FIG. 1

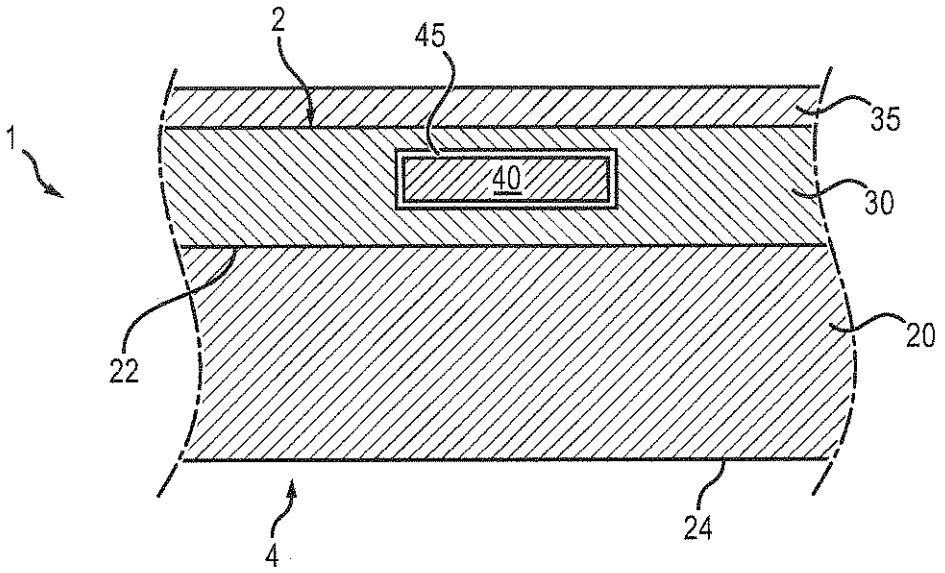


FIG. 2

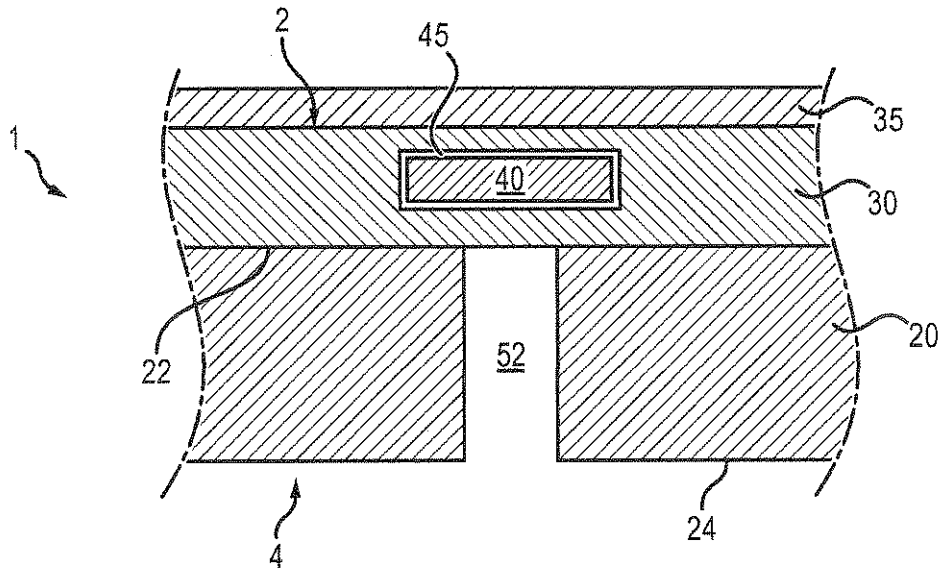


FIG. 3

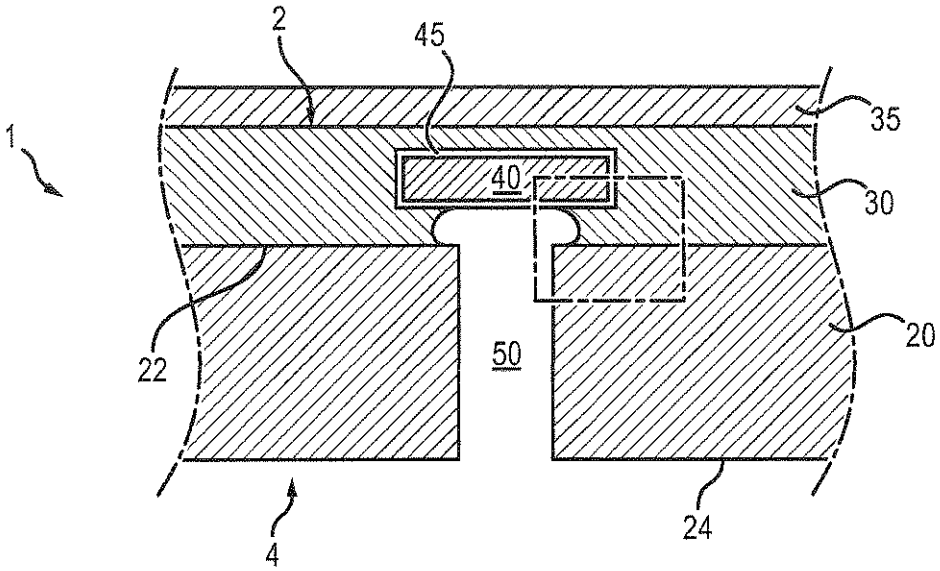


FIG. 3A

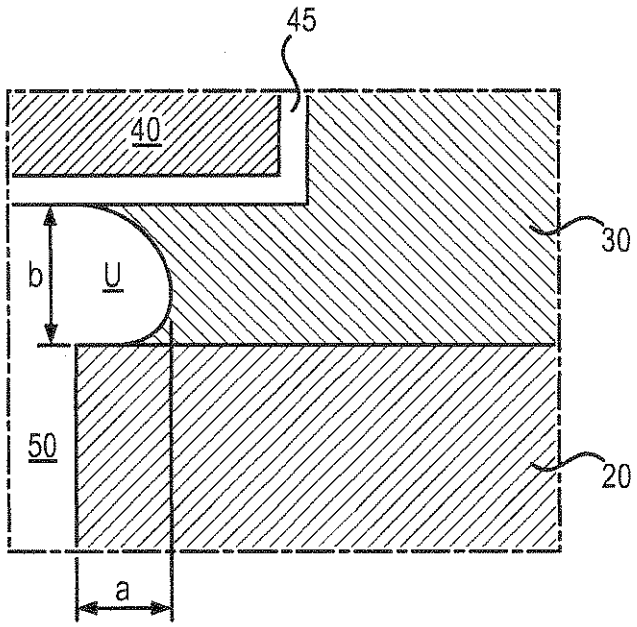


FIG. 4

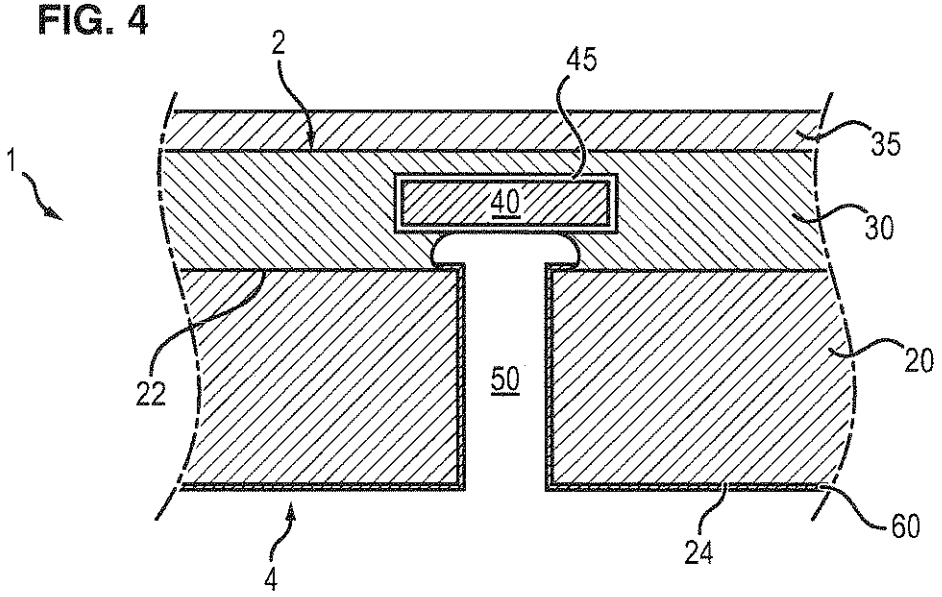


FIG. 5

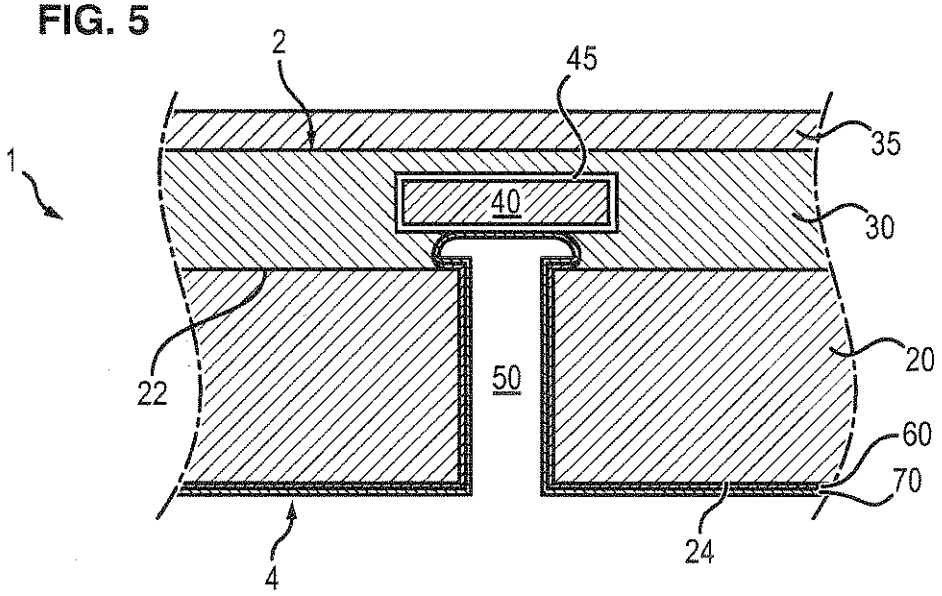


FIG. 6

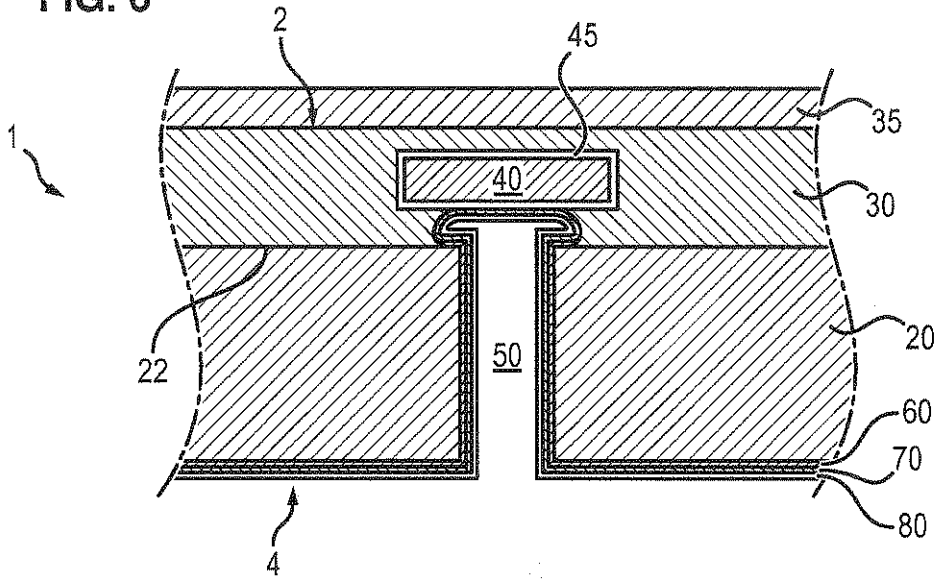
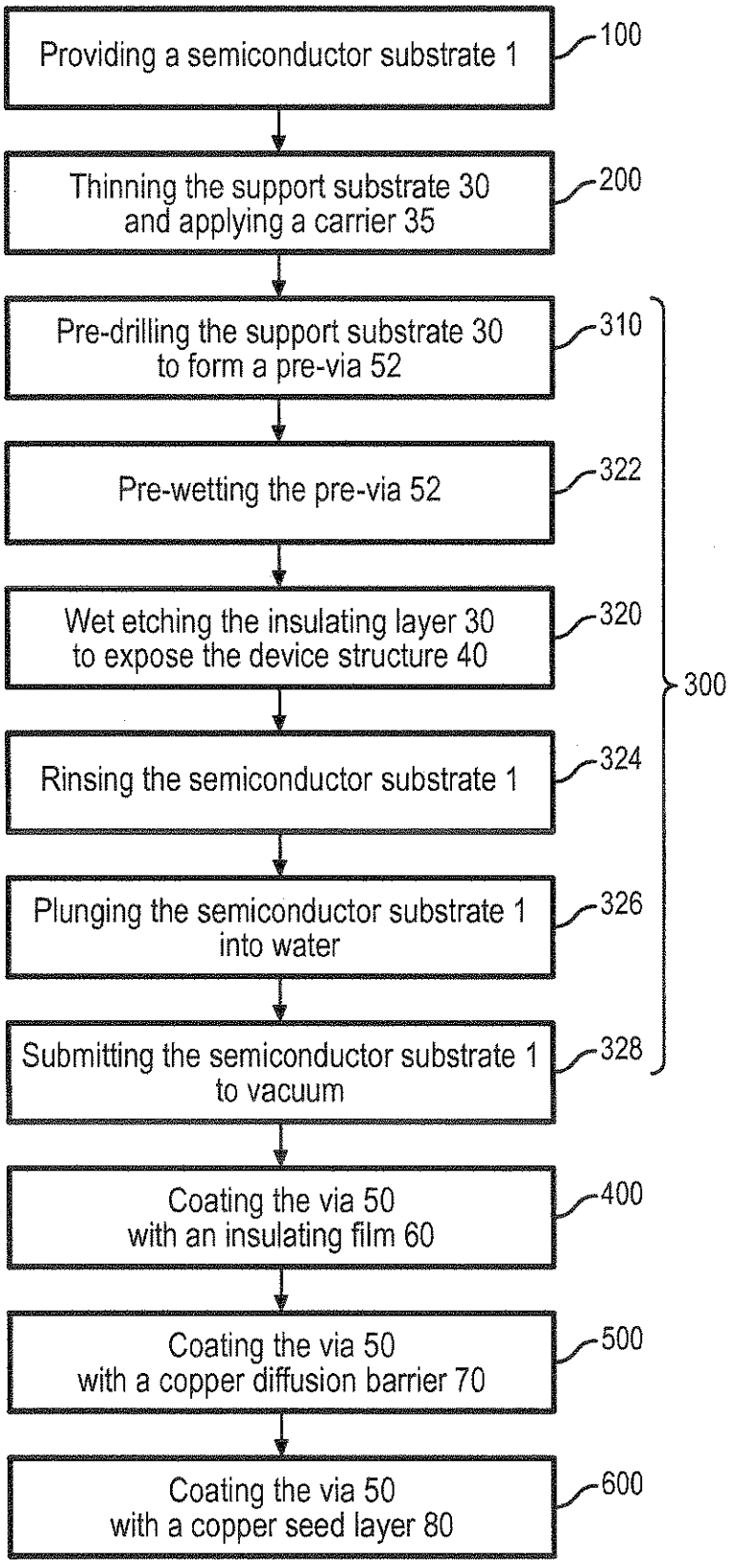


FIG. 7


Providing a semiconductor substrate 1
100
Thinning the support substrate 30 and applying a carrier 35
200
Pre-drilling the support substrate 30 to form a pre-via 52
310
Pre-wetting the pre-via 52
322
Wet etching the insulating layer 30 to expose the device structure 40
320
Rinsing the semiconductor substrate 1
324
Plunging the semiconductor substrate 1 into water
326
Submitting the semiconductor substrate 1 to vacuum
328
300
Coating the via 50 with an insulating film 60
400
Coating the via 50 with a copper diffusion barrier 70
500
Coating the via 50 with a copper seed layer 80
600