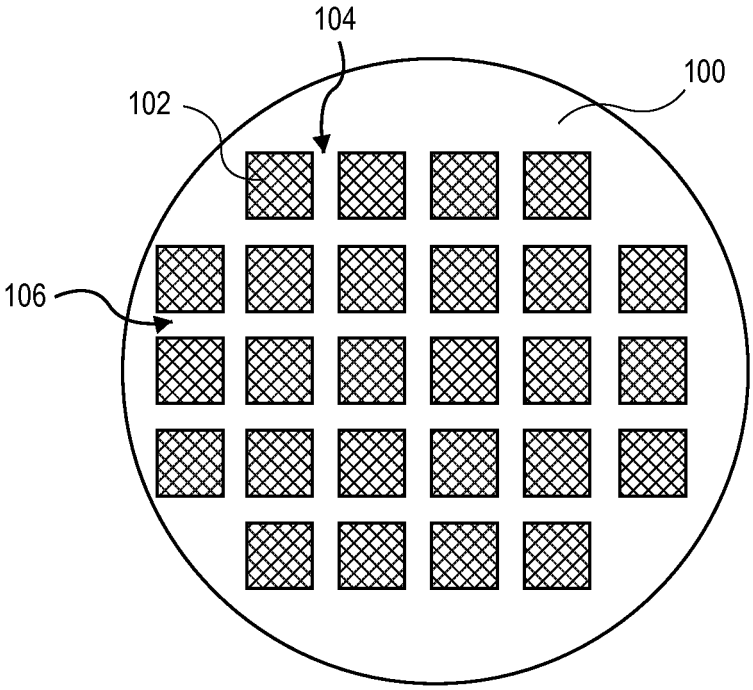
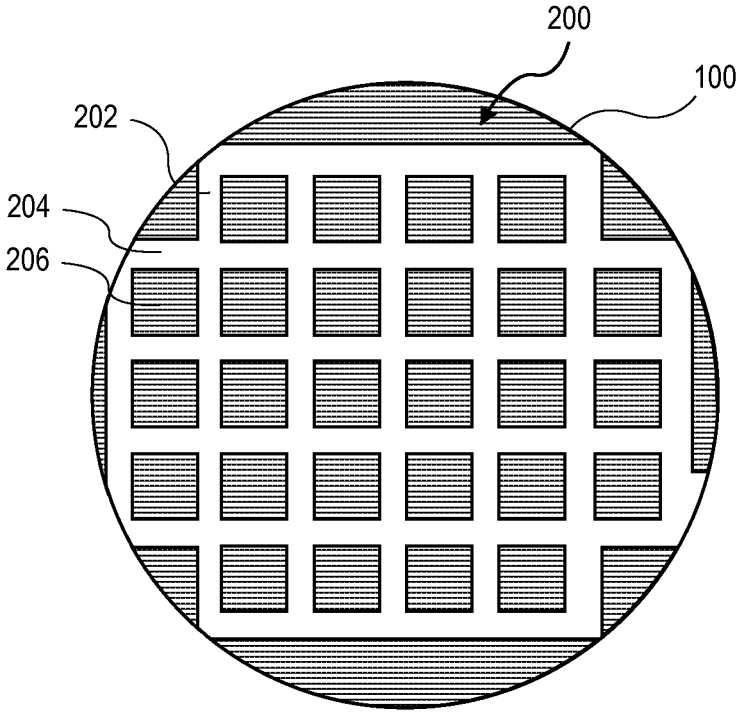


FIG. 1



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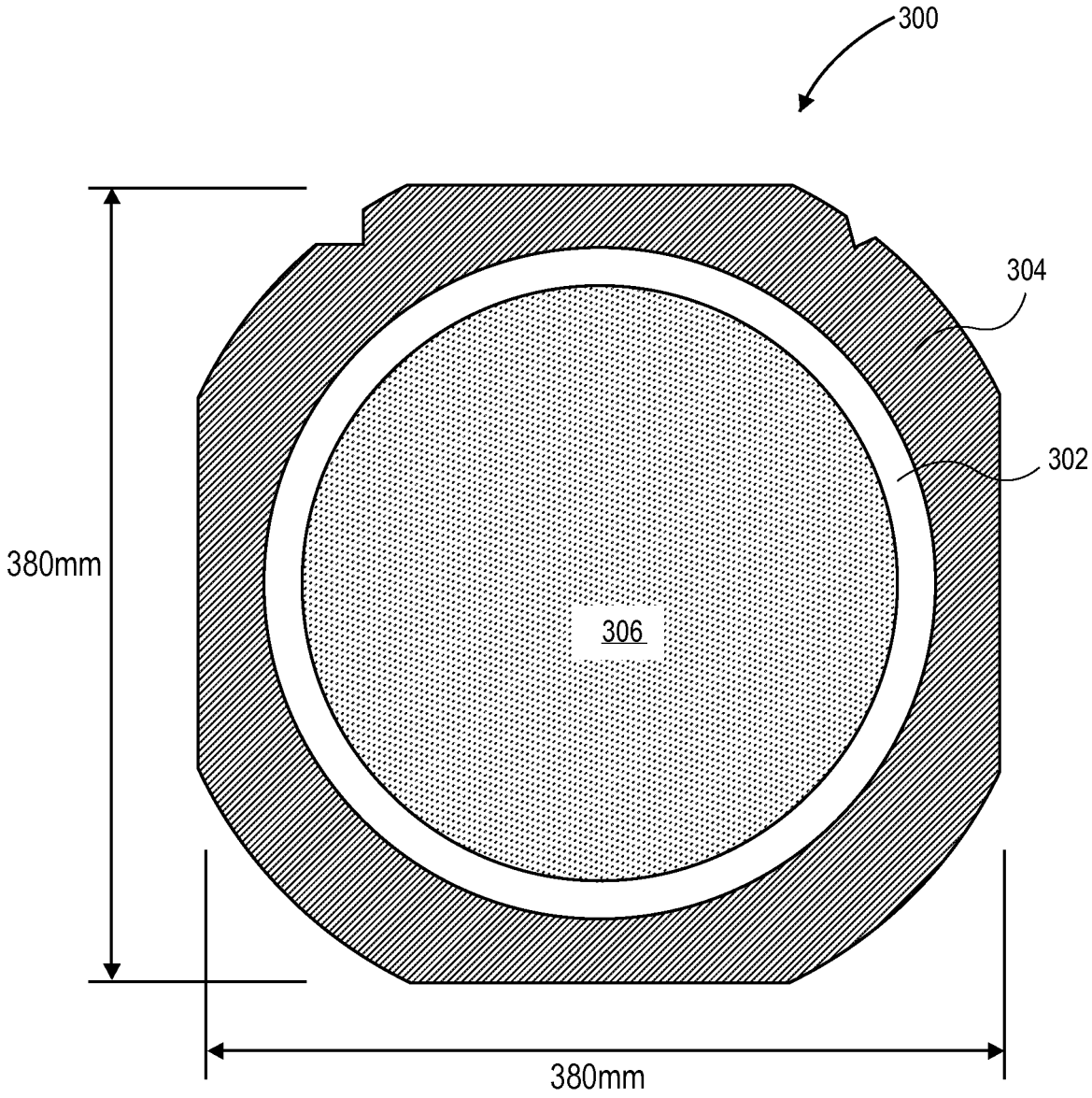

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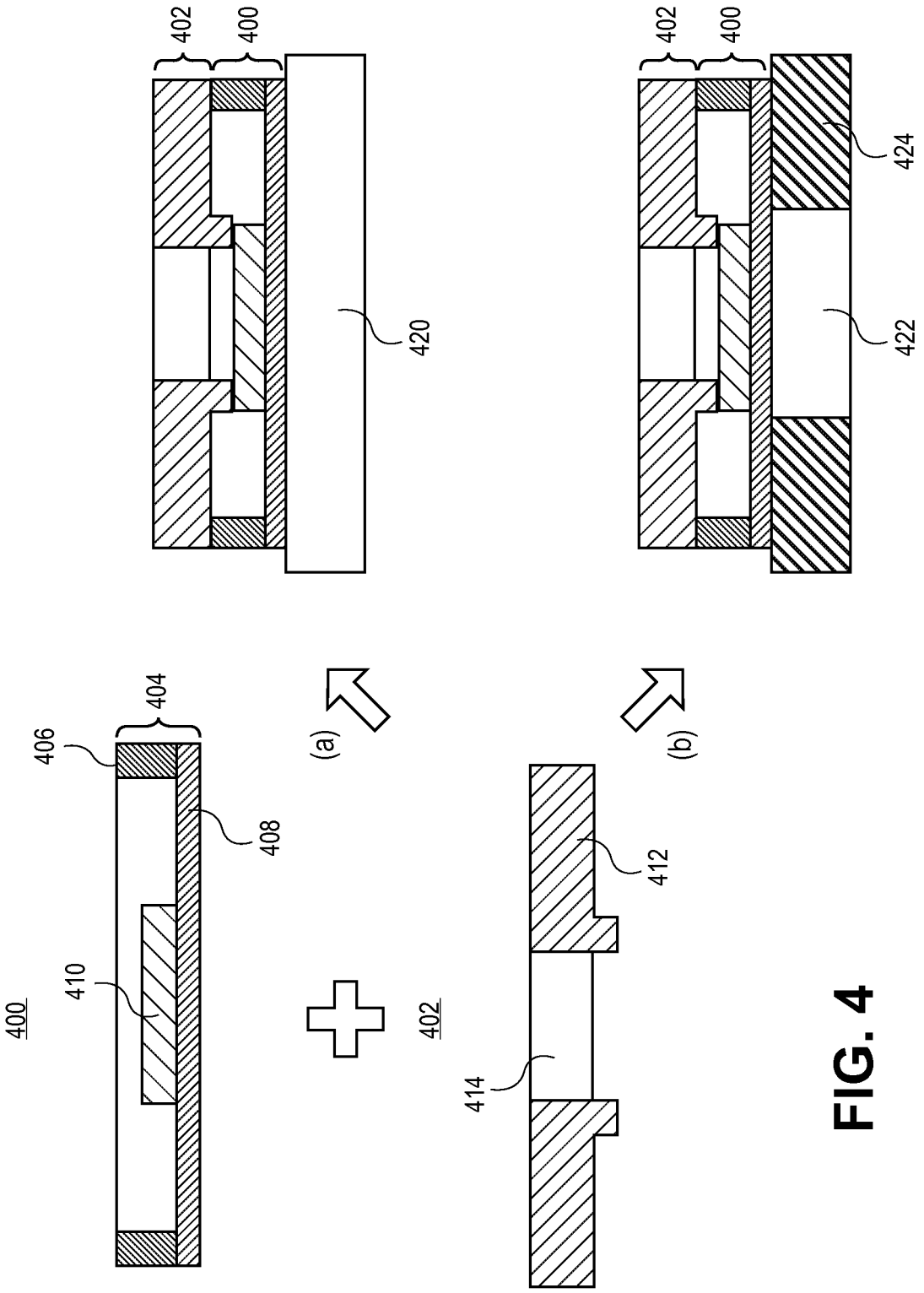

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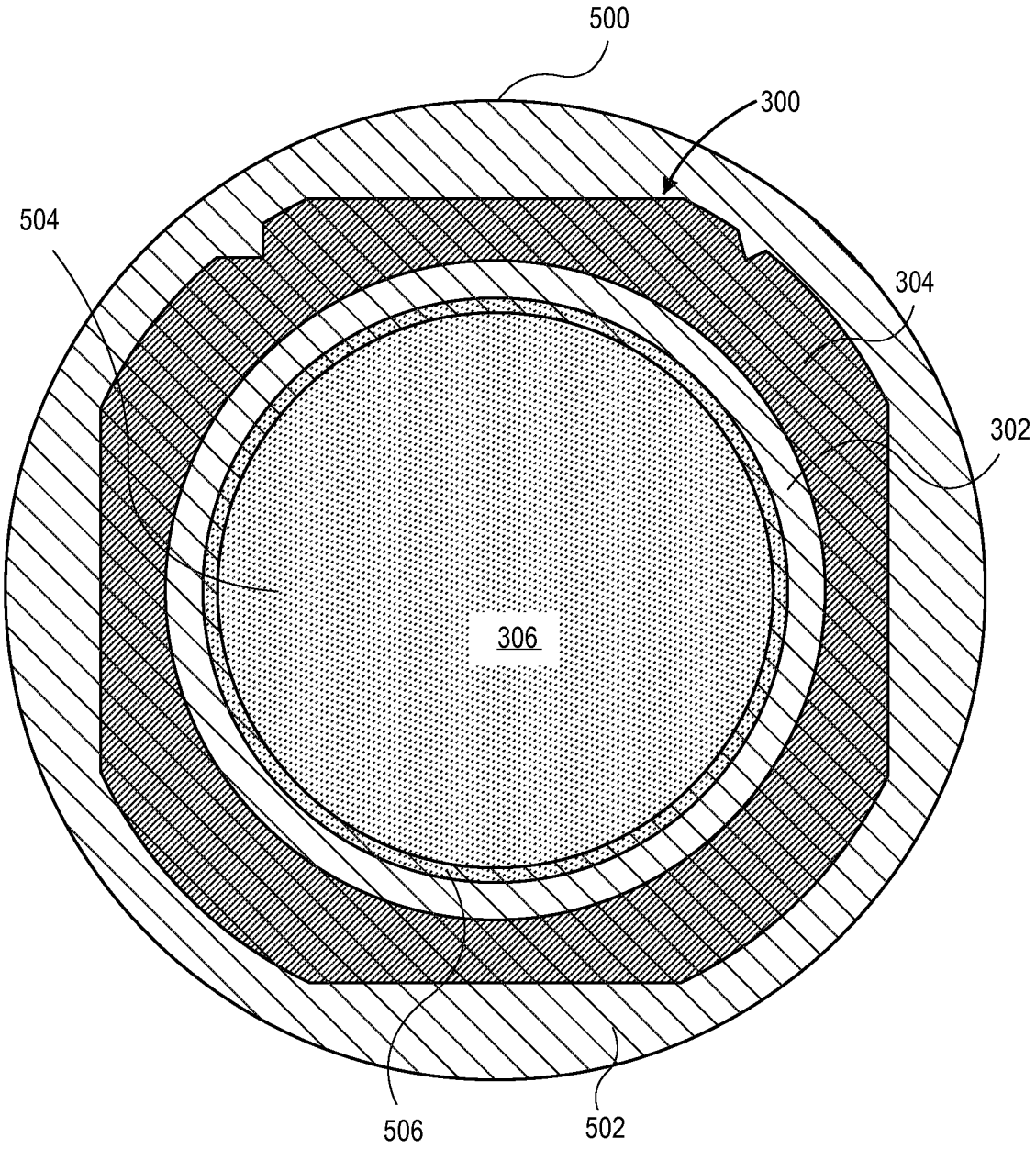


FIG. 5

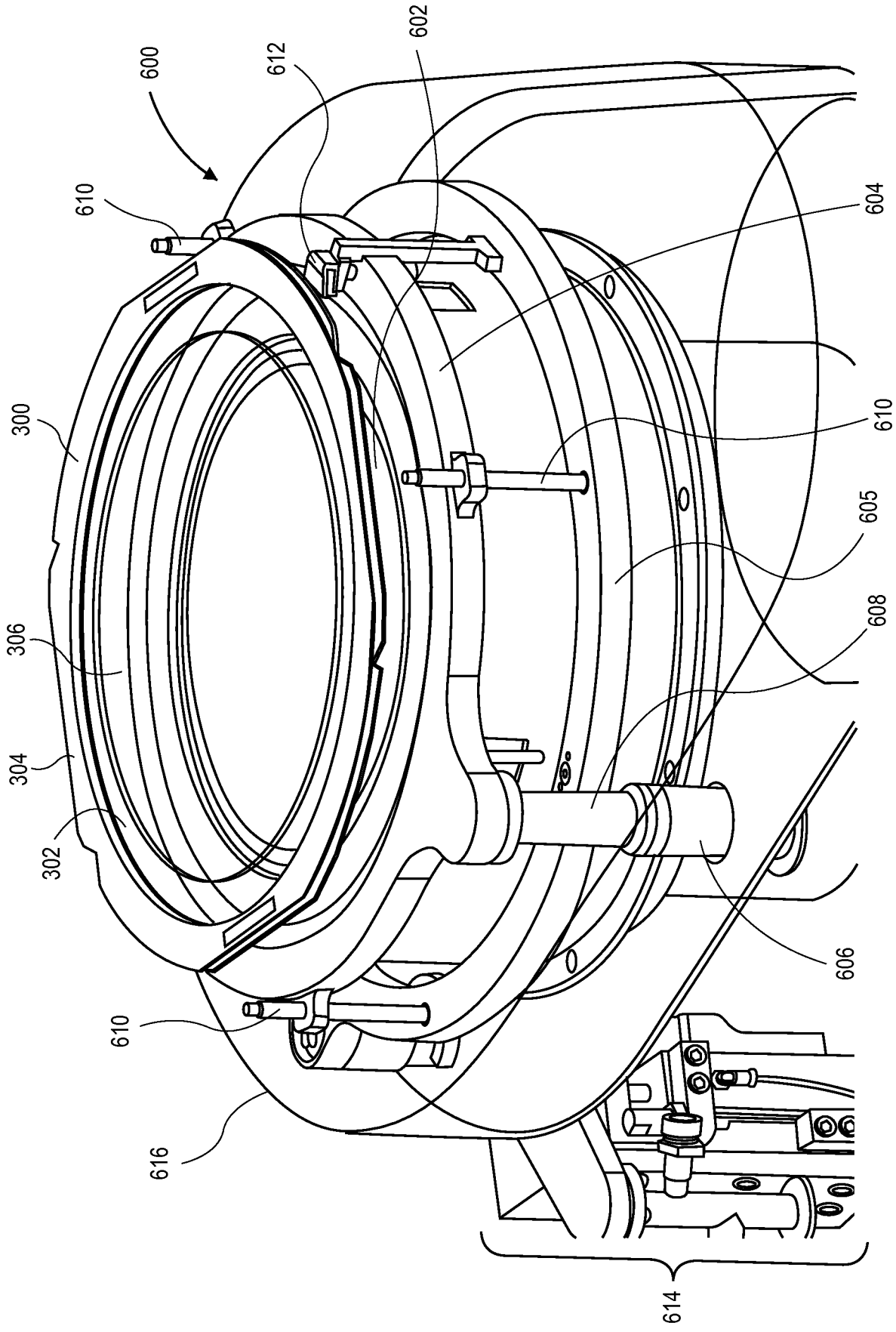


FIG. 6

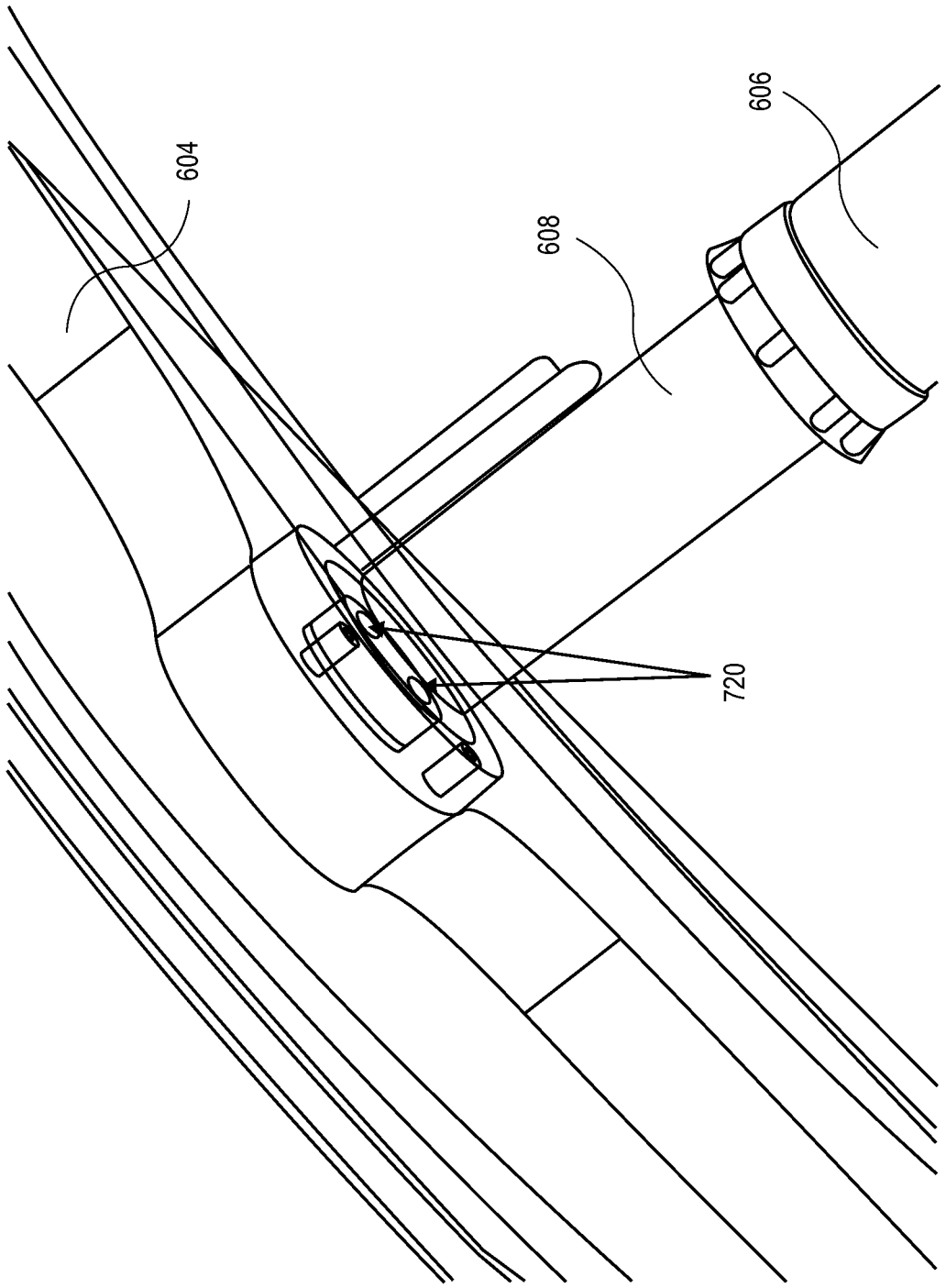


FIG. 7

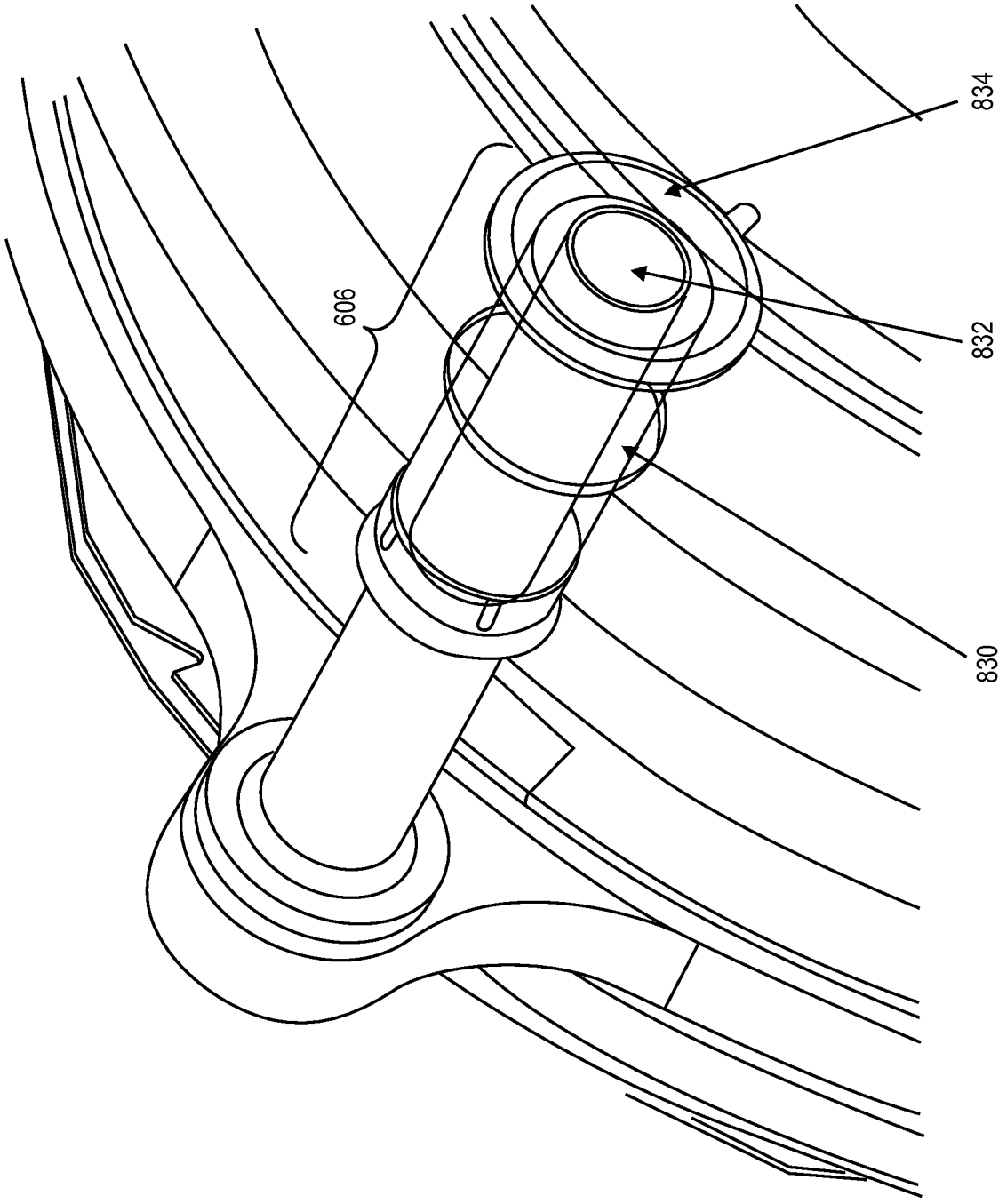
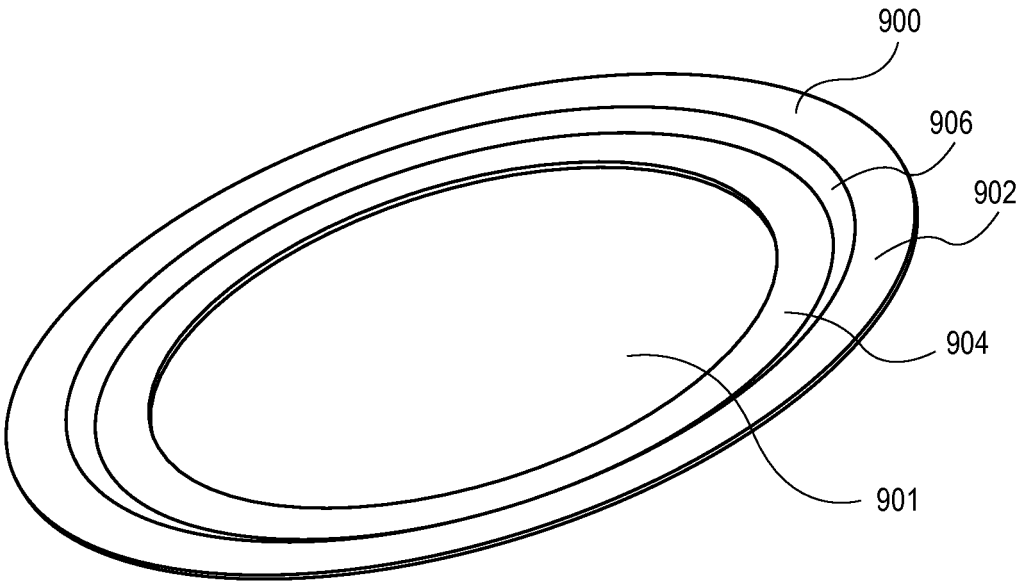


FIG. 8

TOP VIEW



BOTTOM VIEW

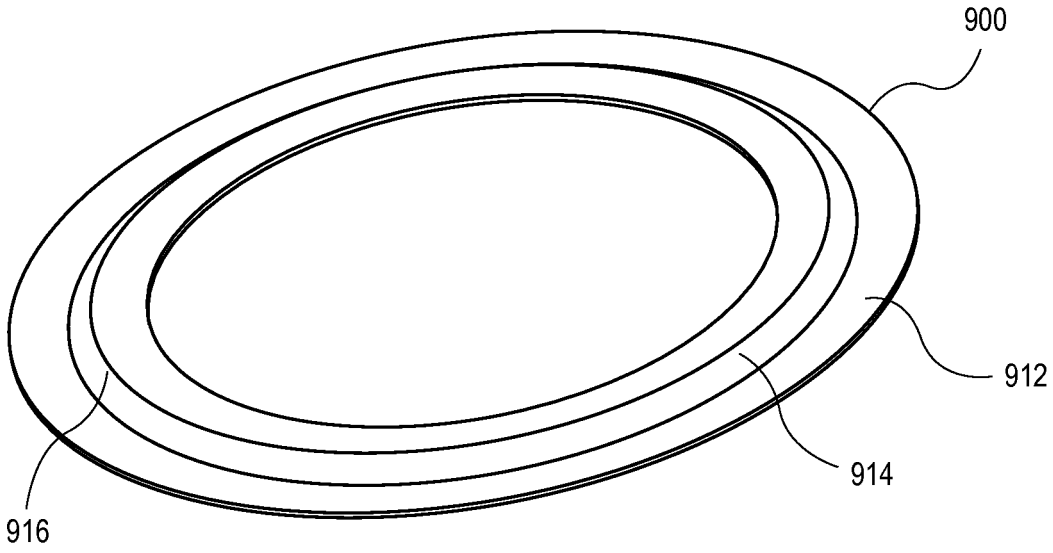


FIG. 9

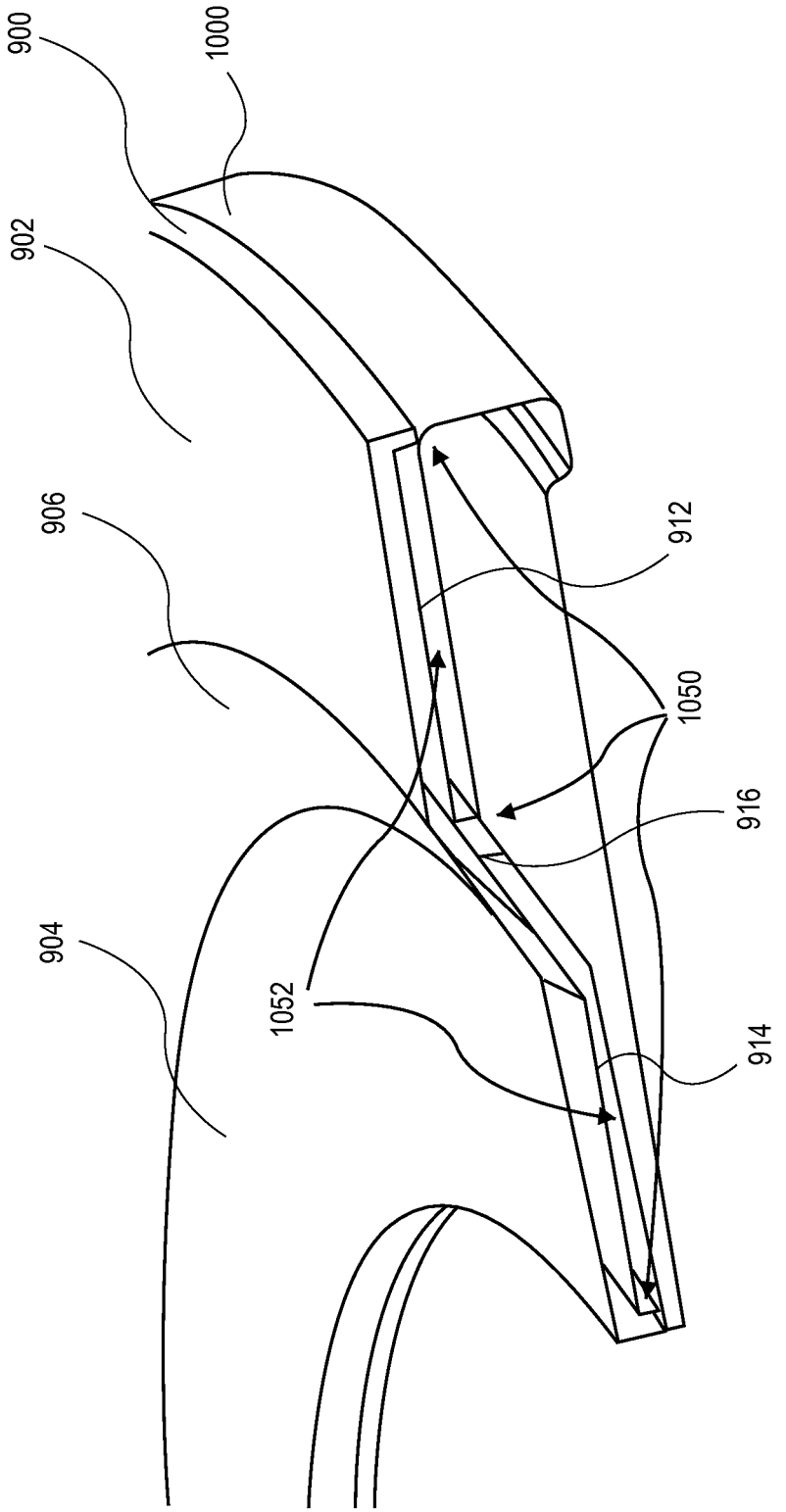


FIG. 10

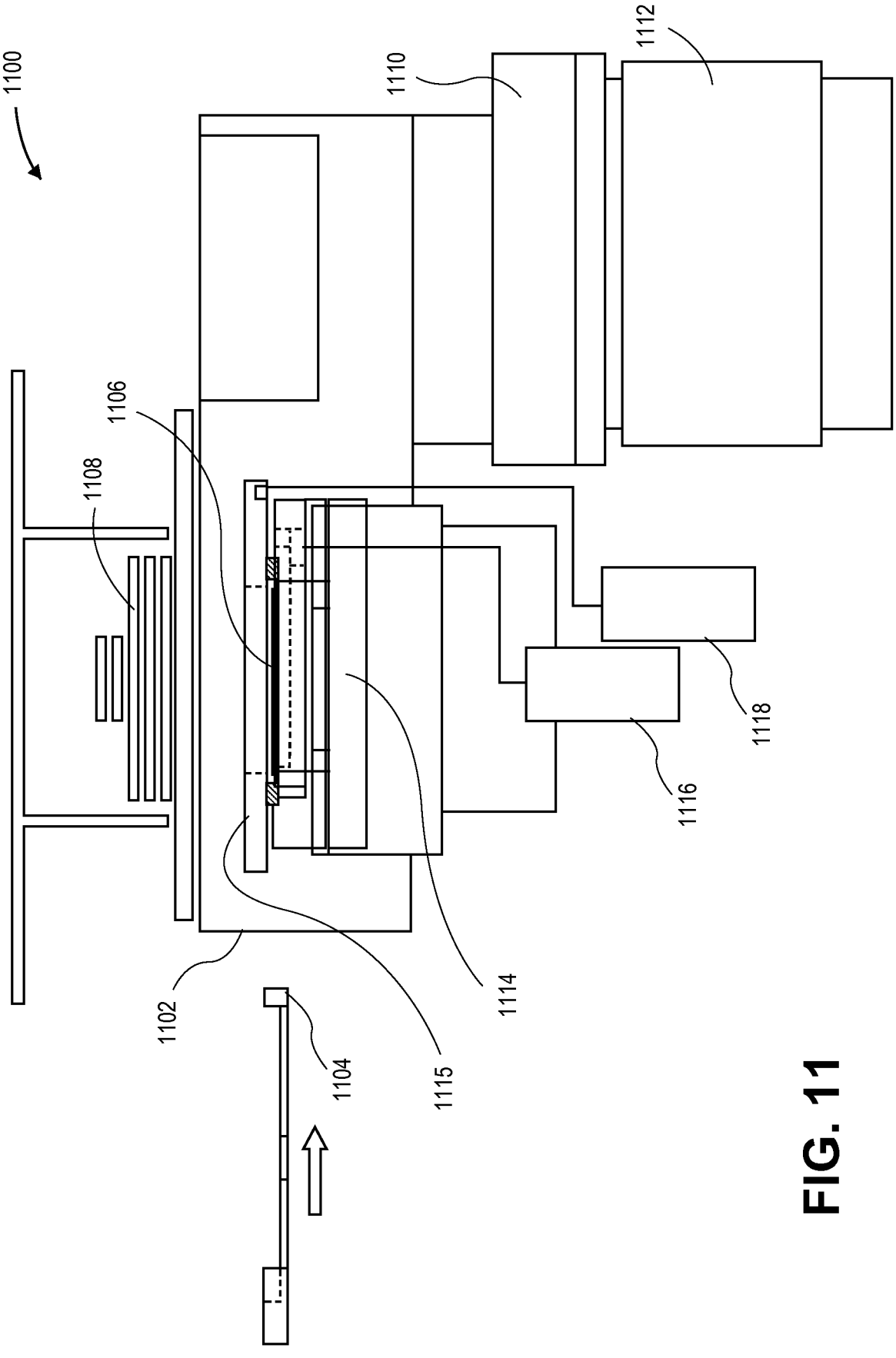


FIG. 11

FLOWCHART 1200

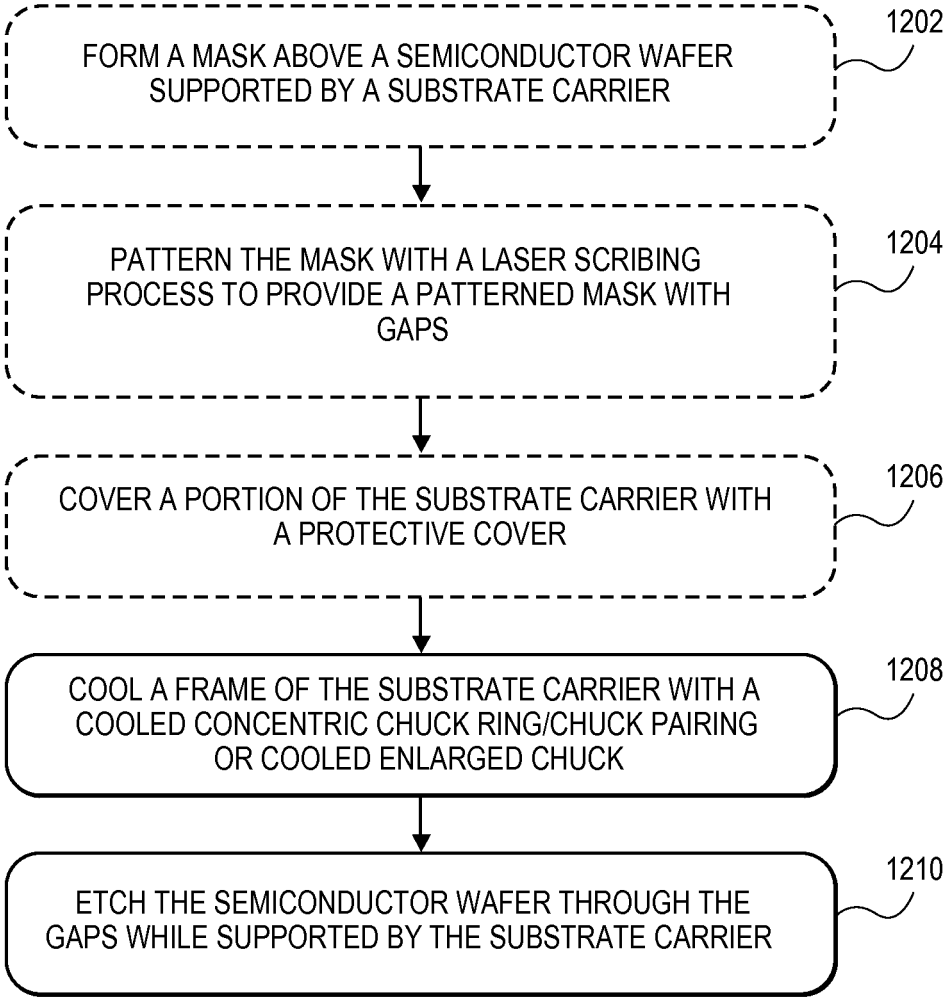


FIG. 12

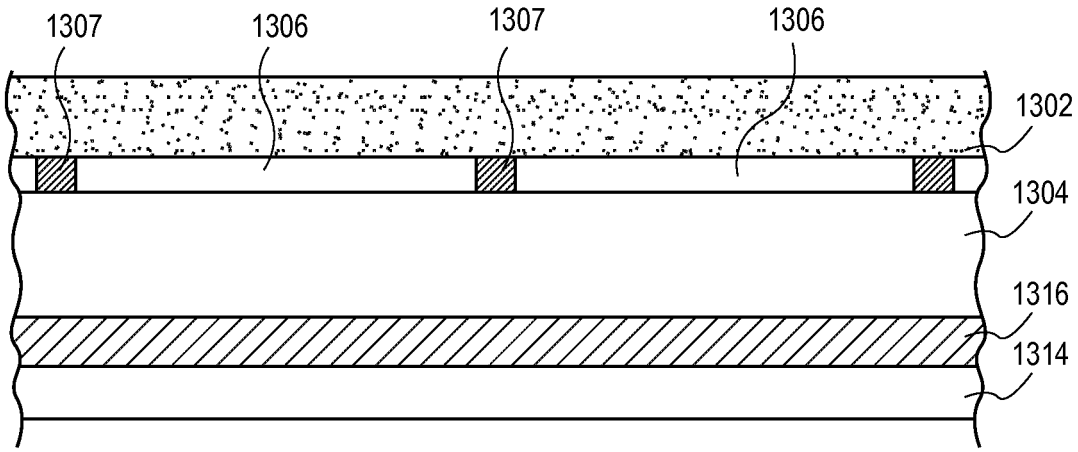


FIG. 13A

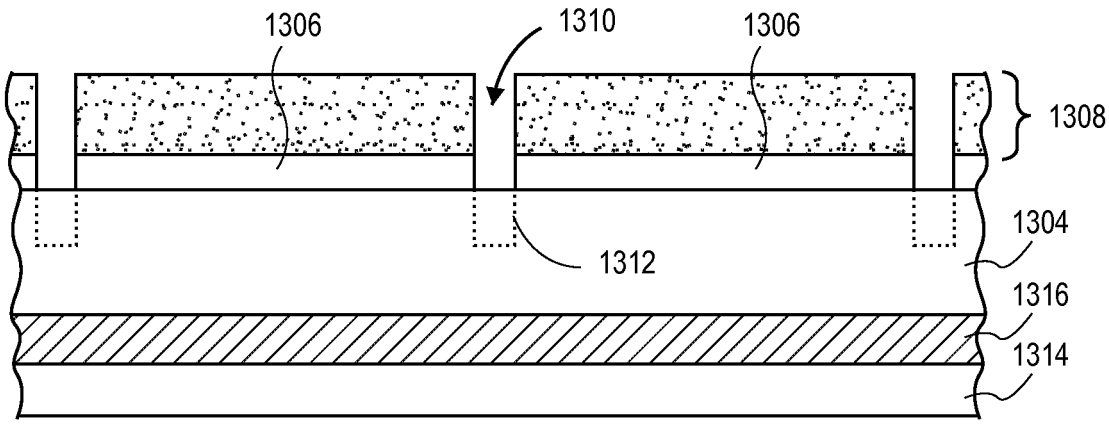


FIG. 13B

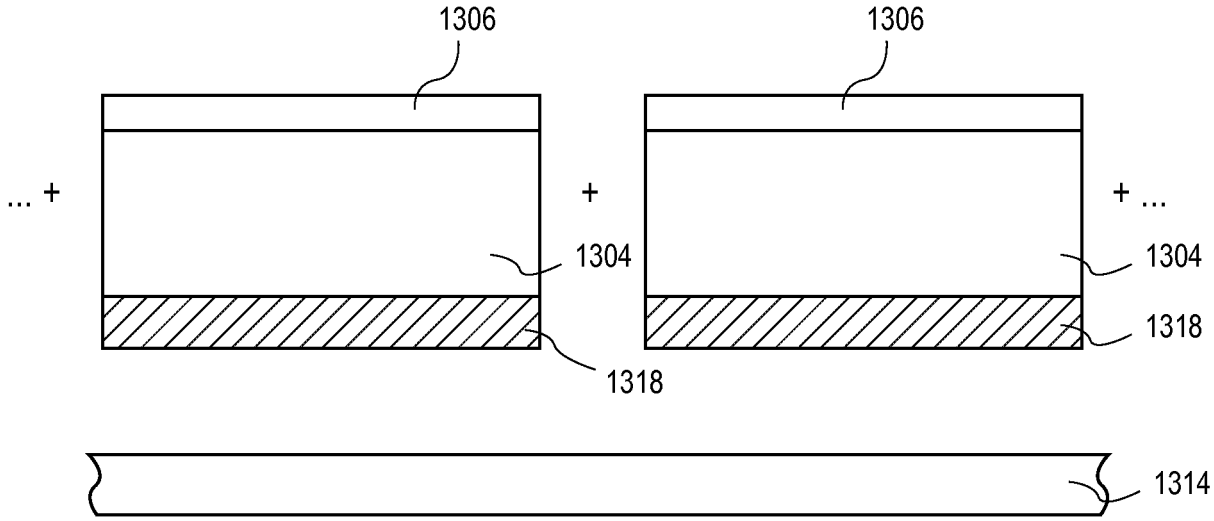
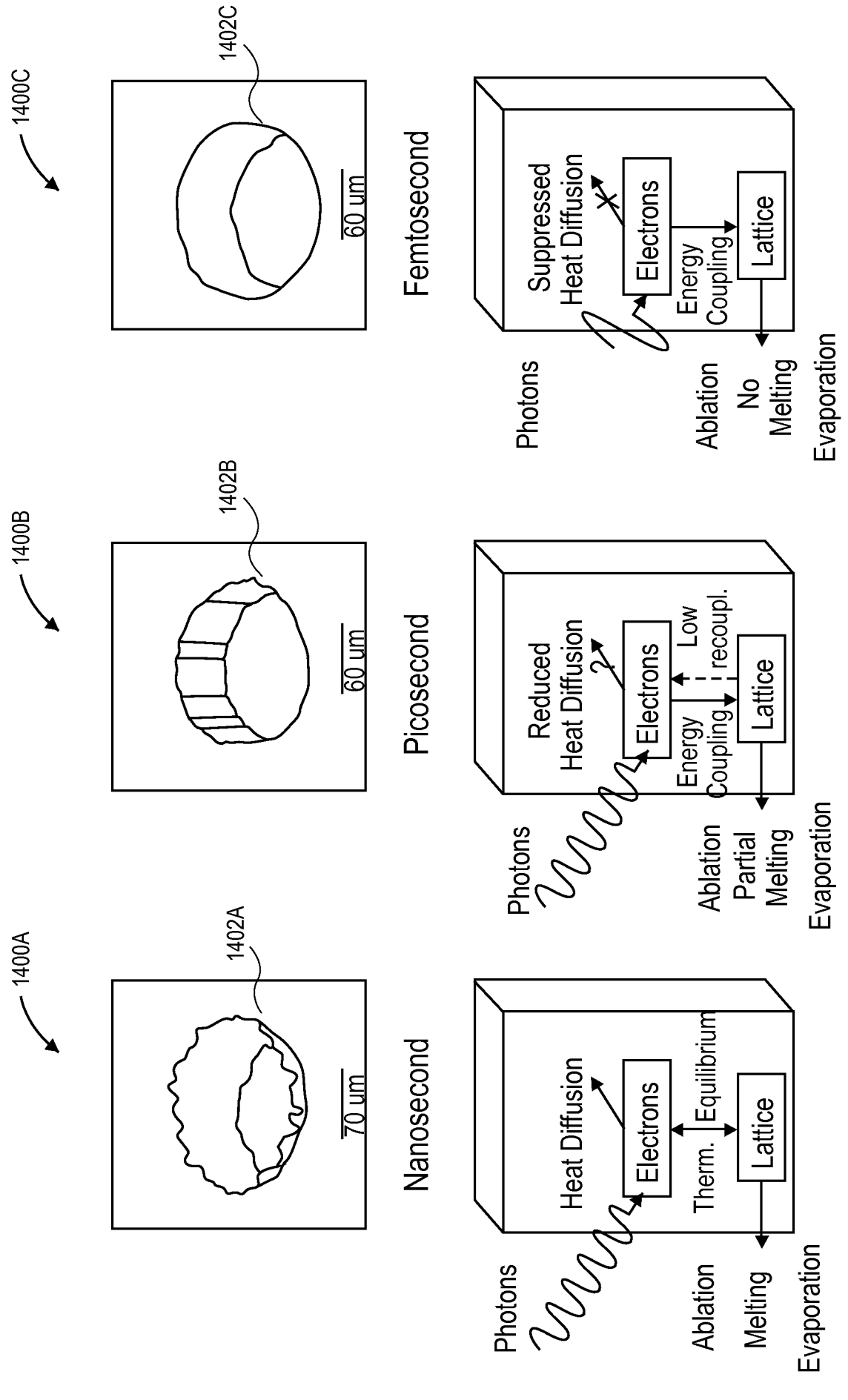


FIG. 13C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1400B
1400C
1402A
1402B
1402C
70 um
60 um
60 um
Nanosecond
Picosecond
Femtosecond
Photons
Heat Diffusion
Electrons
Therm. Equilibrium
Lattice
Ablation
Melting
Evaporation
Photons
Reduced Heat Diffusion
Electrons
Energy Coupling
Low recoupl.
Lattice
Ablation
Partial Melting
Evaporation
Photons
Suppressed Heat Diffusion
Electrons
Energy Coupling
Lattice
Ablation
No Melting
Evaporation

FIG. 14

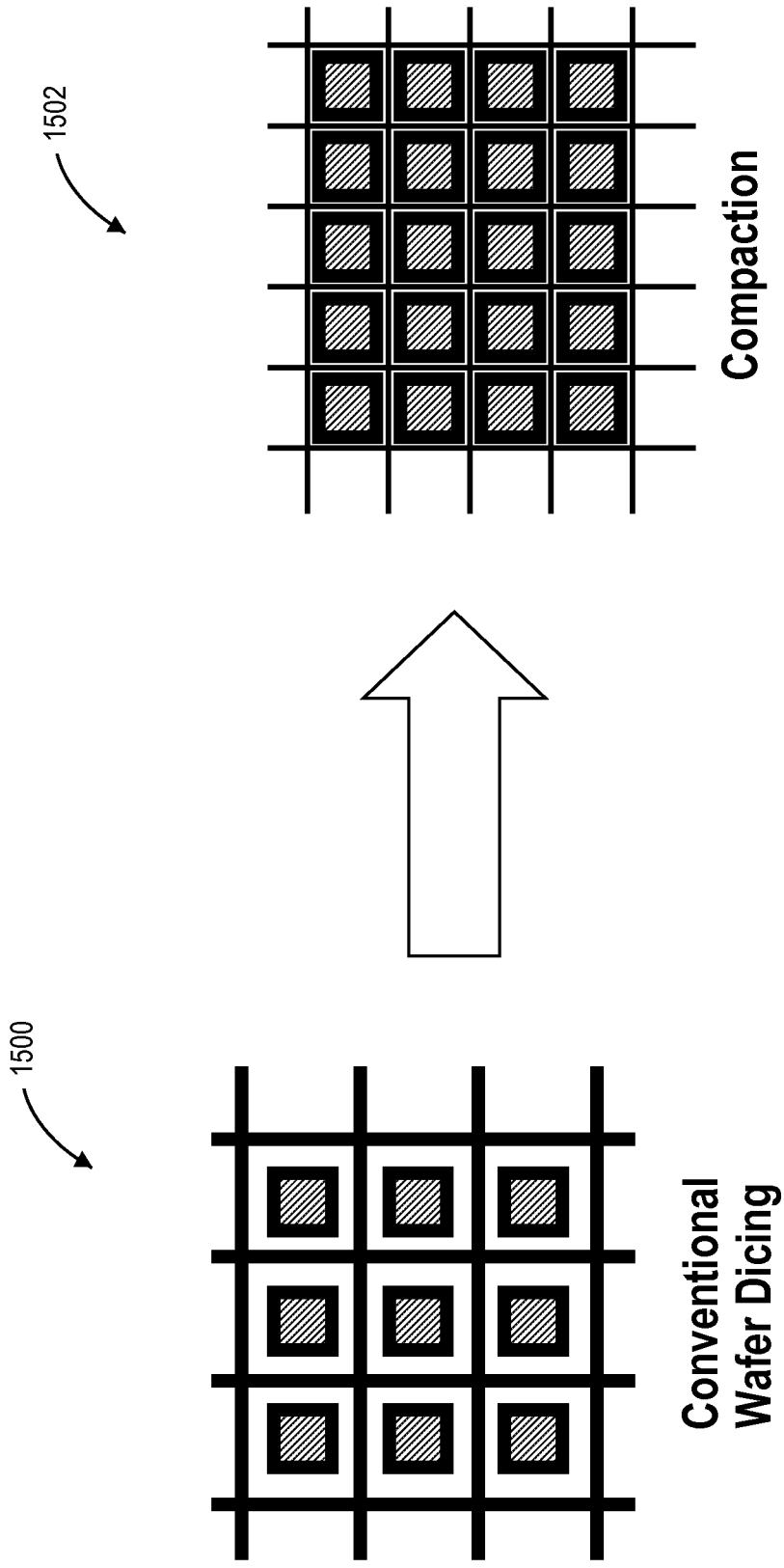

FIG. 15

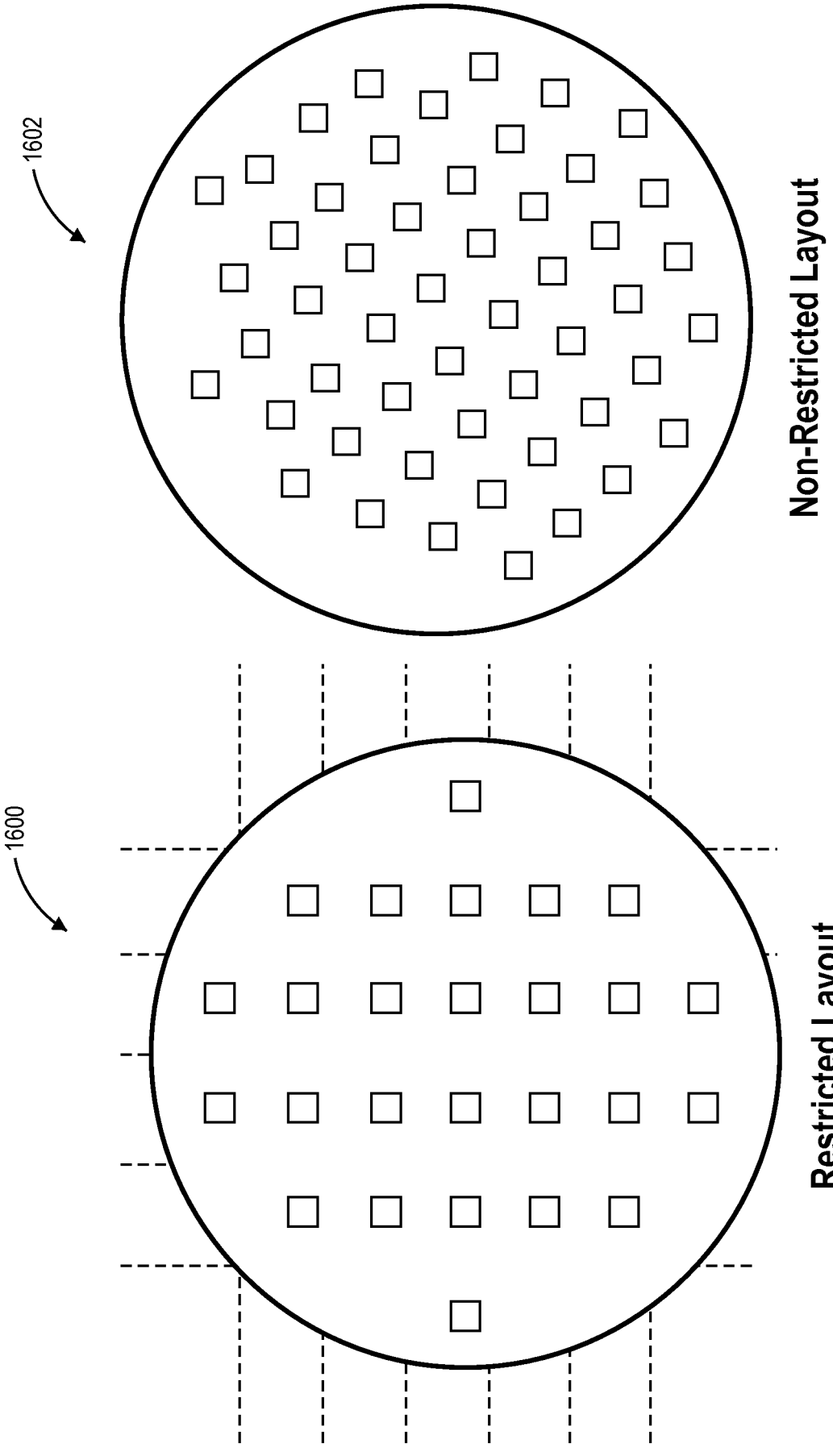

FIG. 16

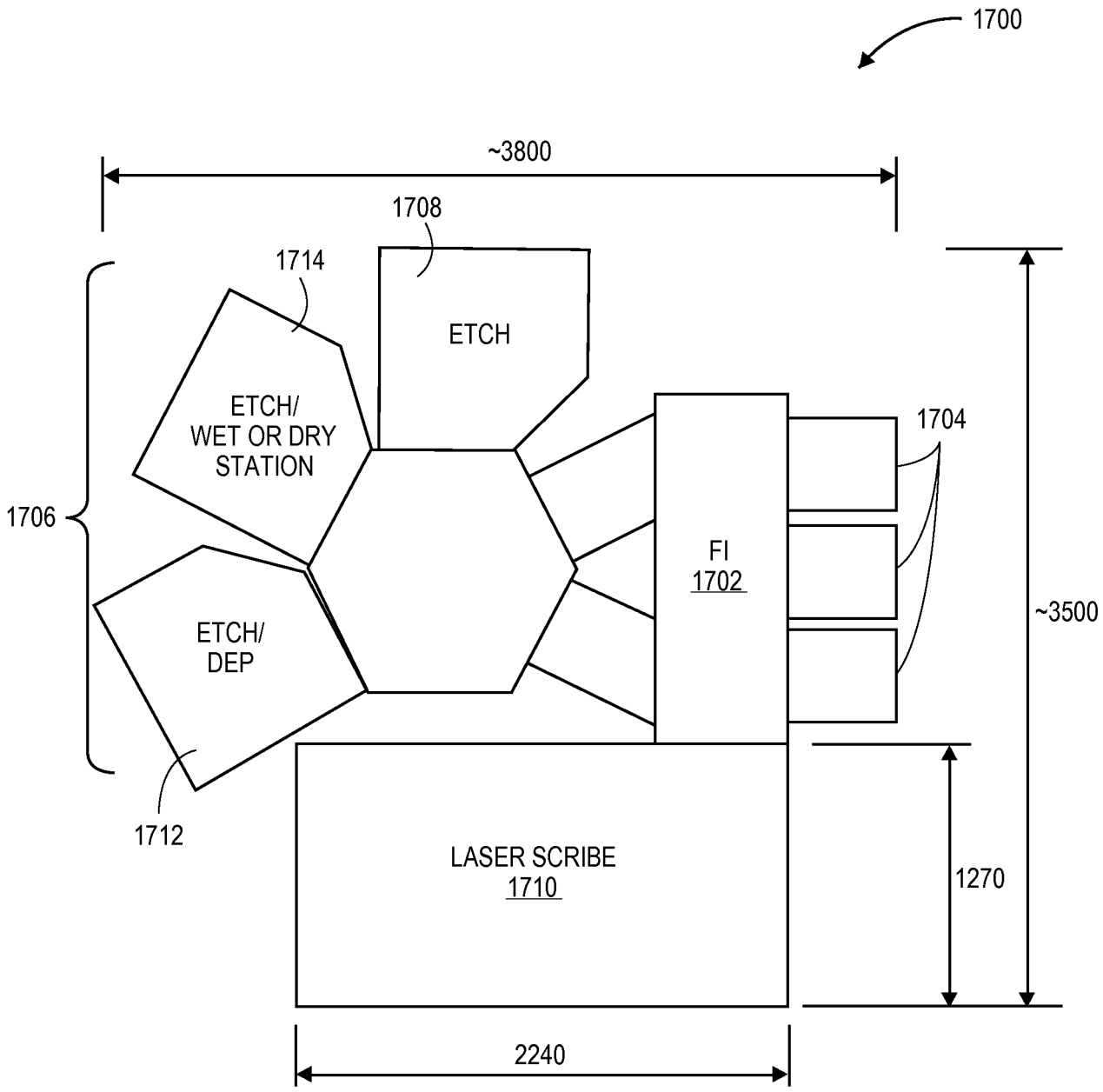
1700
~3800
1708
1714
ETCH
ETCH/
WET OR DRY
STATION
1706
1704
FI
1702
~3500
ETCH/
DEP
1712
LASER SCRIBE
1710
1270
2240

FIG. 17

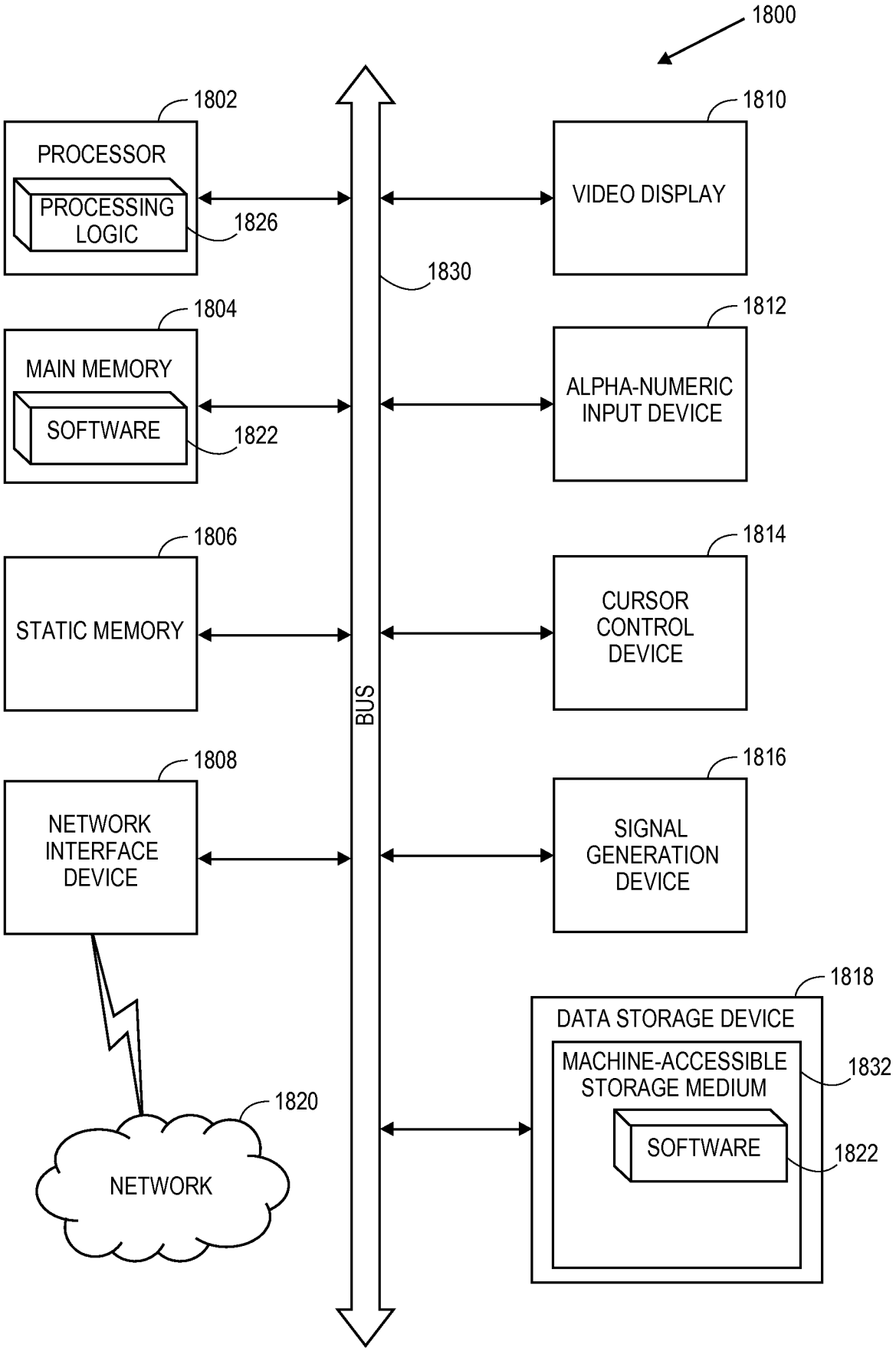
1800
1802
PROCESSOR
PROCESSING LOGIC
1826
1804
MAIN MEMORY
SOFTWARE
1822
1806
STATIC MEMORY
1808
NETWORK INTERFACE DEVICE
1820
NETWORK
BUS
1830
1810
VIDEO DISPLAY
1812
ALPHA-NUMERIC INPUT DEVICE
1814
CURSOR CONTROL DEVICE
1816
SIGNAL GENERATION DEVICE
1818
DATA STORAGE DEVICE
MACHINE-ACCESSIBLE STORAGE MEDIUM
1832
SOFTWARE
1822

FIG. 18