

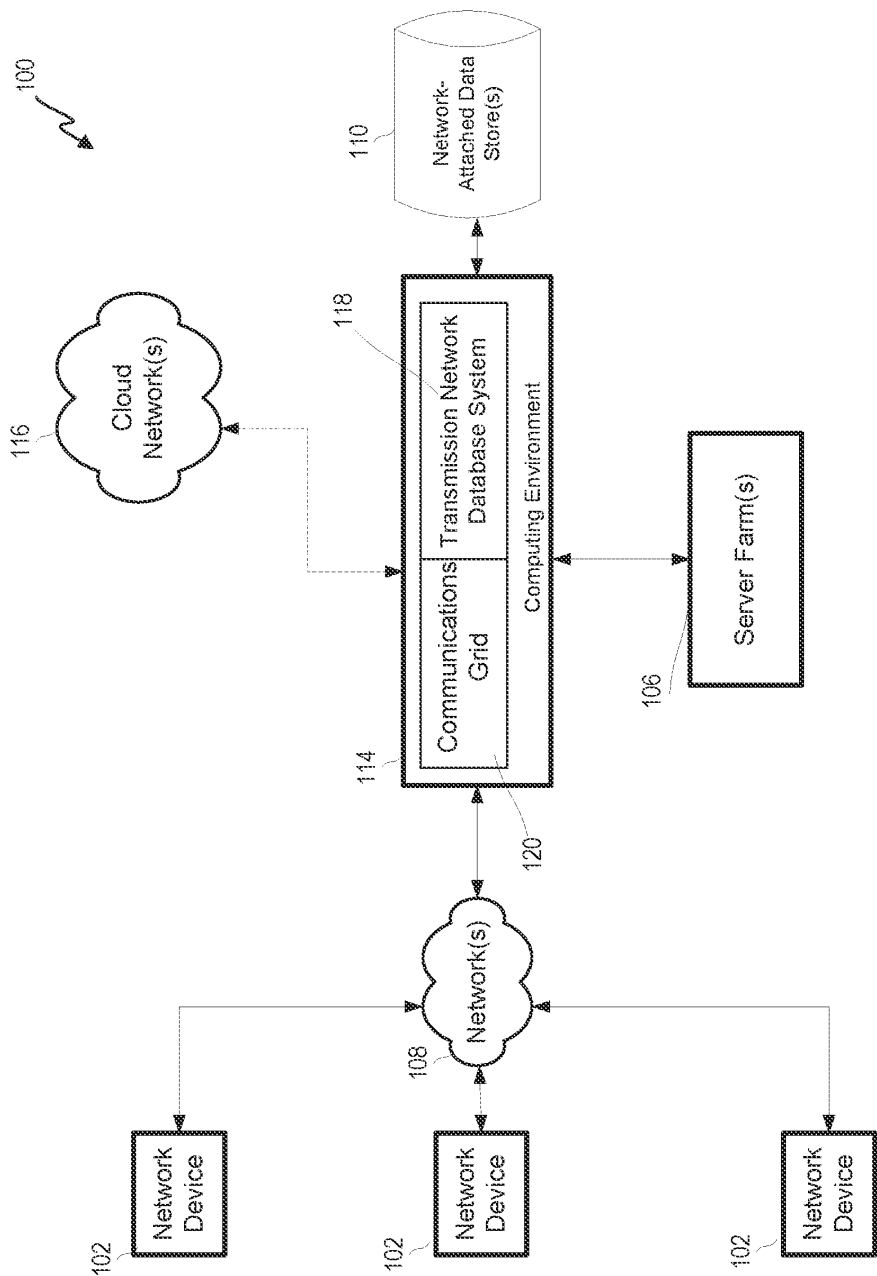


FIG. 1

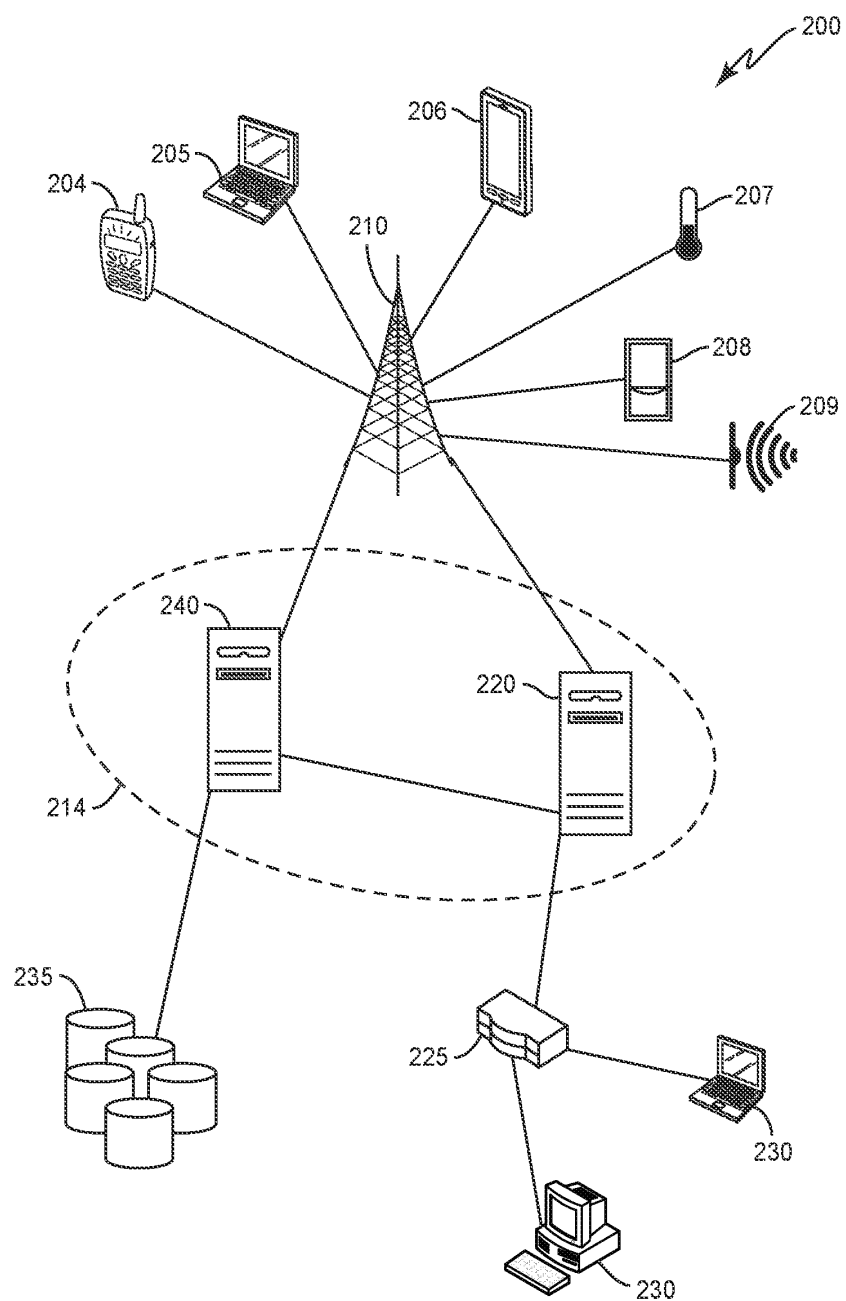


FIG. 2

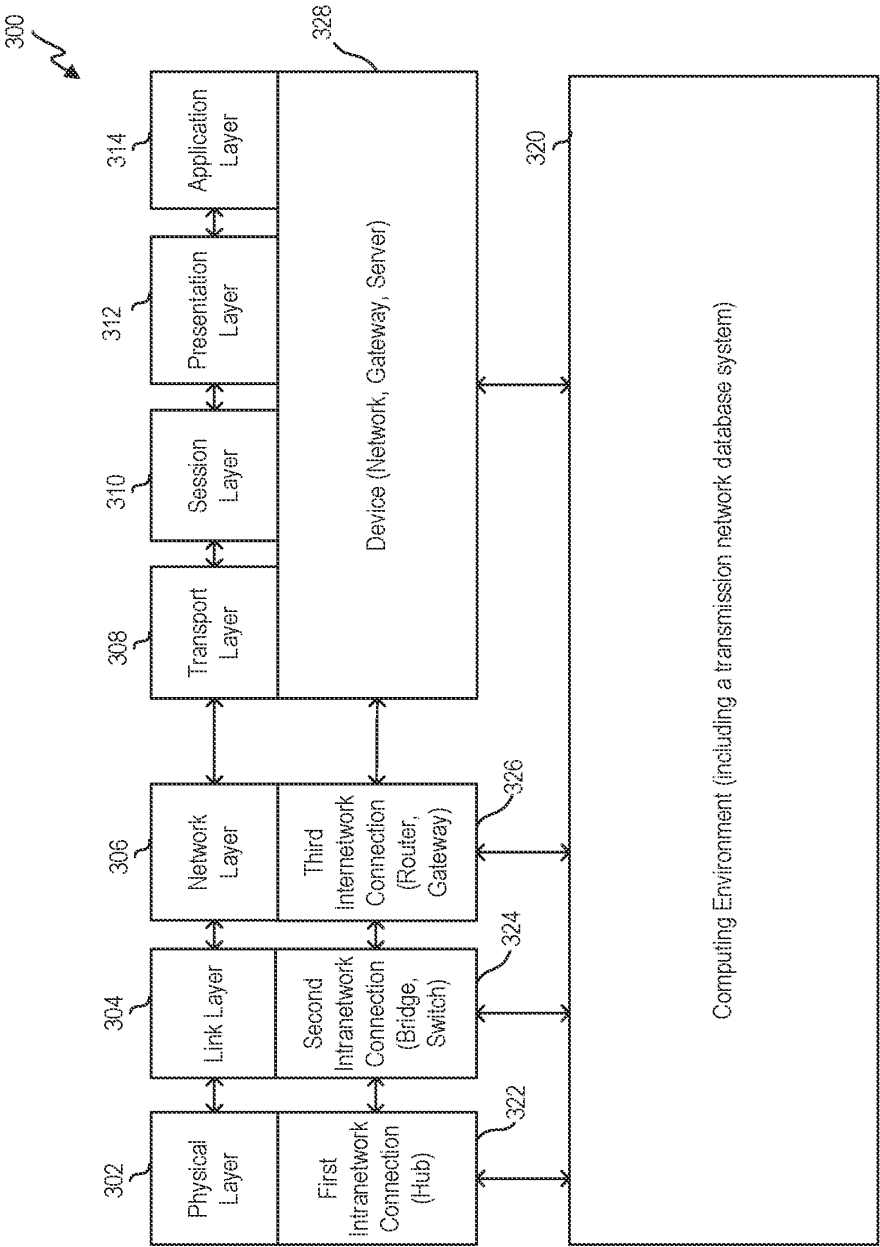


FIG. 3

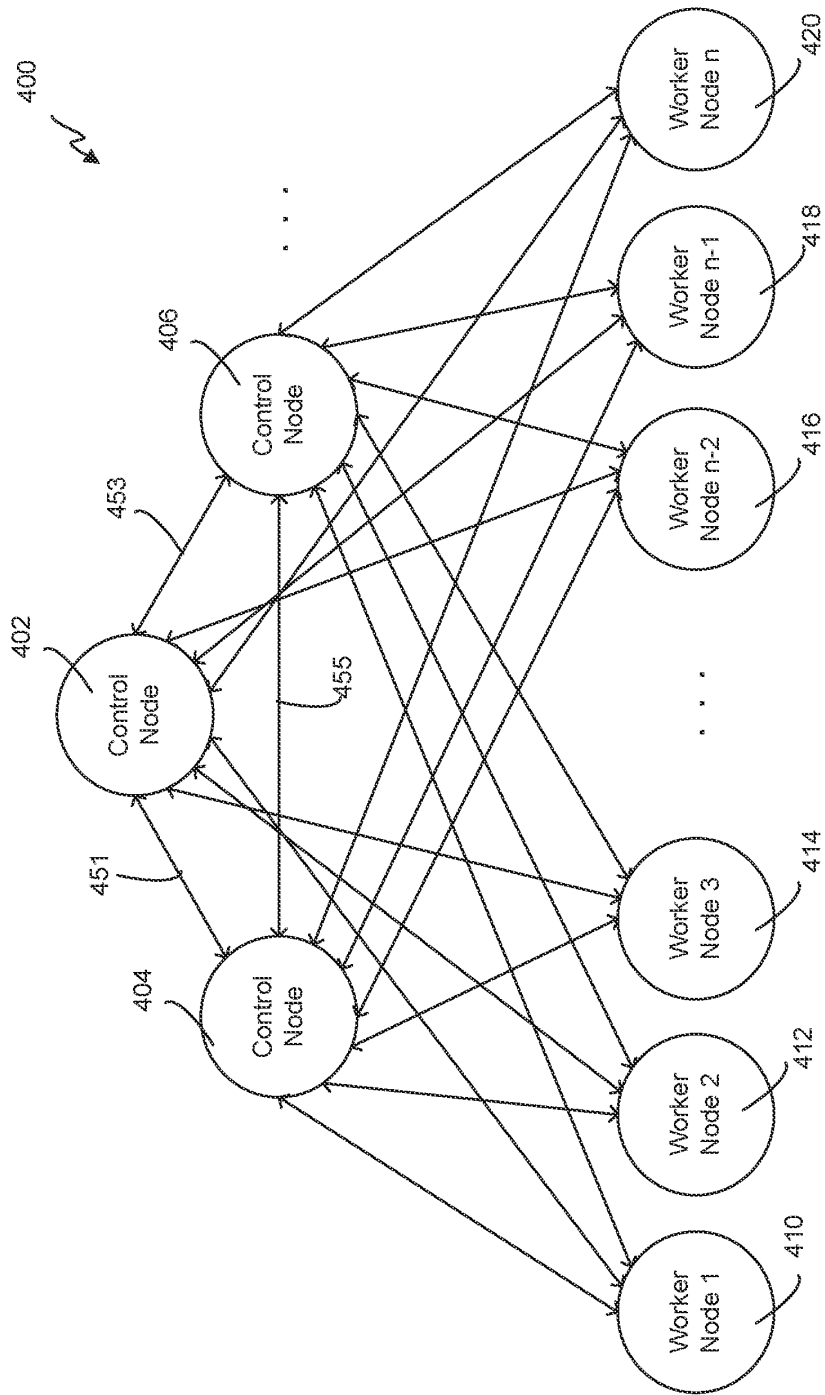
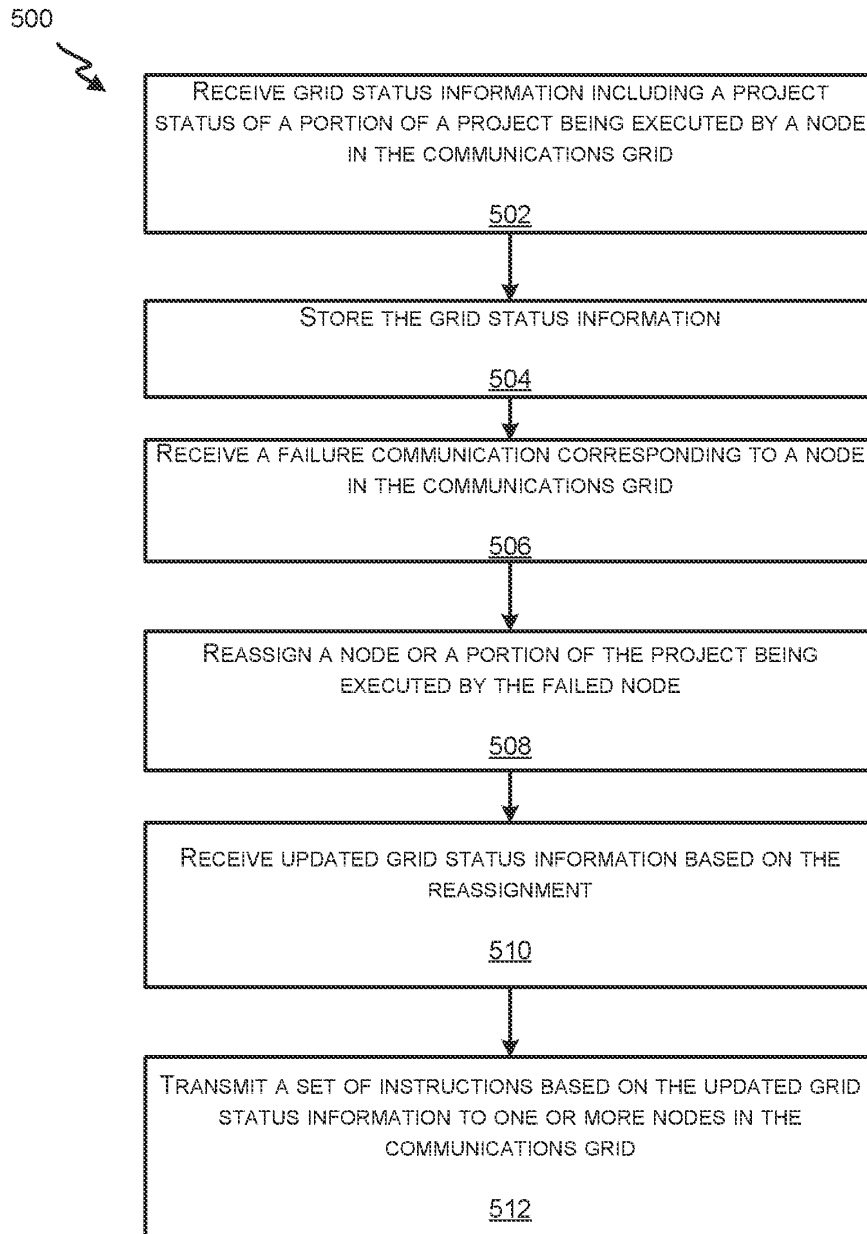


FIG. 4

**FIG. 5**

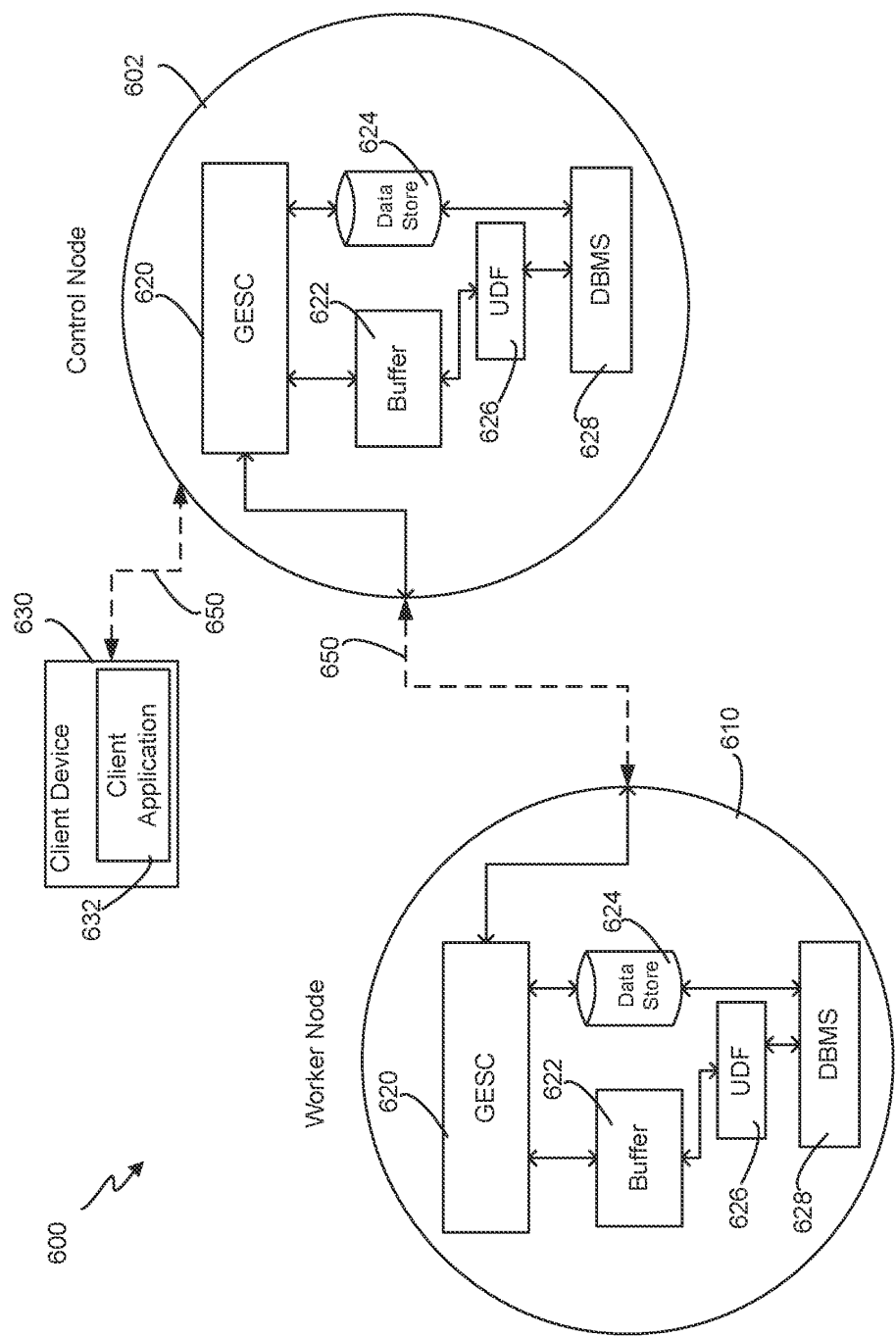


FIG. 6

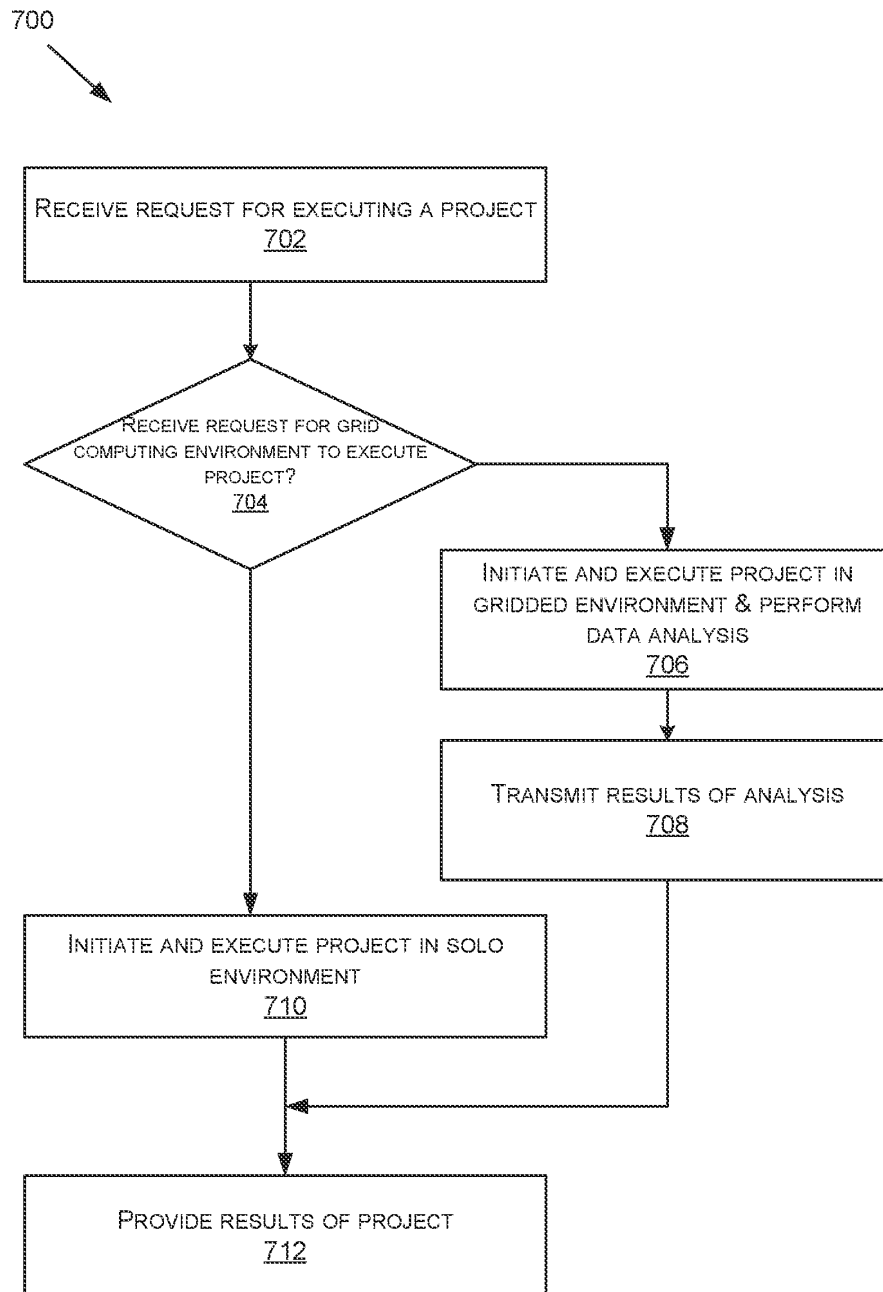


FIG. 7

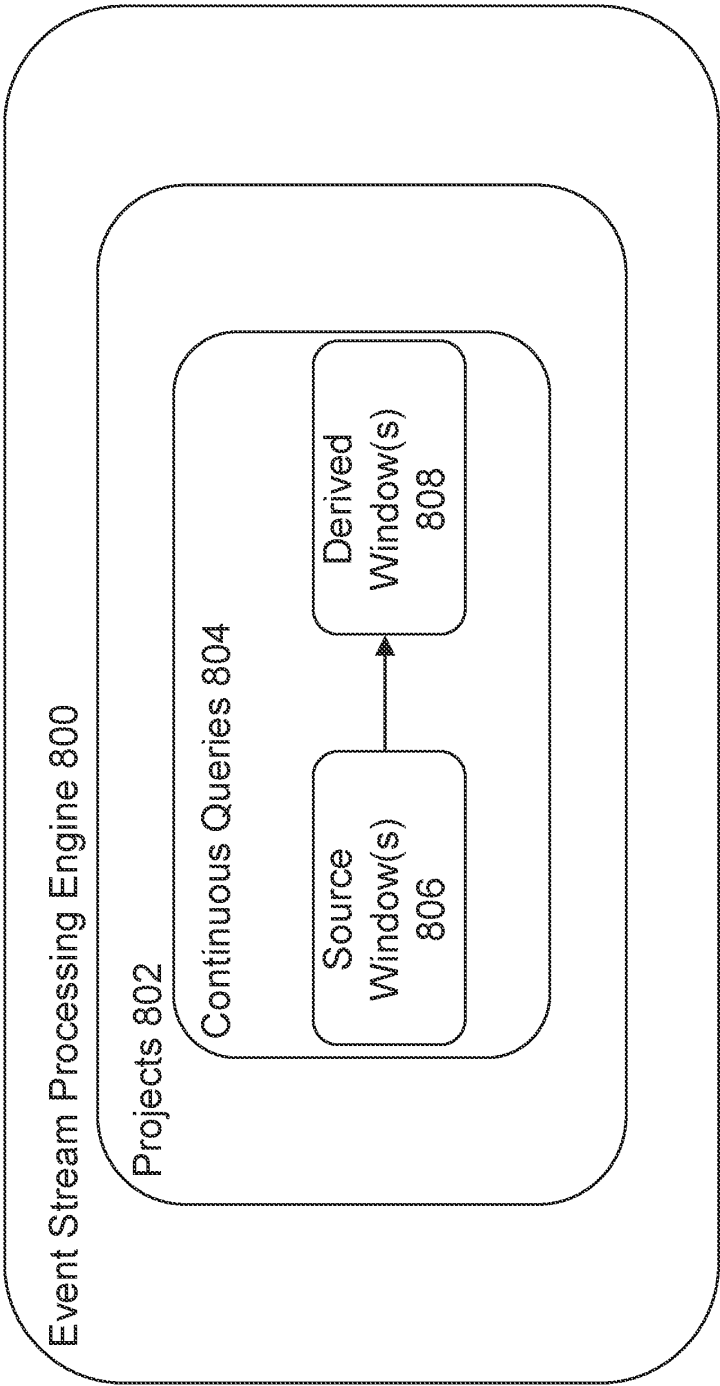


FIG. 8

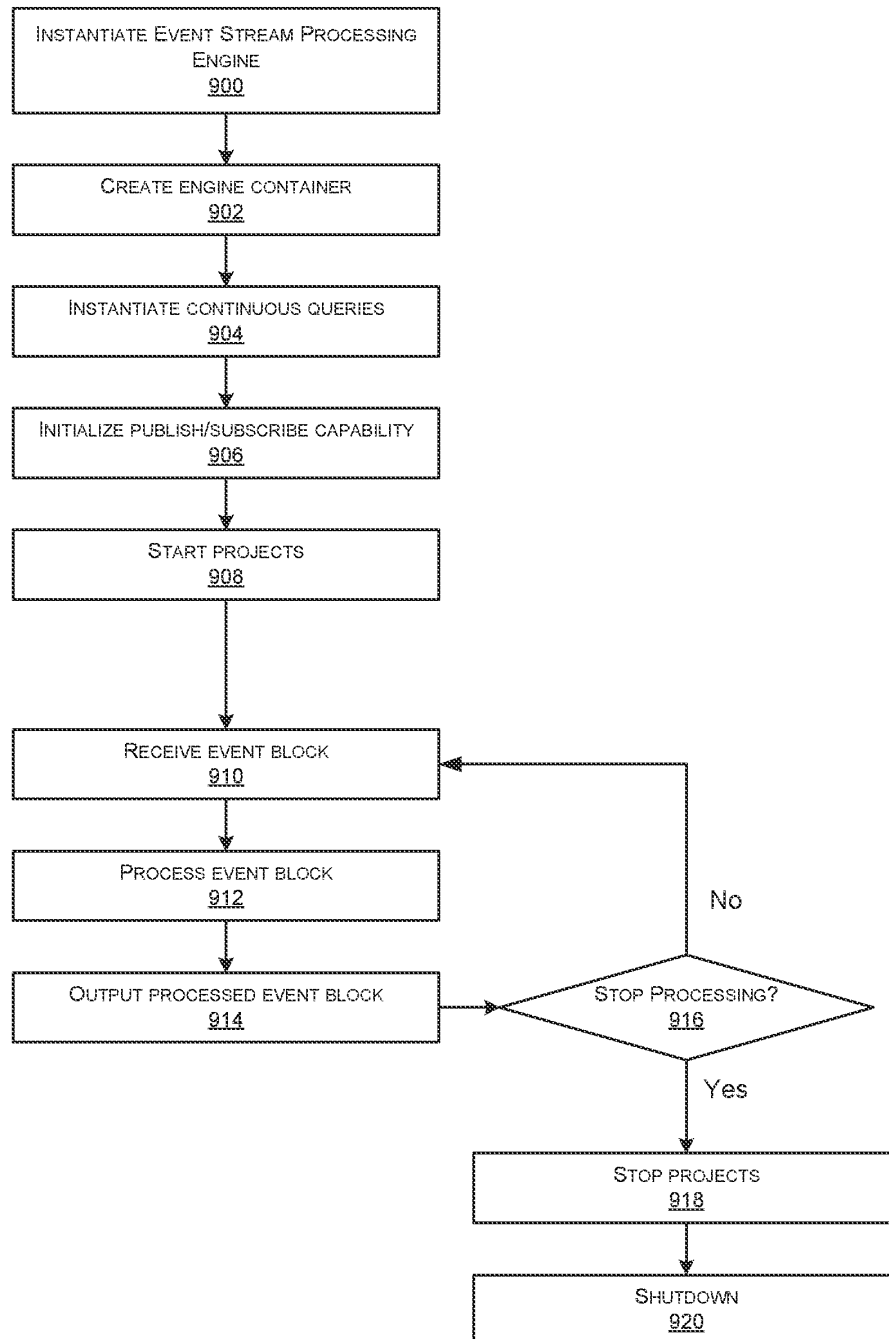


FIG.9

1000 ↗

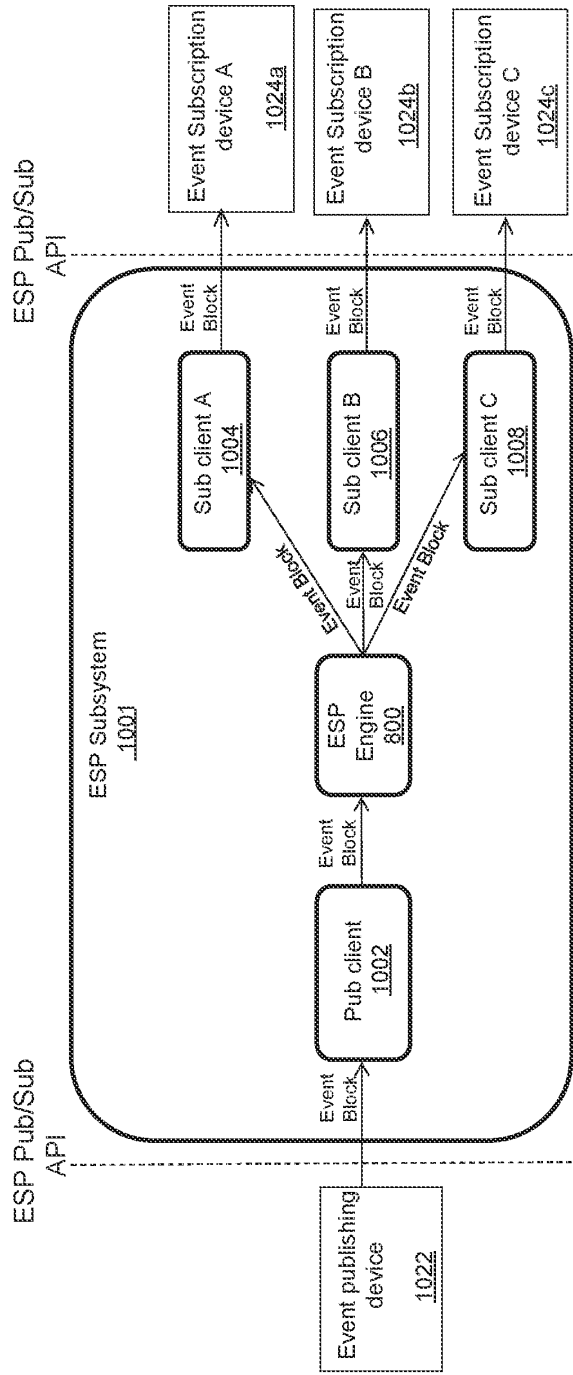
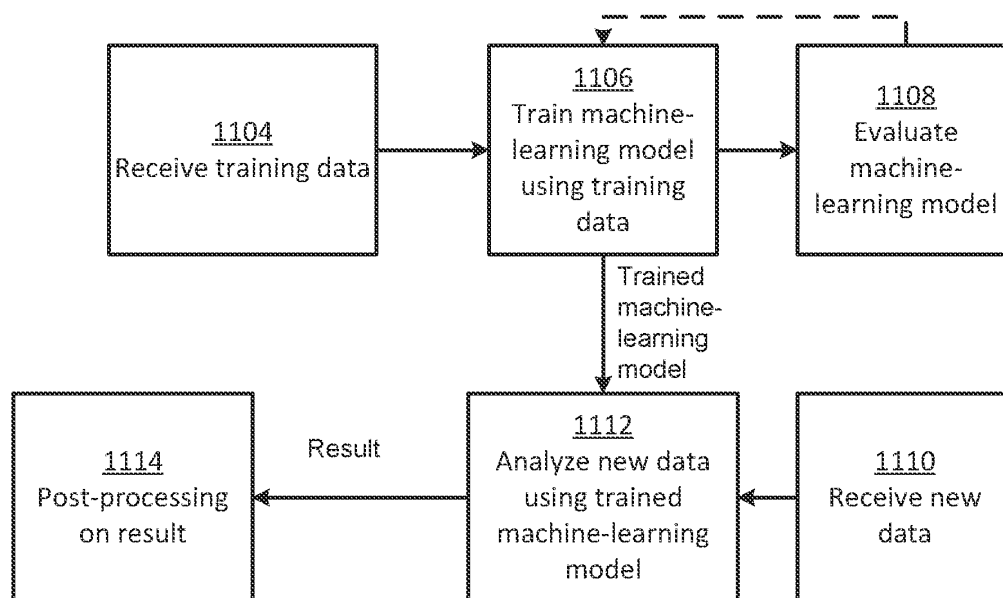
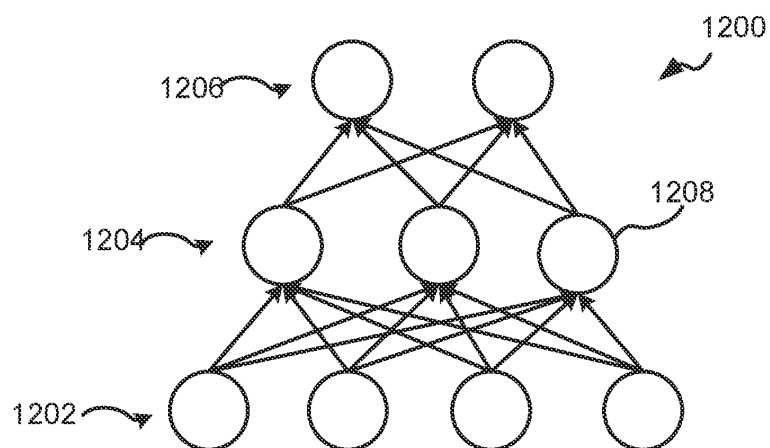
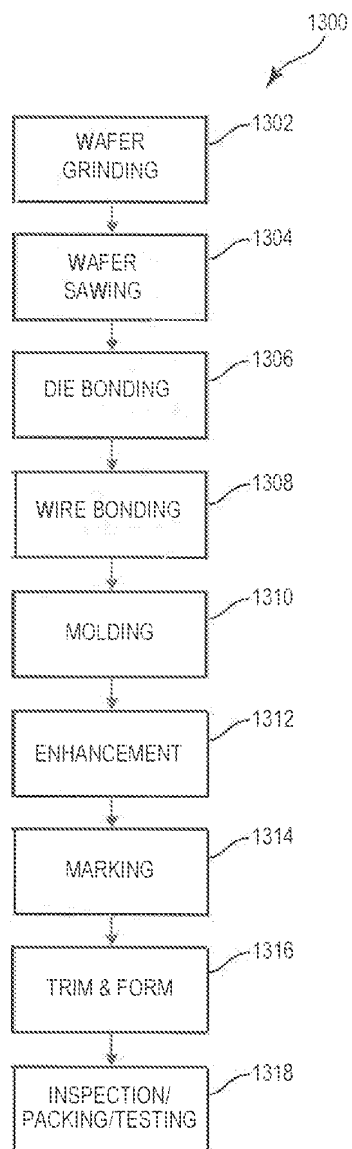


FIG. 10

**FIG. 11****FIG. 12**

**FIG. 13**

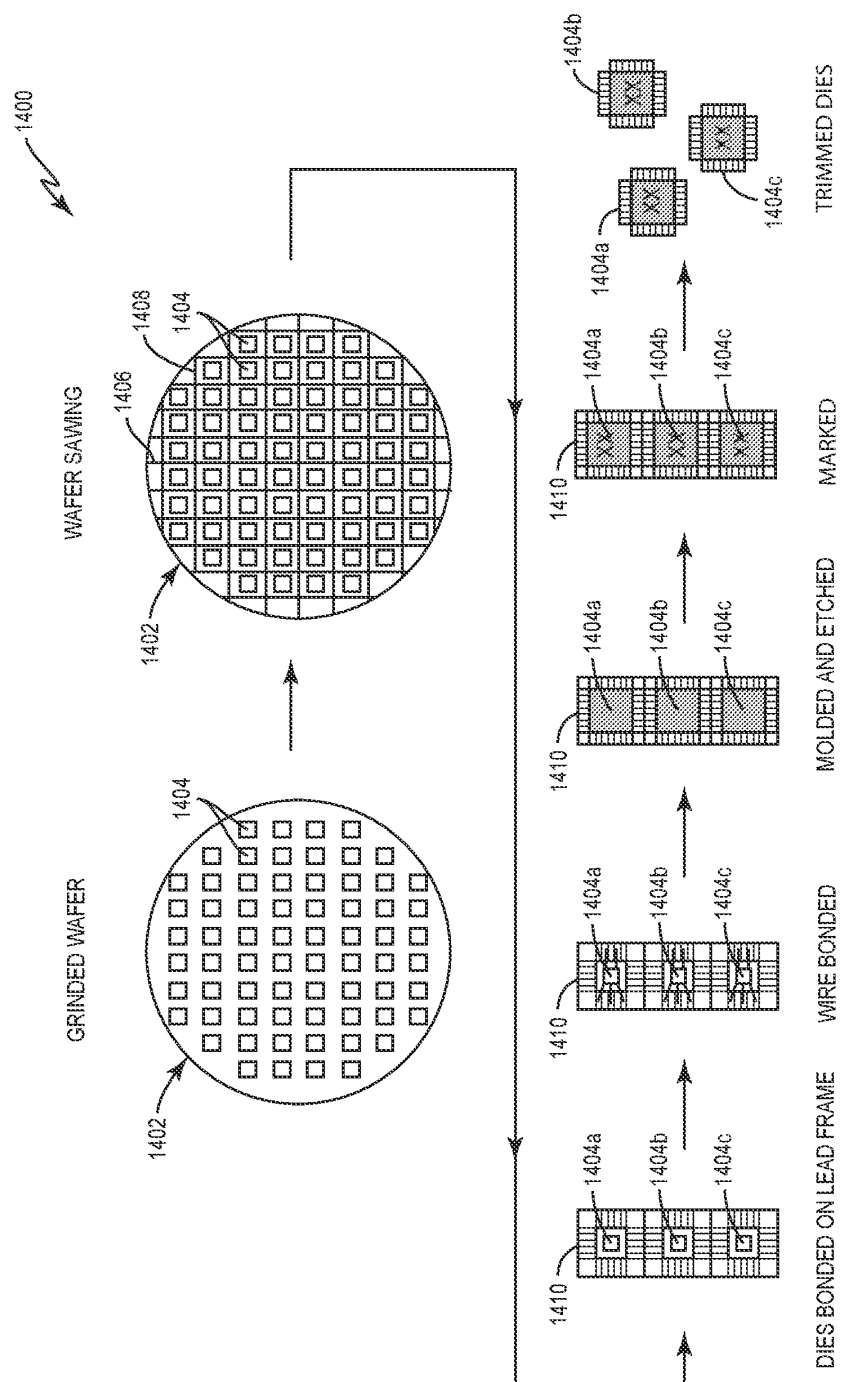


FIG. 14

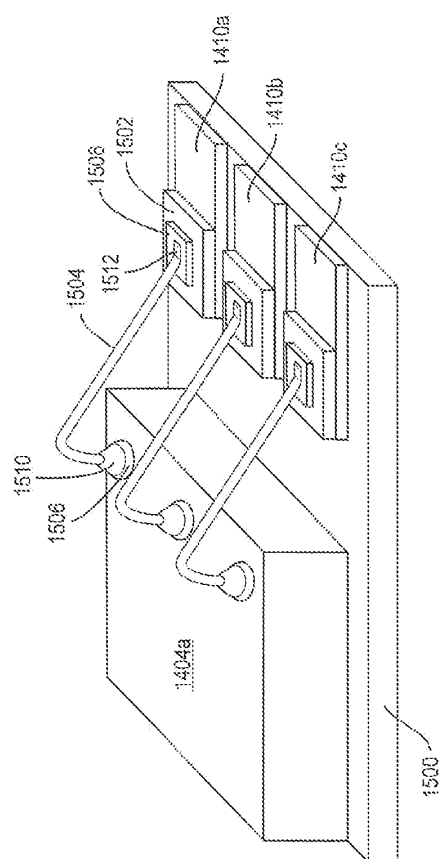


Fig. 15A

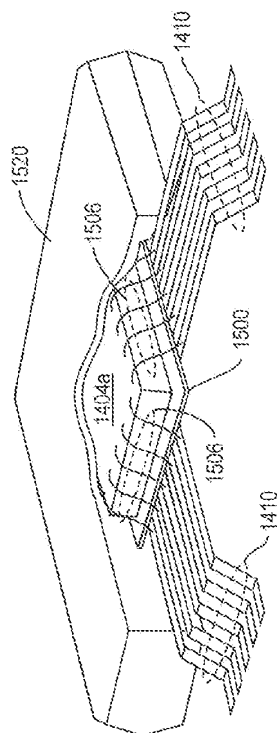


FIG. 15B

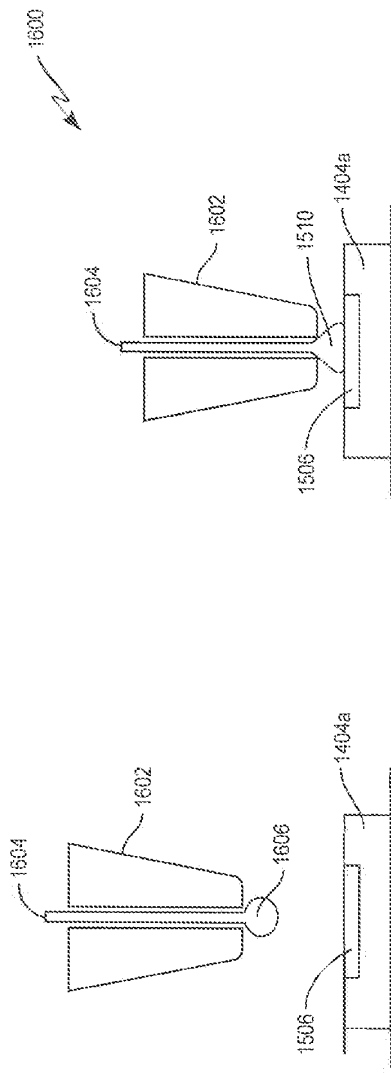


FIG. 16A

FIG. 16B

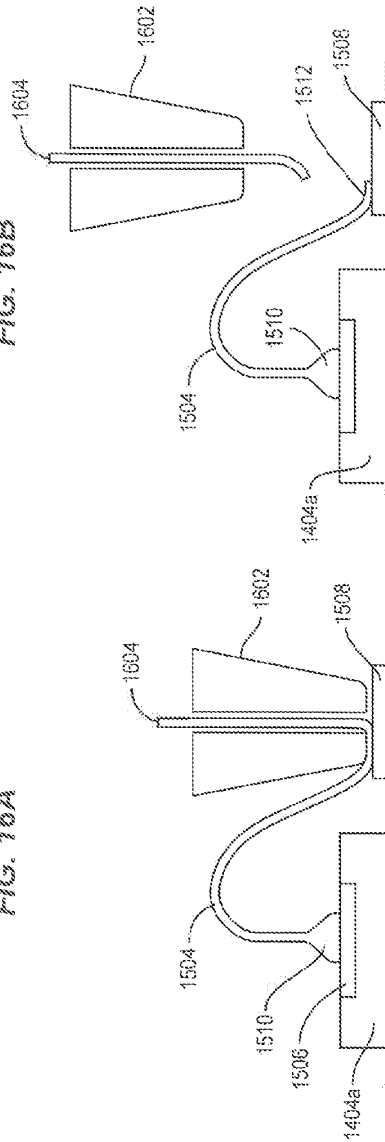


FIG. 16C

FIG. 16D

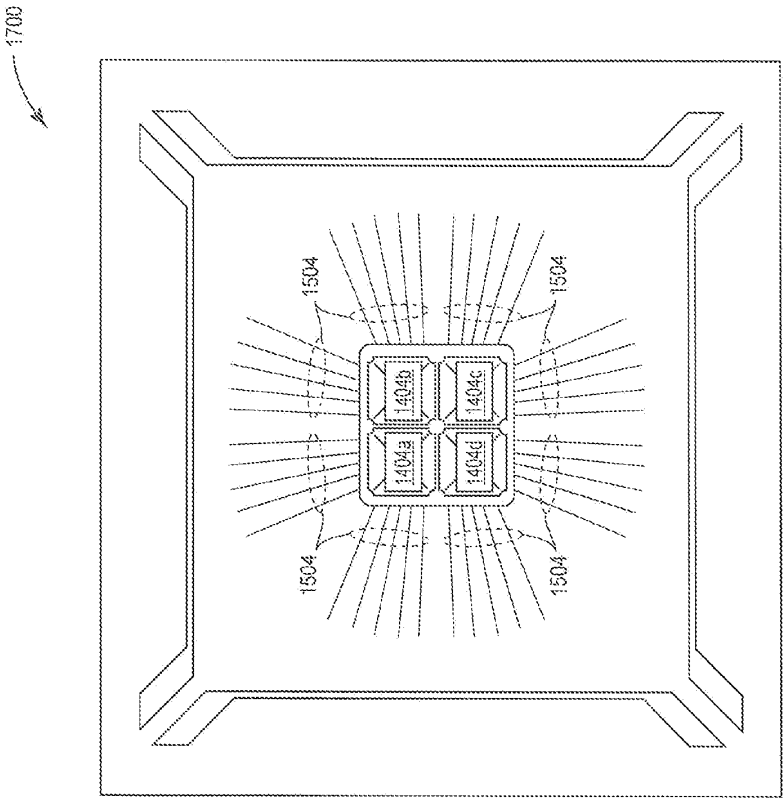


FIG. 17

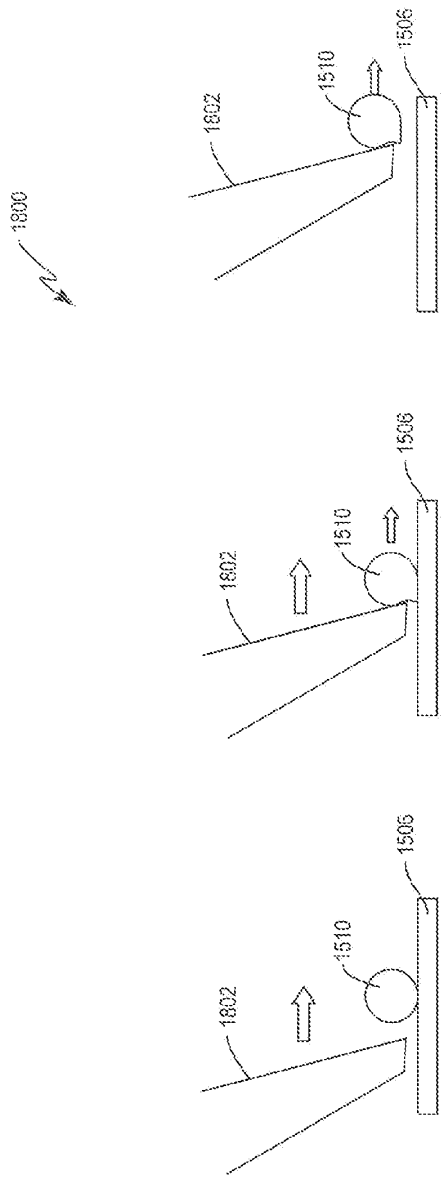
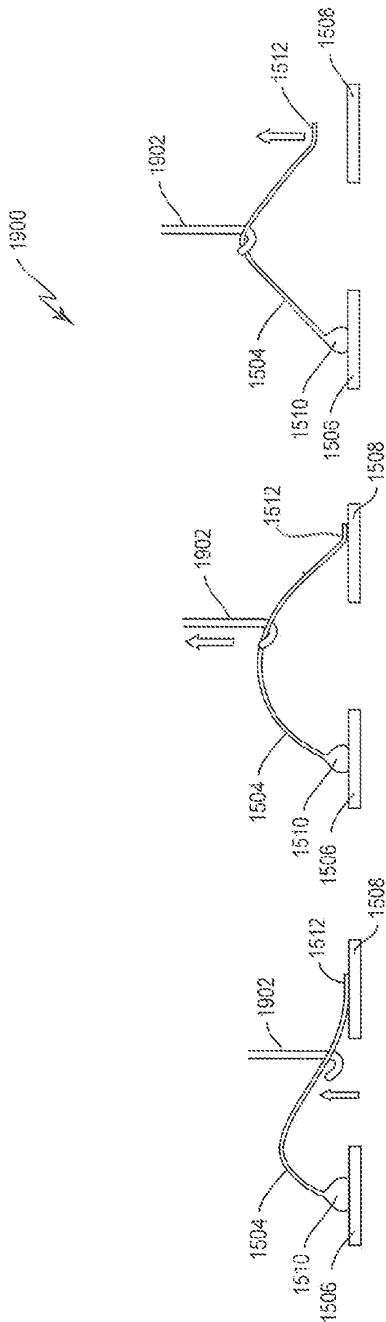


FIG. 18C

FIG. 18B

FIG. 18A



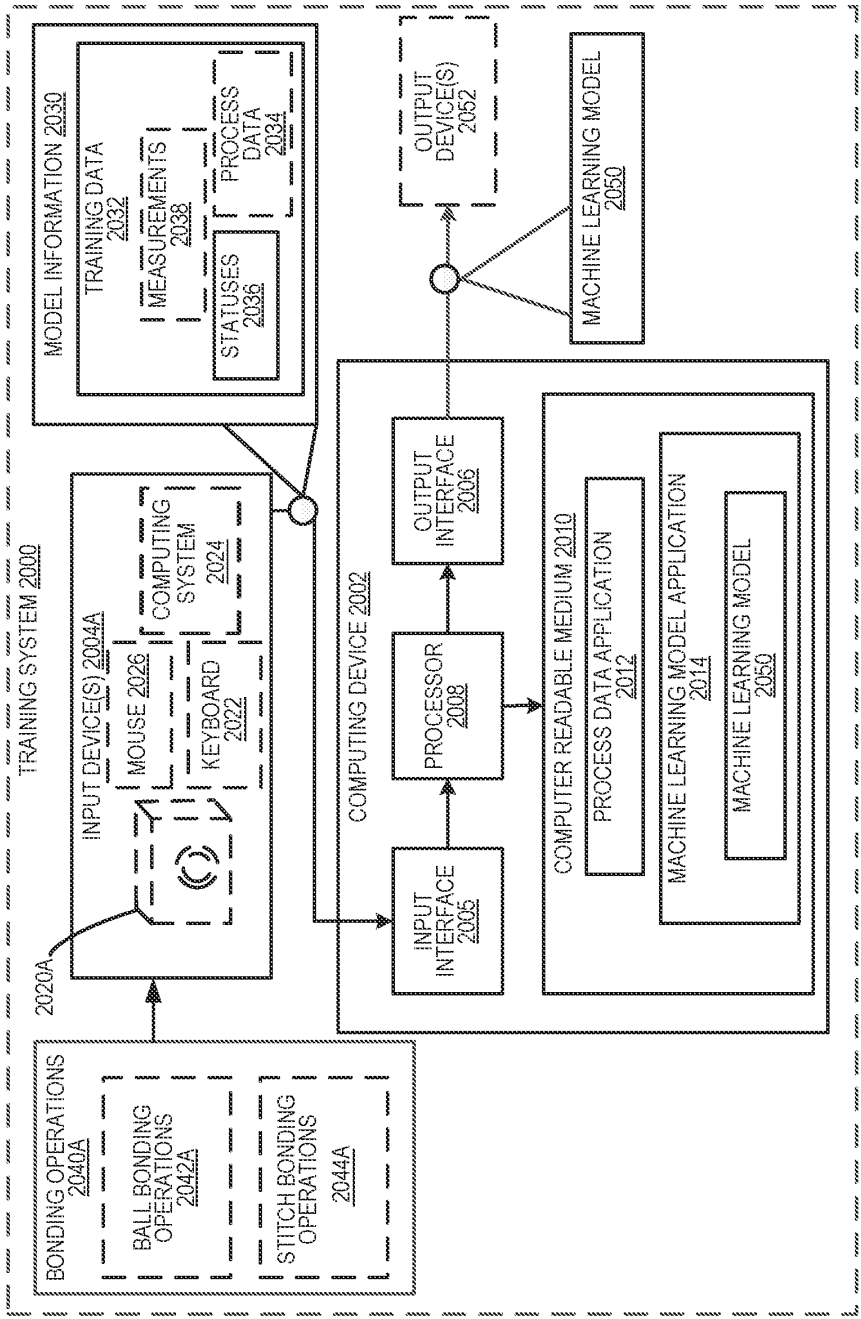


FIG. 20A

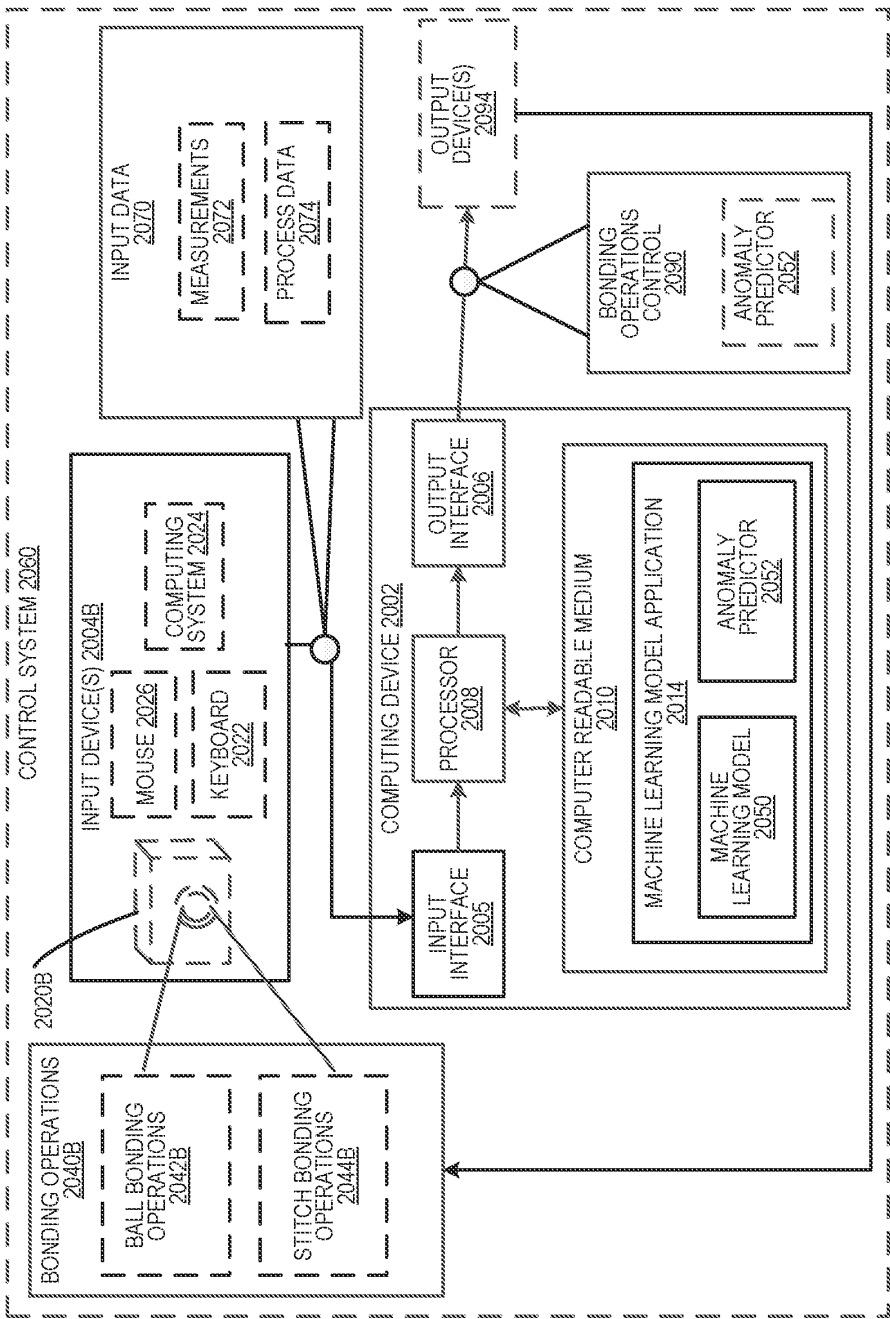
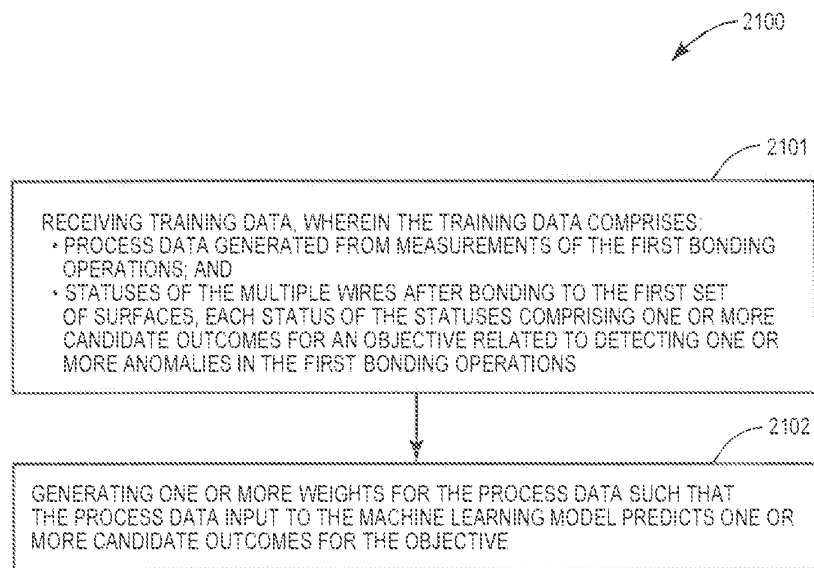


FIG. 20B

**FIG. 21A**

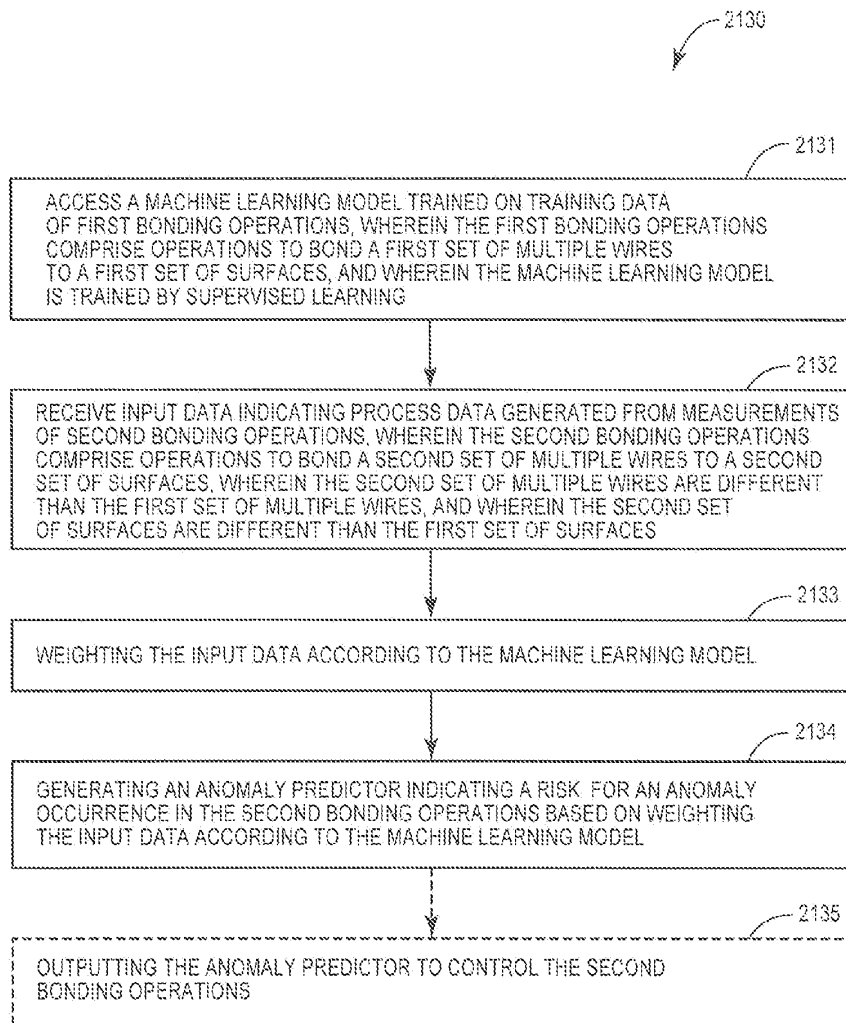
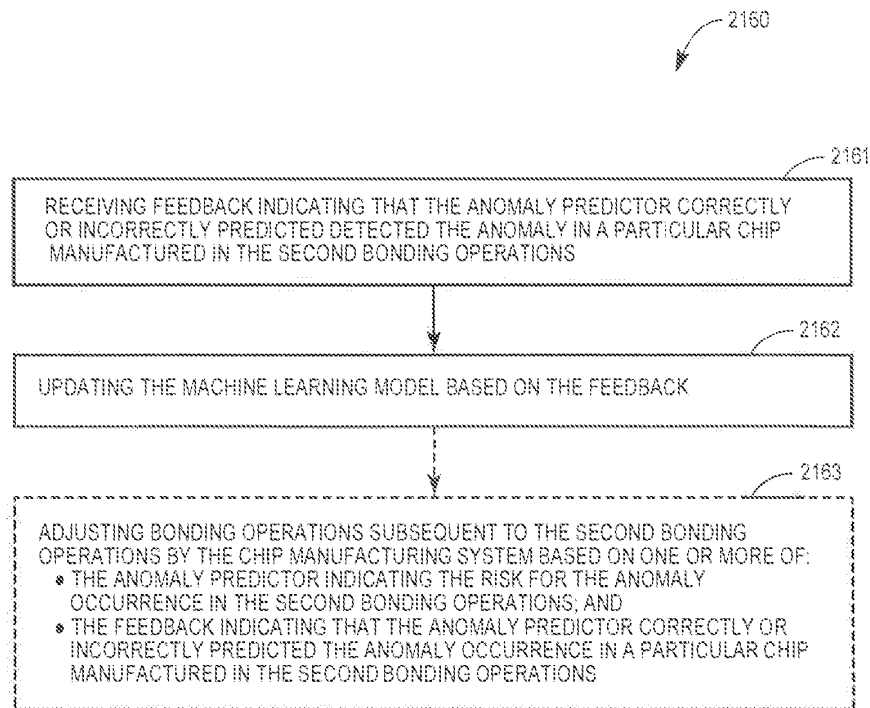


FIG. 21B

**FIG. 21C**

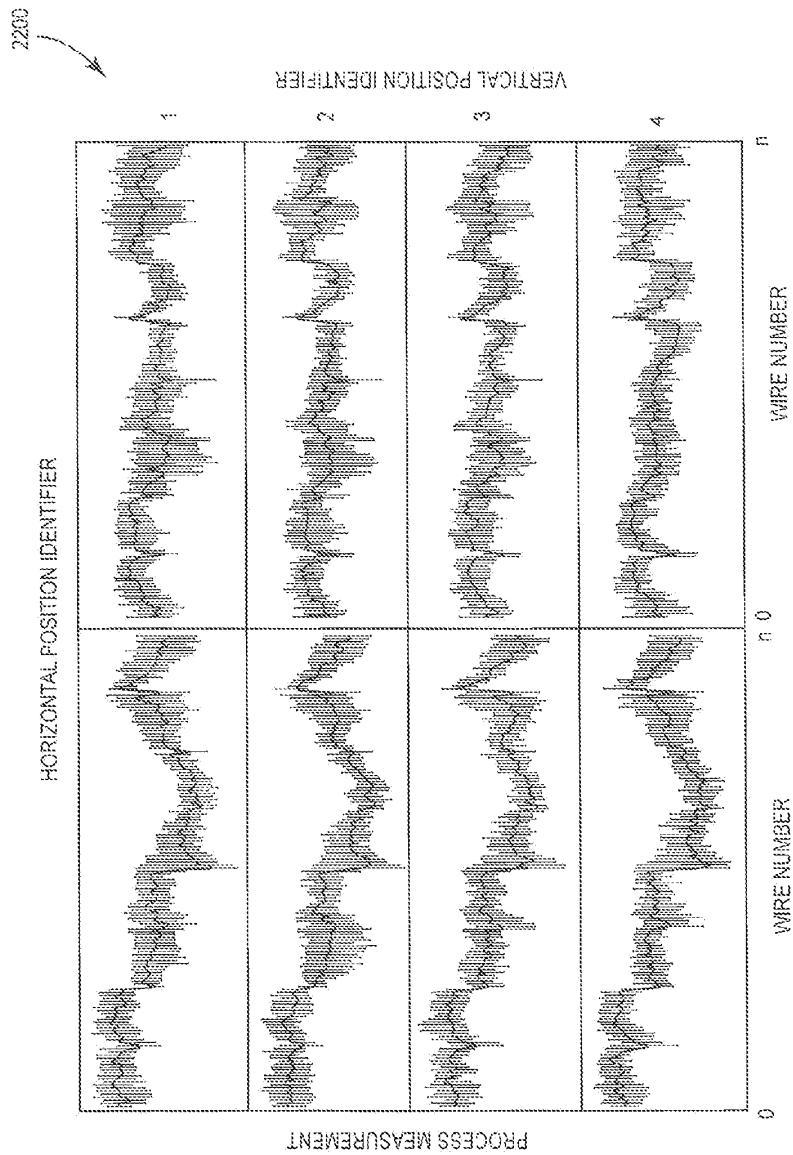


FIG. 22A

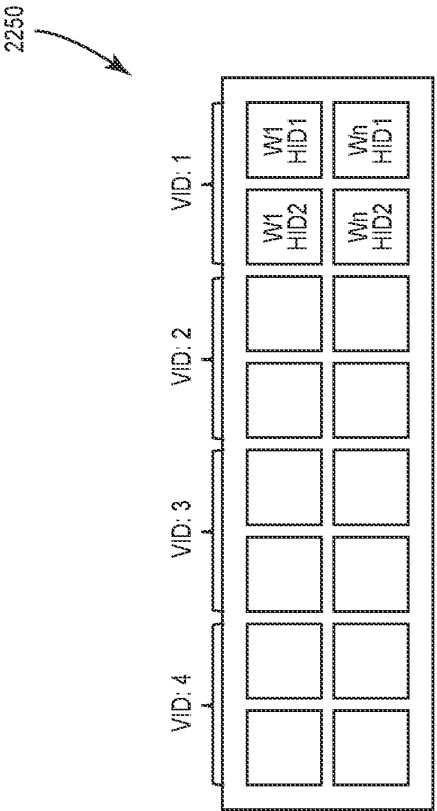


FIG. 22B

2300

2301		2302	2303
MODEL TARGET VARIABLE (QA VALUE)		TRAINING DATA	TEST DATA
BALL SHEAR		49,114	12,280
STITCH PULL		48,765	12,193

FIG. 23A

2350

2351

2352

2353

2354

2355

2350

WIRE NUMBER	HID NUMBER	MEDIAN VALUE (NORMAL)	DELTA VALUE (NORMAL)	DELTA VALUE ABNORMAL
1	1	11.82	0.08	0.2
1	2	11.70	-0.09	0.12
2	1	11.92	-0.05	0.2
2	2	11.88	0.03	-0.1
...	...	...		
N	1	12.20	0.20	1.2
N	2	12.28	-0.16	1.09

FIG. 23B

2400

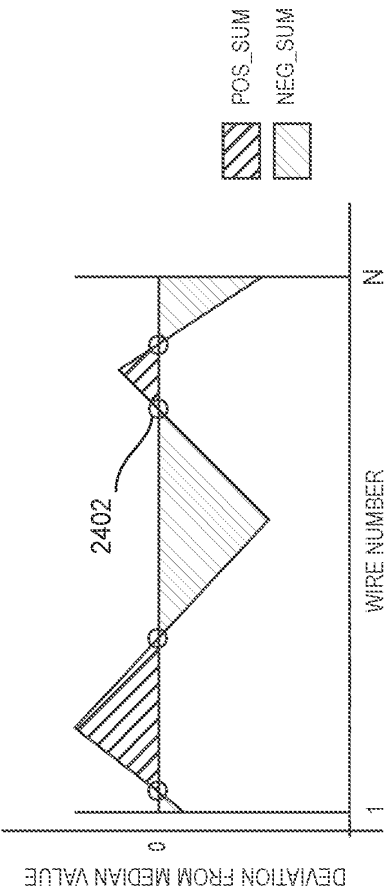


FIG. 24

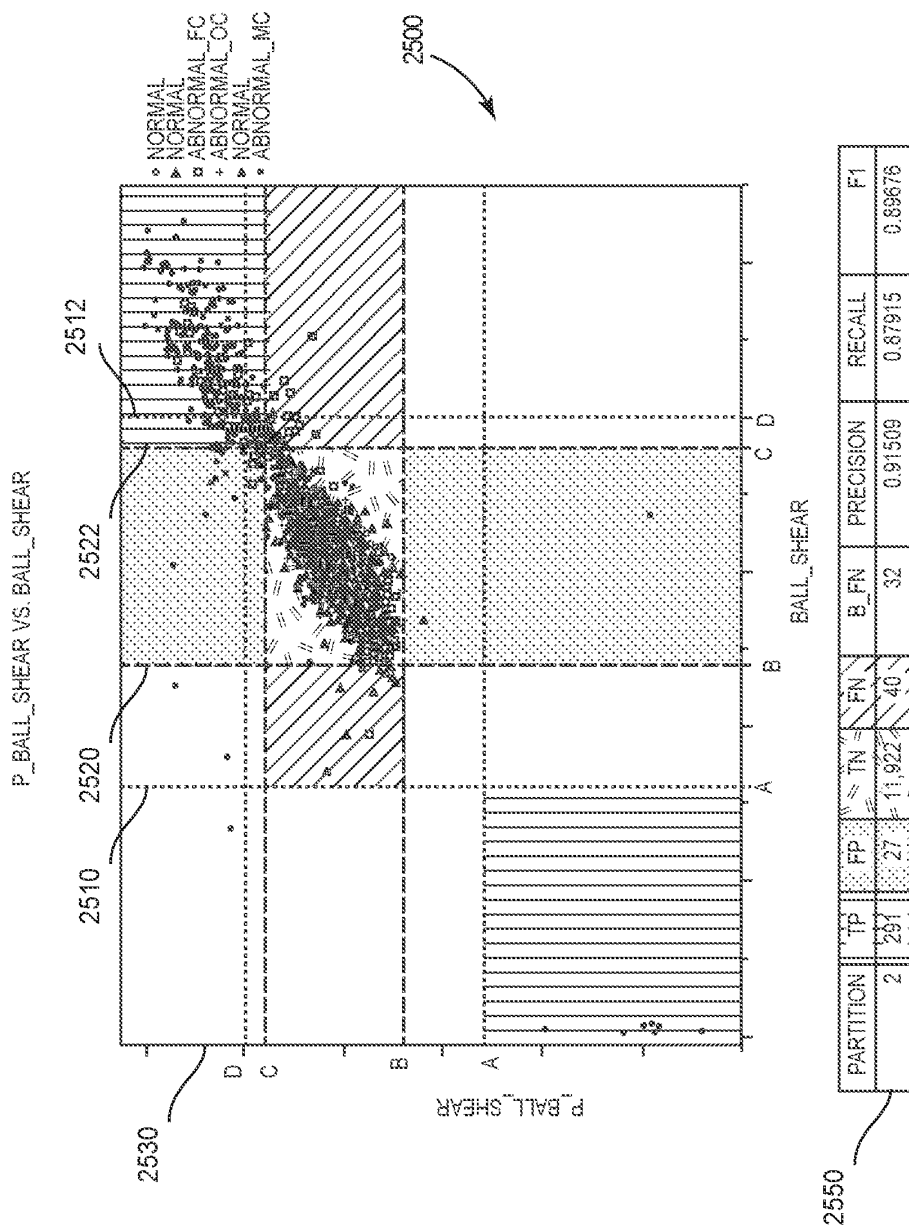


Fig. 25

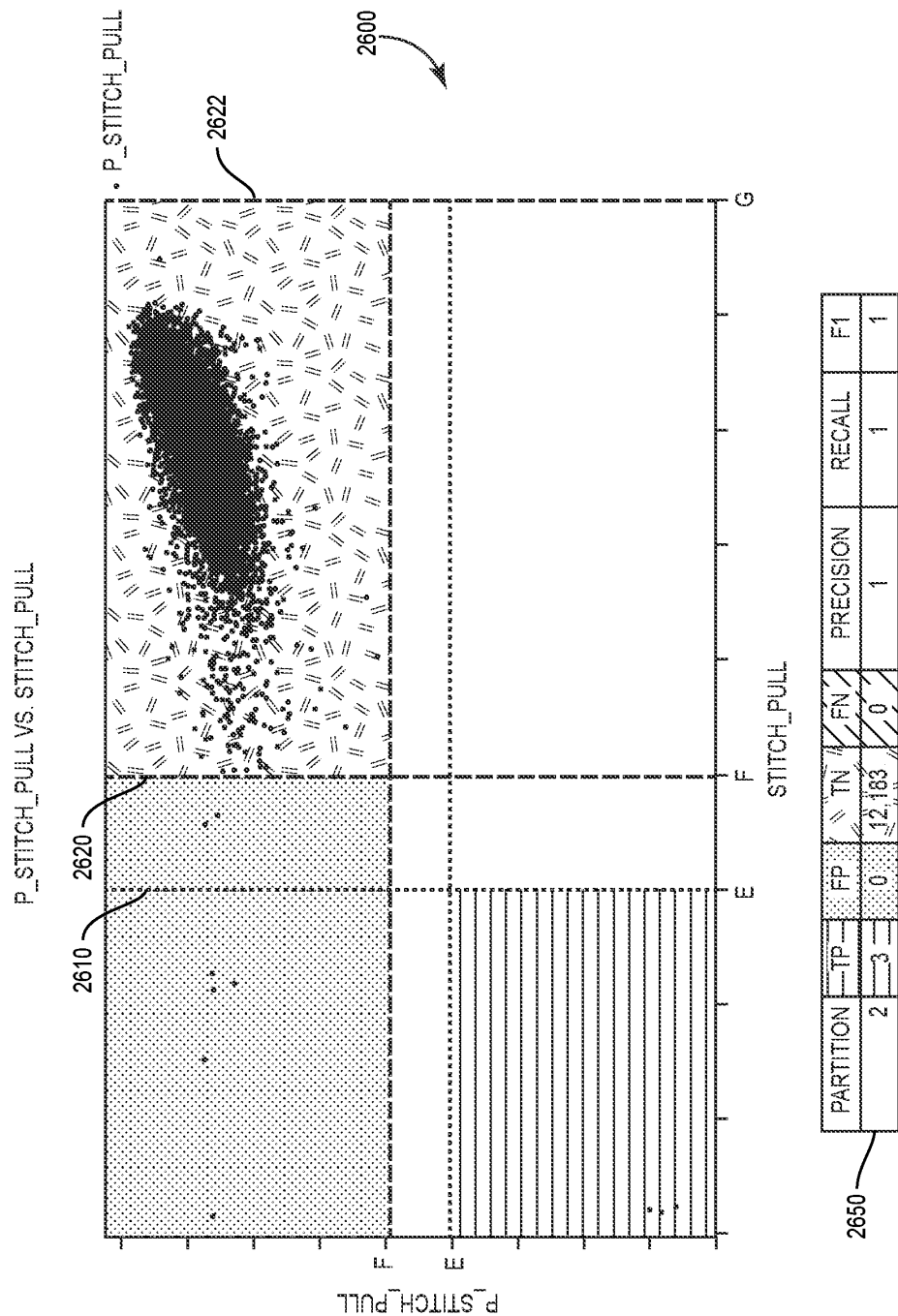


FIG. 26

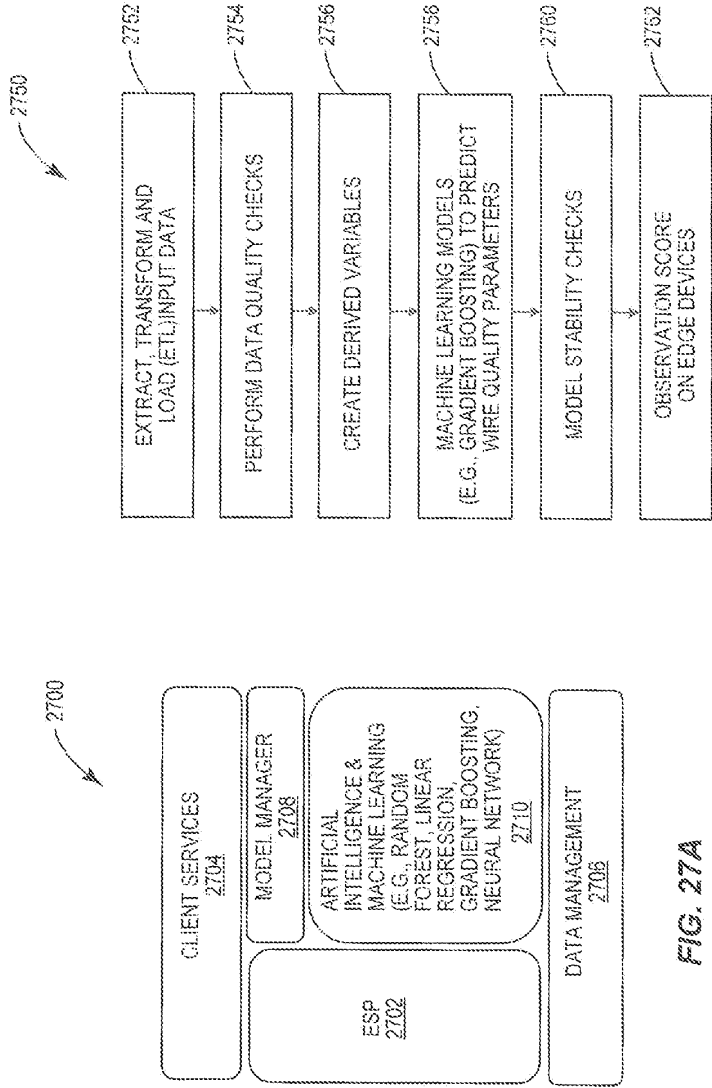


FIG. 27A

FIG. 27B

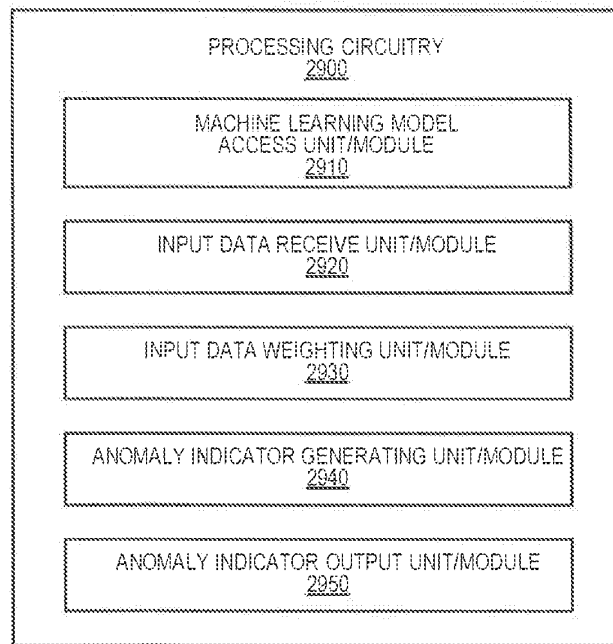


FIG. 28