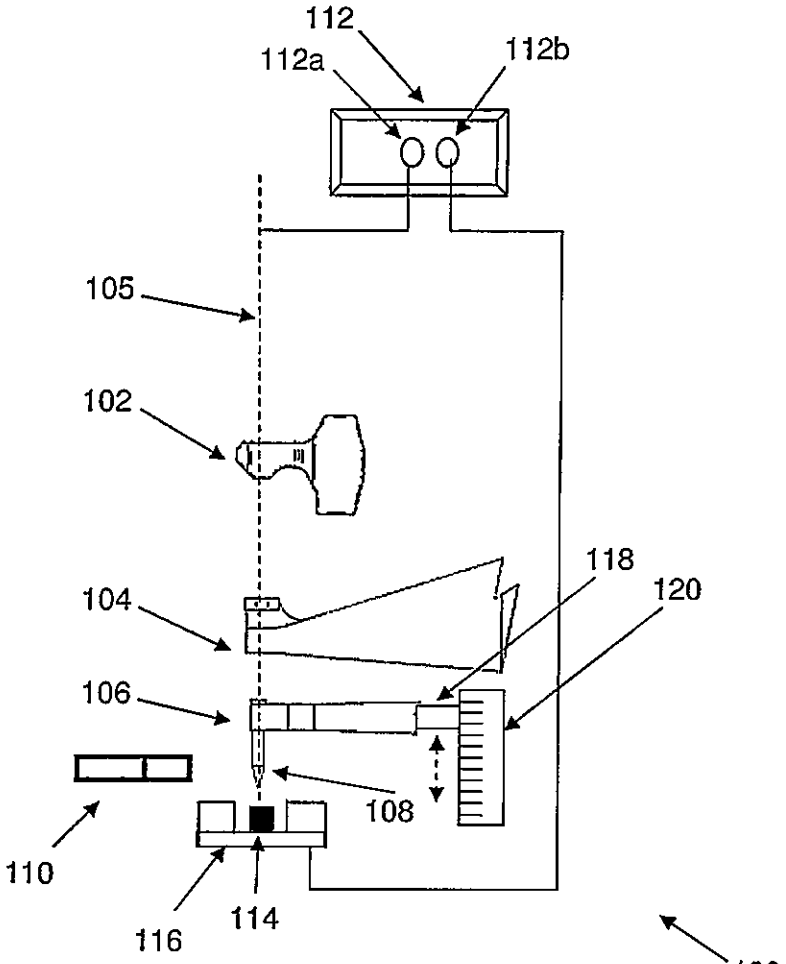


FIG. 1

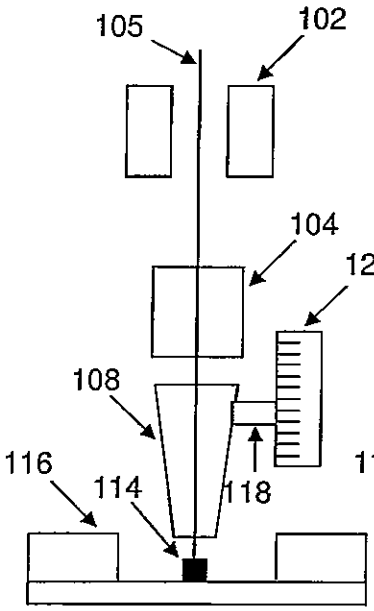


FIG. 2a

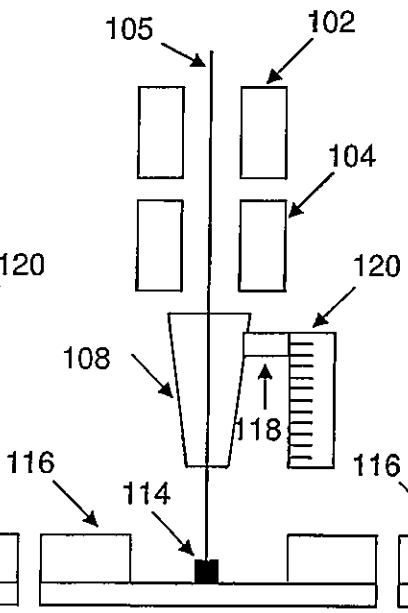


FIG. 2b

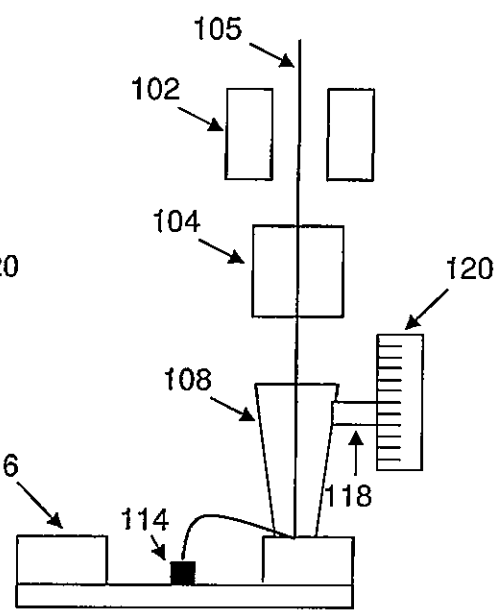


FIG. 2c

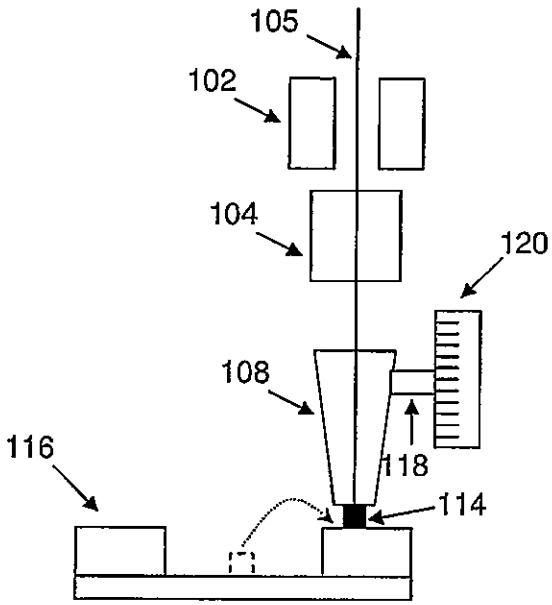


FIG. 2d

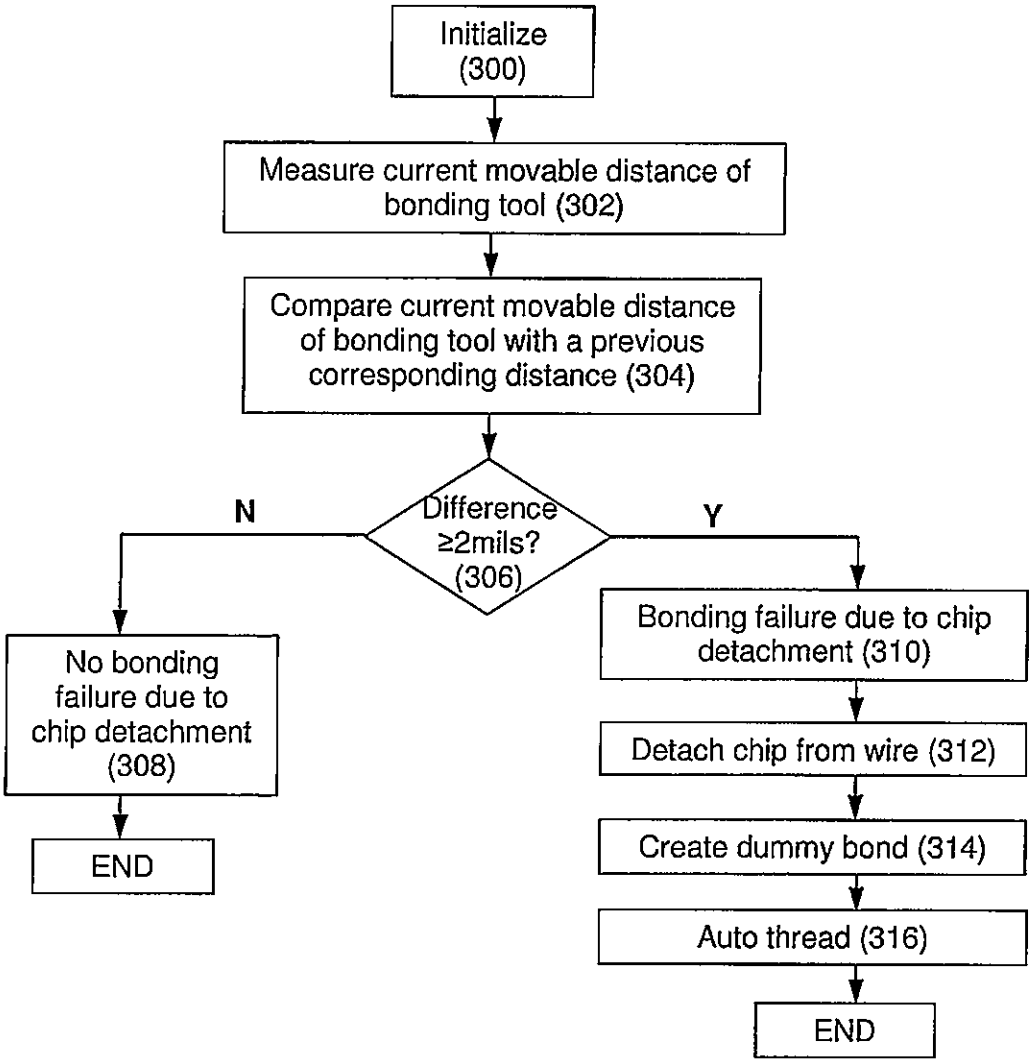

Initialize (300)
Measure current movable distance of bonding tool (302)
Compare current movable distance of bonding tool with a previous corresponding distance (304)
Difference ≥2mils? (306)
N
Y
No bonding failure due to chip detachment (308)
END
Bonding failure due to chip detachment (310)
Detach chip from wire (312)
Create dummy bond (314)
Auto thread (316)
END

FIG. 3

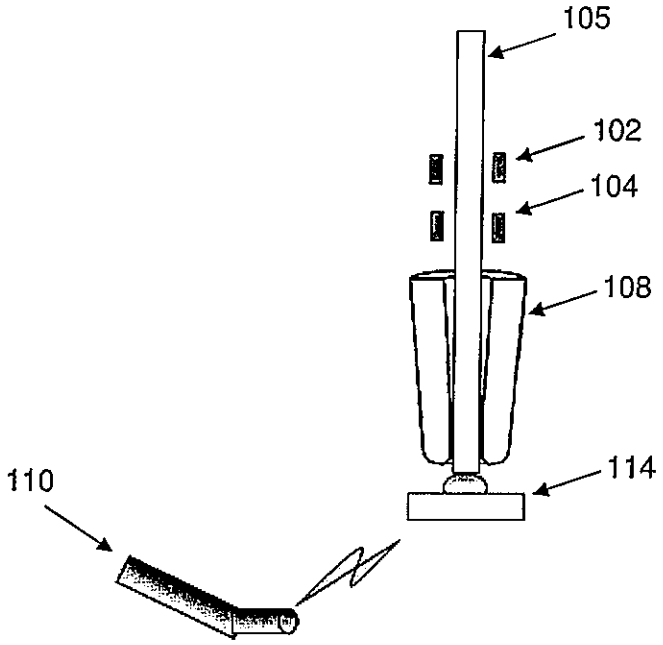


FIG. 4a

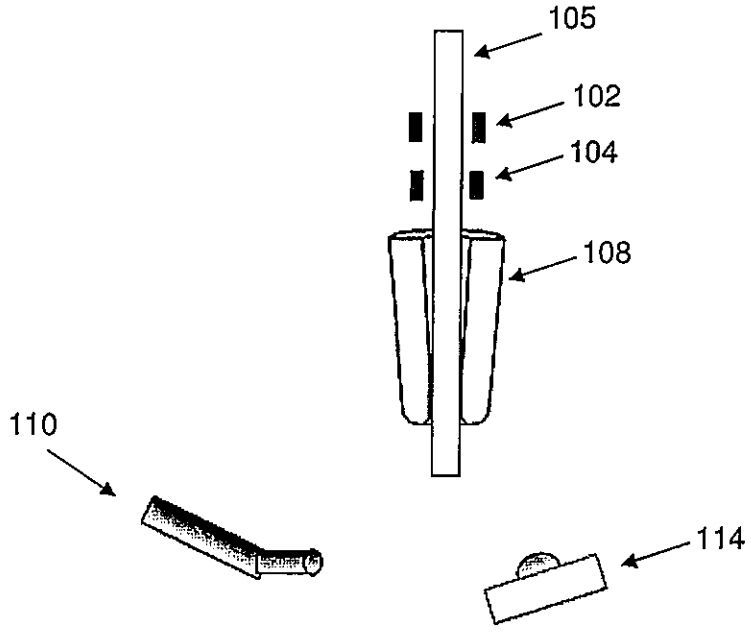


FIG. 4b