

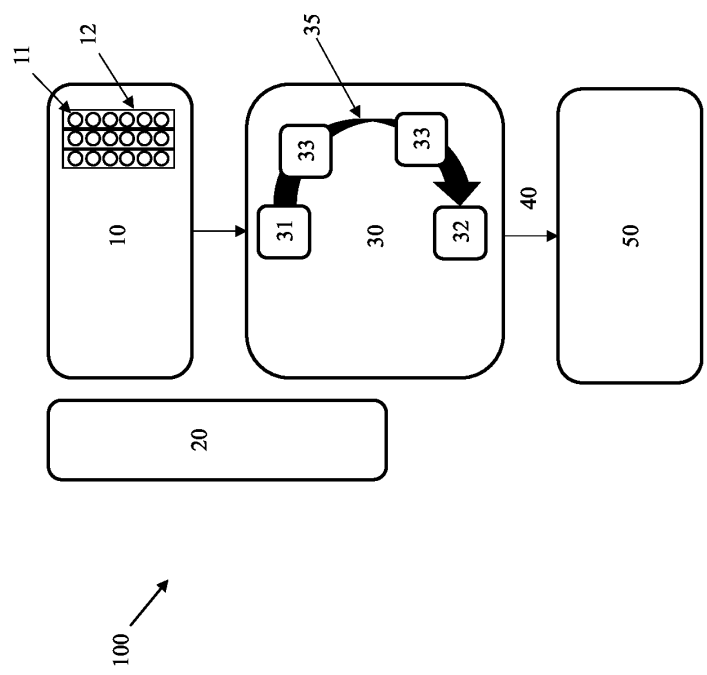


FIG. 1A

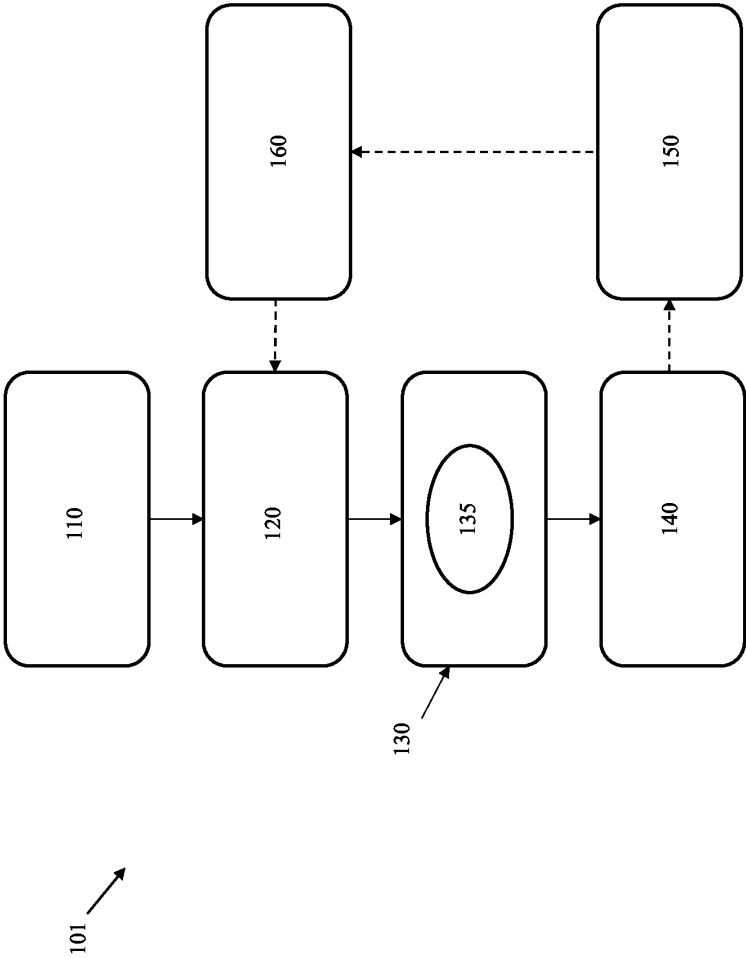


FIG. 1B

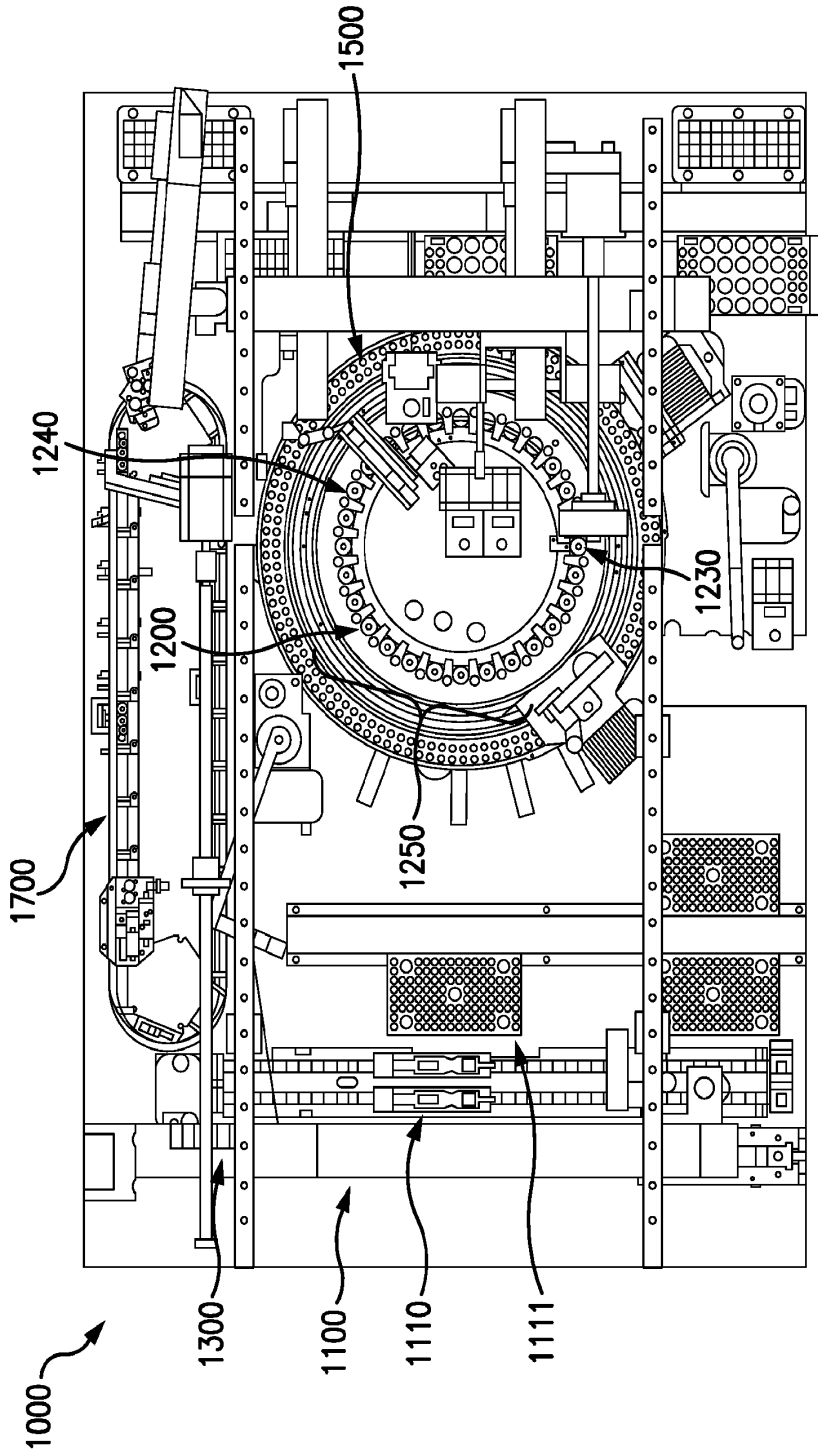


FIG. 2A

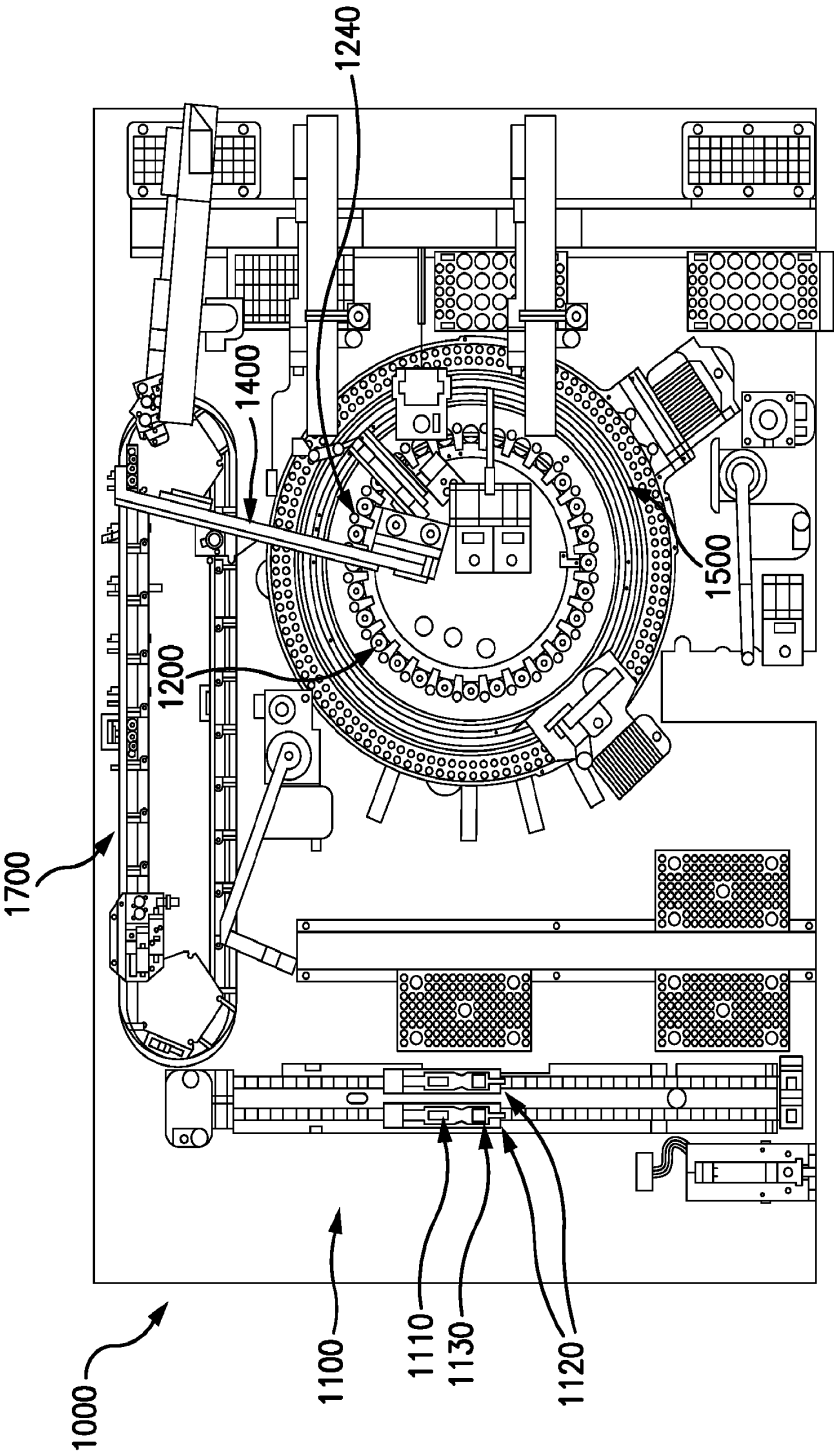


FIG. 2B

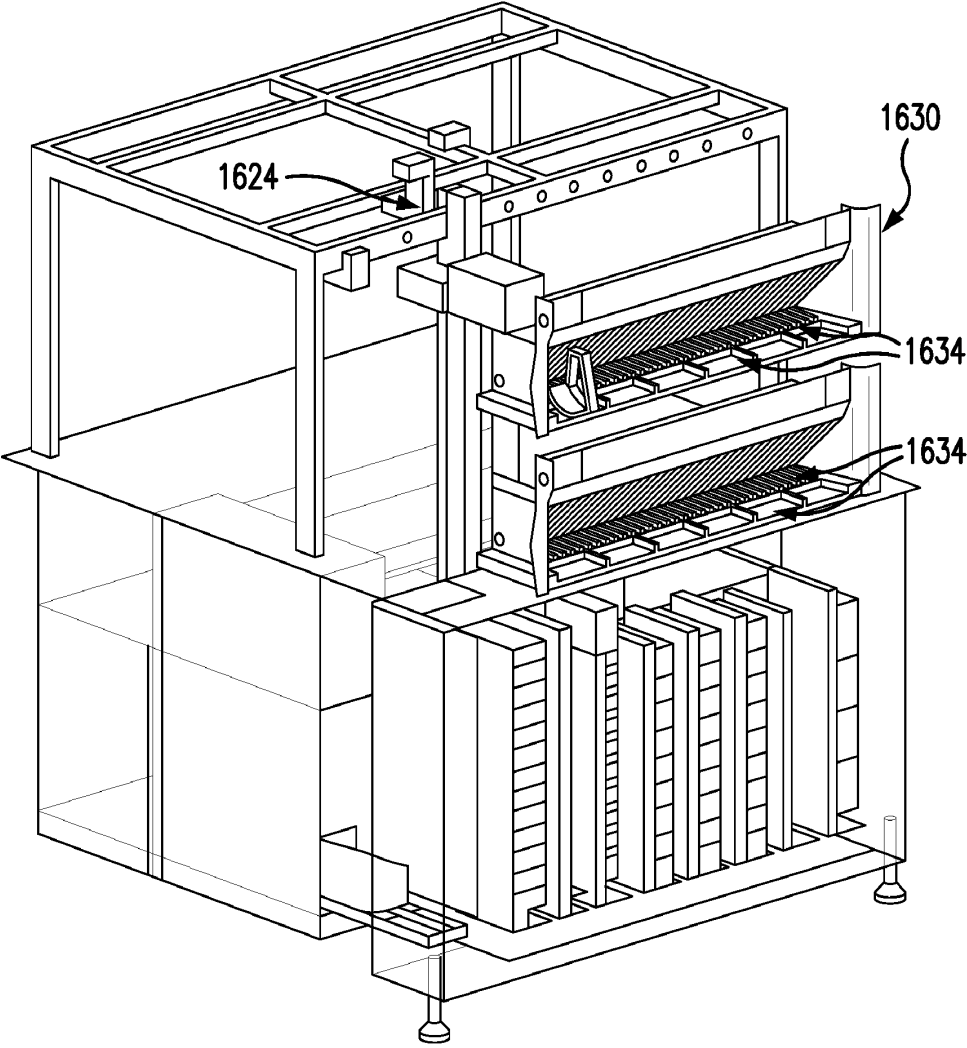
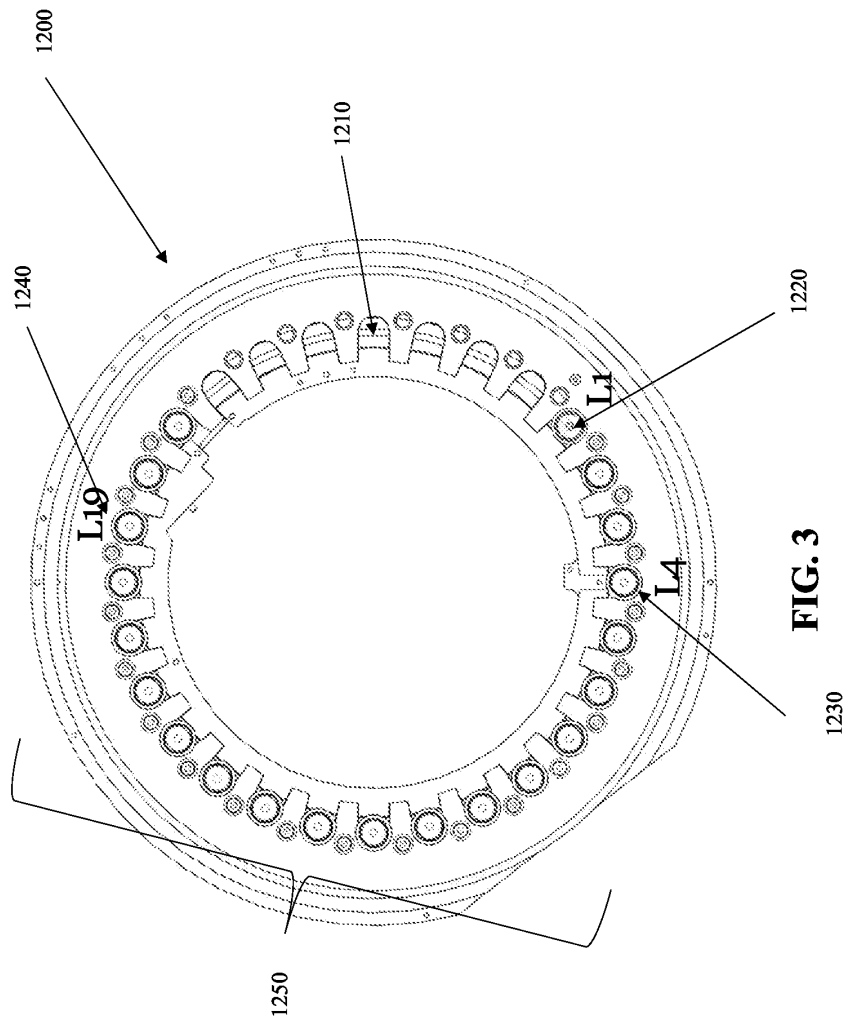
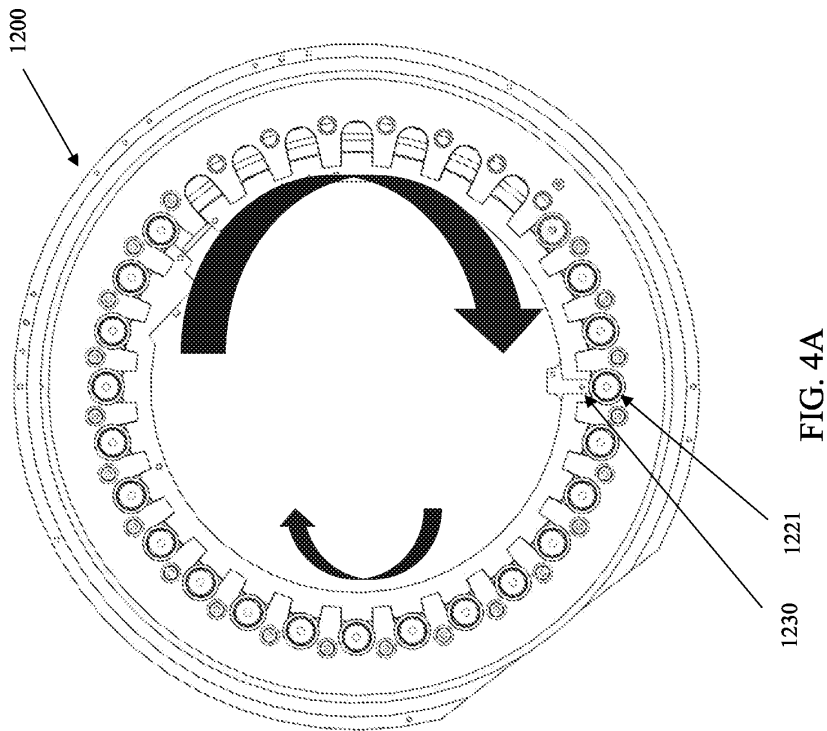
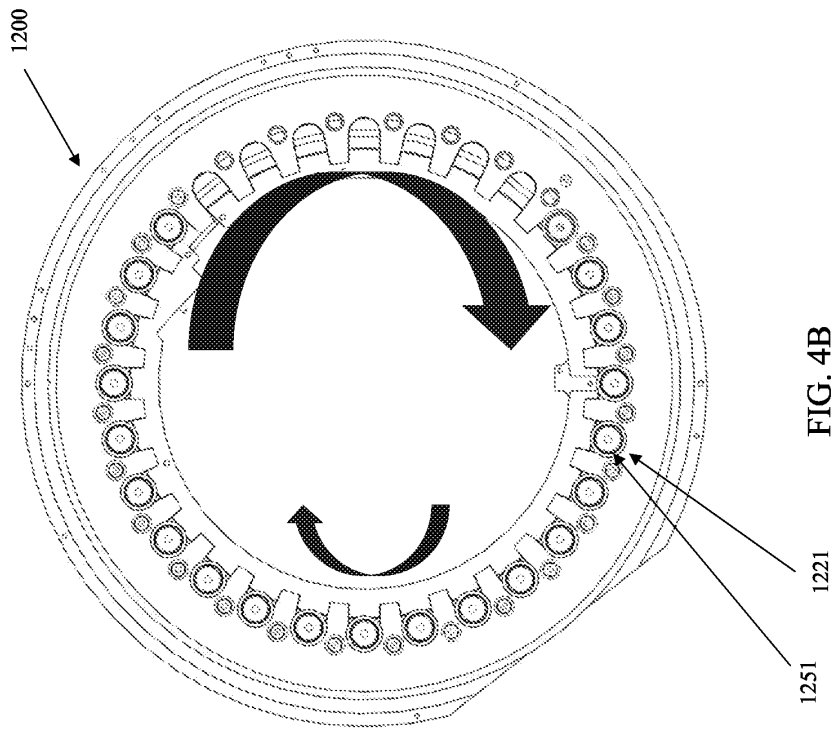


FIG. 2C





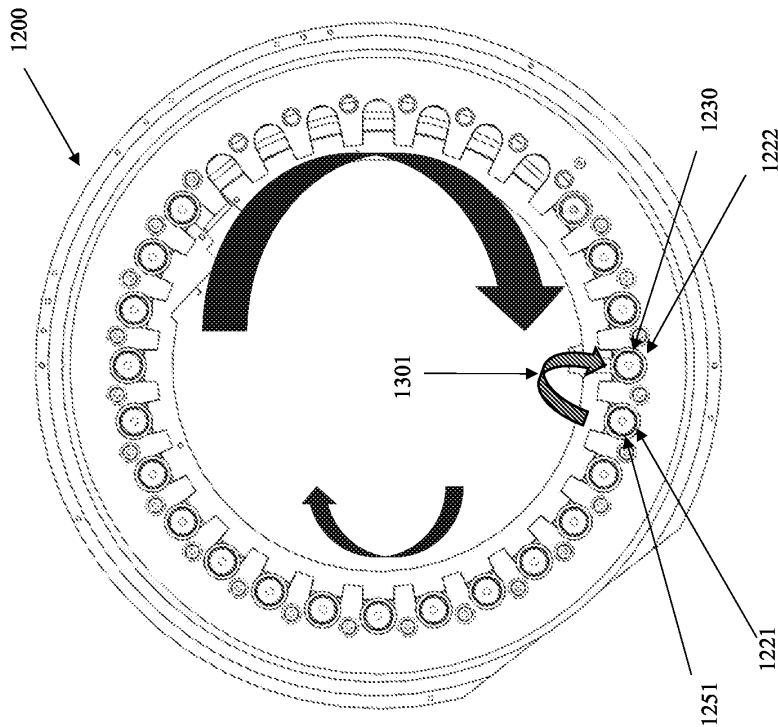


FIG. 5A

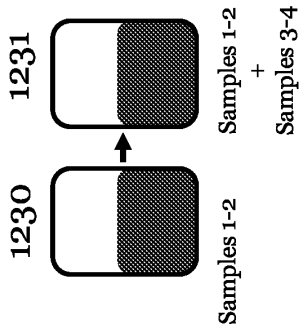
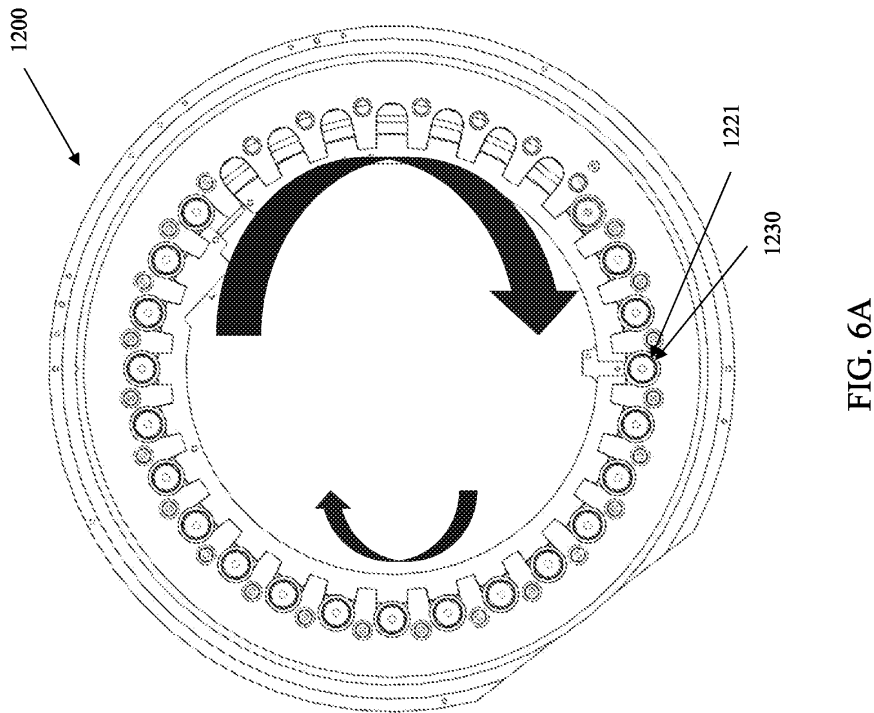
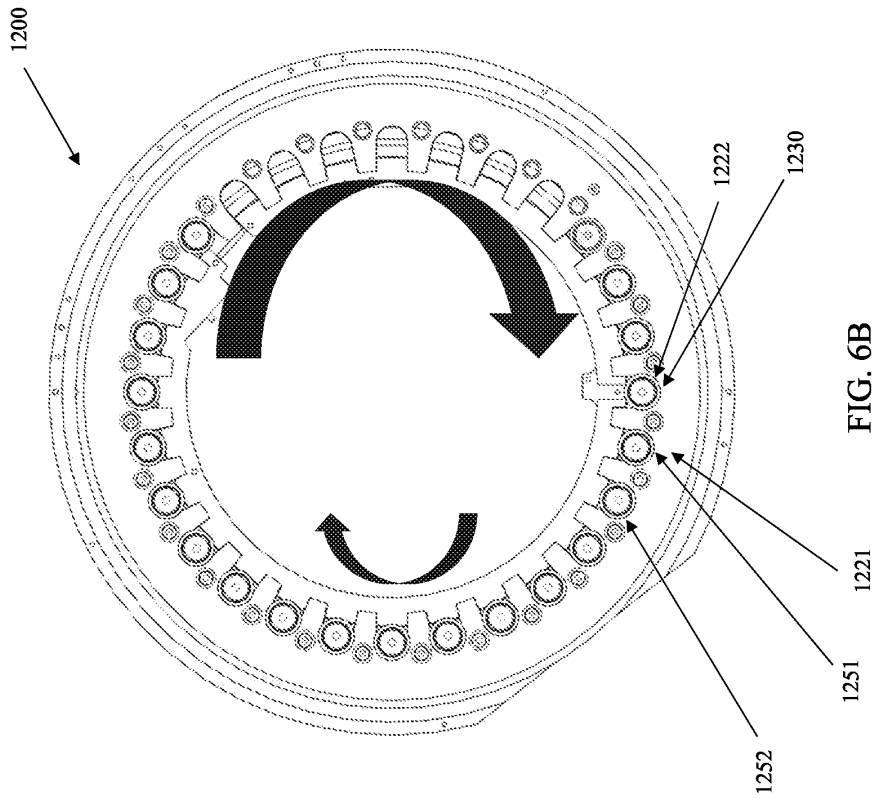
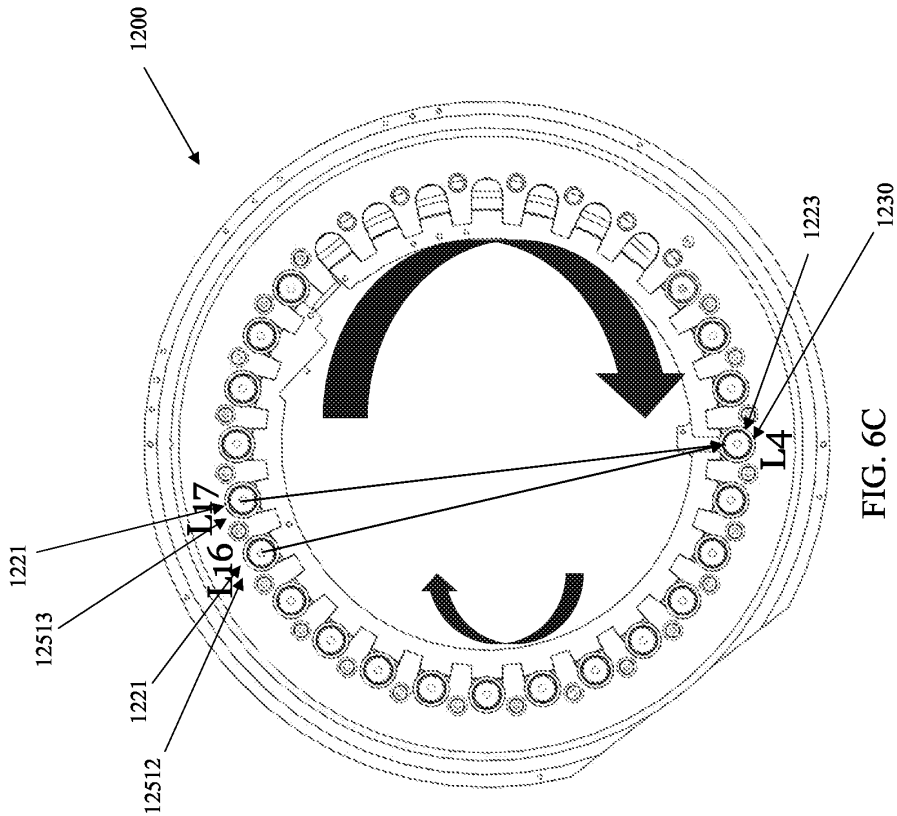


FIG. 5B





| THEORETICAL MAX DECONSTRUCTION EFFICIENCY |                        |                        |              |                |              |                        |              |                |              |                        |              |                |              |                        |              |                |              |                        |              |       |  |
|-------------------------------------------|------------------------|------------------------|--------------|----------------|--------------|------------------------|--------------|----------------|--------------|------------------------|--------------|----------------|--------------|------------------------|--------------|----------------|--------------|------------------------|--------------|-------|--|
| Primary Pool Size                         |                        | 2                      |              | 4              |              | 6                      |              | 8              |              | 12                     |              | 16             |              | 18                     |              | 24             |              | 36                     |              |       |  |
|                                           | # Tests Used           | Int. Pool size         | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size         | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size         | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size         | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size         | # Tests Used |       |  |
| Deconstruction Round 1                    | 2                      | IDT                    | 4            | IDT            | 3            | PL 2                   | 2            | PL 4           | 3            | PL 4                   | 4            | PL 4           | 3            | PL 6                   | 4            | PL 6           | 3            | PL 12                  | 3            |       |  |
| Deconstruction Round 2                    |                        |                        |              |                | 2            | IDT                    | 4            | IDT            | 4            | IDT                    | 4            | IDT            | 3            | PL 6                   | 3            | PL 6           | 3            | PL 14                  |              |       |  |
| Deconstruction Round 3                    |                        |                        |              |                |              |                        |              |                |              |                        |              |                |              |                        |              |                |              |                        |              |       |  |
| Deconstruction Round 4                    |                        |                        |              |                |              |                        |              |                |              |                        |              |                |              |                        |              |                |              |                        |              |       |  |
| Deconstruction Round 5                    |                        |                        |              |                |              |                        |              |                |              |                        |              |                |              |                        |              |                |              |                        |              |       |  |
| Deconstruction Max efficiency (Tests):    | 2                      | total                  | 4            | total          | 5            | total                  | 6            | total          | 7            | total                  | 8            | total          | 8            | total                  | 8            | total          | 9            | total                  | 10           | total |  |
| Max Efficiency Achieved After:            | 1 Round Deconstruction | 2 Round Deconstruction |              |                |              | 2 Round Deconstruction |              |                |              | 2 Round Deconstruction |              |                |              | 3 Round Deconstruction |              |                |              | 3 Round Deconstruction |              |       |  |

FIG. 7A

| THEORETICAL MAX DECONSTRUCTION EFFICIENCY |  |                        |                |              |                        |              |                |                        |                |              |                        |              |                |                        |                |              |                        |              |                |
|-------------------------------------------|--|------------------------|----------------|--------------|------------------------|--------------|----------------|------------------------|----------------|--------------|------------------------|--------------|----------------|------------------------|----------------|--------------|------------------------|--------------|----------------|
| Primary Pool Size                         |  | 48                     |                |              | 64                     |              |                | 96                     |                |              | 128                    |              |                | 192                    |                |              | 256                    |              |                |
|                                           |  | # Tests Used           | Int. Pool size | # Tests Used | Int. Pool size         | # Tests Used | Int. Pool size | # Tests Used           | Int. Pool size | # Tests Used | Int. Pool size         | # Tests Used | Int. Pool size | # Tests Used           | Int. Pool size | # Tests Used | Int. Pool size         | # Tests Used | Int. Pool size |
|                                           |  |                        |                |              |                        |              |                |                        |                |              |                        |              |                |                        |                |              |                        |              |                |
| Deconstruction Round 1                    |  | 4                      | PL 12          | 4            | PL 16                  | 4            | PL 24          | 4                      | PL 32          | 4            | PL 48                  | 4            | PL 64          | 4                      | PL 96          | 5            | PL 128                 | 4            | PL 128         |
| Deconstruction Round 2                    |  | 3                      | PL 4           | 4            | PL 4                   | 4            | PL 6           | 4                      | PL 8           | 4            | PL 12                  | 4            | PL 16          | 4                      | PL 24          | 4            | PL 24                  | 4            | PL 32          |
| Deconstruction Round 3                    |  | 4                      | IDT            | 4            | IDT                    | 4            | PL 2           | 4                      | PL 2           | 3            | PL 4                   | 4            | PL 4           | 4                      | PL 6           | 4            | PL 6                   | 4            | PL 8           |
| Deconstruction Round 4                    |  |                        |                |              |                        |              | IDT            | 2                      | IDT            | 4            | IDT                    | 4            | IDT            | 4                      | PL 2           | 3            | PL 2                   | 4            | PL 2           |
| Deconstruction Round 5                    |  |                        |                |              |                        |              |                |                        |                |              |                        |              |                |                        | IDT            | 2            | IDT                    | 2            | IDT            |
| Deconstruction Max efficiency (Tests):    |  | 11                     | total          | 12           | total                  | 13           | total          | 14                     | total          | 15           | total                  | 16           | total          | 17                     | total          | 18           | total                  | 18           | total          |
| Max Efficiency Achieved After             |  | 3 Round Deconstruction |                |              | 4 Round Deconstruction |              |                | 5 Round Deconstruction |                |              | 5 Round Deconstruction |              |                | 5 Round Deconstruction |                |              | 5 Round Deconstruction |              |                |
|                                           |  |                        |                |              |                        |              |                |                        |                |              |                        |              |                |                        |                |              |                        |              |                |

FIG. 7A Continued

| Max Efficiency 0 Intermediate Pools    |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |
|----------------------------------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|
| Primary Pool Size                      | 2            |                | 4            |                | 6            |                | 8            |                | 12           |                | 16           |                | 18           |                | 24           |                | 36           |                |
|                                        | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size |
| Final IDT Step                         | 2            | IDT            | 4            | IDT            | 6            | IDT            | 8            | IDT            | 12           | IDT            | 16           | IDT            | 18           | IDT            | 24           | IDT            | 36           | IDT            |
| Deconstruction Max efficiency (Tests): | 2            | total          | 4            | total          | 6            | total          | 8            | total          | 12           | total          | 16           | total          | 18           | total          | 24           | total          | 36           | total          |
| Max Efficiency Achieved?               | Yes          |                | Yes          |                | No           |                | No           |                | No           |                | No           |                | No           |                | No           |                | No           |                |

FIG. 7B

| Max Efficiency 0 Intermediate Pools       |                    |                      |                    |                      |                    |                      |                    |                      |                    |                      |                    |                      |                      |
|-------------------------------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|----------------------|
| Primary Pool Size                         | 48                 | 64                   | 96                 | 128                  | 192                | 256                  | 384                | 480                  | 512                |                      |                    |                      |                      |
|                                           | #<br>Tests<br>Used | Int.<br>Pool<br>size | #<br>Tests<br>Used | Int.<br>Pool<br>size | #<br>Tests<br>Used | Int.<br>Pool<br>size | #<br>Tests<br>Used | Int.<br>Pool<br>size | #<br>Tests<br>Used | Int.<br>Pool<br>size | #<br>Tests<br>Used | Int.<br>Pool<br>size | Int.<br>Pool<br>size |
| Final IDT Step                            | 48                 | IDT                  | 64                 | IDT                  | 96                 | IDT                  | 128                | IDT                  | 192                | IDT                  | 256                | IDT                  | 384                  |
| Deconstruction Max<br>efficiency (Tests): | 48                 | total                | 64                 | total                | 96                 | total                | 128                | total                | 192                | total                | 256                | total                | 384                  |
| Max Efficiency Achieved?                  | No                 | No                   | No                 | No                   | No                 | No                   | No                 | No                   | No                 | No                   | No                 | No                   | No                   |

FIG. 7B Continued

| Primary Pool Size                      | Max Efficiency 1 Intermediate Pools |                |              |                |              |                |              |                |              |                |              |                |
|----------------------------------------|-------------------------------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|
|                                        | 2                                   | 4              | 6            | 8              | 12           | 16             | 18           | 24             | 36           |                |              |                |
|                                        | # Tests Used                        | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size |
| Deconstruction Round 1                 | 2                                   | IDT            | 3            | PL 2           | 3            | PL 4           | 4            | PL 4           | 4            | PL 4           | 6            | PL 6           |
| Final IDT Step                         |                                     |                | 2            | IDT            | 4            | IDT            | 4            | IDT            | 6            | IDT            | 6            | IDT            |
| Deconstruction Max efficiency (Tests): | 2                                   | total          | 5            | total          | 7            | total          | 8            | total          | 9            | total          | 10           | total          |
| Max Efficiency Achieved?               | Yes                                 | Yes            | Yes          | Yes            | Yes          | Yes            | Yes          | No             | No           | No             | No           | No             |

FIG. 7C

| Max Efficiency 1 Intermediate Pools    |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |
|----------------------------------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|
| Primary Pool Size                      | 48           |                | 64           |                | 96           |                | 128          |                | 192          |                | 256          |                | 384          |                | 480          |                | 512          |                |
|                                        | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size |
| Deconstruction Round 1                 | 8            | PL 6           | 8            | PL 8           | 16           | PL 6           | 16           | PL 8           | 16           | PL 12          | 16           | PL 16          | 24           | PL 16          | 20           | PL 24          | 32           | PL 16          |
| Final IDT Step                         | 6            | IDT            | 8            | IDT            | 6            | IDT            | 8            | IDT            | 12           | IDT            | 16           | IDT            | 16           | IDT            | 24           | IDT            | 16           | IDT            |
| Deconstruction Max efficiency (Tests): | 14           | total          | 16           | total          | 22           | total          | 24           | total          | 28           | total          | 32           | total          | 40           | total          | 44           | total          | 48           | total          |
| Max Efficiency Achieved?               | No           |                | No           |                | No           |                | No           |                | No           |                | No           |                | No           |                | No           |                | No           |                |

FIG. 7C Continued

| Primary Pool Size                         | Max Efficiency 2 Intermediate Pools |                      |                    |                      |                    |                      |                    |                      |                    |                      |                    |                      |
|-------------------------------------------|-------------------------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|
|                                           | 2                                   | 4                    | 6                  | 8                    | 12                 | 16                   | 18                 | 24                   | 36                 |                      |                    |                      |
|                                           | #<br>Tests<br>Used                  | Int.<br>Pool<br>size | #<br>Tests<br>Used | Int.<br>Pool<br>size | #<br>Tests<br>Used | Int.<br>Pool<br>size | #<br>Tests<br>Used | Int.<br>Pool<br>size | #<br>Tests<br>Used | Int.<br>Pool<br>size | #<br>Tests<br>Used | Int.<br>Pool<br>size |
| Deconstruction Round 1                    | 2                                   | IDT                  | 4                  | IDT                  | 3                  | PL 4                 | 4                  | PL 4                 | 3                  | PL 6                 | 4                  | PL 12                |
| Deconstruction Round 2                    |                                     |                      |                    |                      | 4                  | IDT                  | 4                  | IDT                  | 3                  | PL 2                 | 3                  | PL 4                 |
| Final IDT Step                            |                                     |                      |                    |                      |                    |                      |                    |                      | 2                  | IDT                  | 2                  | IDT                  |
| Deconstruction Max efficiency<br>(Tests): | 2                                   | total                | 4                  | total                | 7                  | total                | 8                  | total                | 9                  | total                | 10                 | total                |
| Max Efficiency Achieved?                  | Yes                                 | Yes                  | Yes                | Yes                  | Yes                | Yes                  | Yes                | Yes                  | Yes                | Yes                  | Yes                | Yes                  |

FIG. 7D

| Max Efficiency 2 Intermediate Pools    |              |                |     |              |                |  |              |                |    |              |                |  |              |                |    |              |                |  |              |                |    |              |                |  |              |                |  |
|----------------------------------------|--------------|----------------|-----|--------------|----------------|--|--------------|----------------|----|--------------|----------------|--|--------------|----------------|----|--------------|----------------|--|--------------|----------------|----|--------------|----------------|--|--------------|----------------|--|
| Primary Pool Size                      | 48           |                |     | 64           |                |  | 96           |                |    | 128          |                |  | 192          |                |    | 256          |                |  | 384          |                |    | 480          |                |  | 512          |                |  |
|                                        | # Tests Used | Int. Pool size |     | # Tests Used | Int. Pool size |  | # Tests Used | Int. Pool size |    | # Tests Used | Int. Pool size |  | # Tests Used | Int. Pool size |    | # Tests Used | Int. Pool size |  | # Tests Used | Int. Pool size |    | # Tests Used | Int. Pool size |  | # Tests Used | Int. Pool size |  |
| Deconstruction Round 1                 | 4            | PL 12          |     | 4            | PL 16          |  | 6            | PL 16          |    | 8            | PL 16          |  | 6            | PL 32          |    | 8            | PL 32          |  | 10           | PL 48          |    | 16           | PL 48          |  | 16           | PL 32          |  |
| Deconstruction Round 2                 | 3            | PL 4           |     | 4            | PL 4           |  | 4            | PL 4           |    | 4            | PL 4           |  | 8            | PL 4           |    | 8            | PL 4           |  | 8            | PL 6           |    | 8            | PL 6           |  | 8            | PL 4           |  |
| Final IDT Step                         | 4            | IDT            |     | 4            | IDT            |  | 4            | IDT            |    | 4            | IDT            |  | 4            | IDT            |    | 4            | IDT            |  | 6            | IDT            |    | 6            | IDT            |  | 4            | IDT            |  |
| Deconstruction Max efficiency (Tests): | 11           | total          |     | 12           | total          |  | 13           | total          |    | 14           | total          |  | 15           | total          |    | 16           | total          |  | 17           | total          |    | 18           | total          |  | 18           | total          |  |
| Max Efficiency Achieved?               | Yes          |                | Yes |              | No             |  | No           |                | No |              | No             |  | No           |                | No |              | No             |  | No           |                | No |              | No             |  | No           |                |  |

FIG. 7D Continued

| Max Efficiency 4 Intermediate Pools    |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |
|----------------------------------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|
| Primary Pool Size                      | 2            |                | 4            |                | 6            |                | 8            |                | 12           |                | 16           |                | 18           |                | 24           |                | 36           |                |
|                                        | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size |
| Deconstruction Round 1                 | 2            | IDT            | 4            | IDT            | 3            | PL 2           | 2            | PL 4           | 3            | PL 4           | 4            | PL 4           | 3            | PL 6           | 4            | PL 6           | 3            | PL 12          |
| Deconstruction Round 2                 |              |                |              |                | 2            | IDT            | 4            | IDT            | 4            | IDT            | 4            | IDT            | 3            | PL 2           | 3            | PL 2           | 3            | PL 4           |
| Deconstruction Round 3                 |              |                |              |                |              |                |              |                |              |                |              |                | 2            | IDT            | 2            | IDT            | 4            | IDT            |
| Deconstruction Round 4                 |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |
| Final IDT Step                         |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |
| Deconstruction Max efficiency (Tests): | 2            | total          | 4            | total          | 5            | total          | 6            | total          | 7            | total          | 8            | total          | 8            | total          | 9            | total          | 10           | total          |
| Max Efficiency Achieved?               | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                |

FIG. 7E

| Max Efficiency 4 Intermediate Pools    |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |  |  |
|----------------------------------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--|--|
| Primary Pool Size                      |              | 48             |              |                | 64           |                |              | 96             |              |                | 128          |                |              | 192            |              |                | 256          |                |              | 384            |              |                | 480          |                |              | 512            |  |  |
|                                        | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size |  |  |
| Deconstruction Round 1                 | 4            | PL 12          | 4            | PL 16          | 4            | PL 24          | 4            | PL 32          | 4            | PL 48          | 4            | PL 64          | 4            | PL 96          | 4            | PL 128         | 4            | PL 160         | 4            | PL 192         | 4            | PL 240         | 4            | PL 288         | 4            | PL 320         |  |  |
| Deconstruction Round 2                 | 3            | PL 4           | 4            | PL 4           | 4            | PL 6           | 4            | PL 8           | 8            | PL 12          | 4            | PL 16          | 4            | PL 24          | 4            | PL 32          | 4            | PL 48          | 4            | PL 64          | 4            | PL 96          | 4            | PL 128         | 4            | PL 160         |  |  |
| Deconstruction Round 3                 | 4            | IDT            | 4            | IDT            | 3            | PL 2           | 4            | PL 2           | 3            | PL 4           | 4            | PL 4           | 4            | PL 6           | 4            | PL 8           | 4            | PL 12          | 4            | PL 16          | 3            | PL 24          | 4            | PL 32          | 4            | PL 40          |  |  |
| Deconstruction Round 4                 |              |                |              |                | 2            | IDT            | 2            | IDT            | 4            | IDT            | 4            | IDT            | 4            | IDT            | 3            | PL 2           | 3            | PL 2           | 2            | IDT            | 2            | IDT            | 2            | IDT            | 2            | IDT            |  |  |
| Final IDT Step                         |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |  |  |
| Deconstruction Max efficiency (Tests): | 11           | total          | 12           | total          | 13           | total          | 14           | total          | 15           | total          | 16           | total          | 17           | total          | 18           | total          | 19           | total          | 20           | total          | 21           | total          | 22           | total          | 23           | total          |  |  |
| Max Efficiency Achieved?               | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                |  |  |

FIG. 7E Continued

| Max Efficiency 4 Intermediate Pools    |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |       |
|----------------------------------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|-------|
| Primary Pool Size                      |              | 2              |              | 4              |              | 6              |              | 8              |              | 12             |              | 16             |              | 18             |              | 24             |              | 36             |              |       |
|                                        | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used | Int. Pool size | # Tests Used |       |
| Deconstruction Round 1                 | 2            | IDT            | 4            | IDT            | 3            | PL 2           | 2            | PL 4           | 3            | PL 4           | 4            | PL 4           | 4            | PL 6           | 3            | PL 6           | 4            | PL 12          | 3            |       |
| Deconstruction Round 2                 |              |                |              |                | 2            | IDT            | 4            | IDT            | 4            | IDT            | 4            | IDT            | 4            | PL 2           | 3            | PL 2           | 3            | PL 4           | 3            |       |
| Deconstruction Round 3                 |              |                |              |                |              |                |              |                |              |                |              |                |              | IDT            | 2            | IDT            | 2            | IDT            | 4            |       |
| Deconstruction Round 4                 |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |       |
| Final IDT Step                         |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |                |              |       |
| Deconstruction Max efficiency (Tests): | 2            | total          | 4            | total          | 5            | total          | 6            | total          | 7            | total          | 8            | total          | 8            | total          | 8            | total          | 9            | total          | 10           | total |
| Max Efficiency Achieved?:              | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |                | Yes          |       |

FIG. 7F

| Max Efficiency 4 Intermediate Pools    |              |                |     |              |     |                |     |              |     |                |     |              |     |                |     |              |     |                |     |
|----------------------------------------|--------------|----------------|-----|--------------|-----|----------------|-----|--------------|-----|----------------|-----|--------------|-----|----------------|-----|--------------|-----|----------------|-----|
| Primary Pool Size                      |              | 48             |     | 64           |     | 96             |     | 128          |     | 192            |     | 256          |     | 384            |     | 480          |     | 512            |     |
|                                        | # Tests Used | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     |
|                                        |              | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     |
|                                        |              | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     |
|                                        |              | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     |
|                                        |              | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     | # Tests Used |     | Int. Pool size |     |
| Deconstruction Round 1                 | 4            | PL 12          | 4   | PL 16        | 4   | PL 24          | 4   | PL 32        | 4   | PL 48          | 4   | PL 64        | 4   | PL 96          | 4   | PL 128       | 4   | PL 128         | 4   |
| Deconstruction Round 2                 | 3            | PL 4           | 4   | PL 4         | 4   | PL 6           | 4   | PL 6         | 4   | PL 12          | 4   | PL 16        | 4   | PL 24          | 4   | PL 24        | 4   | PL 32          | 4   |
| Deconstruction Round 3                 | 4            | IDT            | 4   | IDT          | 4   | PL 2           | 4   | PL 2         | 4   | PL 4           | 4   | PL 4         | 4   | PL 6           | 4   | PL 6         | 4   | PL 8           | 4   |
| Deconstruction Round 4                 |              |                |     |              |     | IDT            | 2   | IDT          | 4   | IDT            | 4   | IDT          | 4   | PL 2           | 3   | PL 2         | 4   | PL 2           | 4   |
| Final IDT Step                         |              |                |     |              |     |                |     |              |     |                |     |              |     | IDT            | 2   | IDT          | 2   | IDT            | 2   |
| Deconstruction Max efficiency (Tests): | 11           | total          | 12  | total        | 12  | total          | 13  | total        | 14  | total          | 15  | total        | 16  | total          | 17  | total        | 18  | total          | 18  |
| Max Efficiency Achieved?               | Yes          | Yes            | Yes | Yes          | Yes | Yes            | Yes | Yes          | Yes | Yes            | Yes | Yes          | Yes | Yes            | Yes | Yes          | Yes | Yes            | Yes |

FIG. 7F Continued

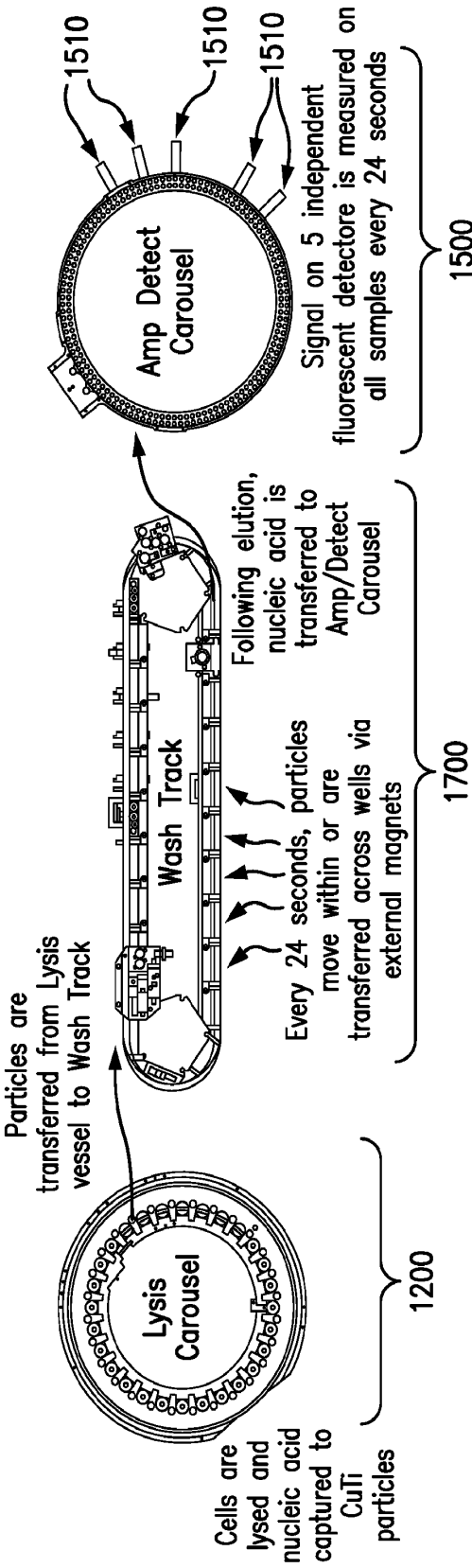


FIG. 8A

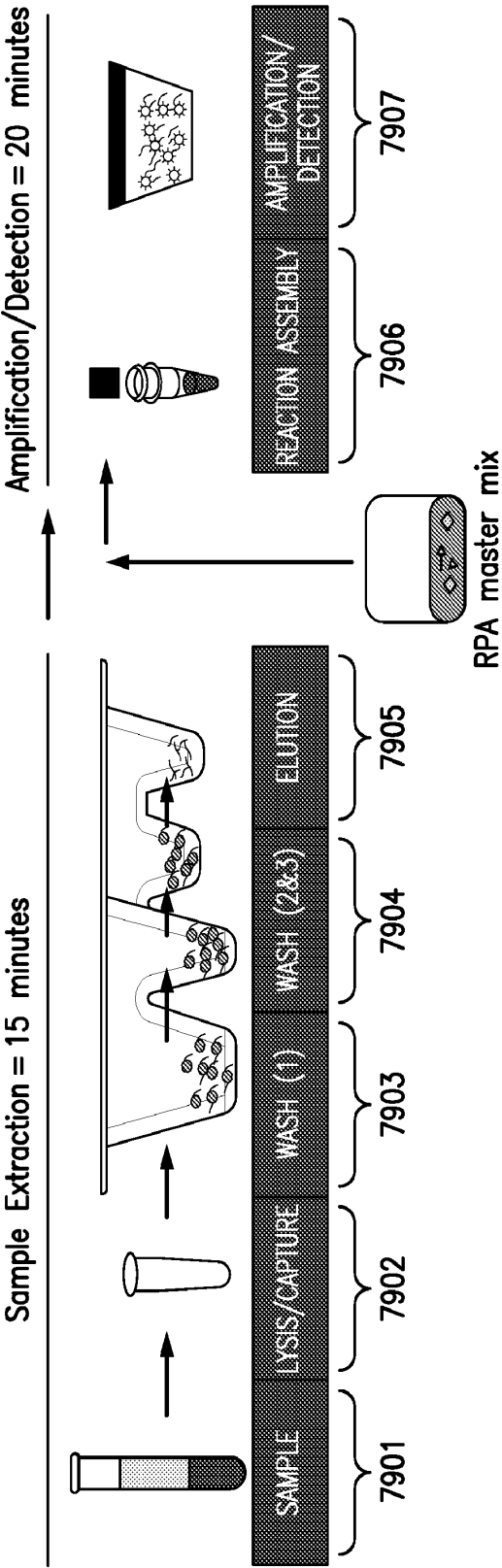


FIG. 8B

| Serum / Plasma / Lysed Whole Blood |                    |                  |               |               |               |                 |
|------------------------------------|--------------------|------------------|---------------|---------------|---------------|-----------------|
|                                    | Individual Samples | Pool of 2        | Pool of 4     | Pool of 6     | Pool of 12    | Pool of 18      |
| Time To Result                     | 35 minutes         | 35 minutes       | 35.5 min      | 36 min        | 38 min        | 39 min          |
| Throughput                         | 150 samples / hour | 150 pools / hour | 75 pools/hour | 50 pools/hour | 25 pools/hour | 16.7 pools/hour |
|                                    |                    |                  |               |               |               | 12.5 pools/hour |

FIG. 9A

| Whole Blood with Pre-Treatment Process |                    |               |
|----------------------------------------|--------------------|---------------|
|                                        | Individual Samples | Pool of 6     |
| Time To Result                         | 42 minutes         | 42 minutes    |
| Throughput                             | 75 samples / hour  | 21 pools/hour |

FIG. 9B

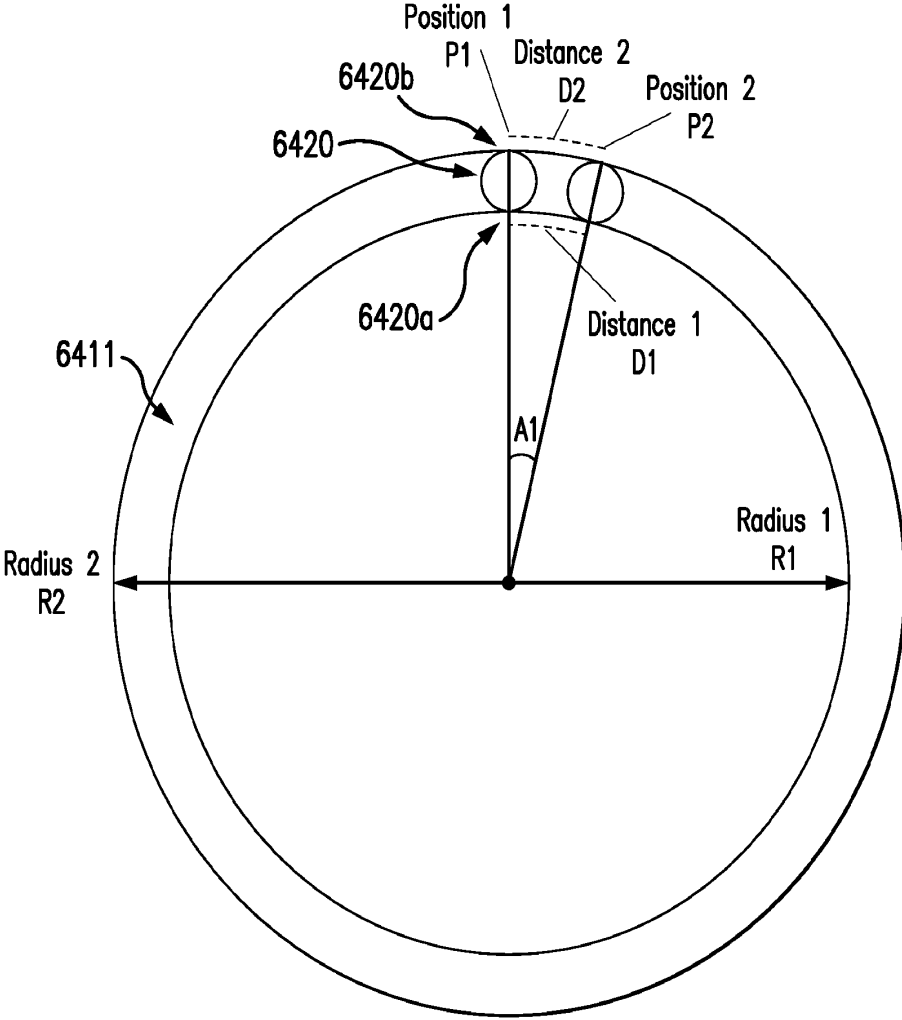


FIG. 10A

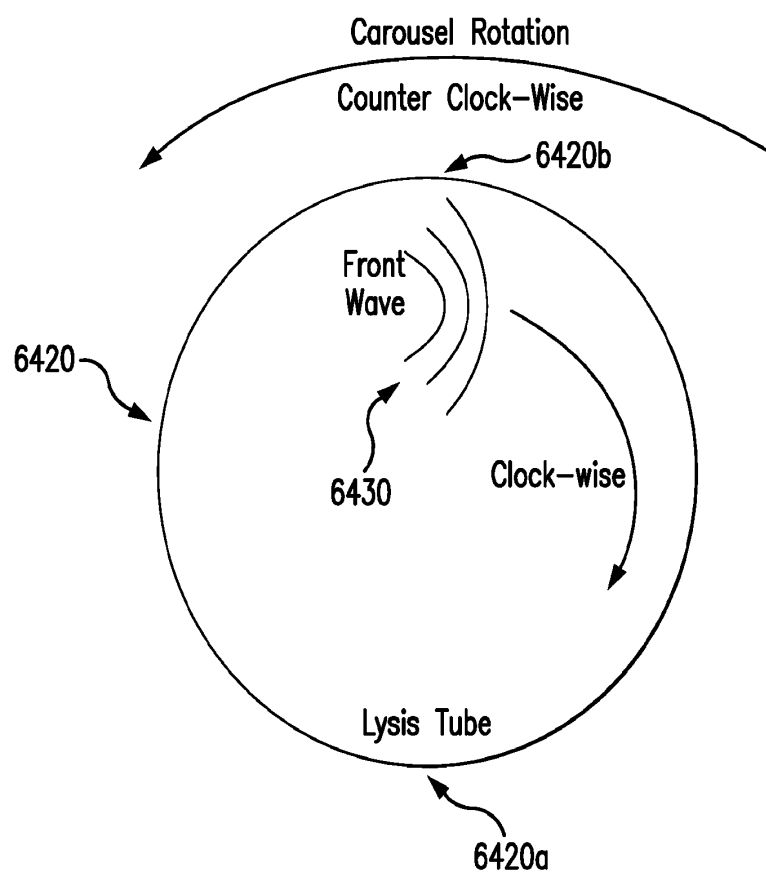


FIG. 10B

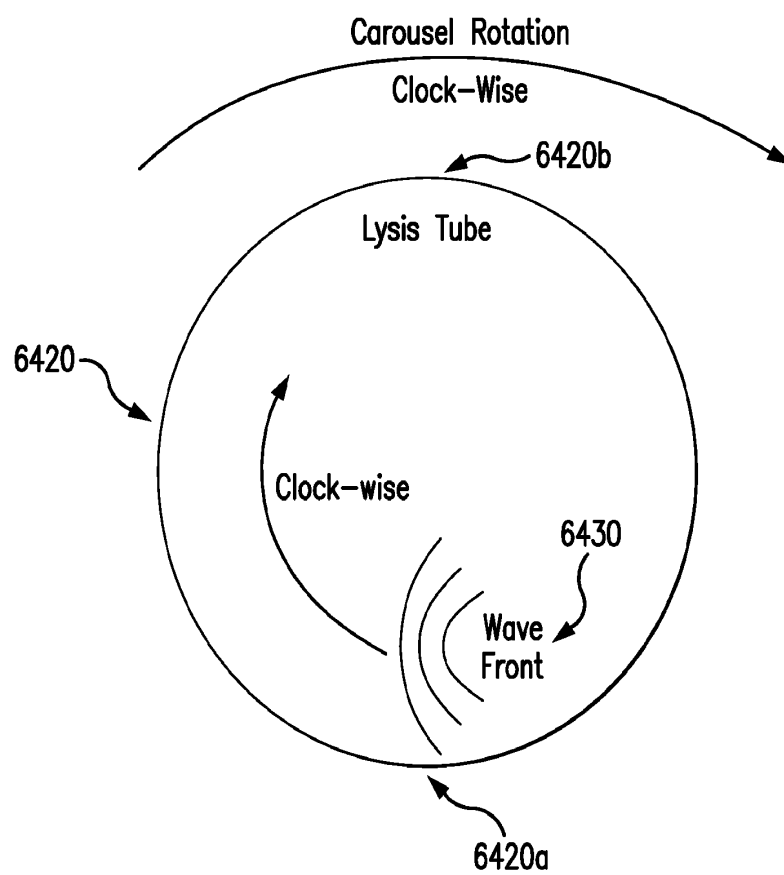


FIG. 10C

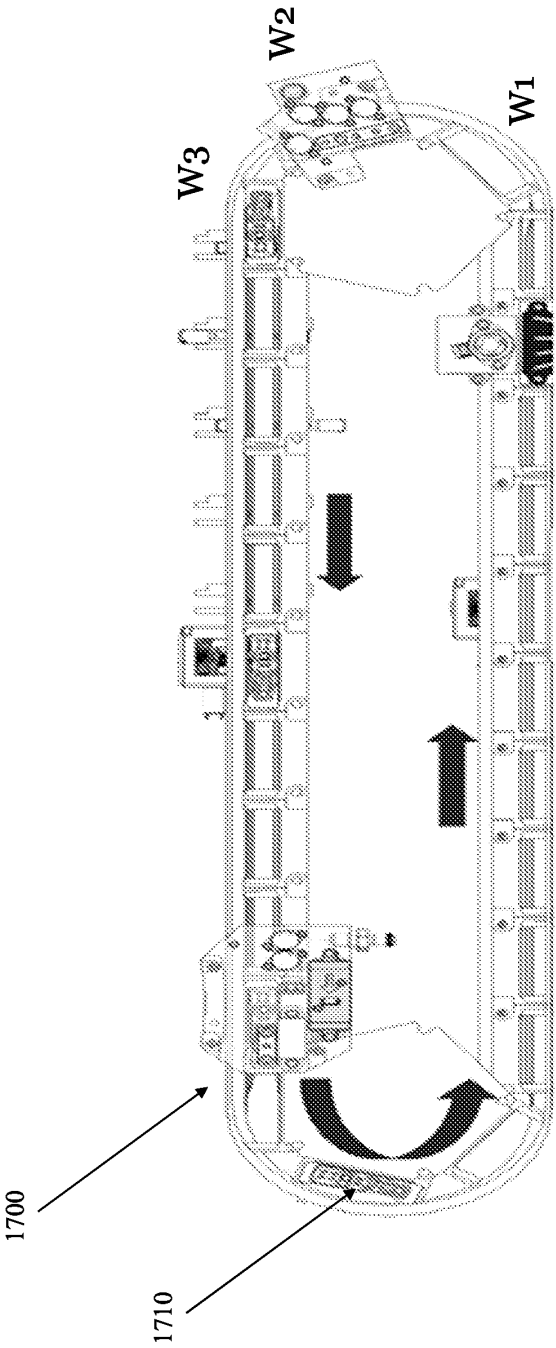


FIG. 11A

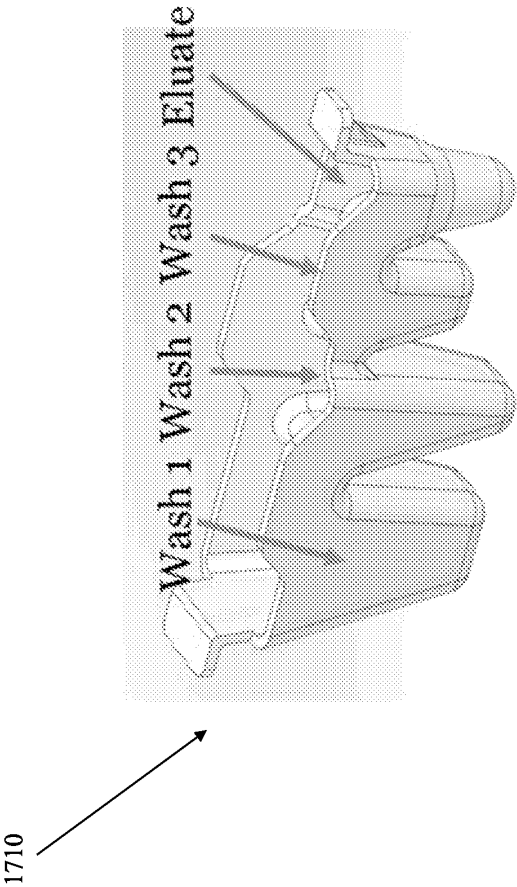


FIG. 11B

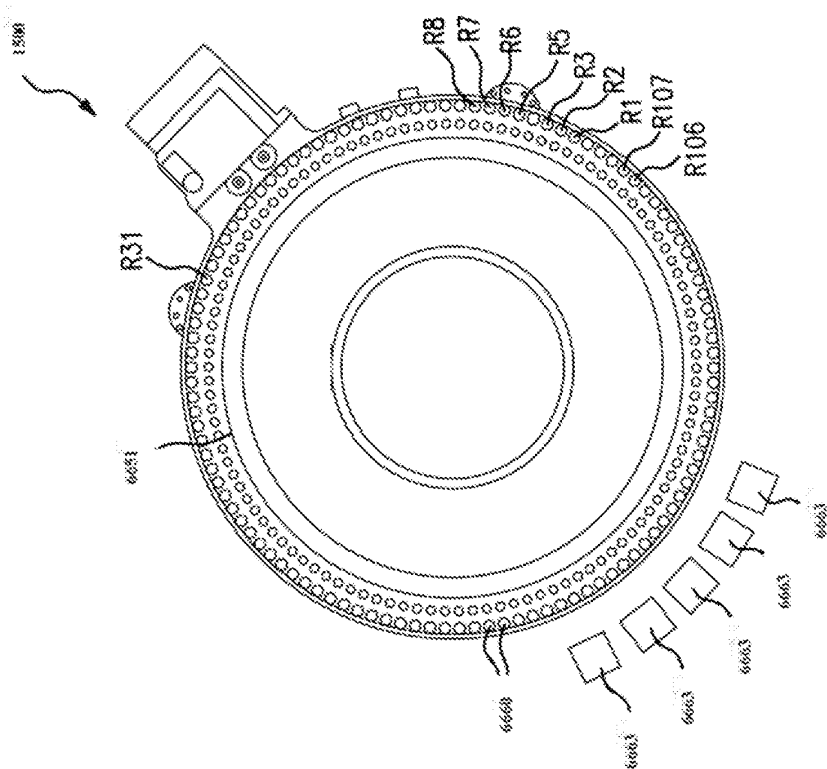


FIG. 12

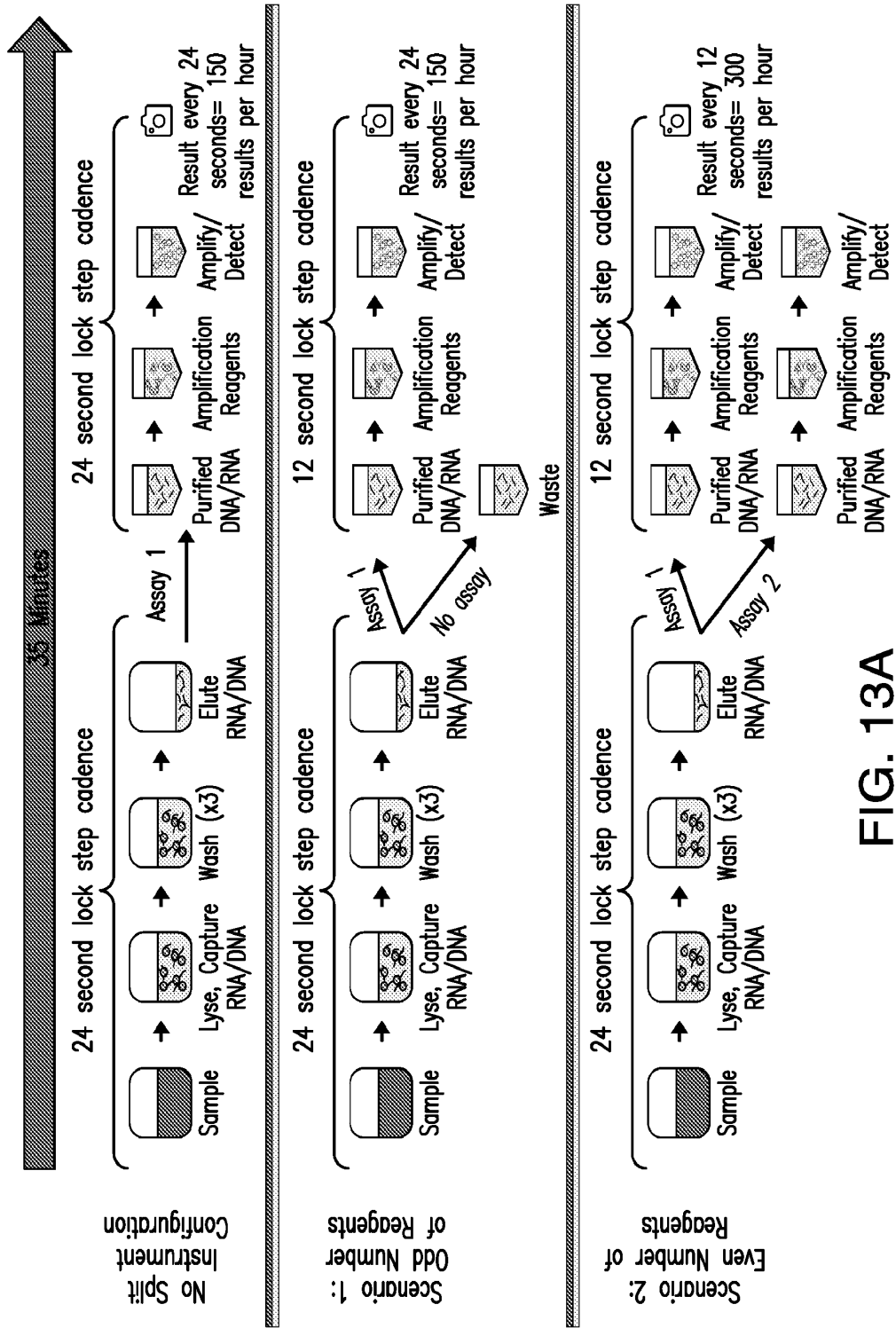


FIG. 13A

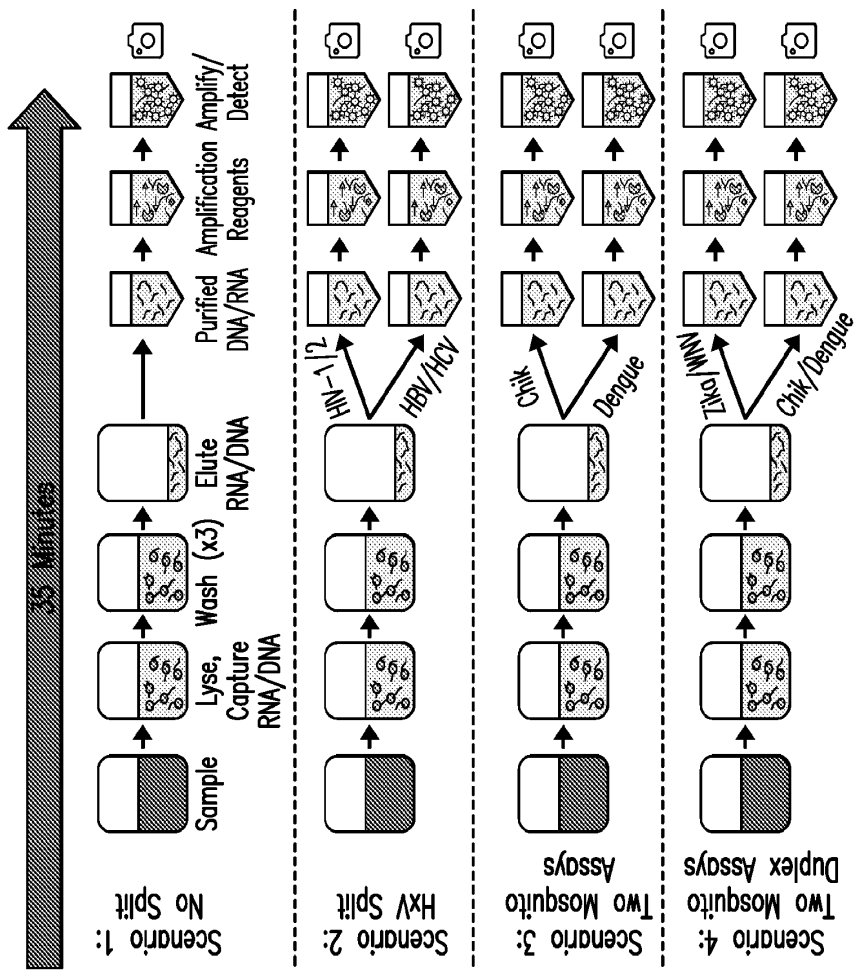


FIG. 13B

| Assay Configurations  |              |
|-----------------------|--------------|
| Non Split Eluate      | Split Eluate |
| HAV/Parvo             | HIV/HBV/HCV  |
| WNV/ChikV/Dengue/Zika |              |
| Malaria               |              |
| Babesia               |              |

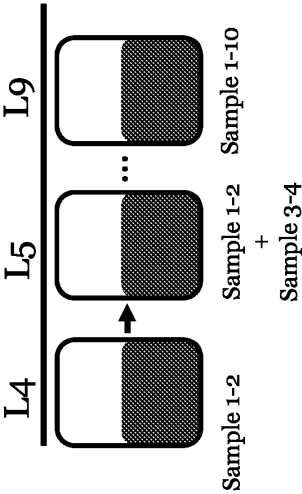
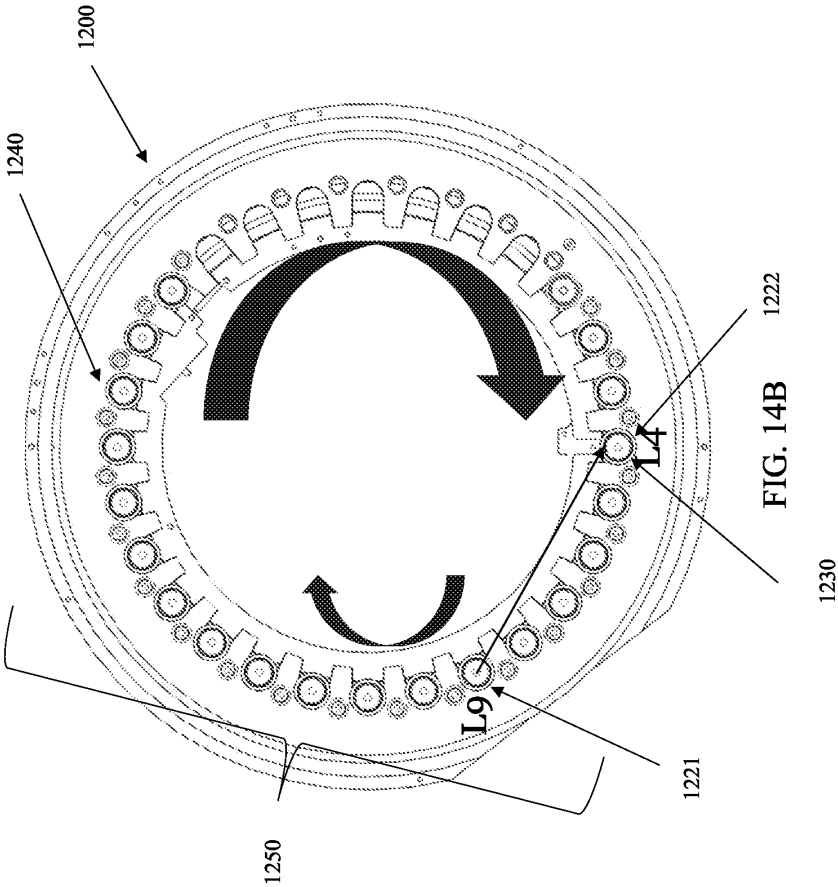


FIG. 14A

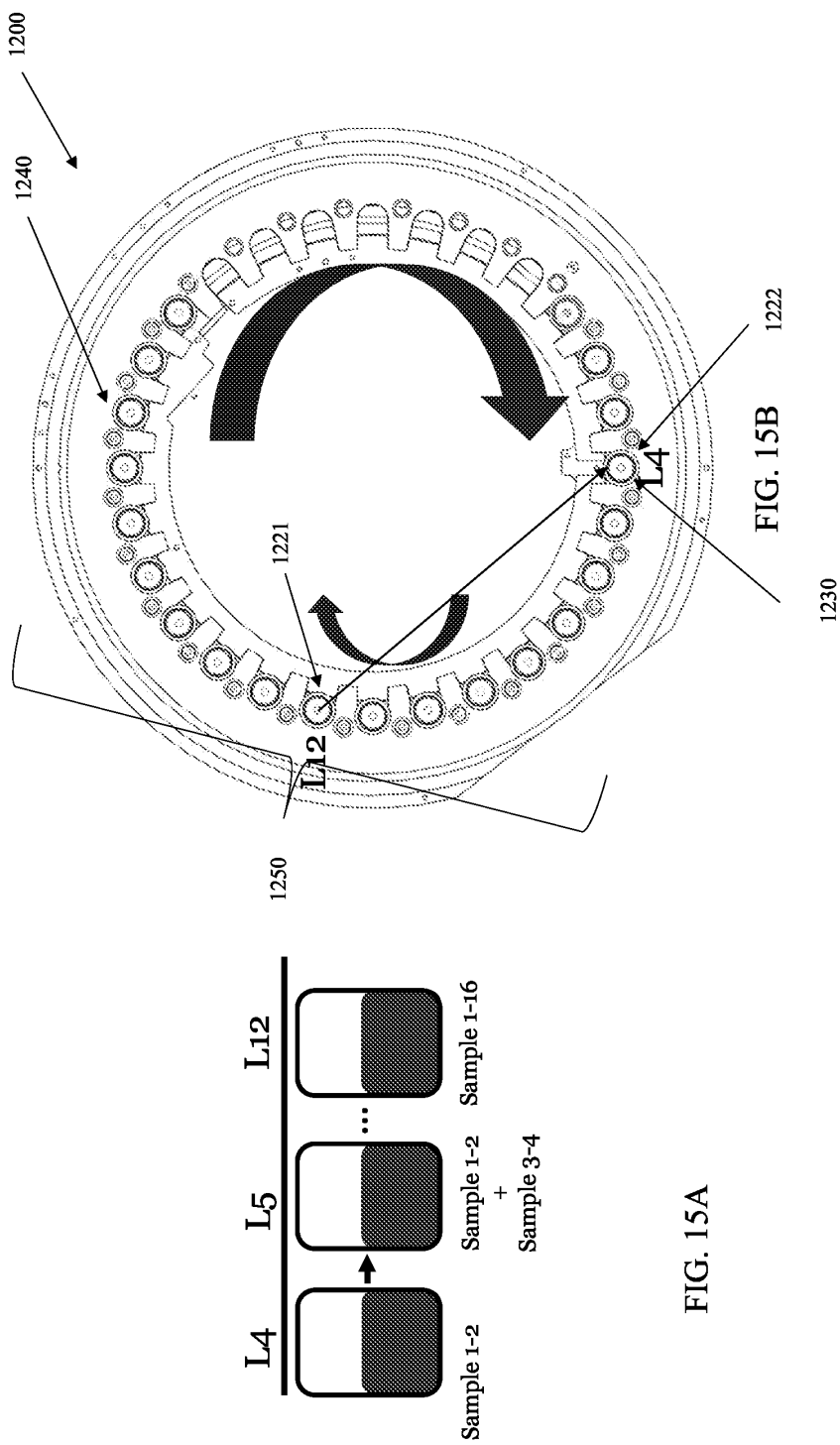


FIG. 15A

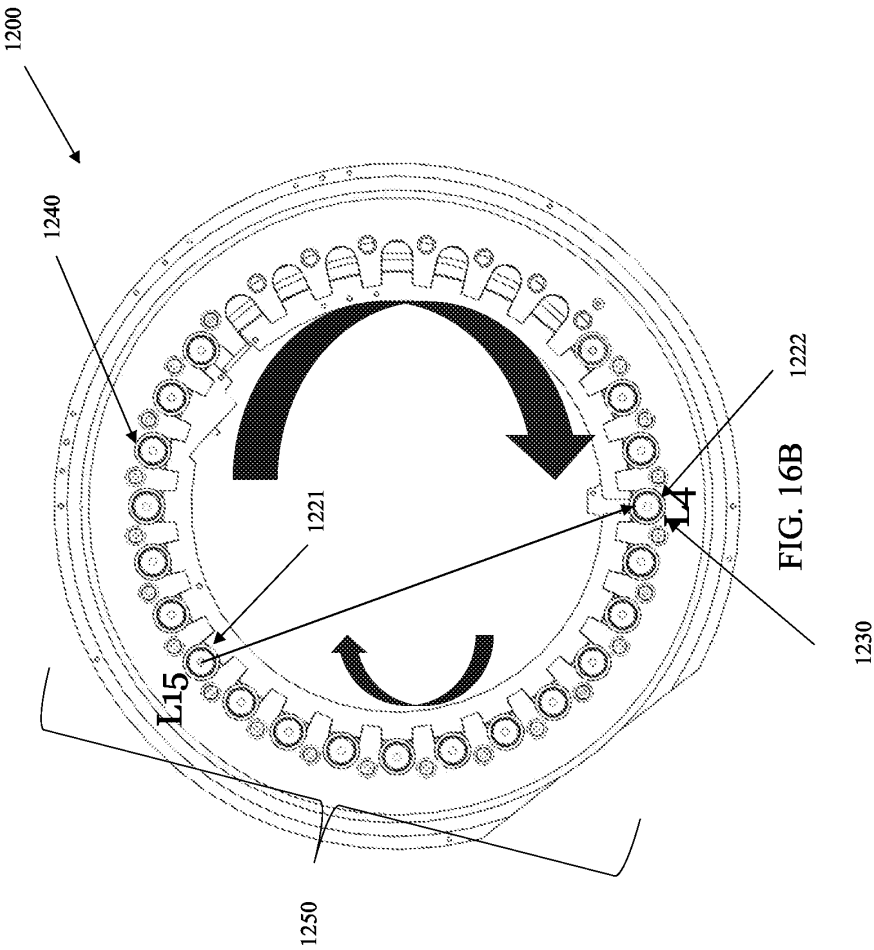


FIG. 16B

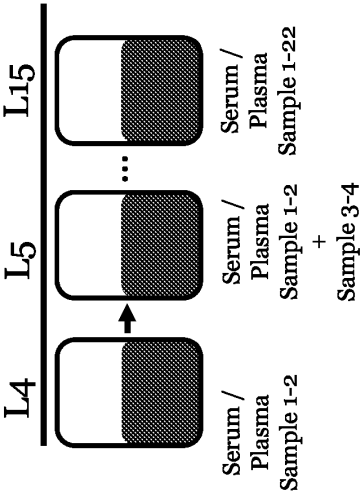


FIG. 16A



FIG. 17