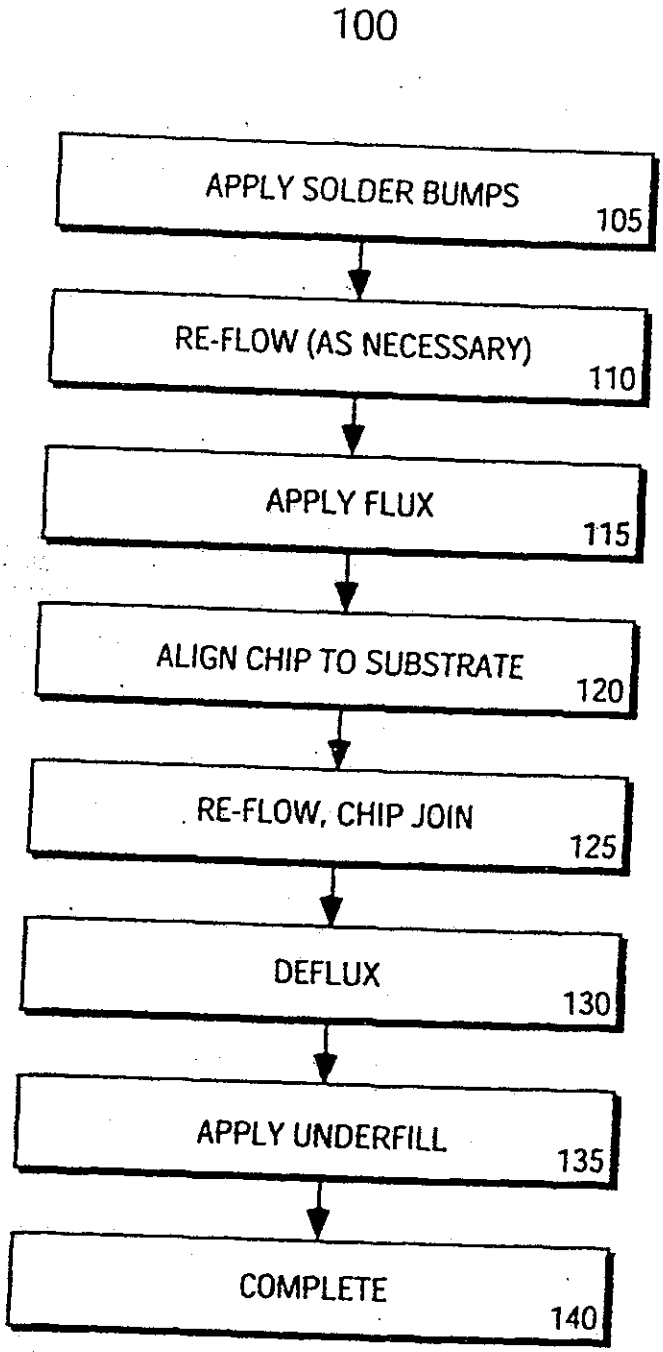


FIG. 1 (PRIOR ART)

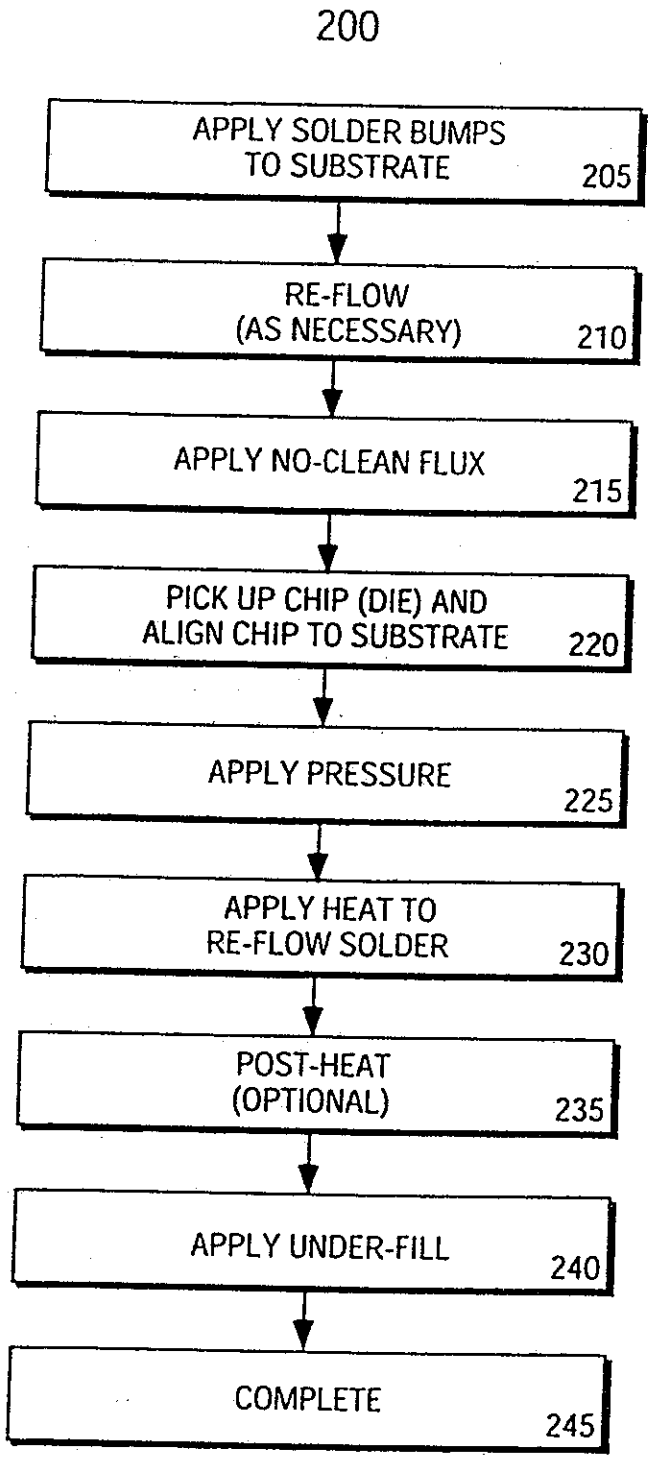

200
APPLY SOLDER BUMPS TO SUBSTRATE 205
RE-FLOW (AS NECESSARY) 210
APPLY NO-CLEAN FLUX 215
PICK UP CHIP (DIE) AND ALIGN CHIP TO SUBSTRATE 220
APPLY PRESSURE 225
APPLY HEAT TO RE-FLOW SOLDER 230
POST-HEAT (OPTIONAL) 235
APPLY UNDER-FILL 240
COMPLETE 245

FIG. 2

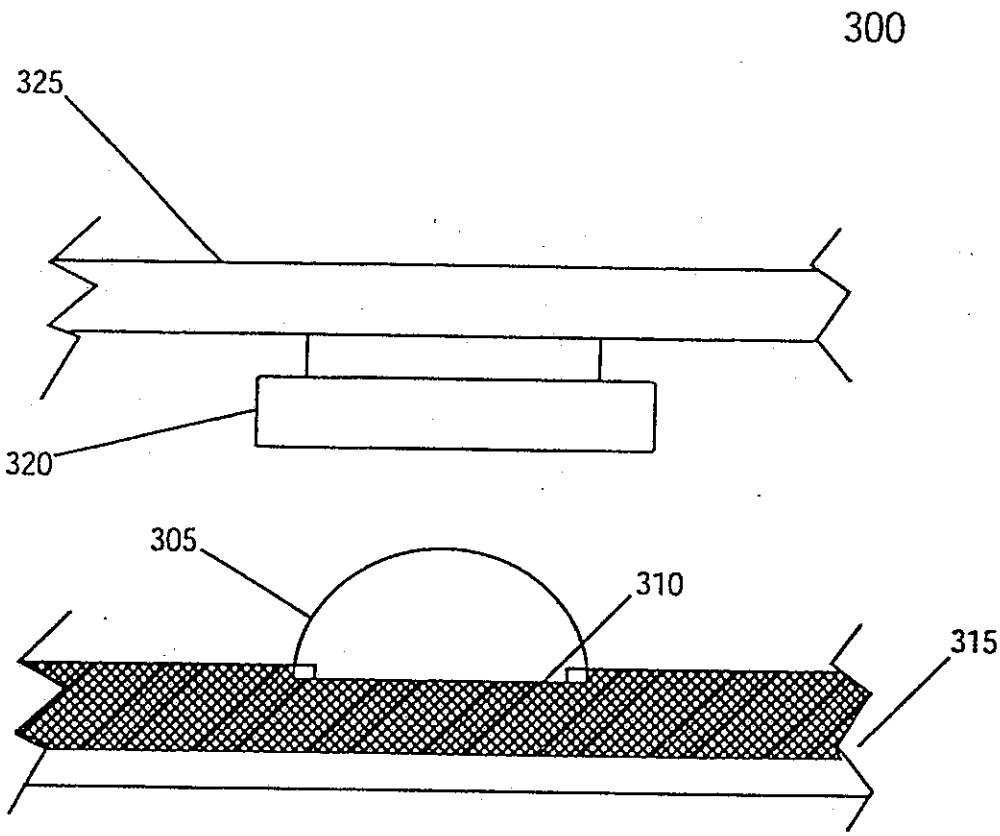


FIG. 3

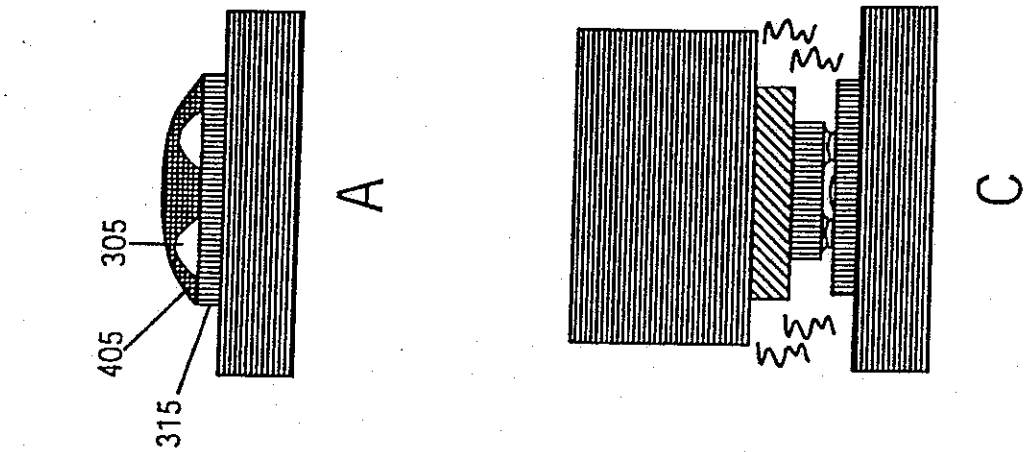


FIG. 4

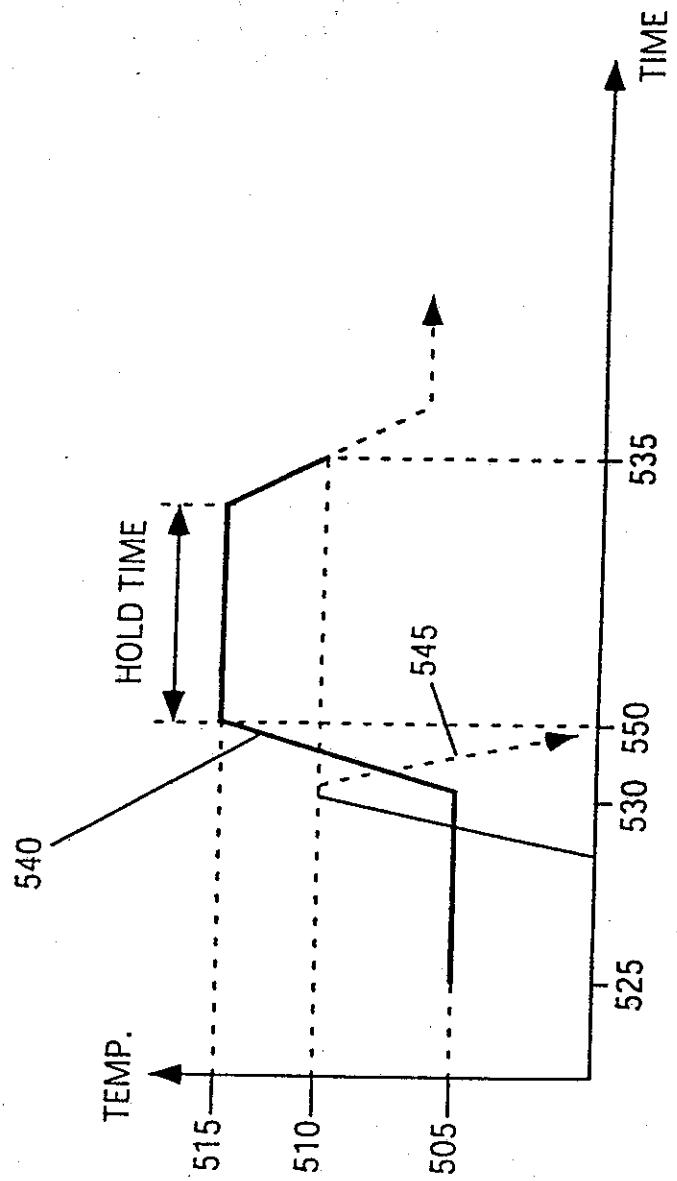


FIG. 5

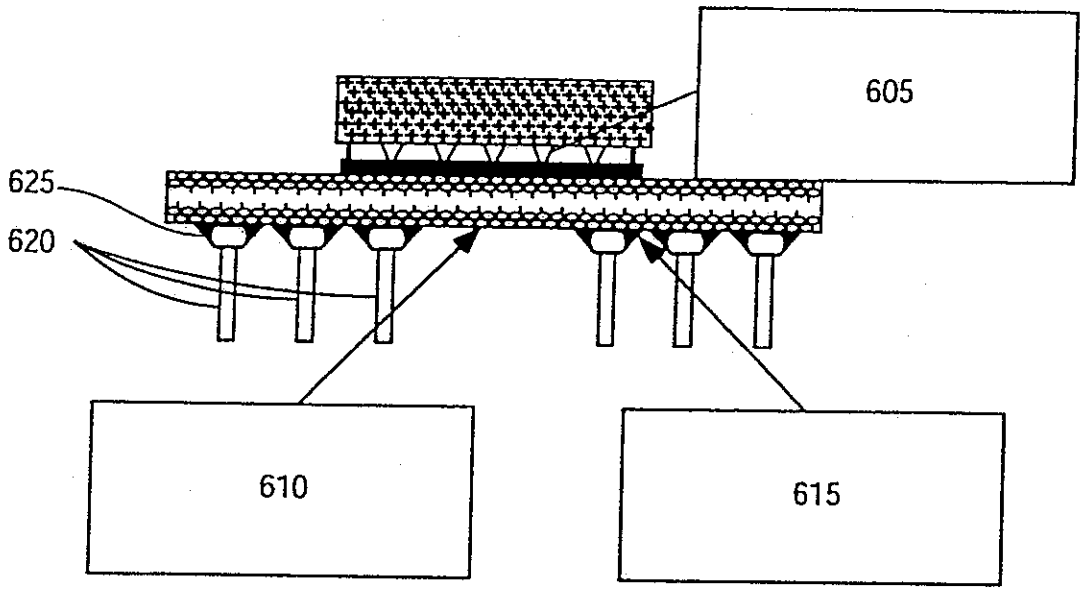

605
625
620
610
615

FIG. 6A

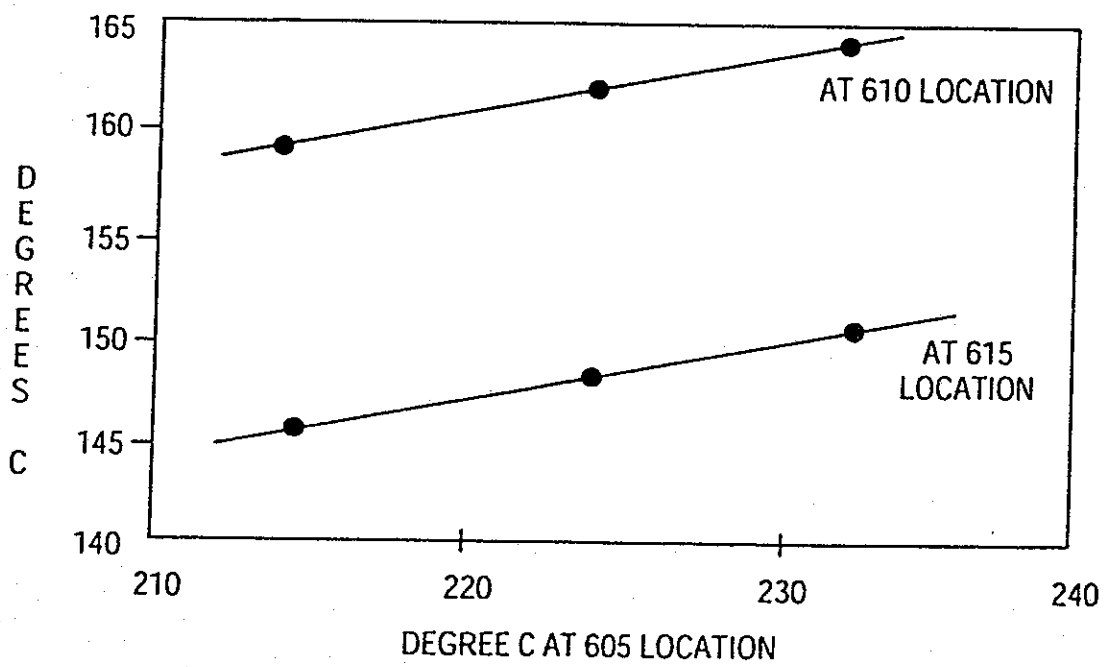

165
160
155
150
145
140
DEGREES C
AT 610 LOCATION
AT 615 LOCATION
210
220
230
240
DEGREE C AT 605 LOCATION

FIG. 6B

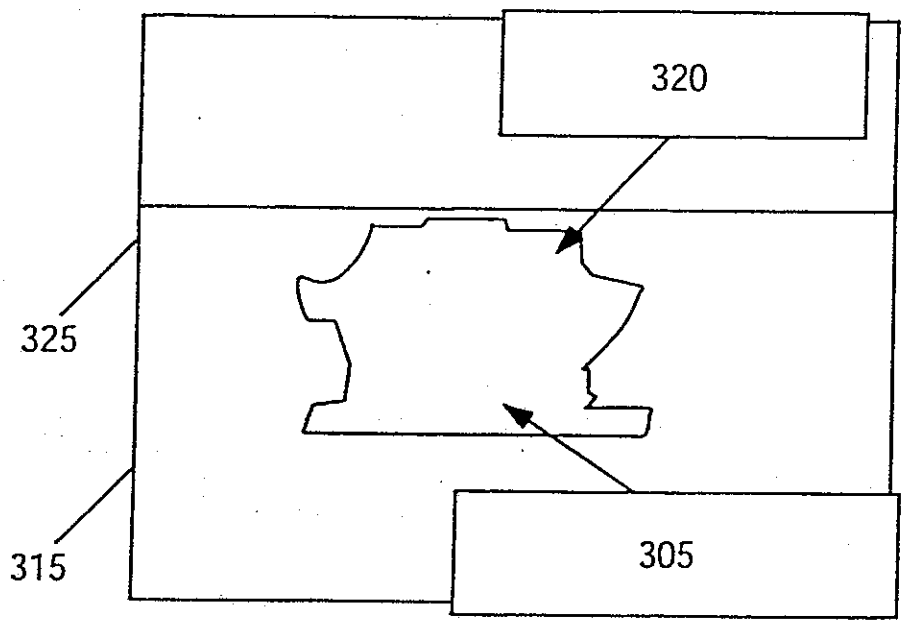


FIG. 7