

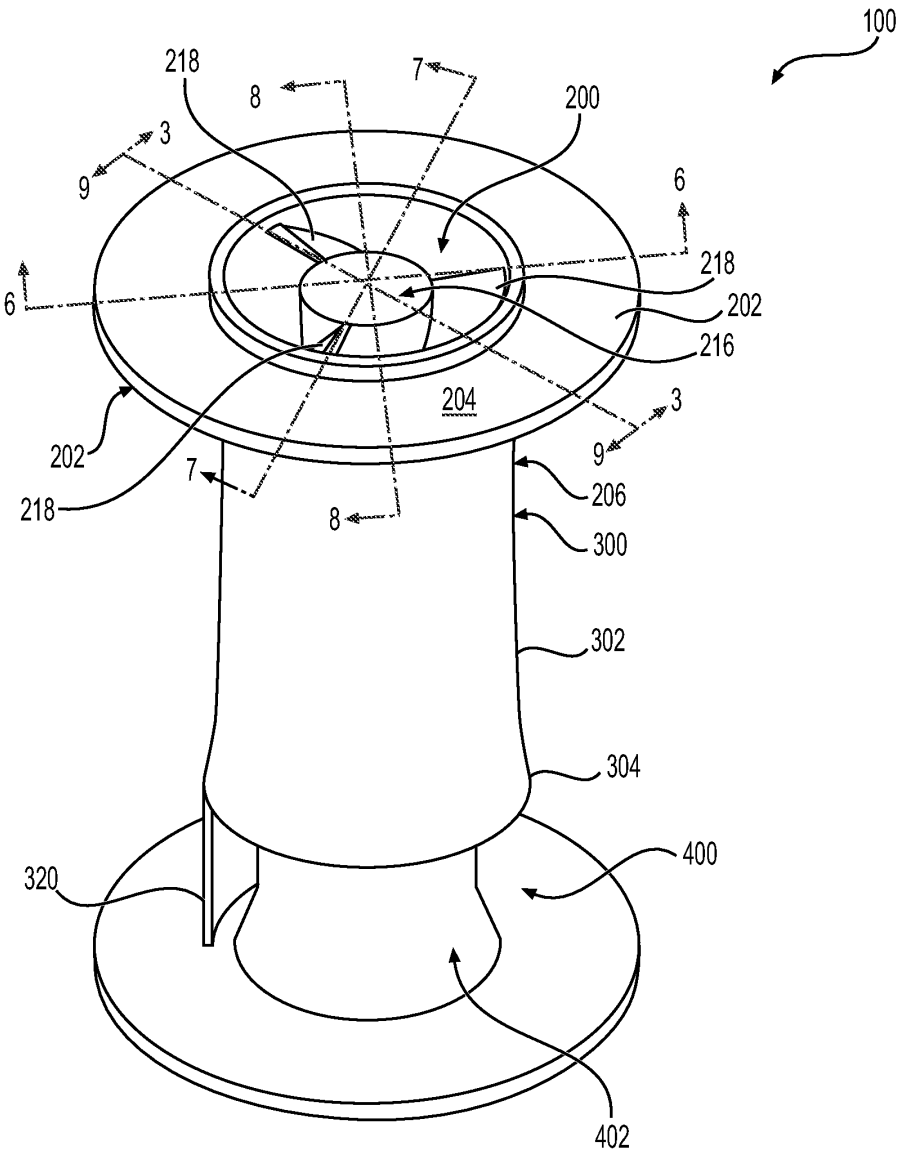


FIG. 1

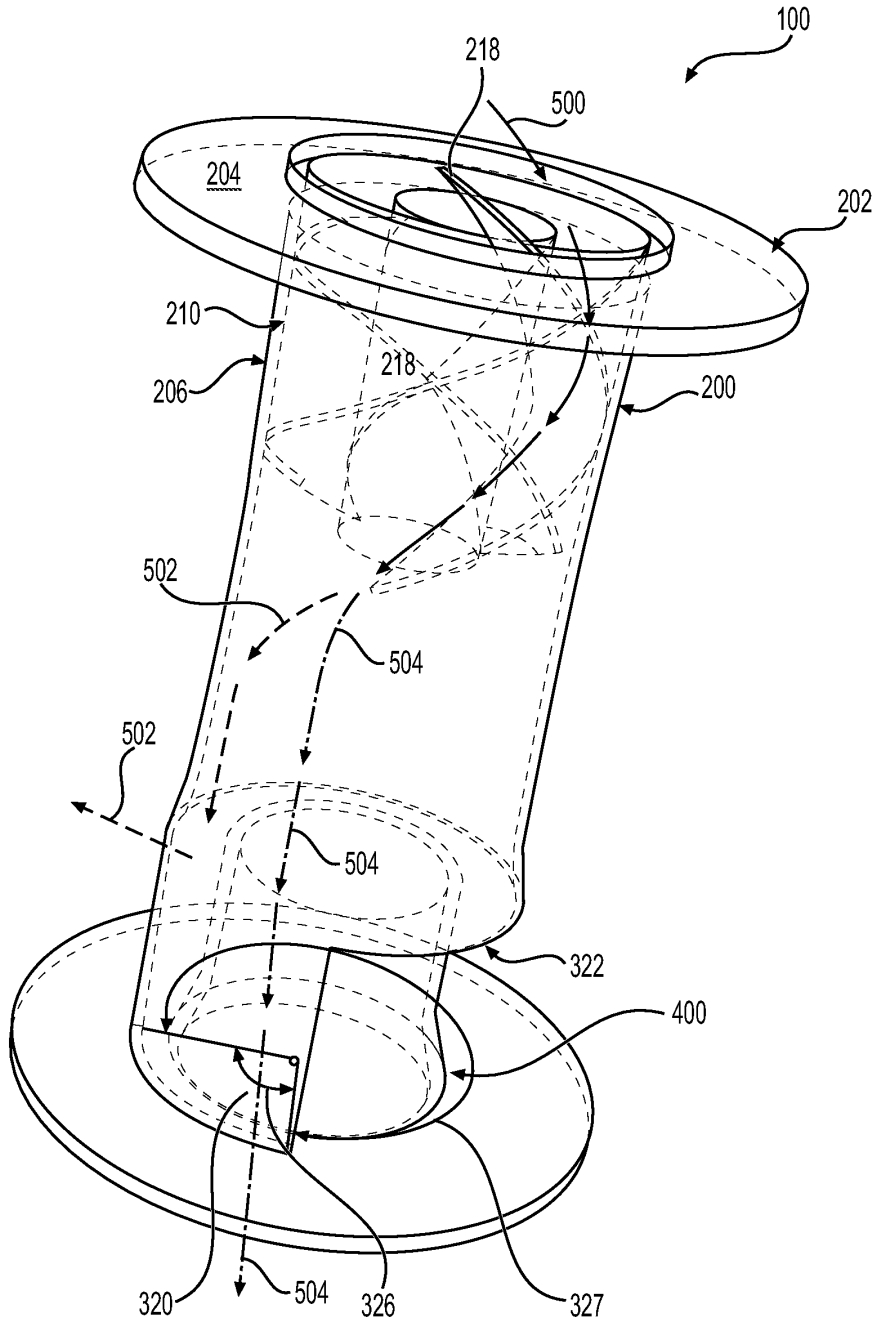


FIG. 2

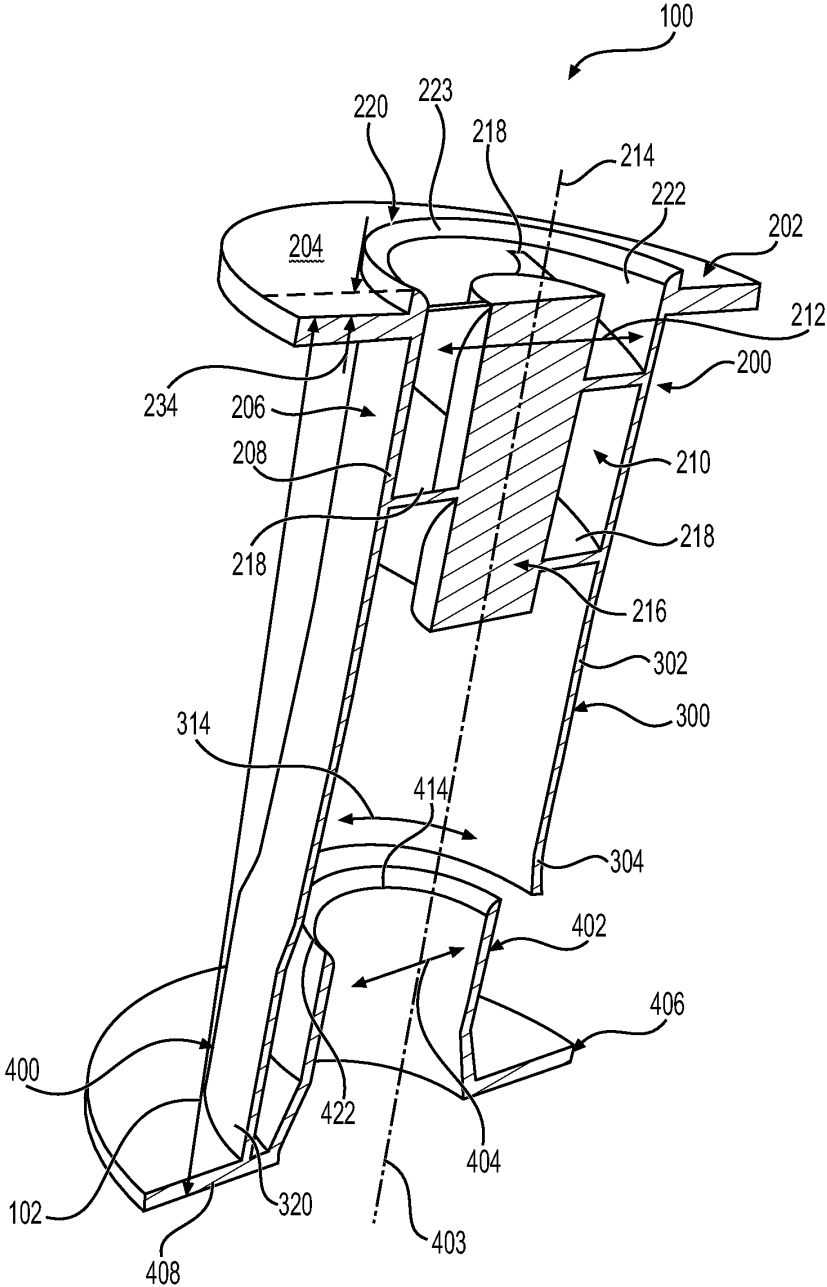


FIG. 3

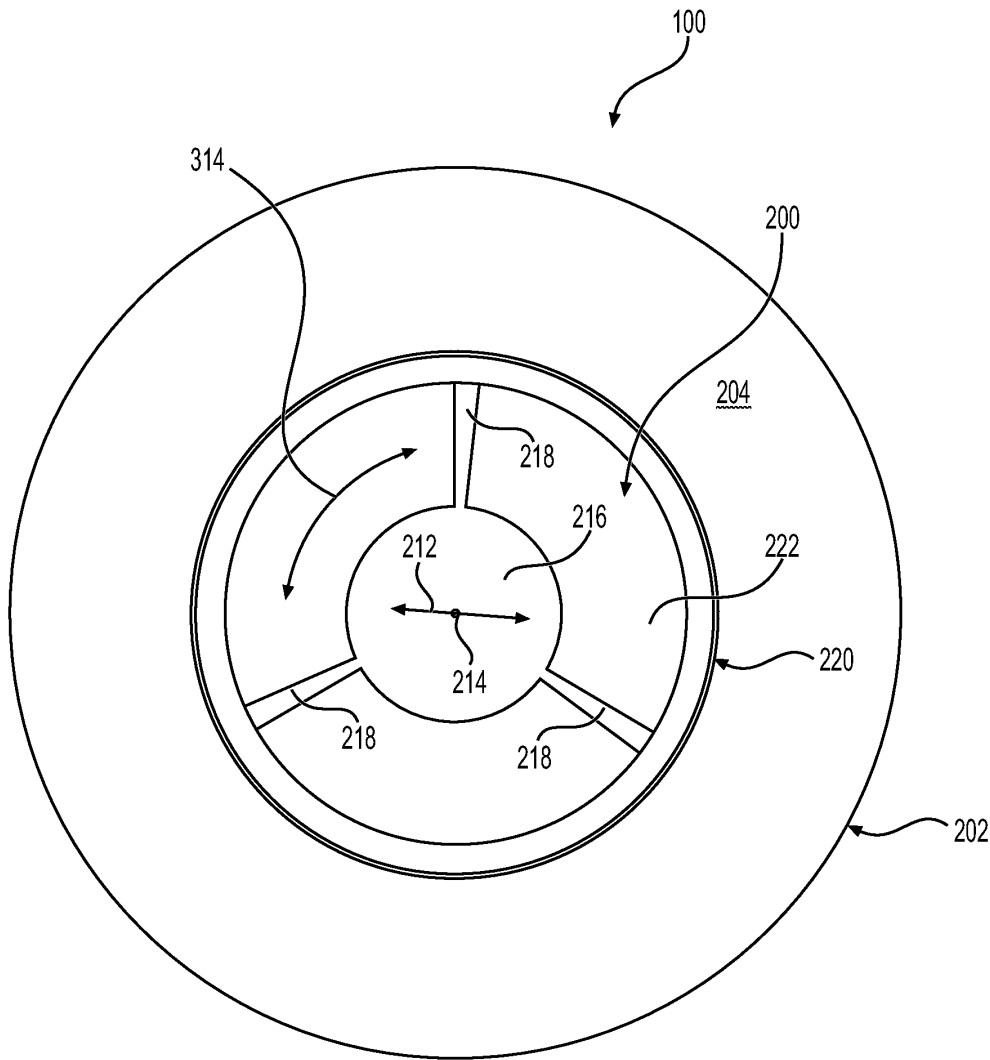
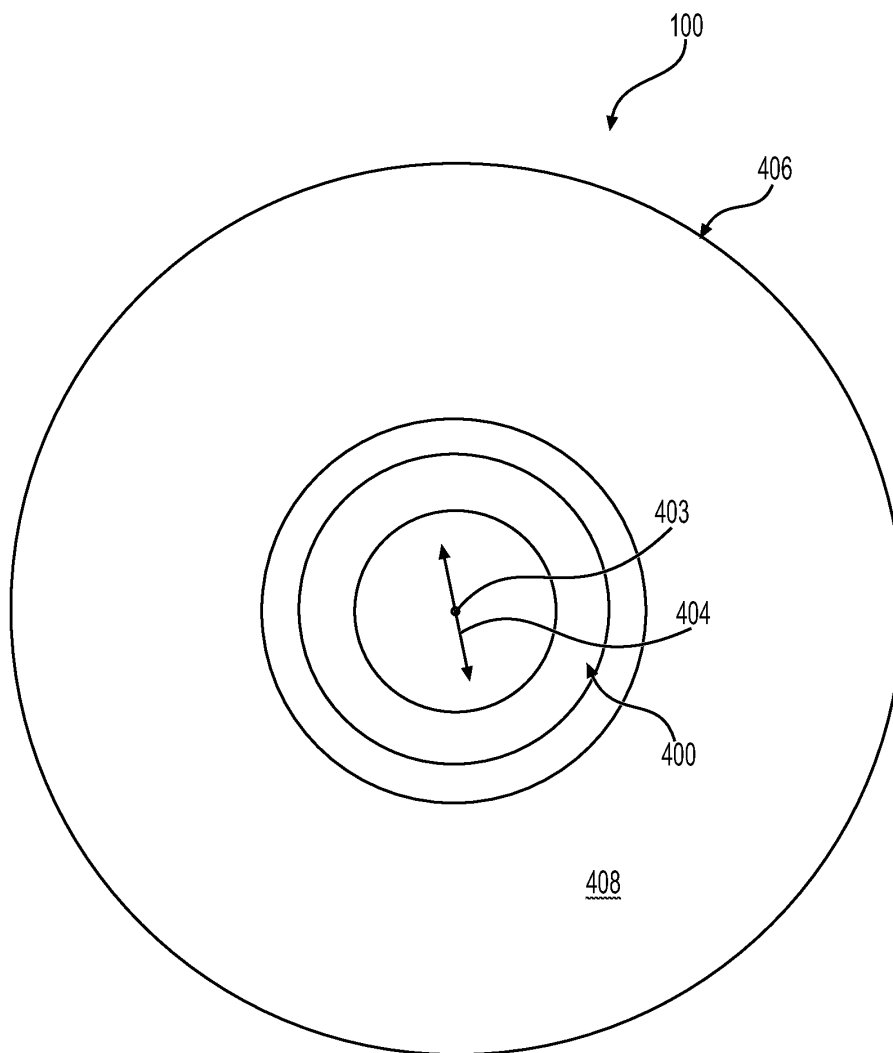


FIG. 4

**FIG. 5**

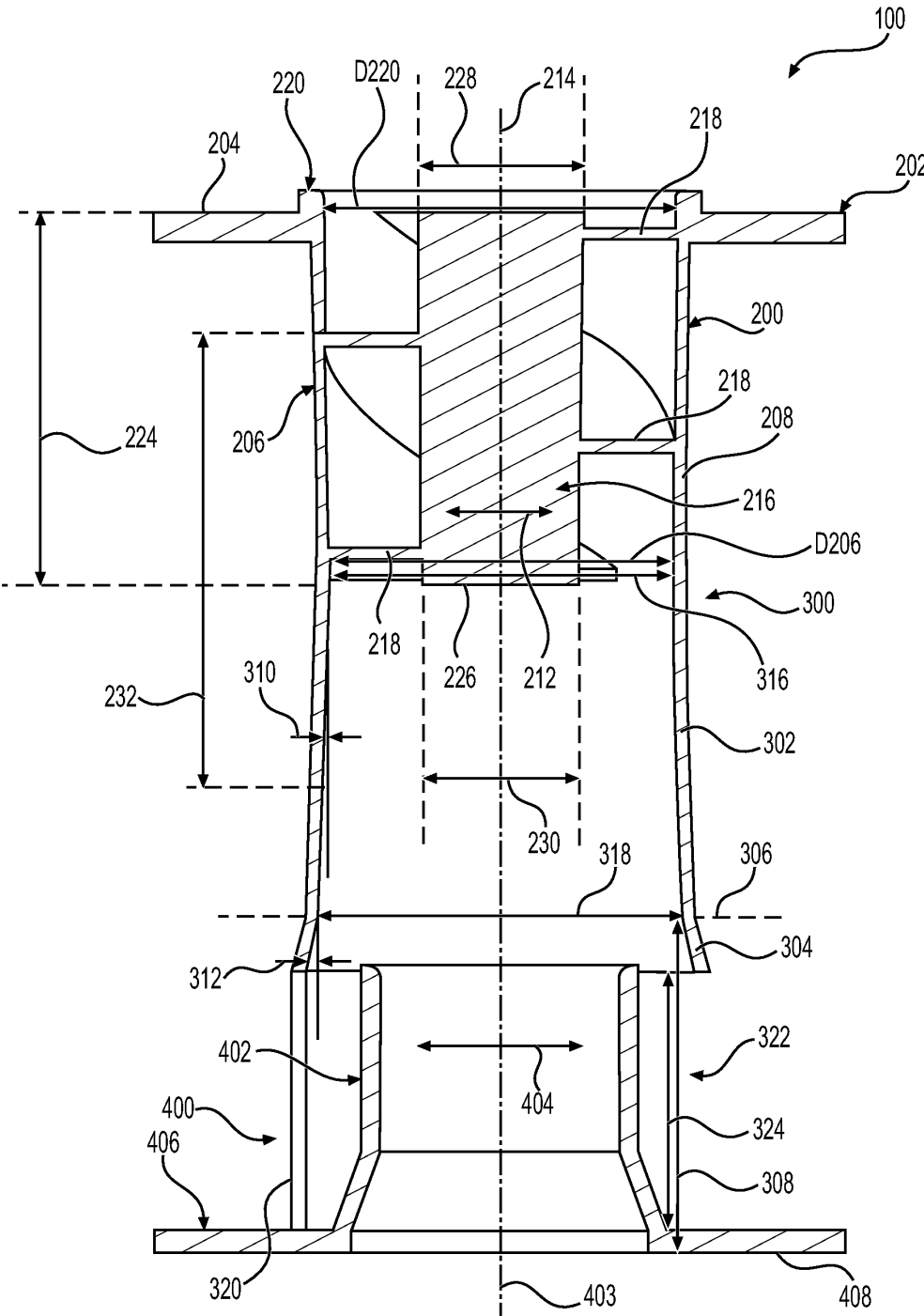
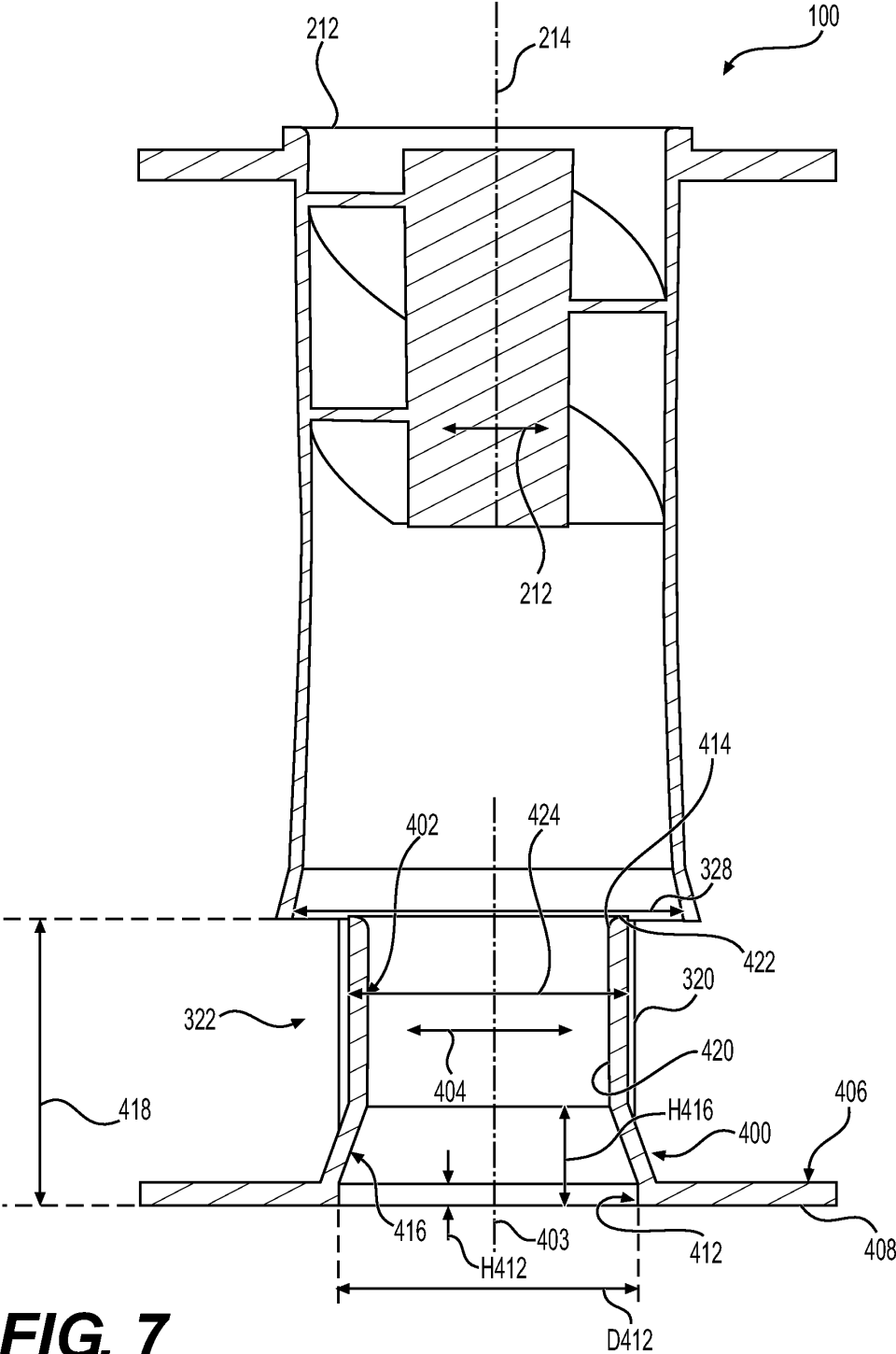


FIG. 6



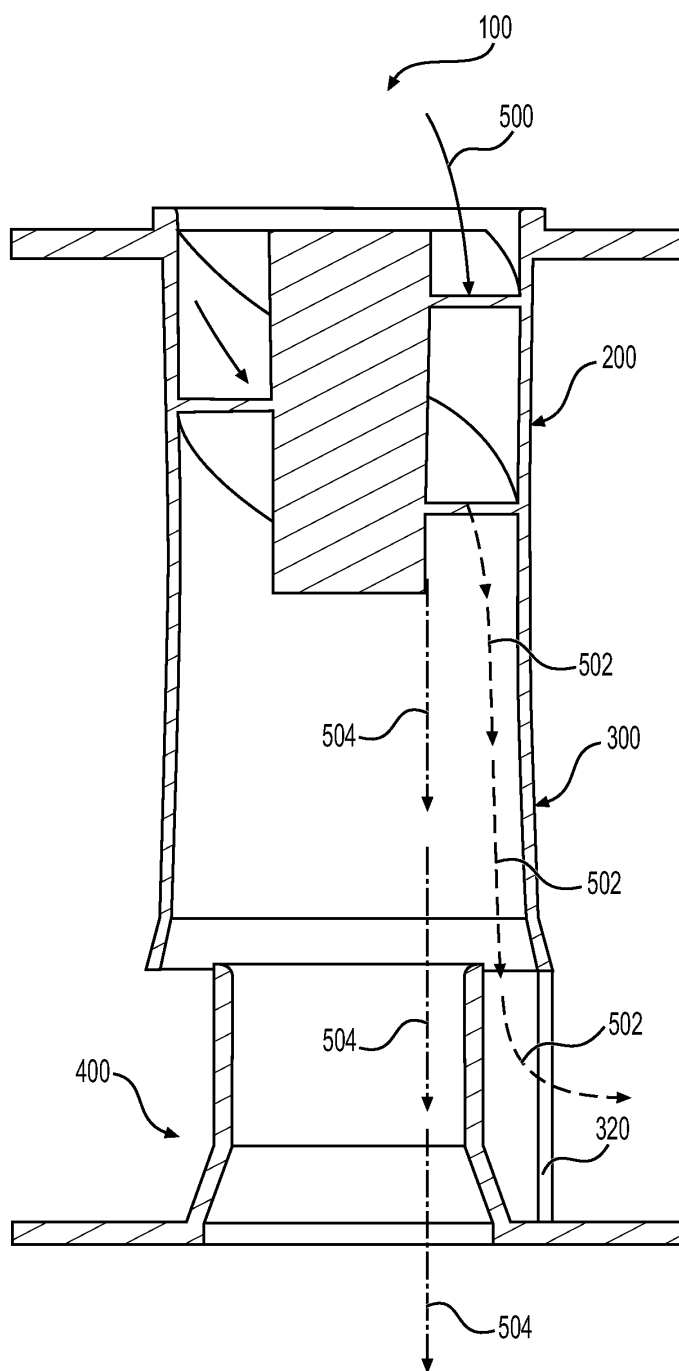


FIG. 8

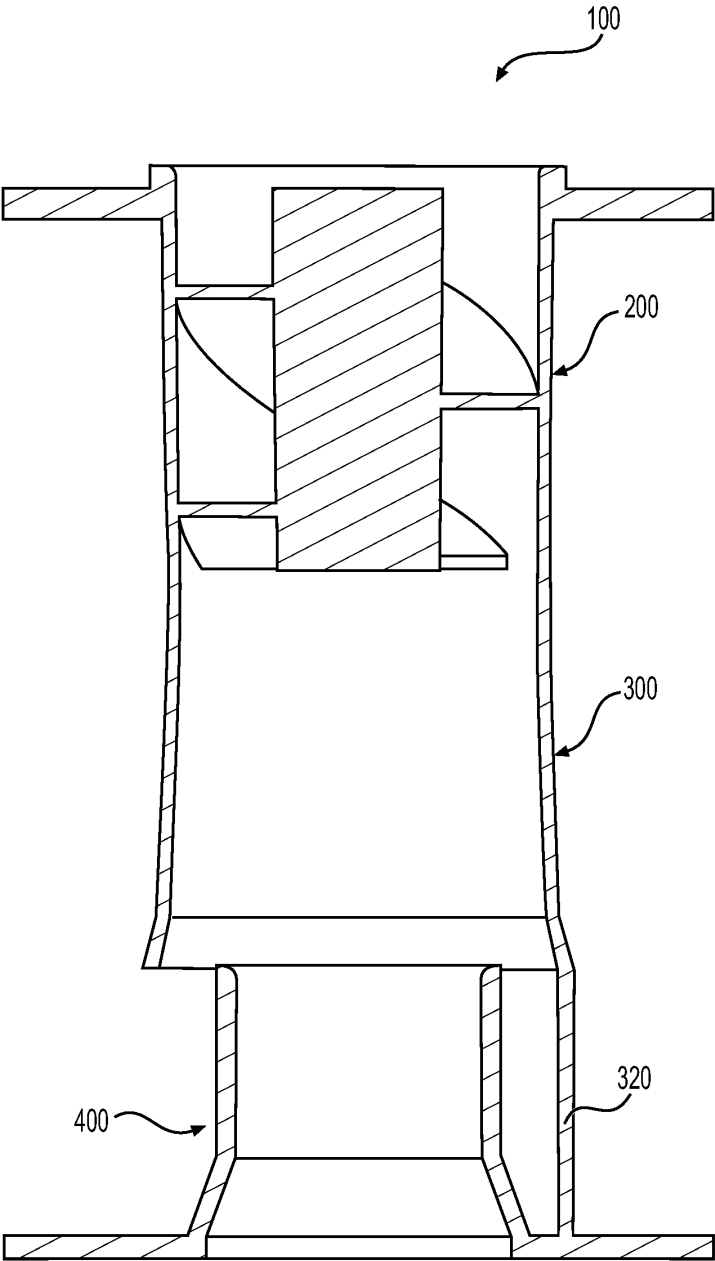


FIG. 9

<u>SPIN TUBE FEATURES LIST</u>		
FEATURE	NOMINAL DIMENSION	RANGE
FACE TO FACE AXIAL HEIGHT (mm)	90.5	±3.0
PREDETERMINED AXIAL DISTANCE (mm)	29	±2.0
BASE EXIT RADIUS (mm)	0.25	±.1
INLET SLEEVE AXIAL HEIGHT (mm)	2.0	±1.0
INLET SLEEVE RADIUS (mm)	1.0	±.1
VANED INLET SECTION		
INLET ID (mm)	31.0	±2.0
STEM INLET OD (mm)	14.5	±2.0
STEM OUTLET OD (mm)	13.5	±2.0
VANE PITCH (mm)	55.5	±5.0
NUMBER OF VANES	3	±1
VANED AXIAL DISTANCE (mm)	32.0	±2.0
MINIMUM OUTER TUBE INNER DIAMETER (mm)	30.0	±2.0
DIFFUSER MIDSECTION		
OUTLET ID (mm)	34.0	±2.0
VENT HEIGHT (mm)	22.5	±2.0
MINIMUM ID (mm)	30.0	±2.0
MAXIMUM ID (mm)	32.0	±2.0
VENT CIRCUMFERENTIAL EXTENT (DEGREES)	270.0	±20.0
OUTLET SECTION		
OUTLET APERTURE DEPTH (mm)	2.0	±.5
OUTLET APERTURE DIAMETER (mm)	29.0	±2.0
TAPER AXIAL HEIGHT (mm)	7.0	±2.0
CYLINDRICAL ANNULAR OD (mm)	24.0	±2.0

FIG. 10

DESIGN	PRESSURE DROP (Pa)	PARTICLE REMOVAL EFFICIENCY	RANGE
NEW	1312	96%	+/- 2.0%
BASLINE	1316	91%	+/- 2.0%

FIG. 11