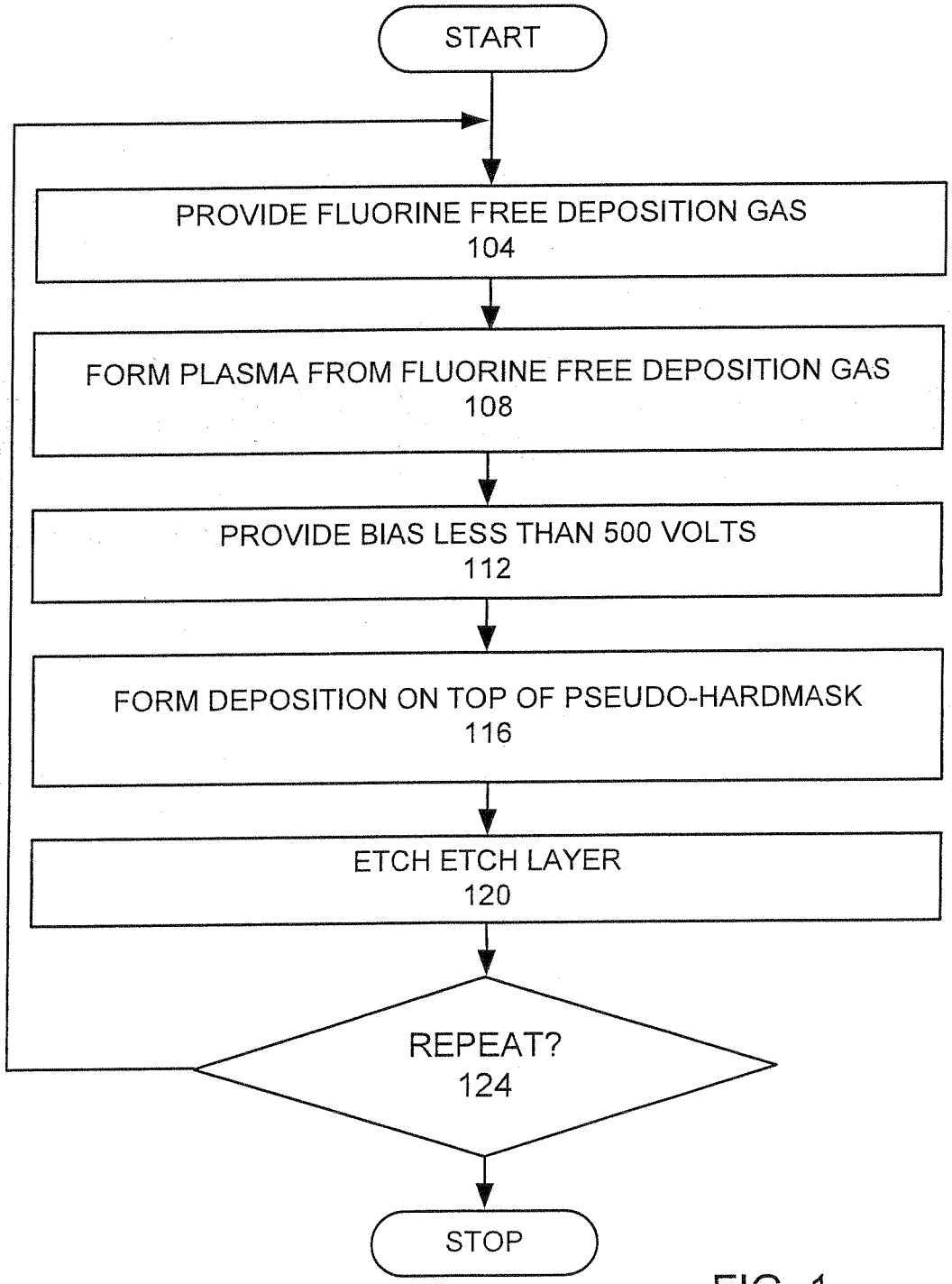

START
PROVIDE FLUORINE FREE DEPOSITION GAS
104
FORM PLASMA FROM FLUORINE FREE DEPOSITION GAS
108
PROVIDE BIAS LESS THAN 500 VOLTS
112
FORM DEPOSITION ON TOP OF PSEUDO-HARDMASK
116
ETCH ETCH LAYER
120
REPEAT?
124
STOP

FIG. 1

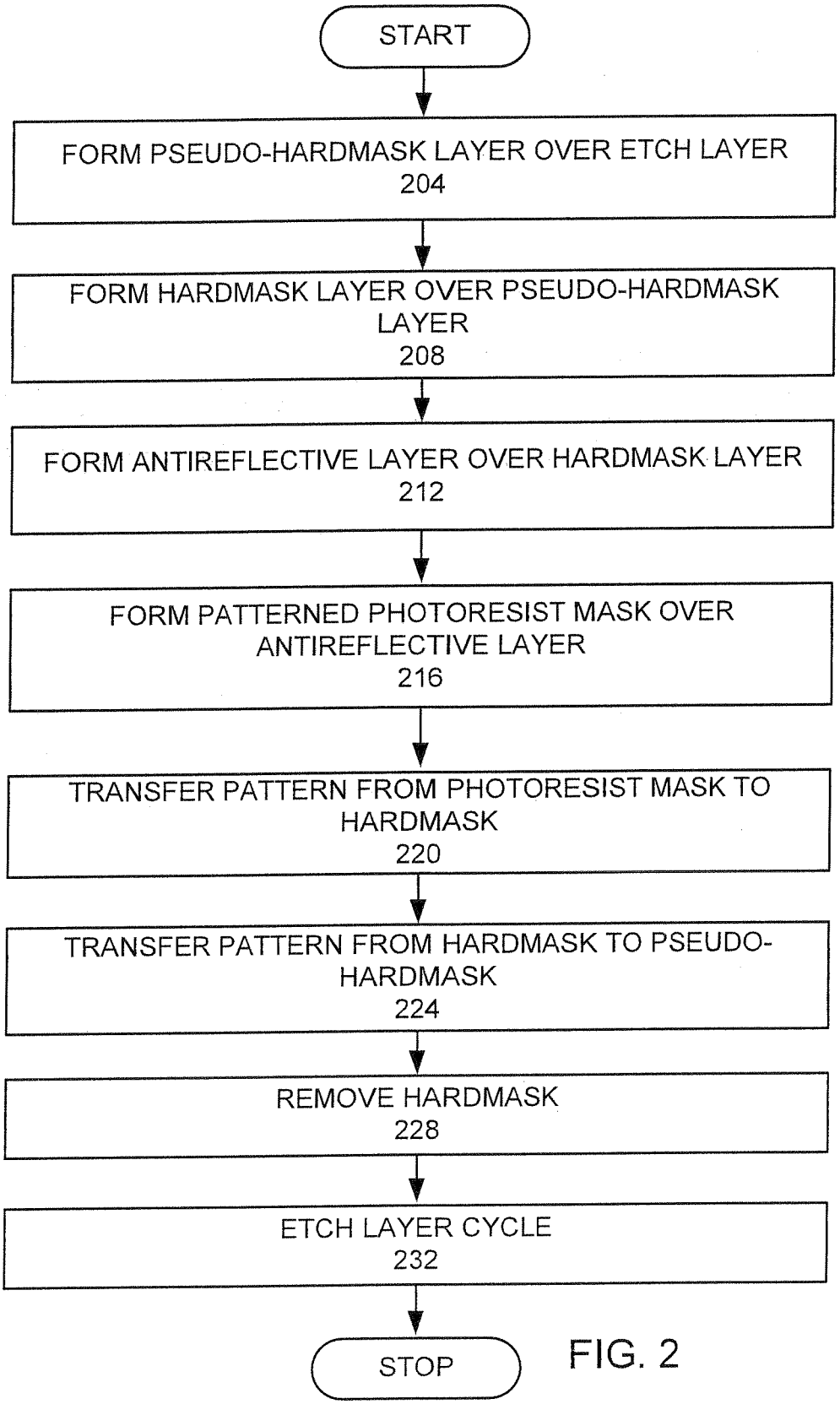

START
FORM PSEUDO-HARDMASK LAYER OVER ETCH LAYER
204
FORM HARDMASK LAYER OVER PSEUDO-HARDMASK LAYER
208
FORM ANTIREFLECTIVE LAYER OVER HARDMASK LAYER
212
FORM PATTERNED PHOTORESIST MASK OVER ANTIREFLECTIVE LAYER
216
TRANSFER PATTERN FROM PHOTORESIST MASK TO HARDMASK
220
TRANSFER PATTERN FROM HARDMASK TO PSEUDO-HARDMASK
224
REMOVE HARDMASK
228
ETCH LAYER CYCLE
232
STOP

FIG. 2

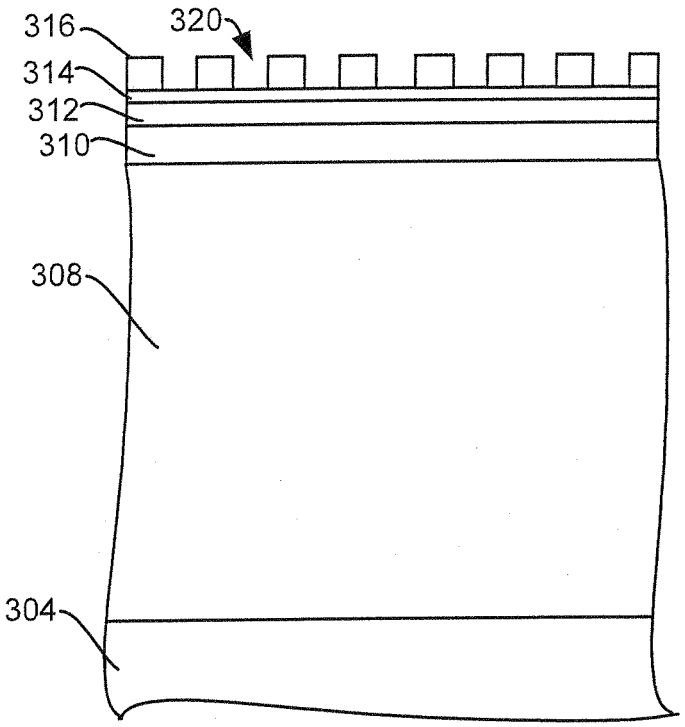


FIG. 3A

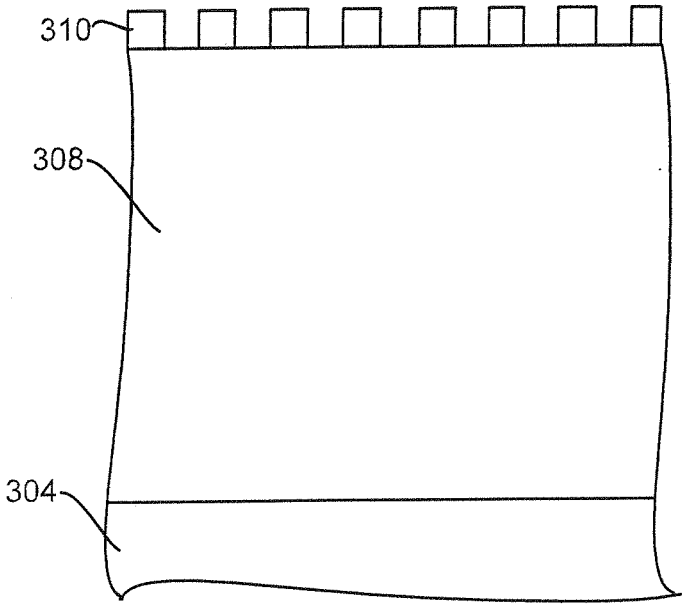


FIG. 3B

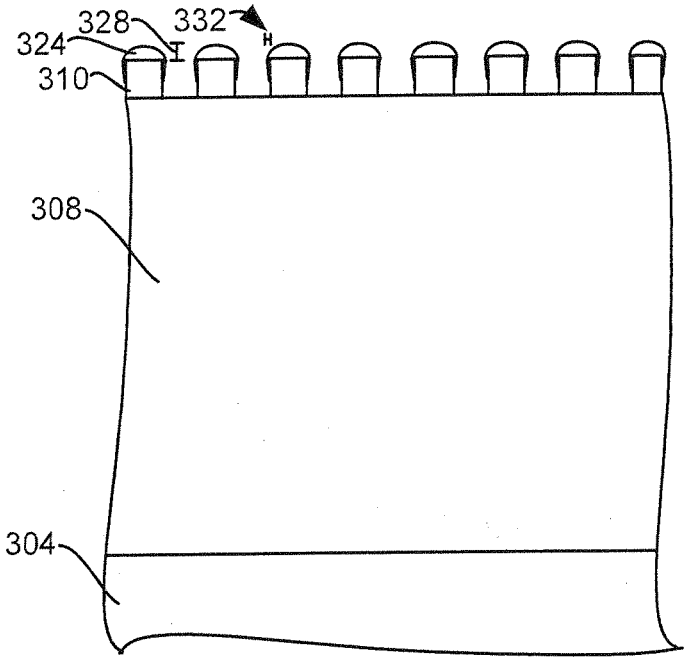


FIG. 3C

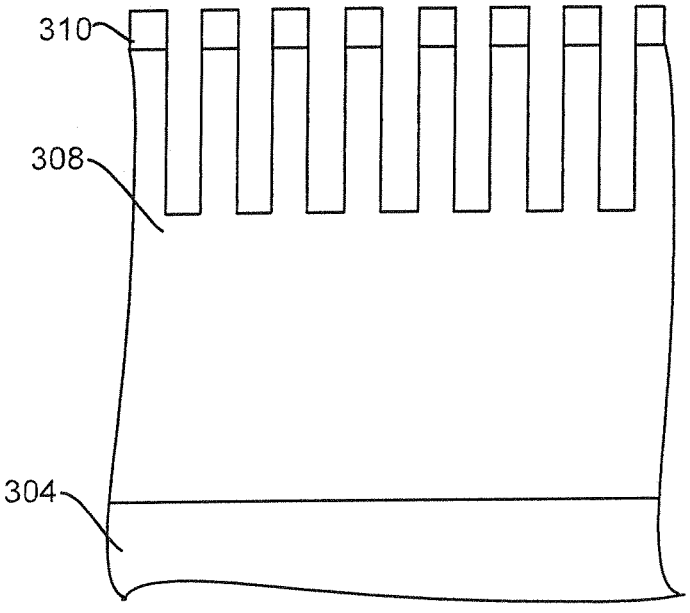


FIG. 3D

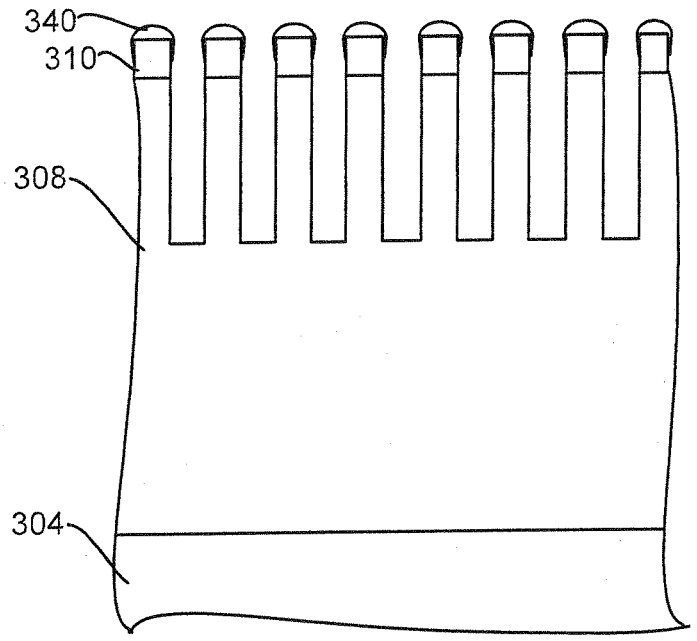


FIG. 3E

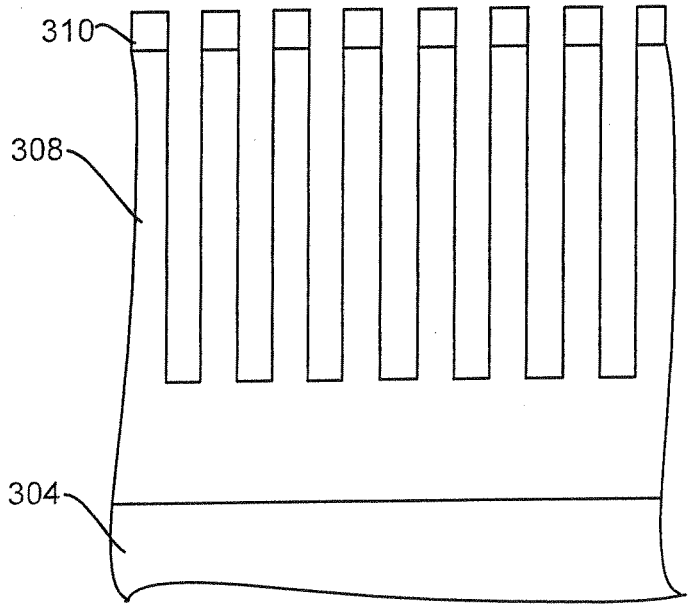


FIG. 3F

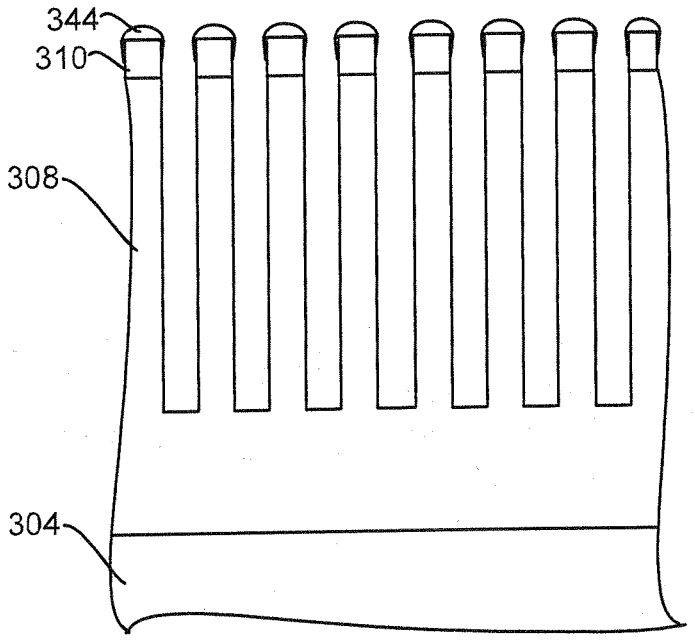


FIG. 3G

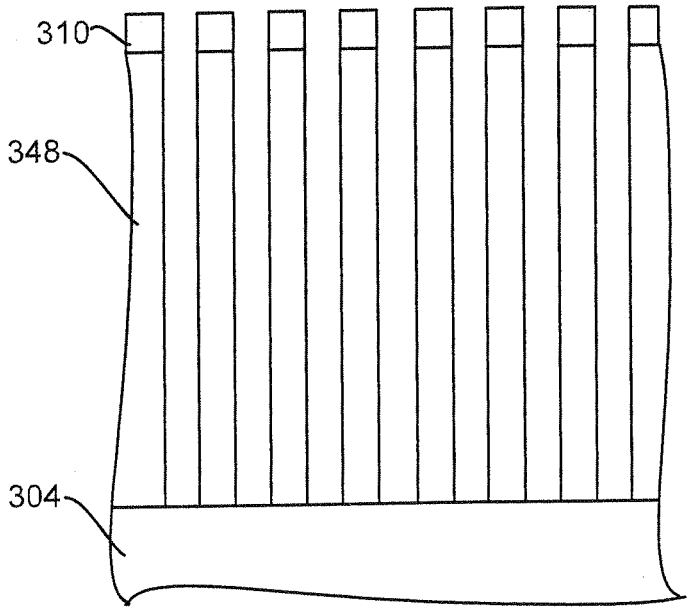


FIG. 3H

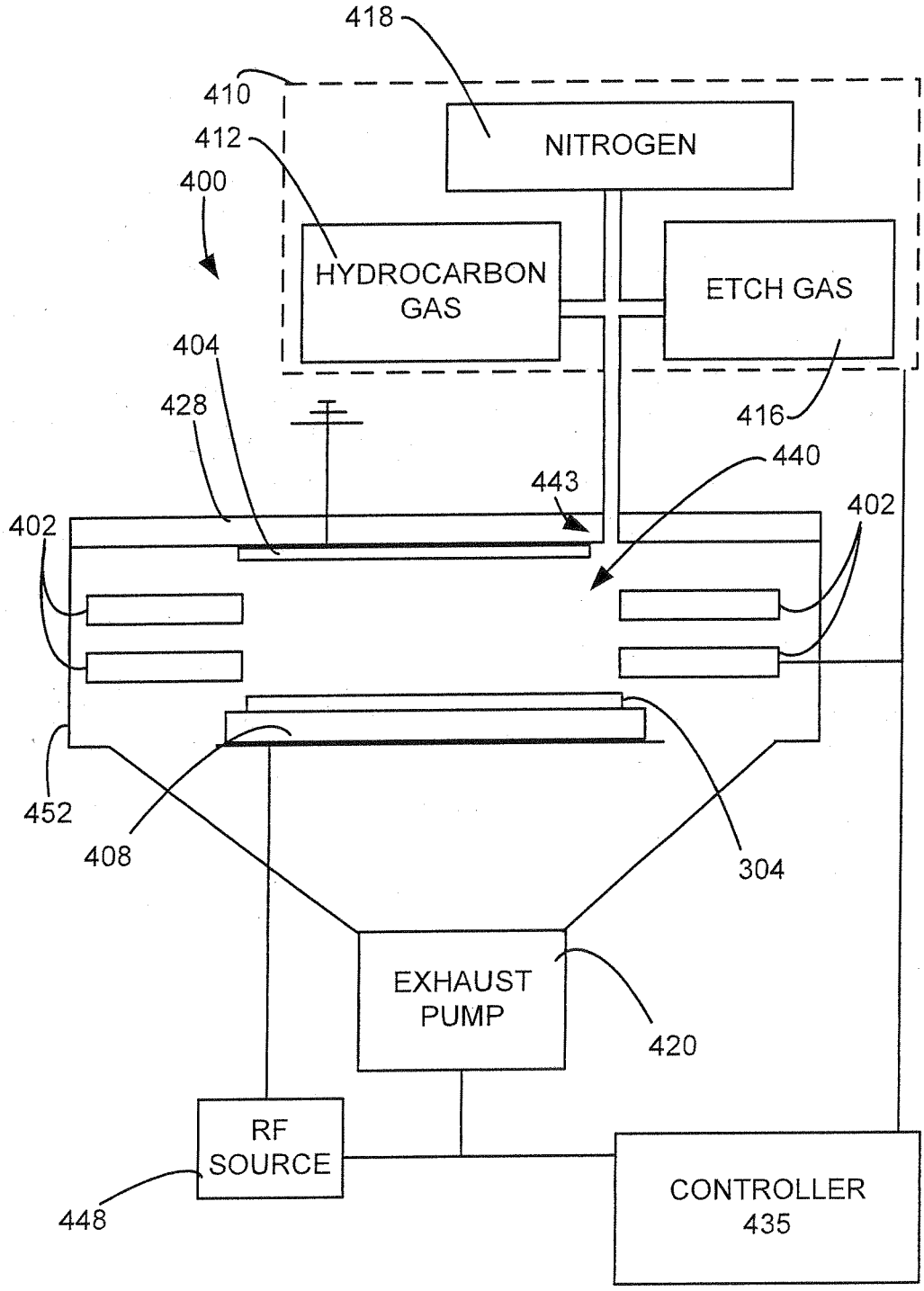

418
410
412
400
NITROGEN
HYDROCARBON GAS
ETCH GAS
404
428
416
440
443
402
402
452
408
304
EXHAUST PUMP
420
RF SOURCE
448
CONTROLLER 435

FIG. 4

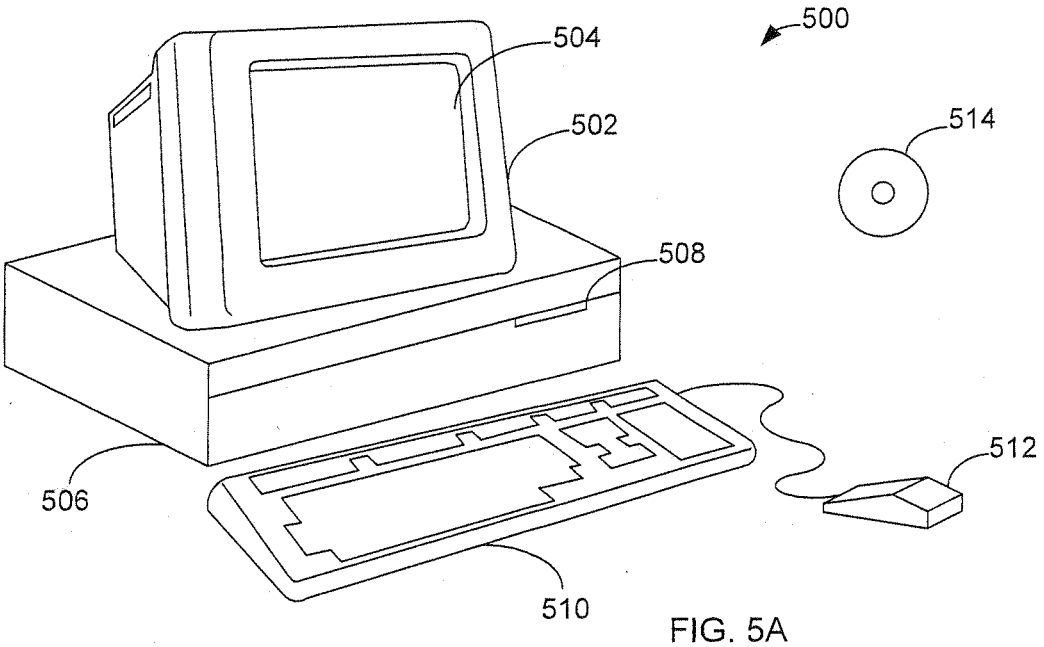

500
504
502
514
508
512
506
510

FIG. 5A

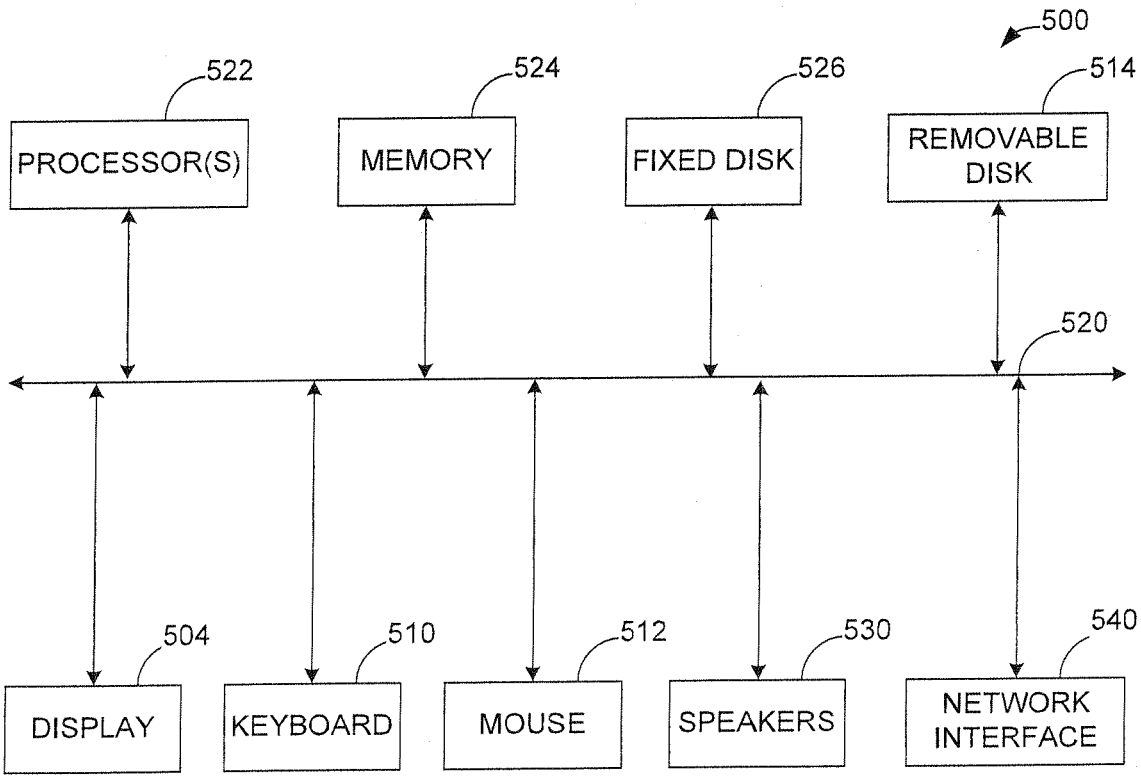

500
522
524
526
514
PROCESSOR(S)
MEMORY
FIXED DISK
REMOVABLE DISK
520
504
510
512
530
540
DISPLAY
KEYBOARD
MOUSE
SPEAKERS
NETWORK INTERFACE

FIG. 5B

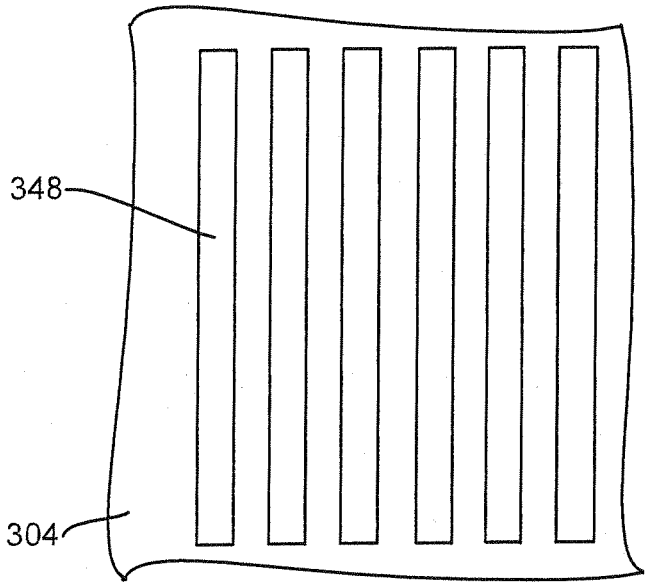


FIG. 6

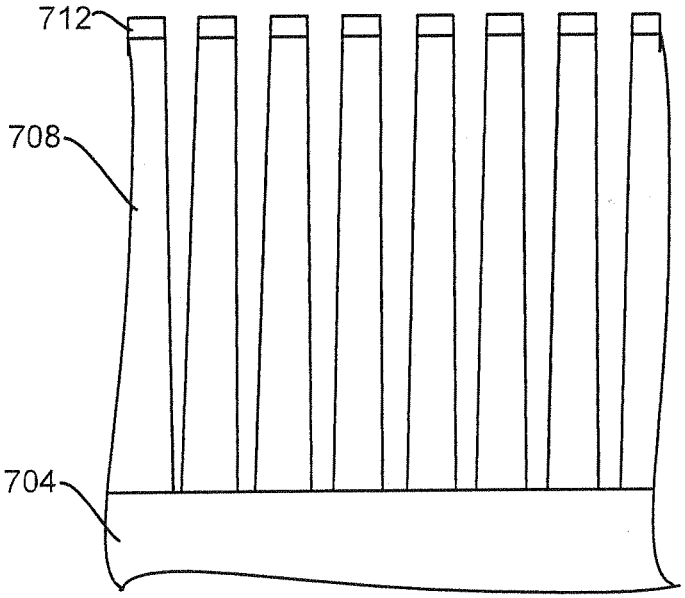


FIG. 7

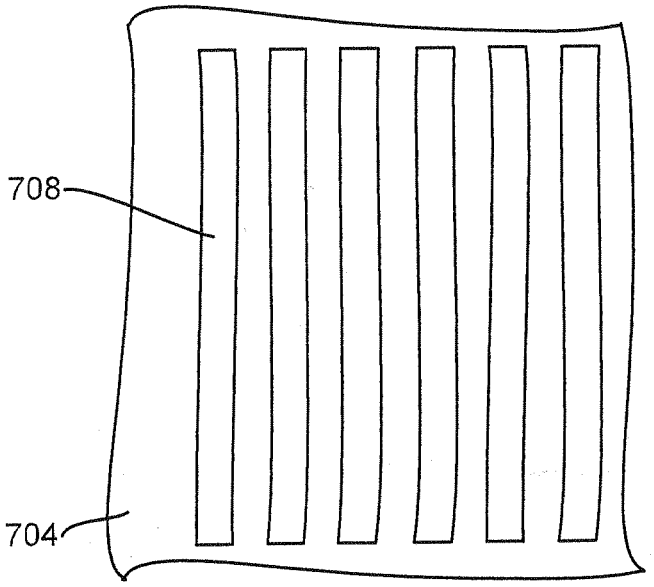


FIG. 8

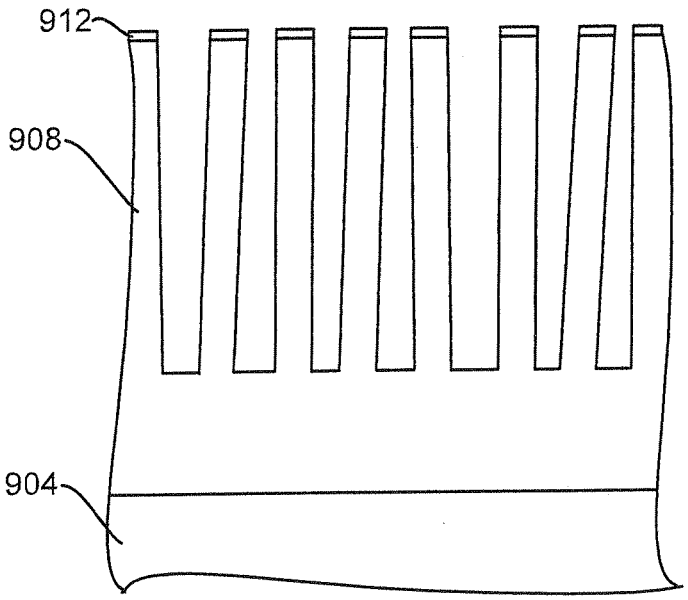


FIG. 9

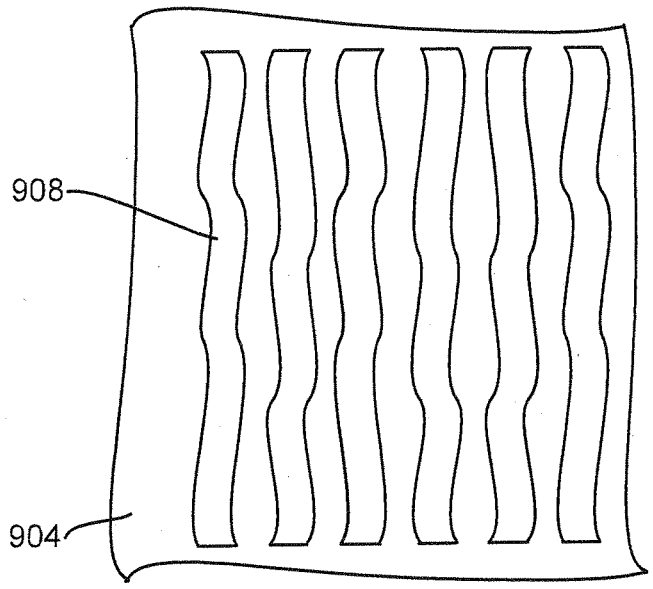


FIG. 10