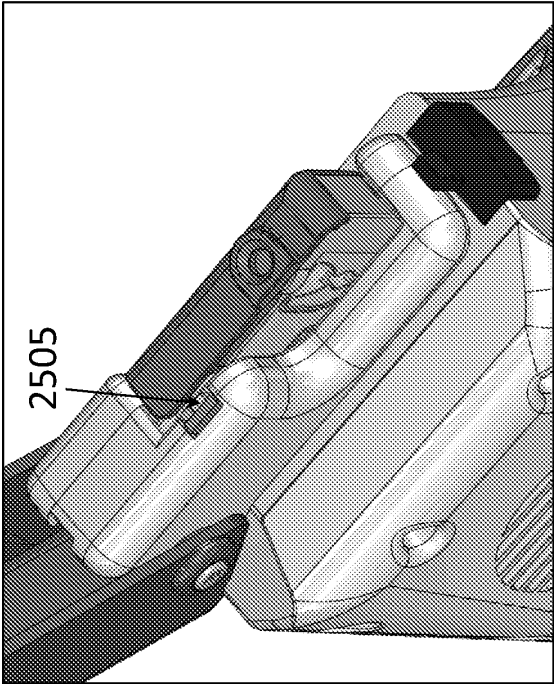


FIG. 21D

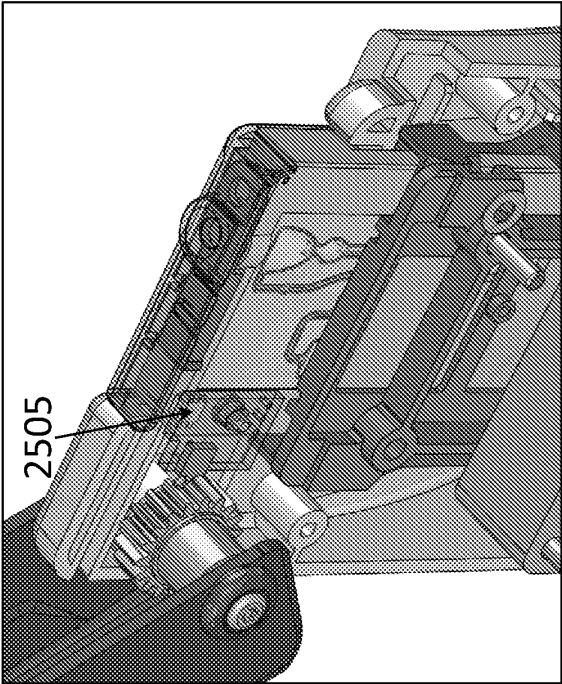


FIG. 21A
OPEN

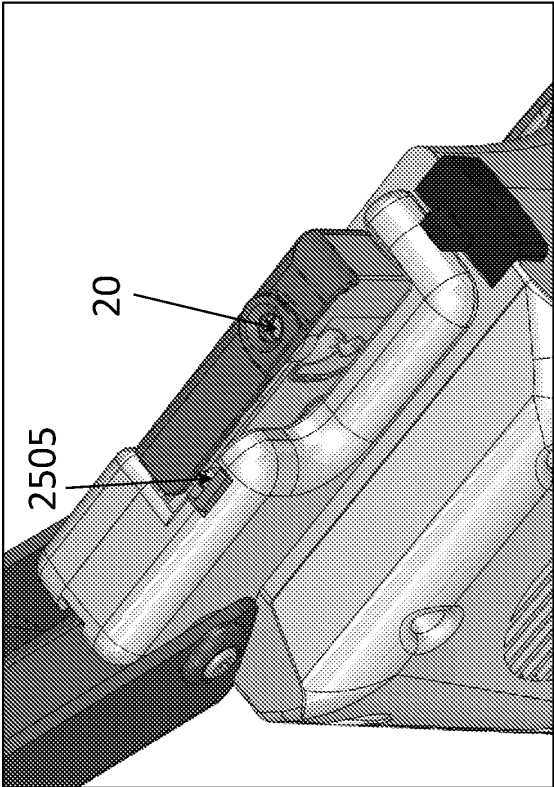


FIG. 21B

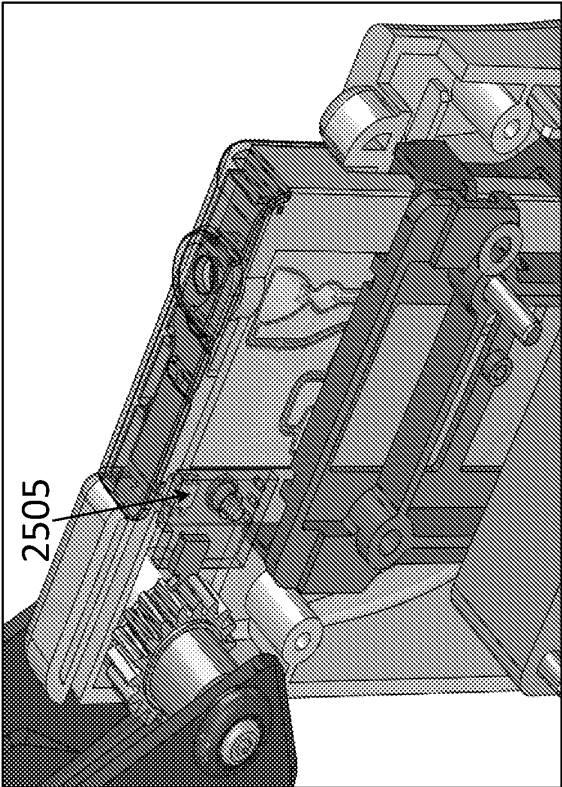
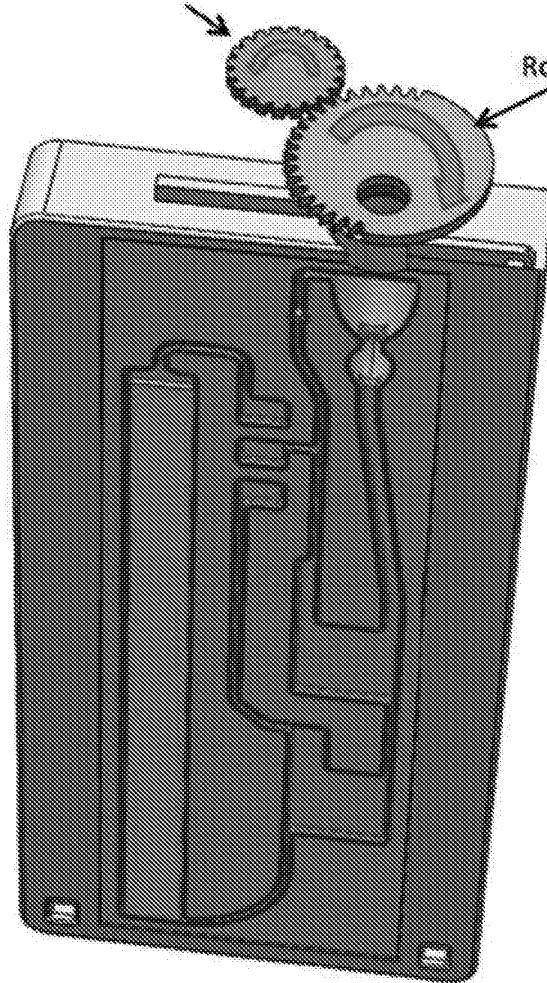


FIG. 22

Drive mechanism can be
manual or motorized

Rotating valve provide sealing



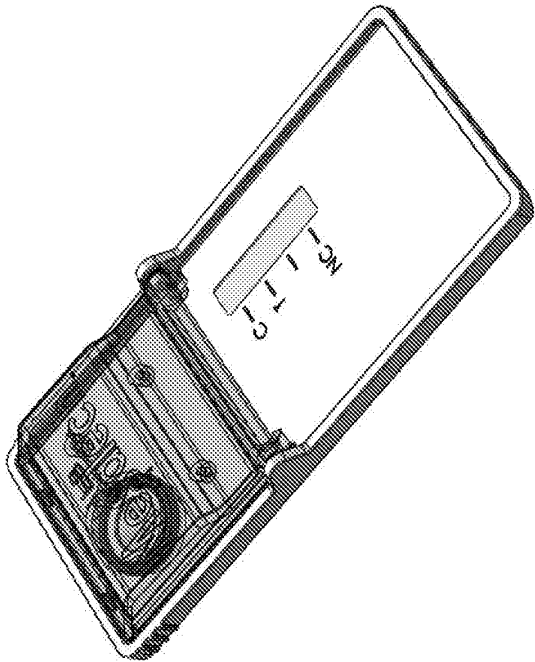


FIG. 23B

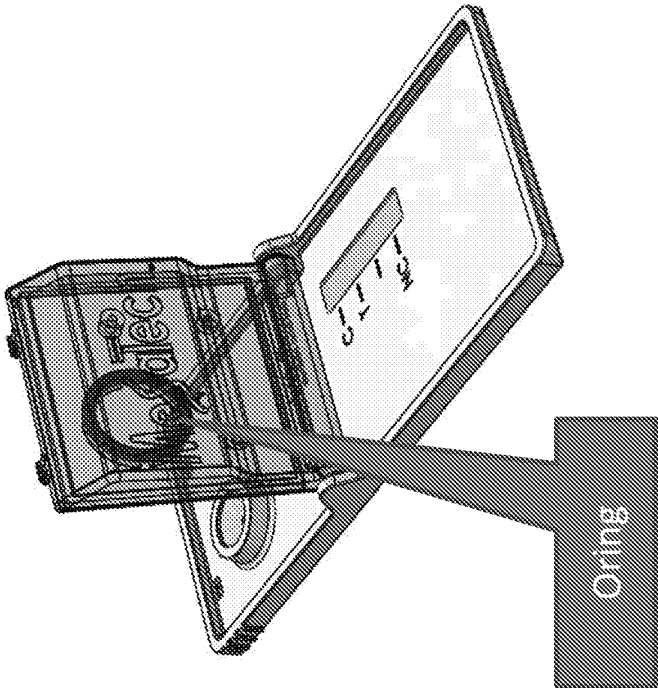


FIG. 23A

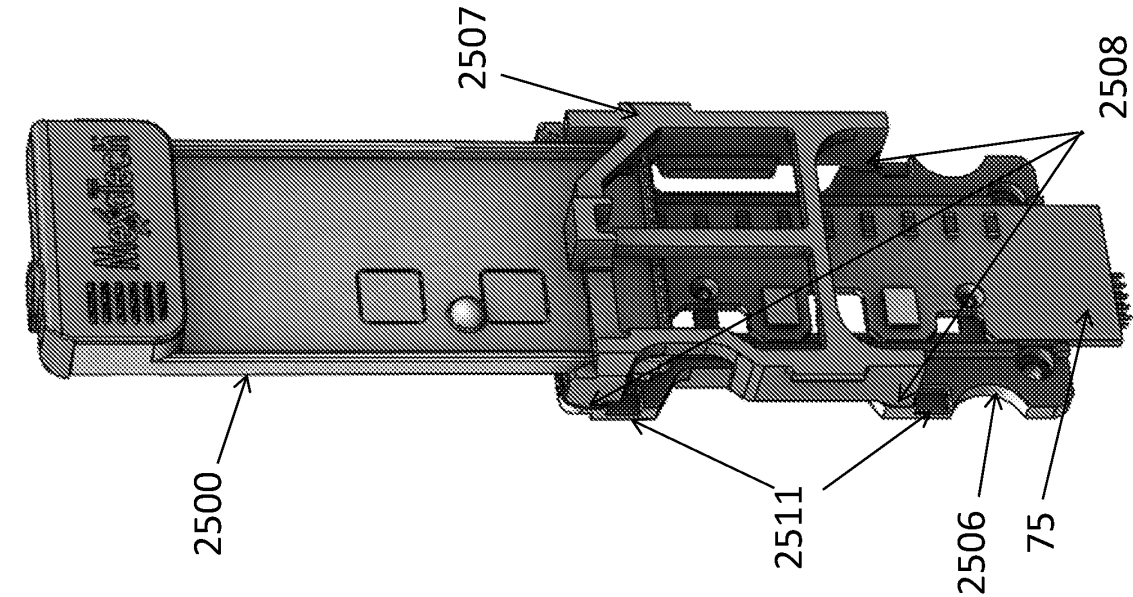


FIG. 24B

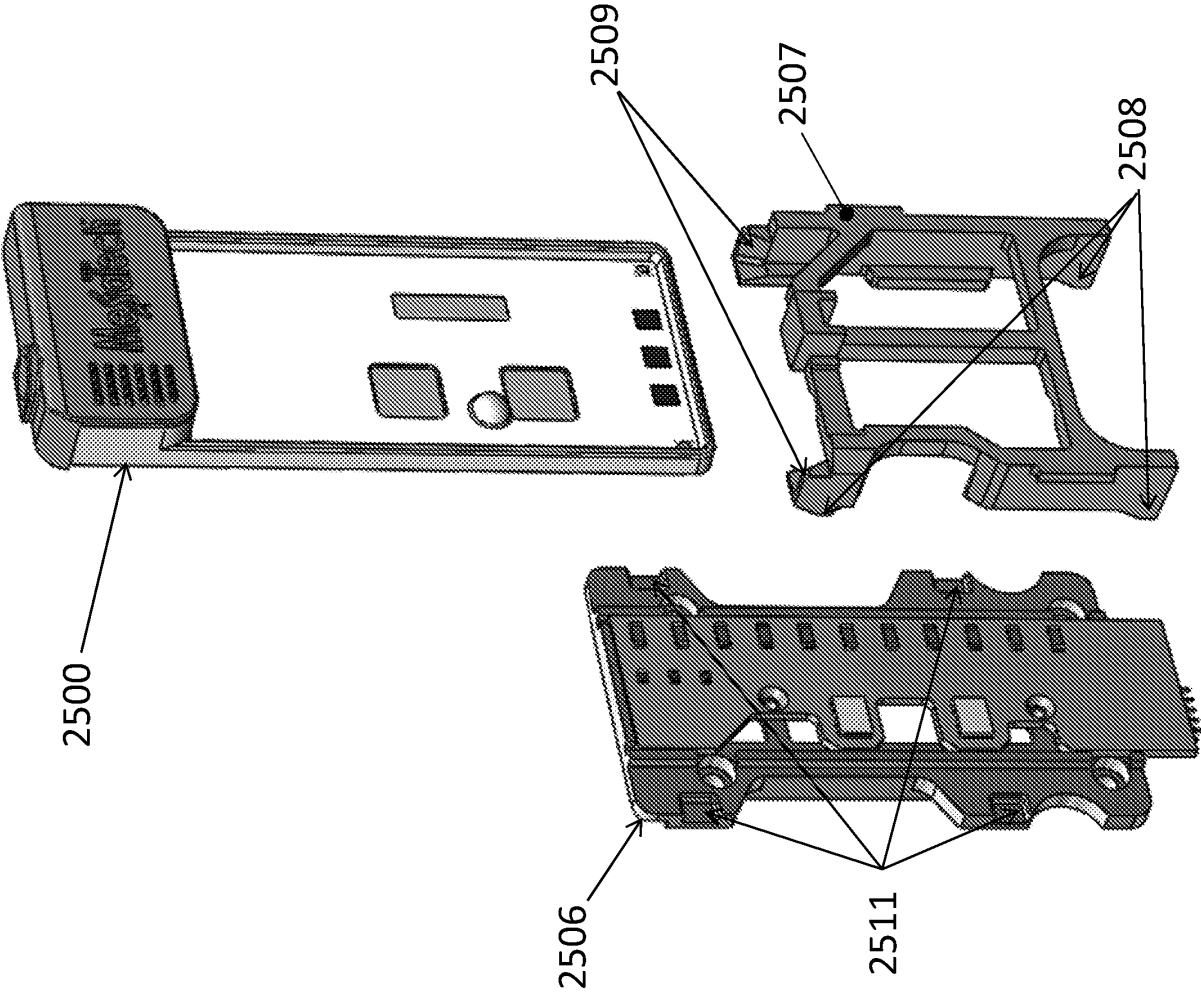
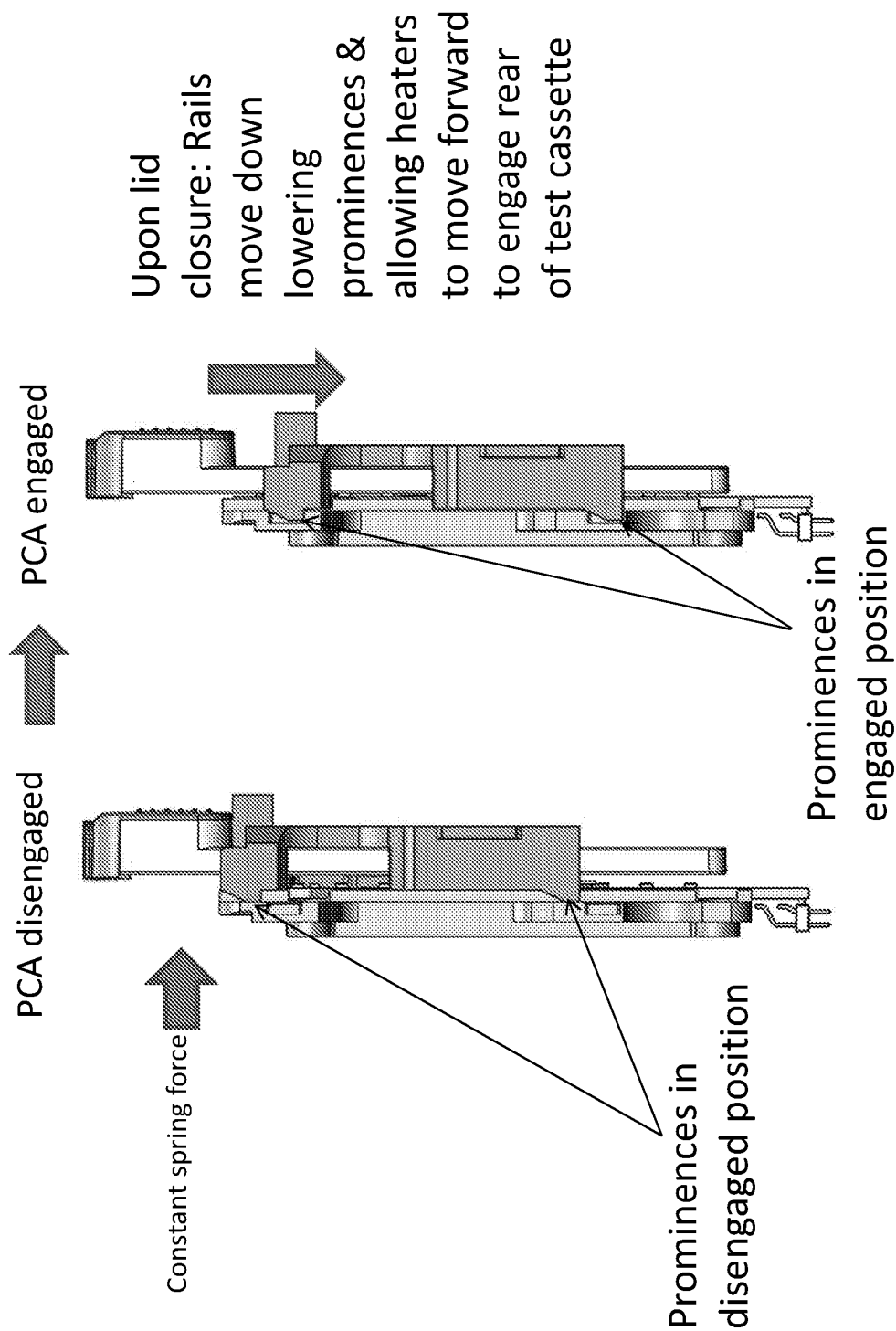


FIG. 24A

FIG. 25



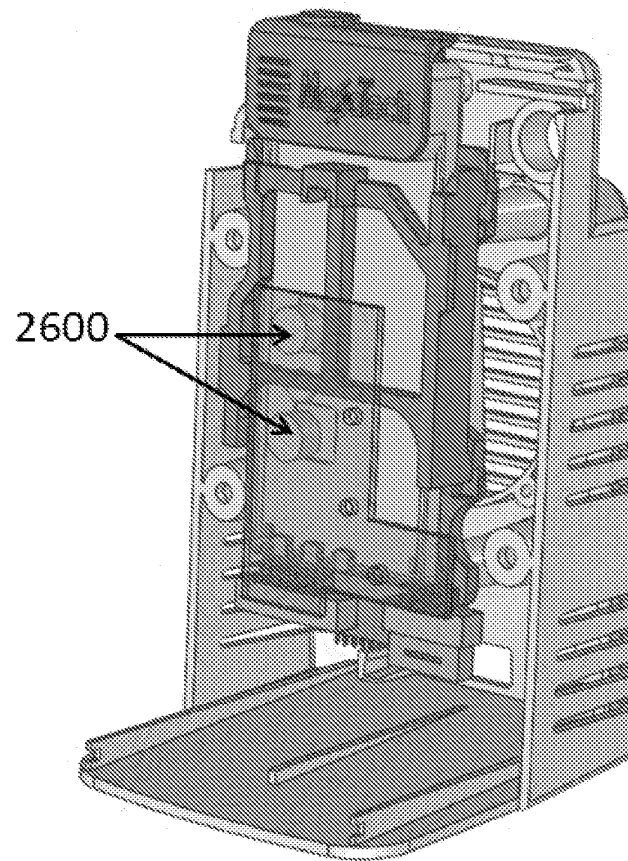


FIG. 26

FIG. 27B

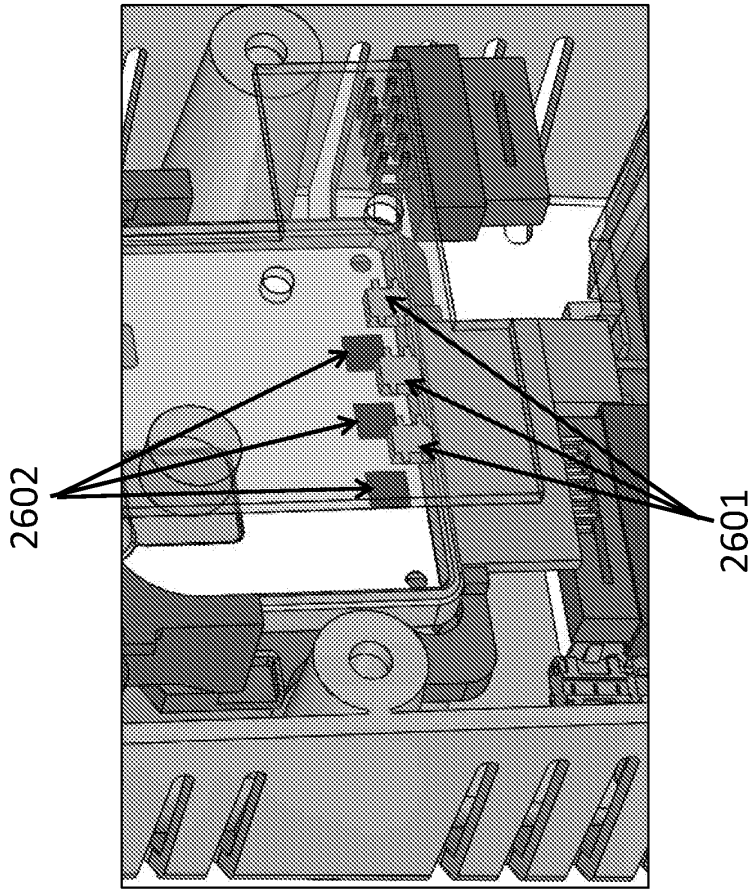


FIG. 27A

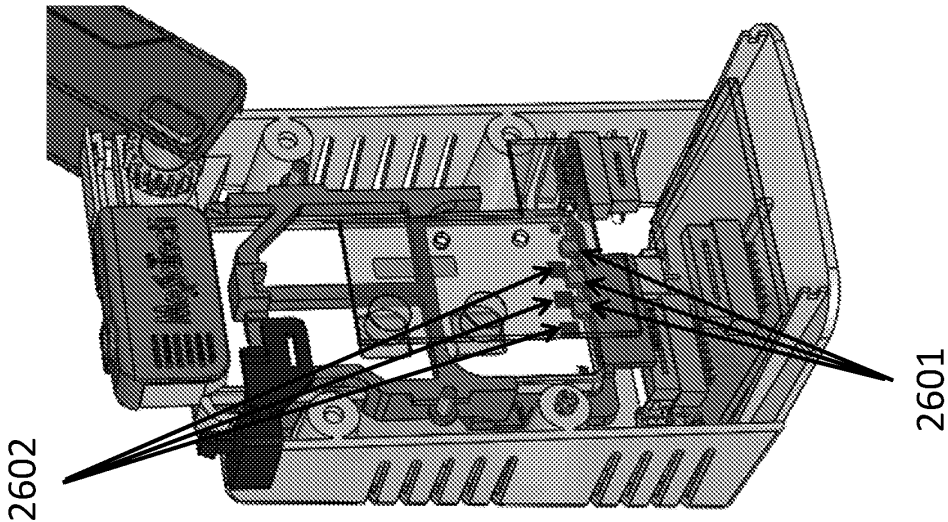


FIG. 28B

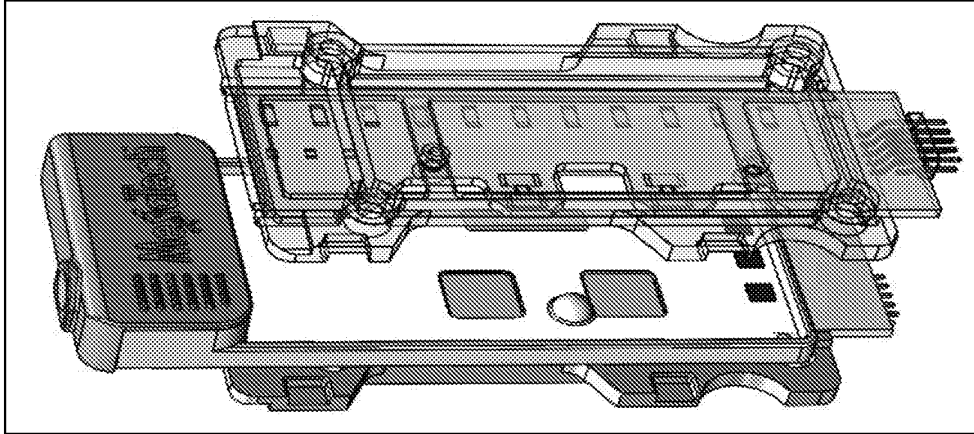


FIG. 28A

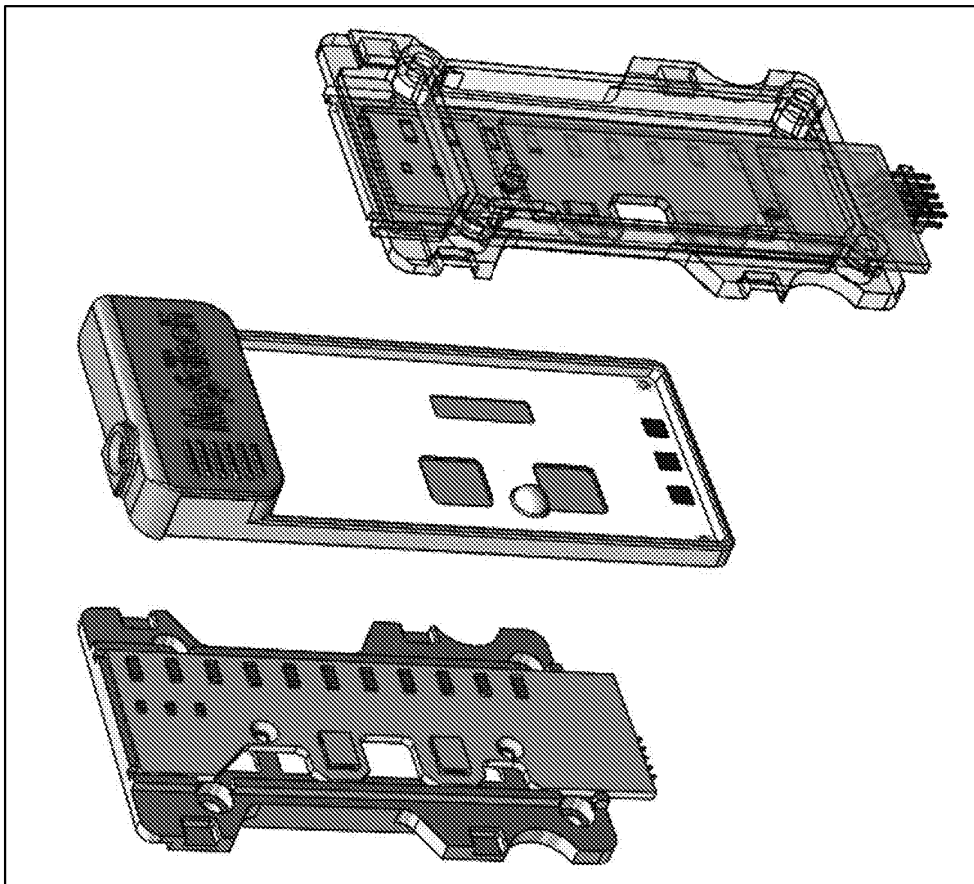


FIG. 29B

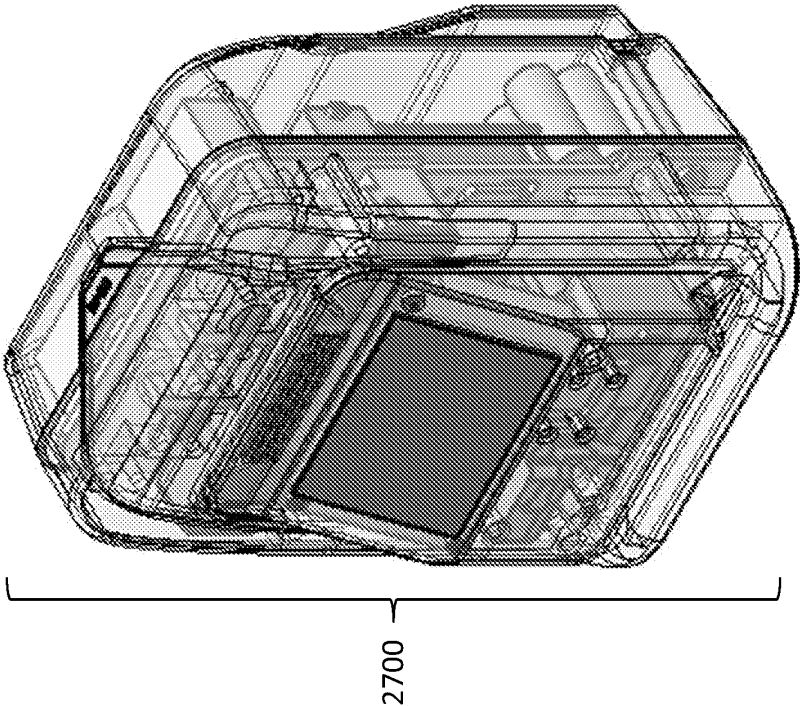
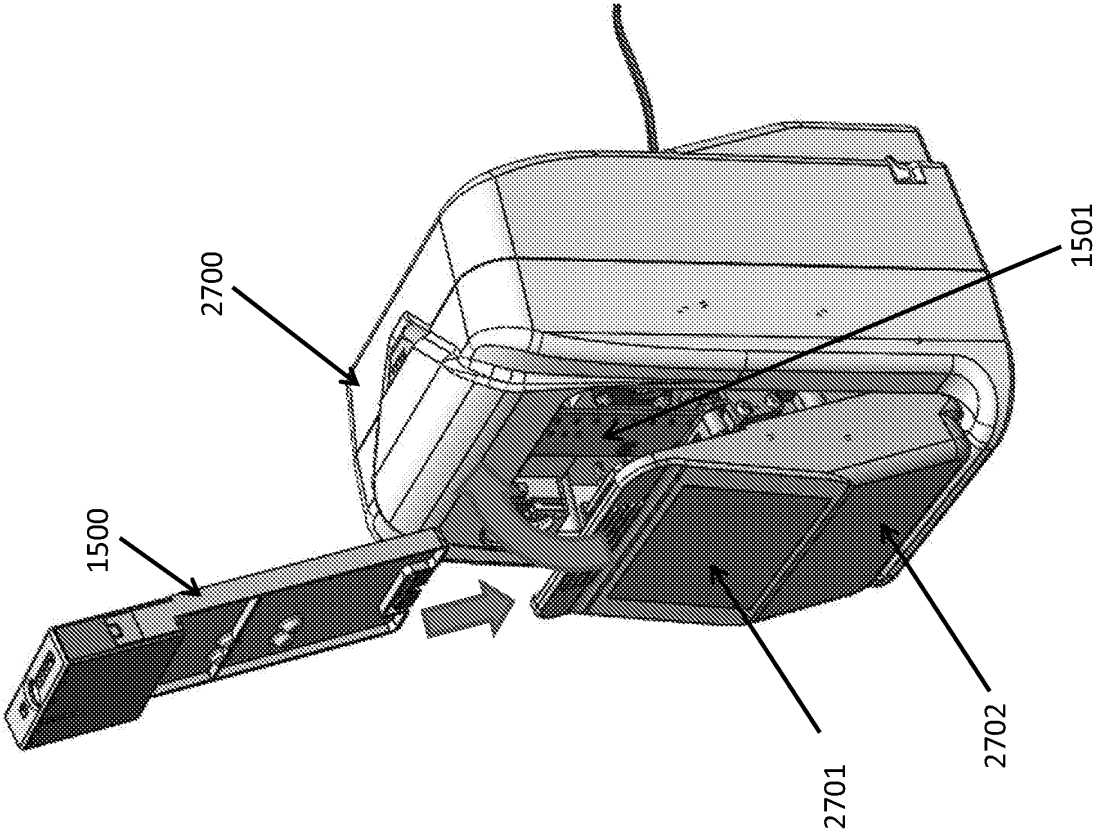


FIG. 29A



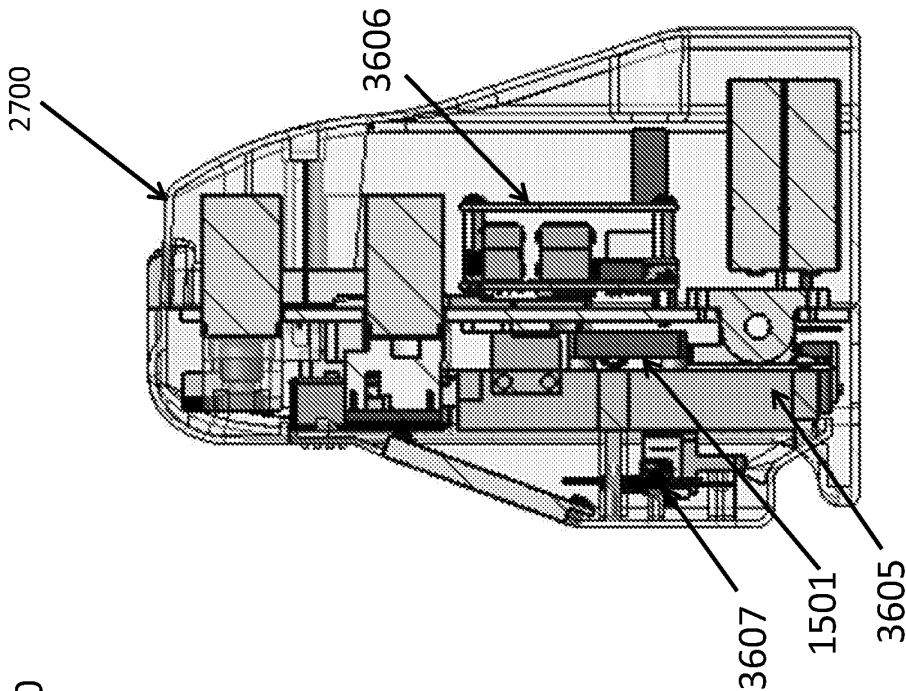


FIG. 30A

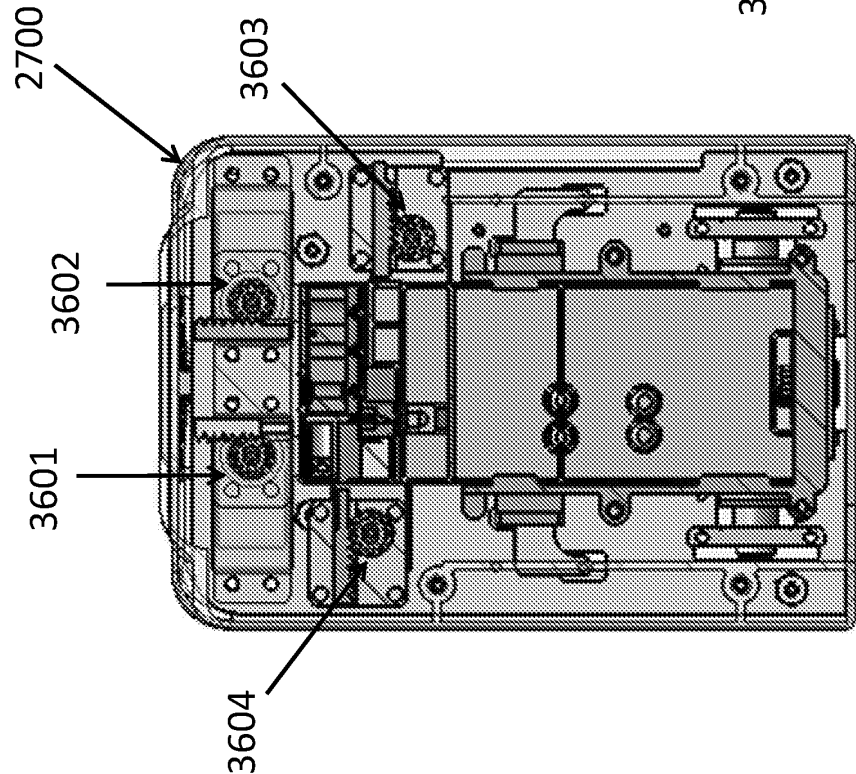


FIG. 30B

FIG. 31A

FIG. 31B

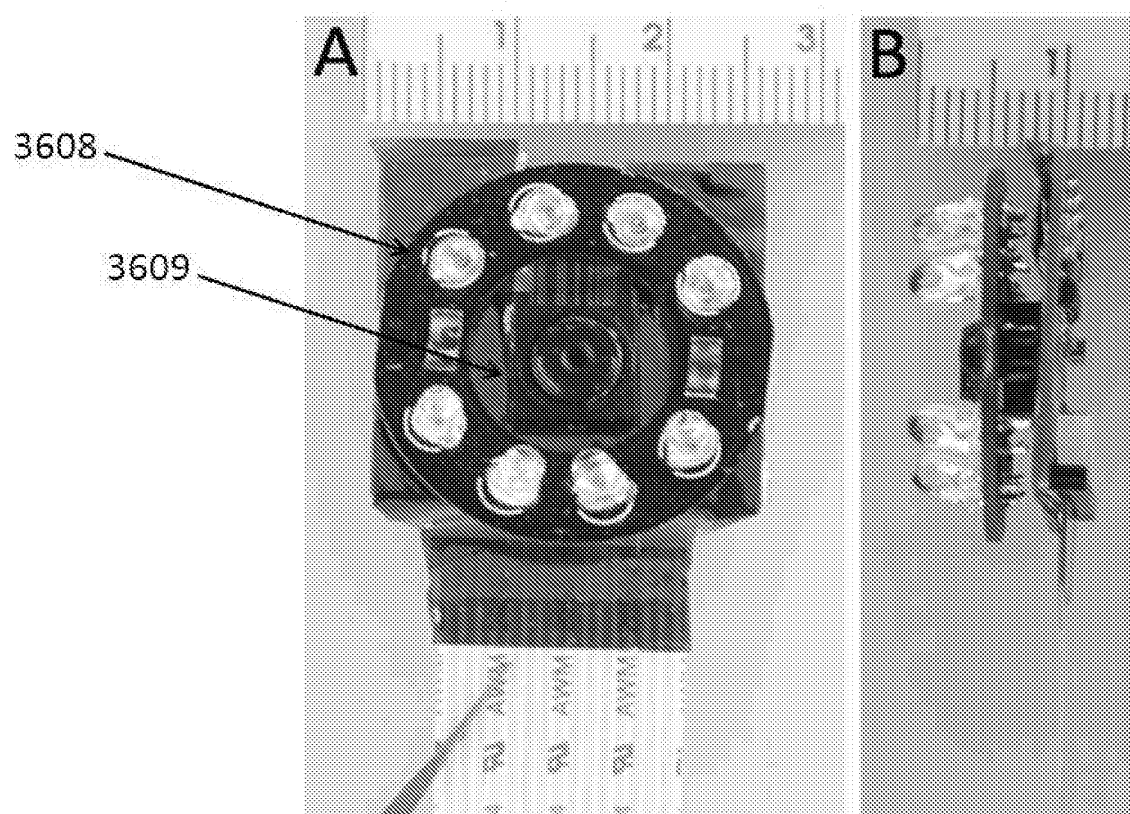


FIG. 32B

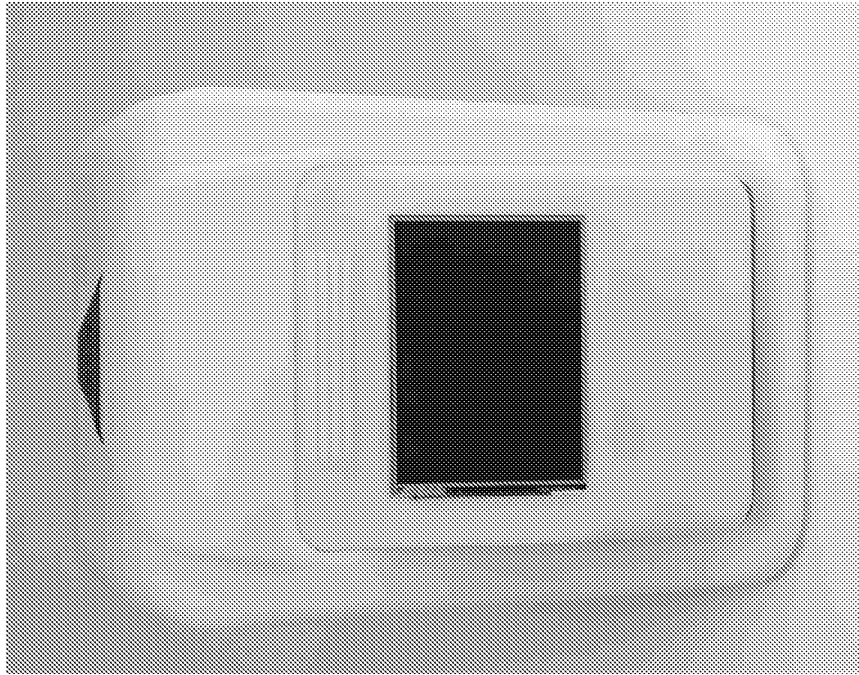


FIG. 32A

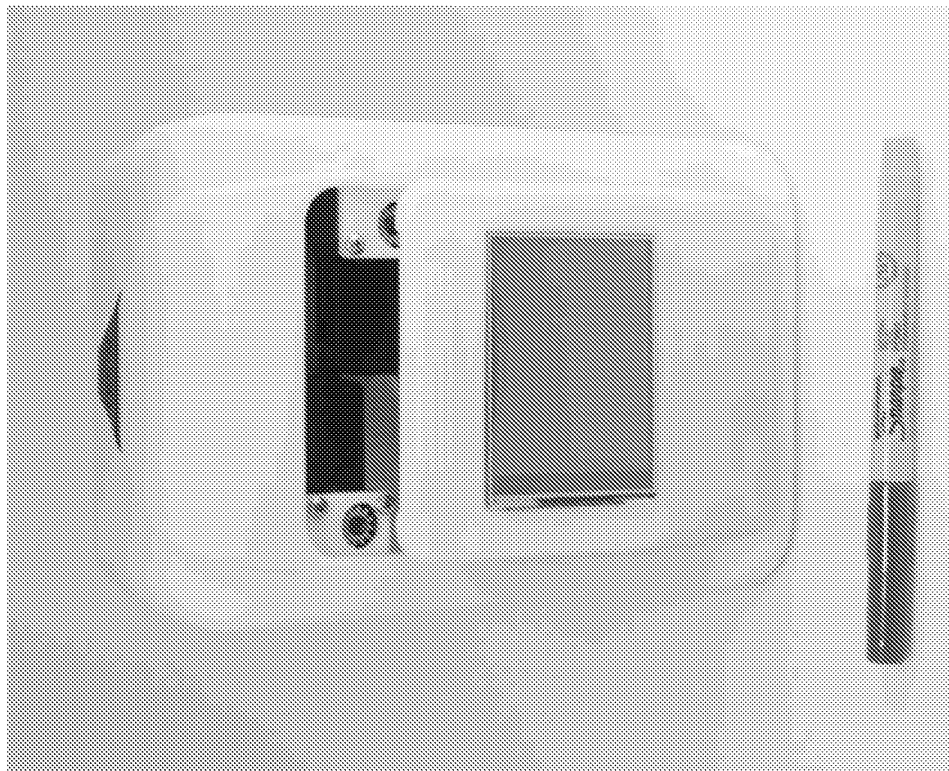


FIG. 33

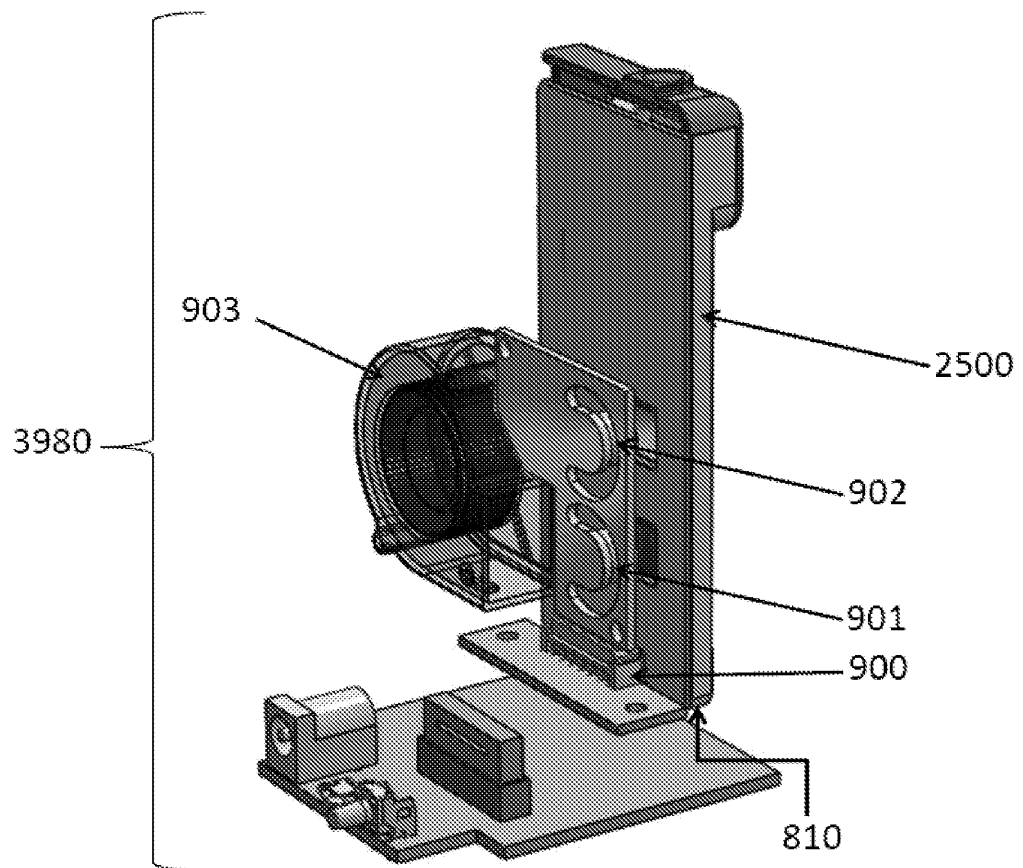


FIG. 34

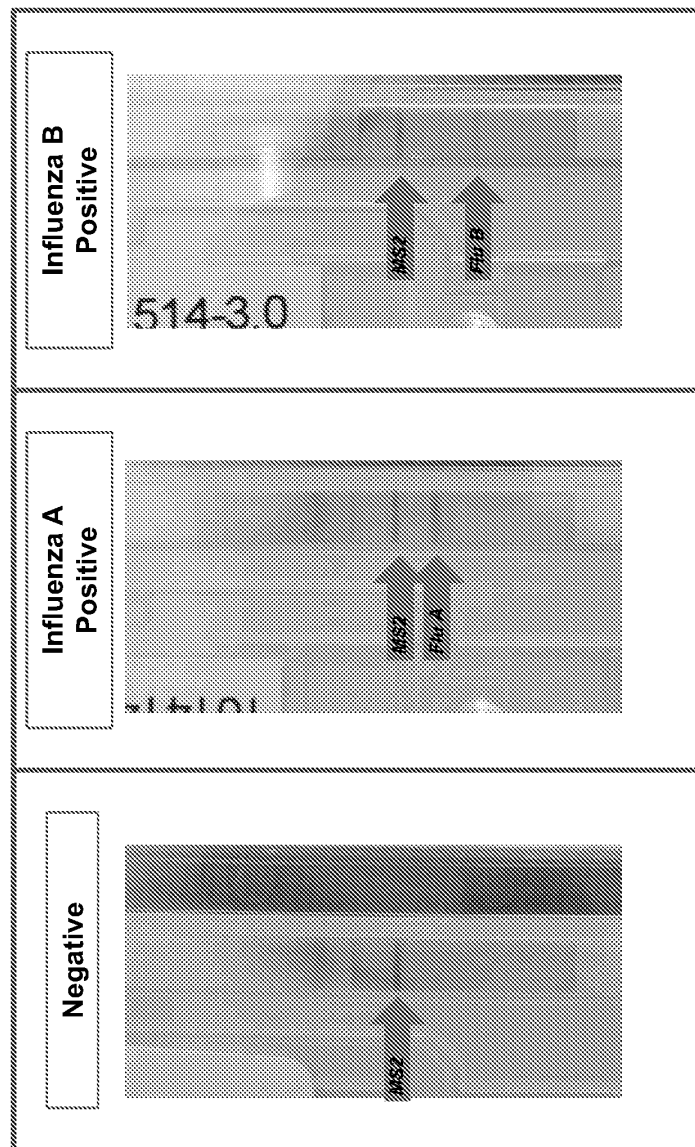


FIG. 35

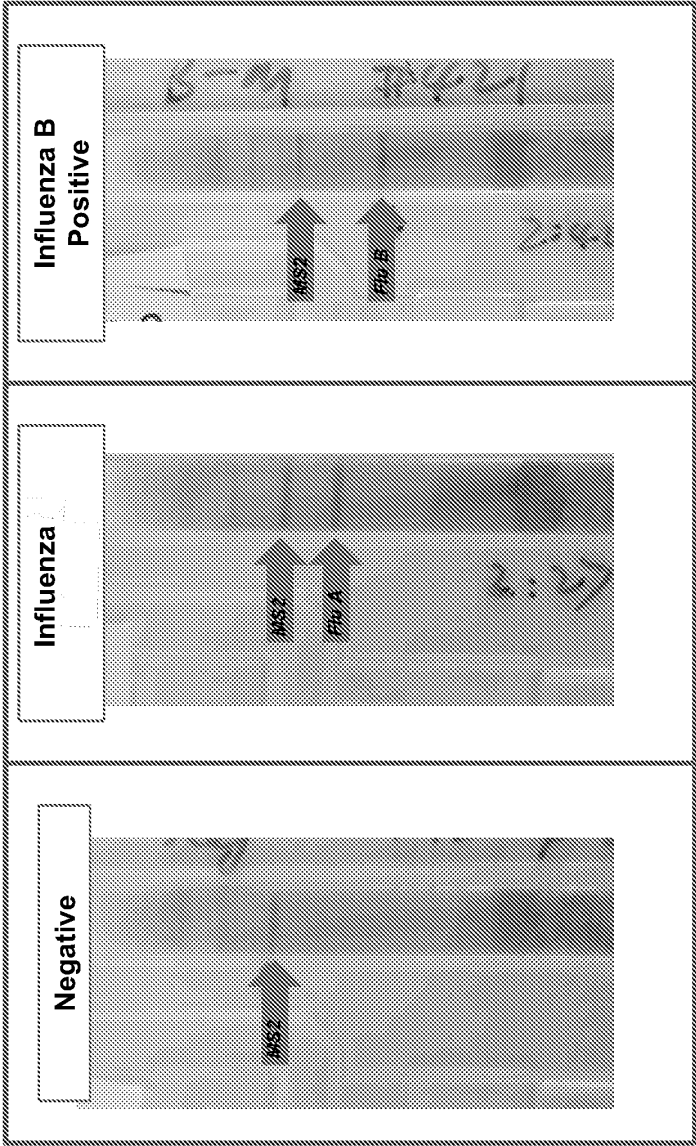


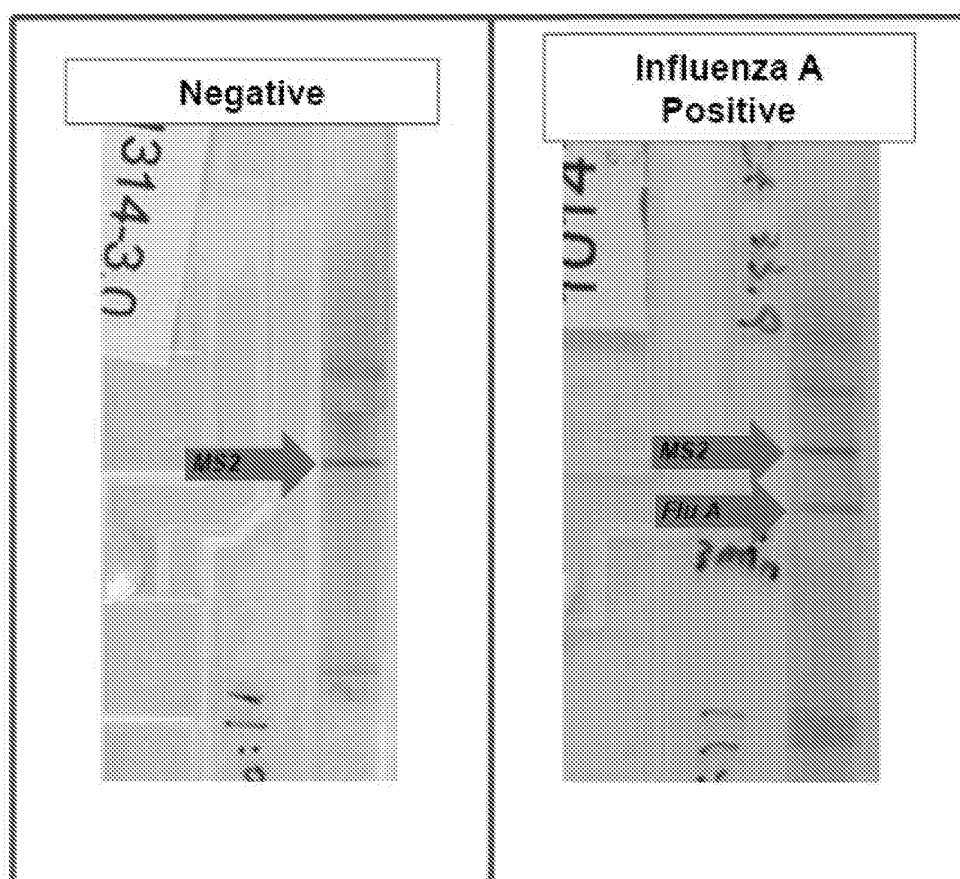
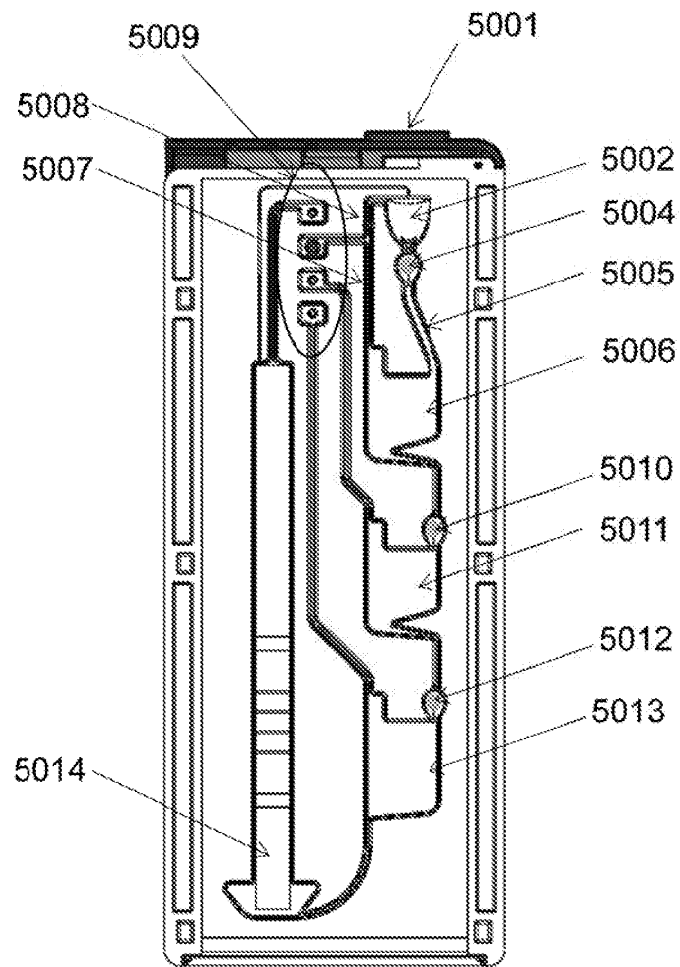
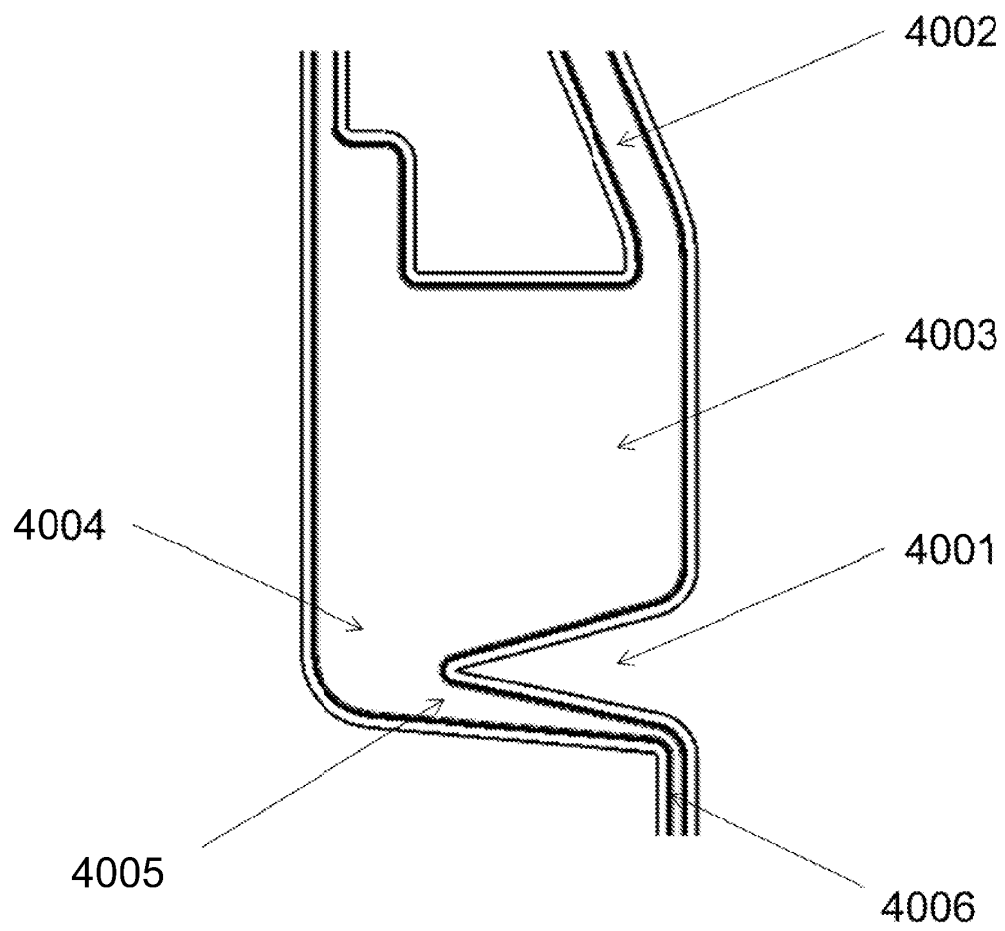
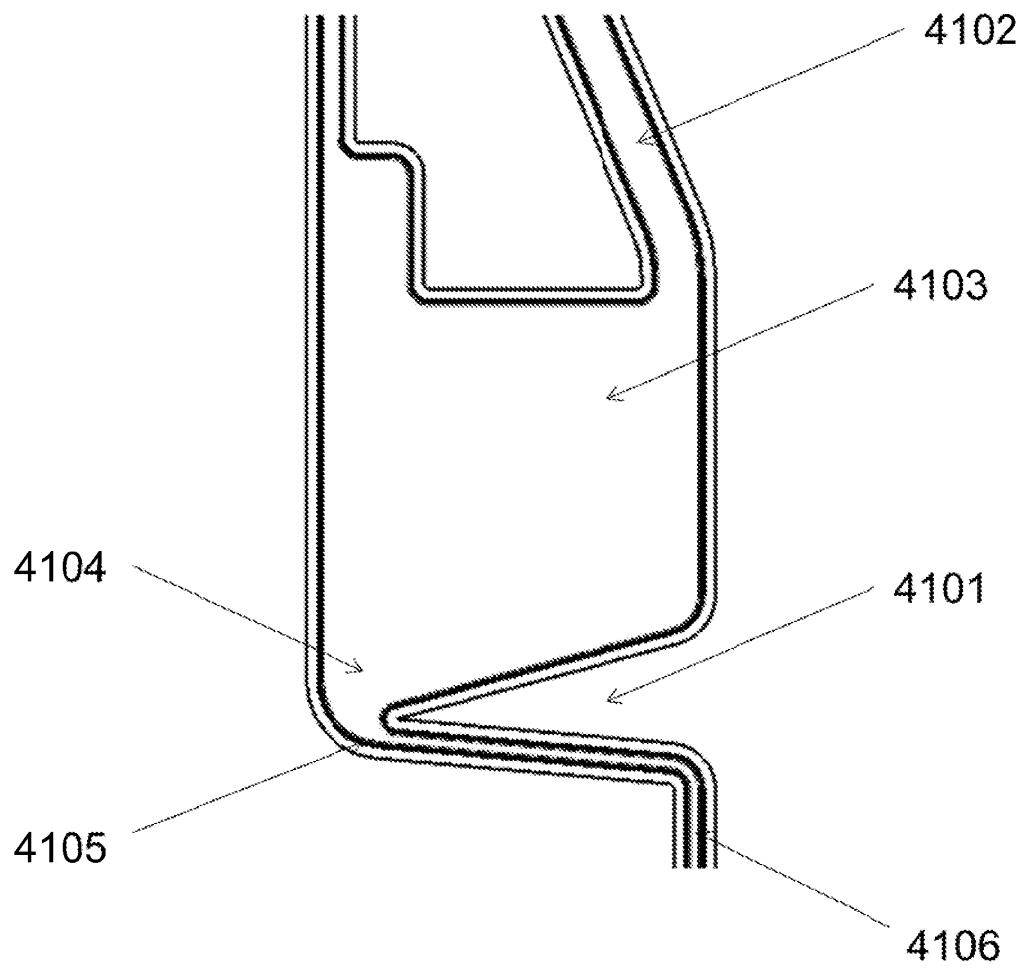
FIG. 36

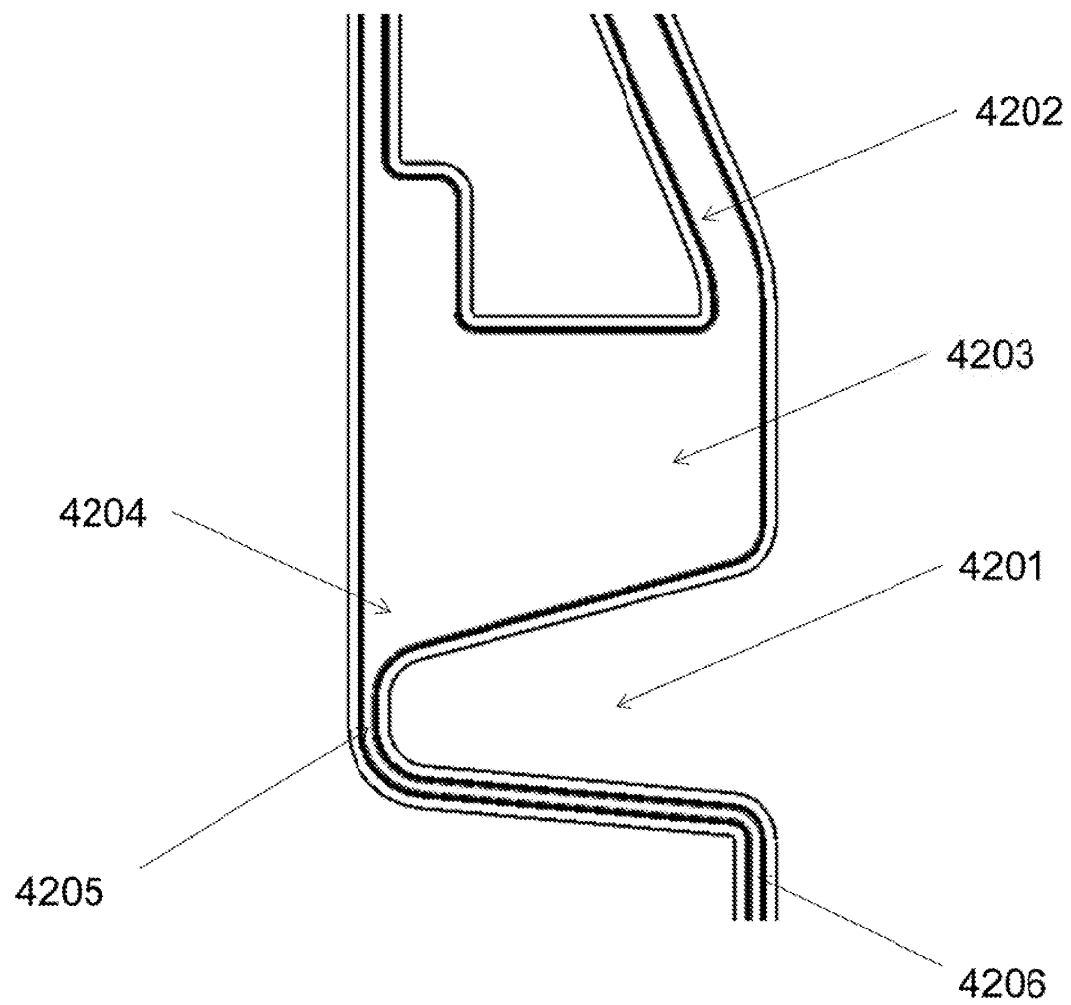
FIG. 37A

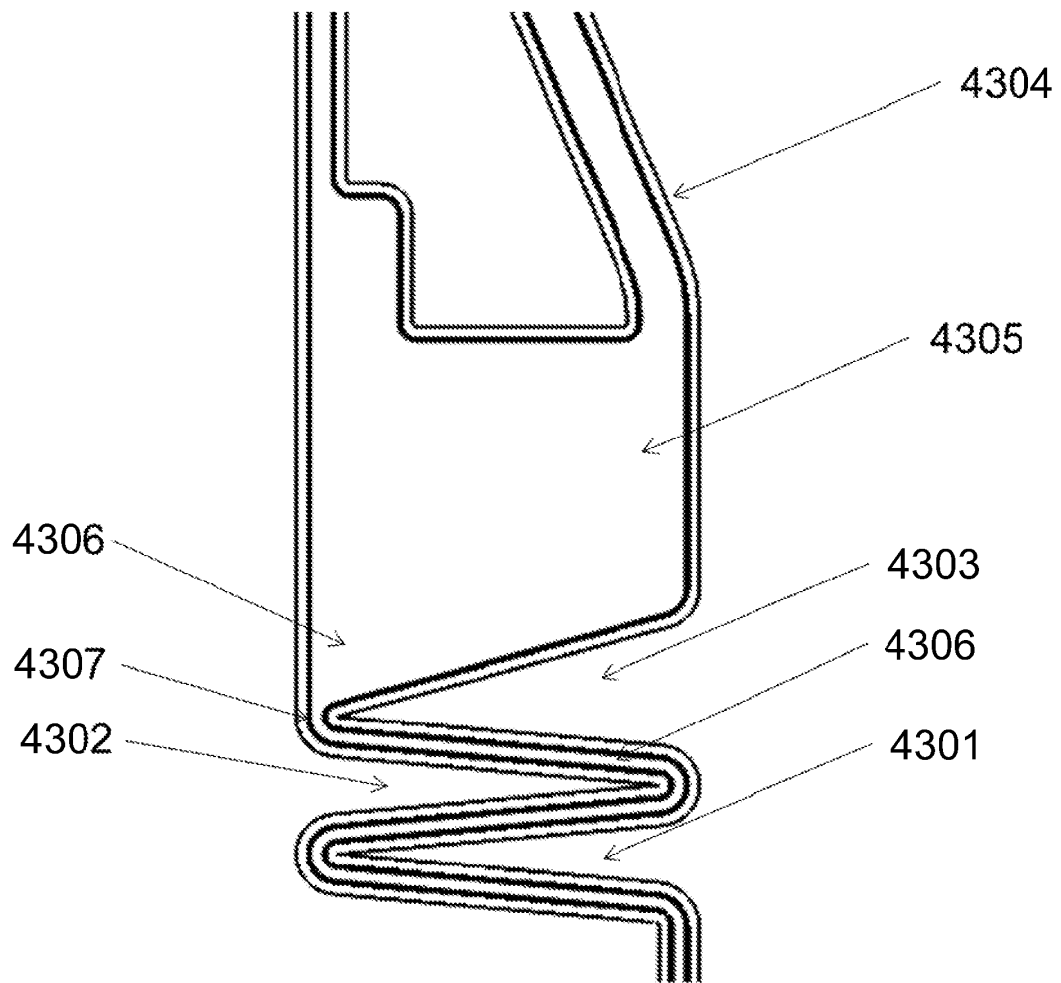
FIG. 37B

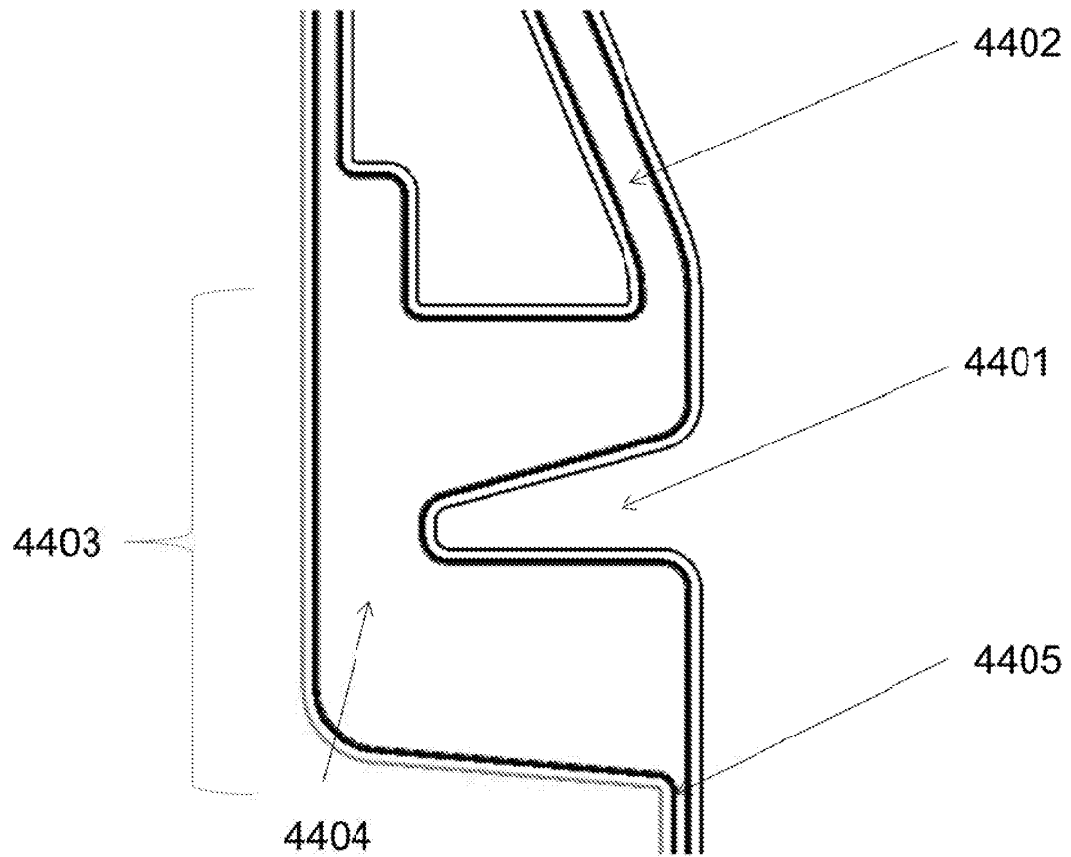
**FIG. 38**

**FIG. 39**

**FIG. 40**

**FIG. 41**

**FIG. 42**

**FIG. 43**

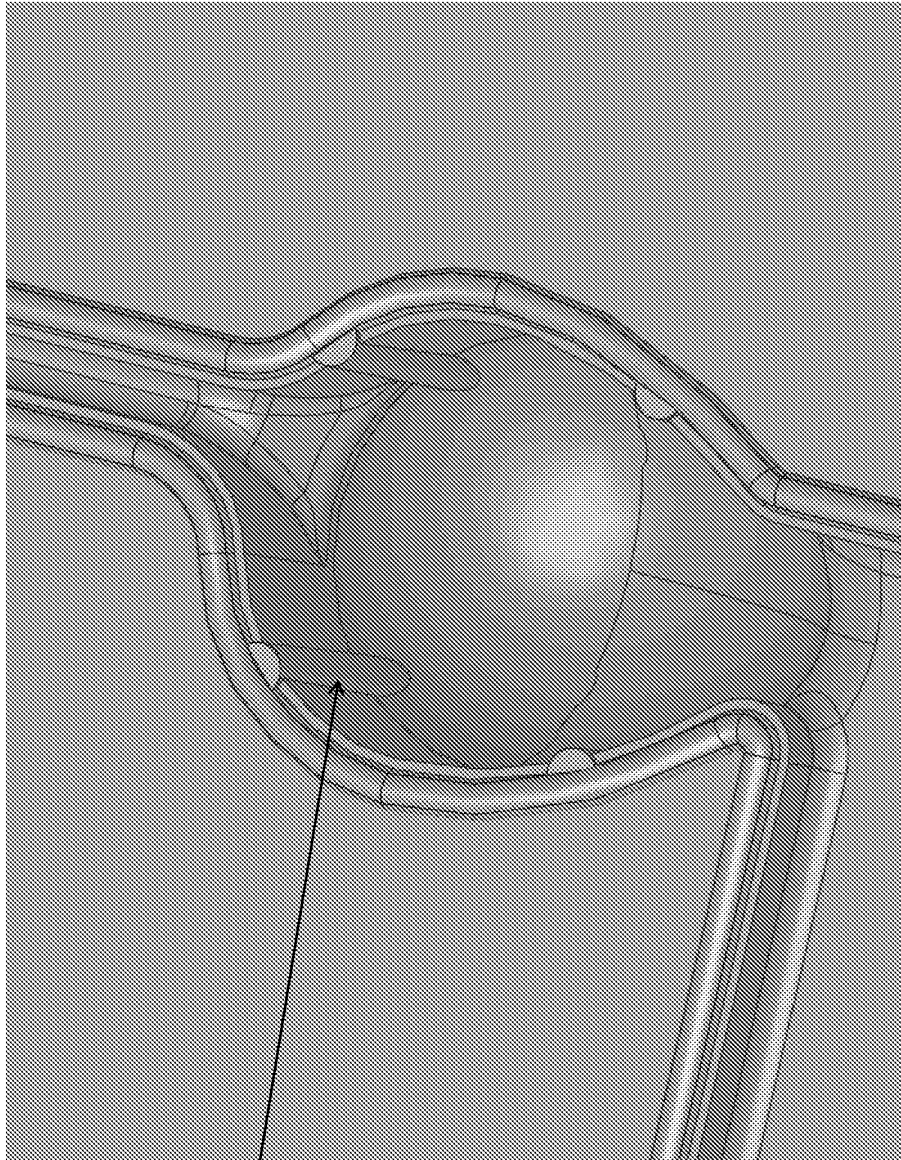


FIG. 44

7001

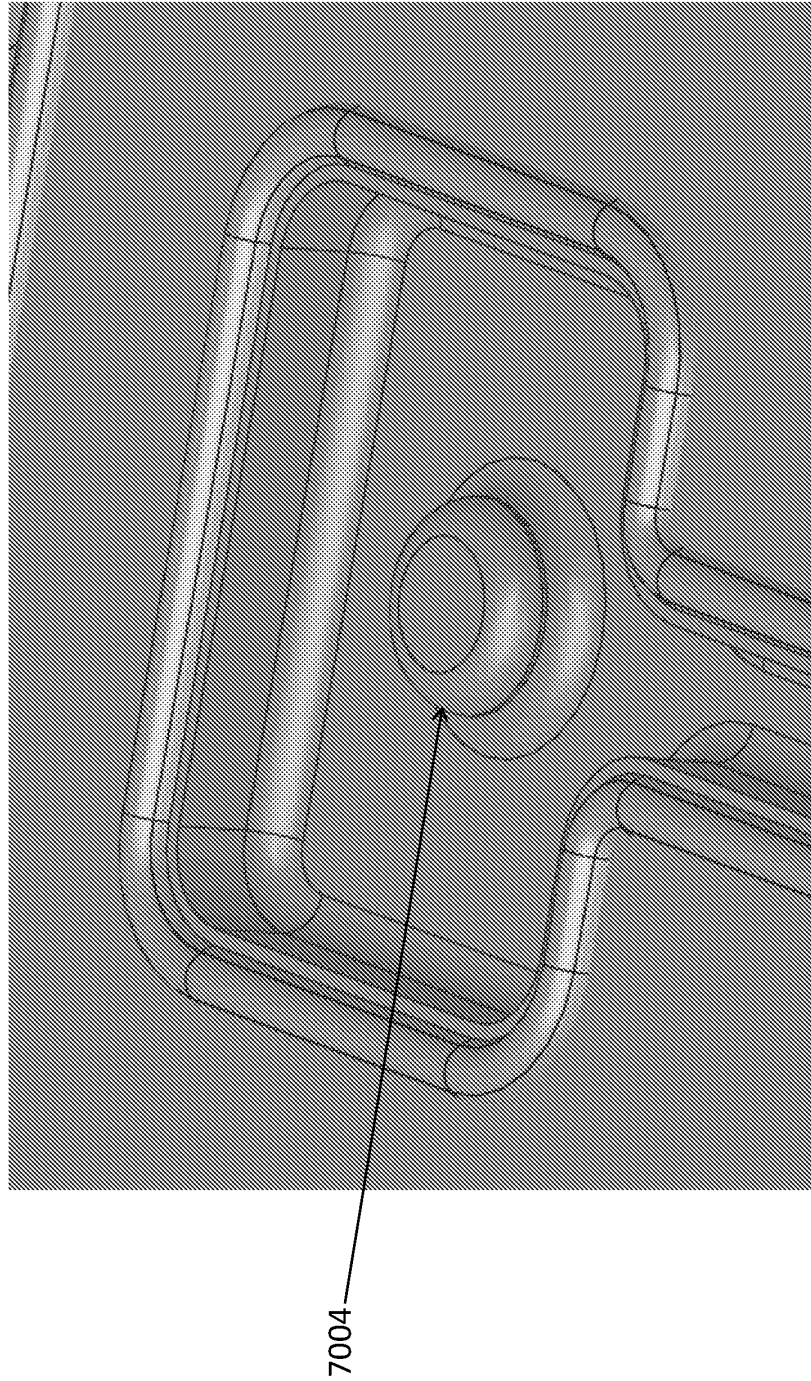
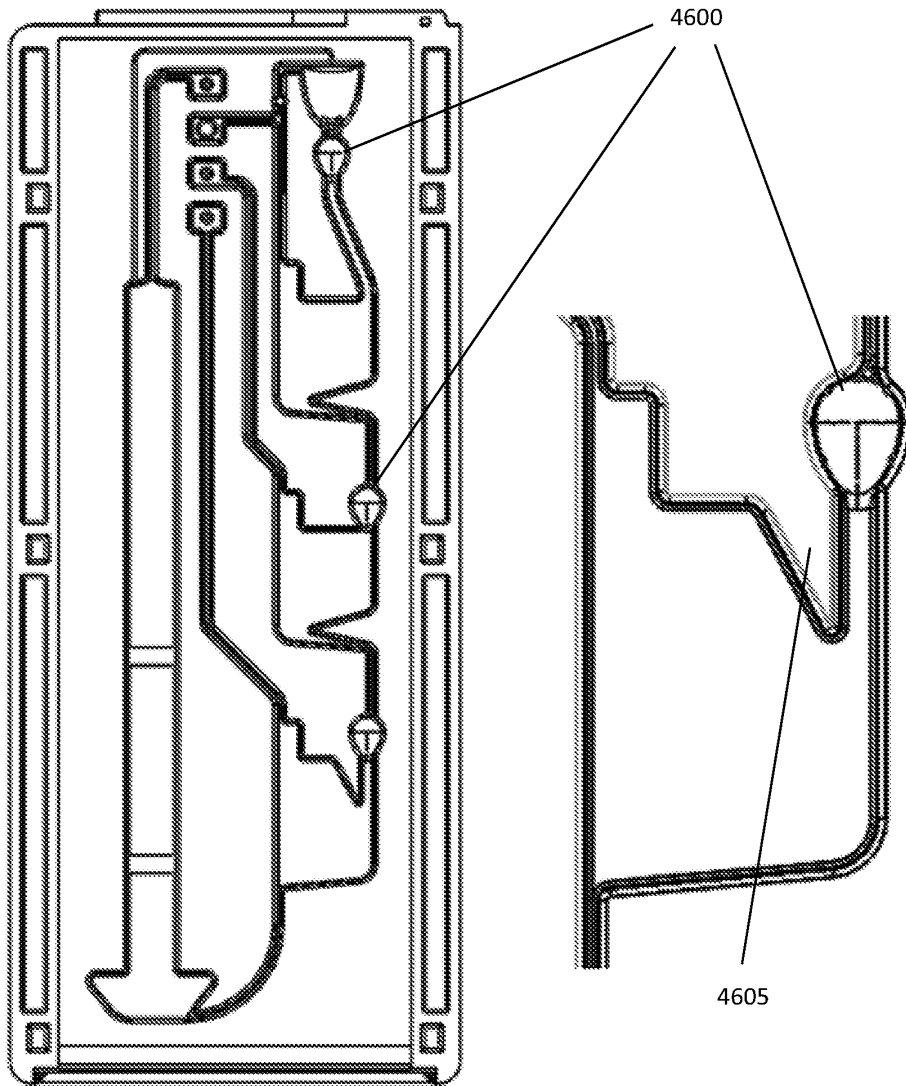


FIG. 45

**FIG. 46A****FIG. 46B**

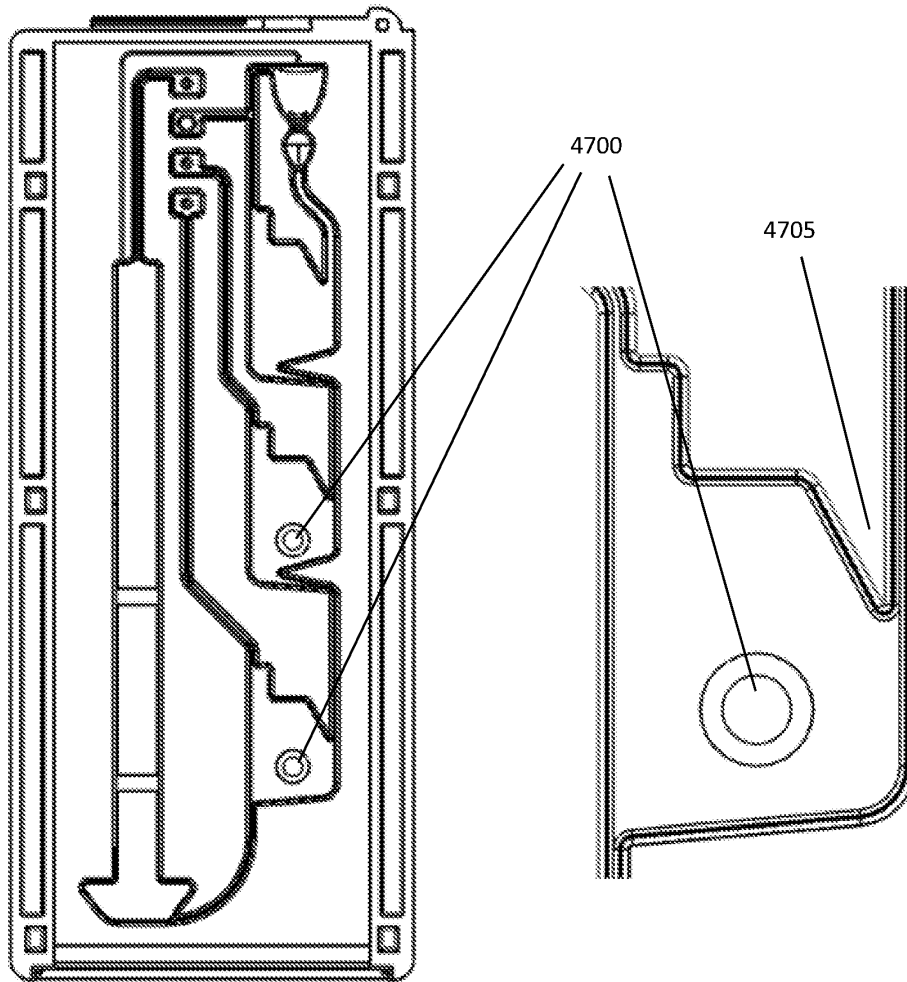
**FIG. 47A****FIG. 47B**

**FIG. 48**