FIG.1A METALLIC FOIL LAMINATION MANUFACTURING PROCESS

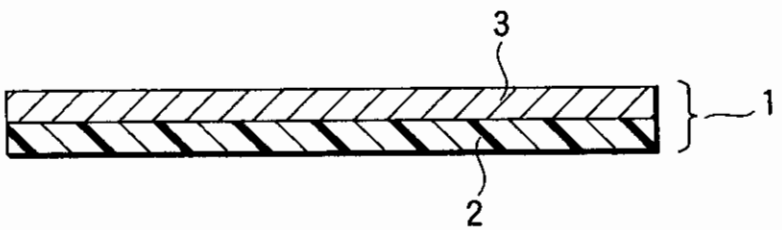


FIG.1B ETCHING MASK PRINTING PROCESS

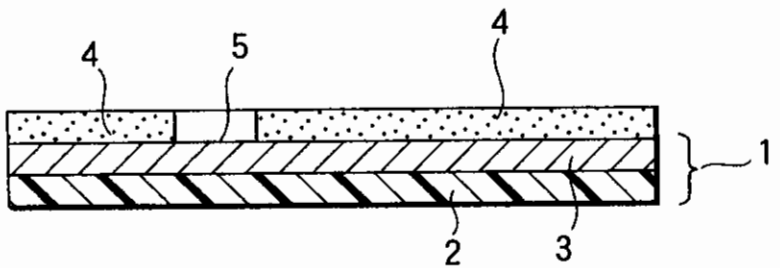


FIG.1C ETCHING PROCESS

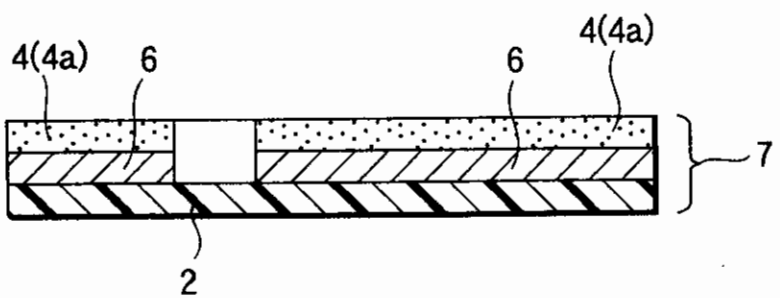


FIG.1D ULTRASONIC MOUNTING PROCESS

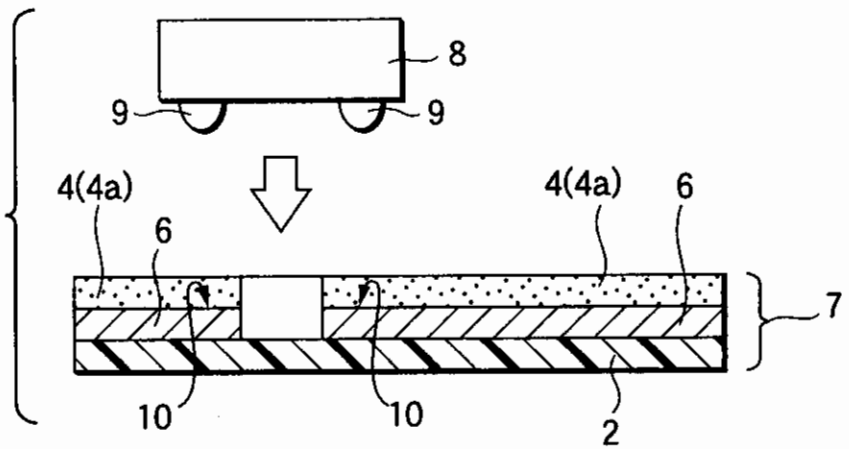


FIG.1E BORDING PROCESS

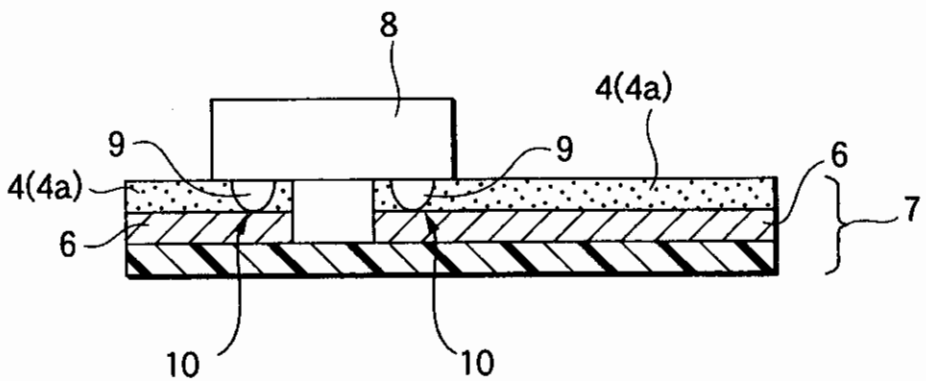


FIG.2A

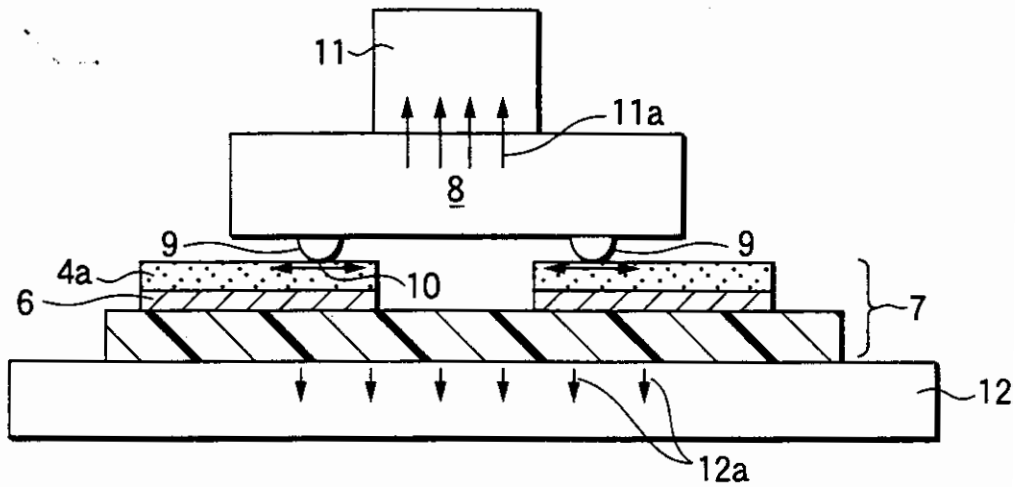


FIG.2B

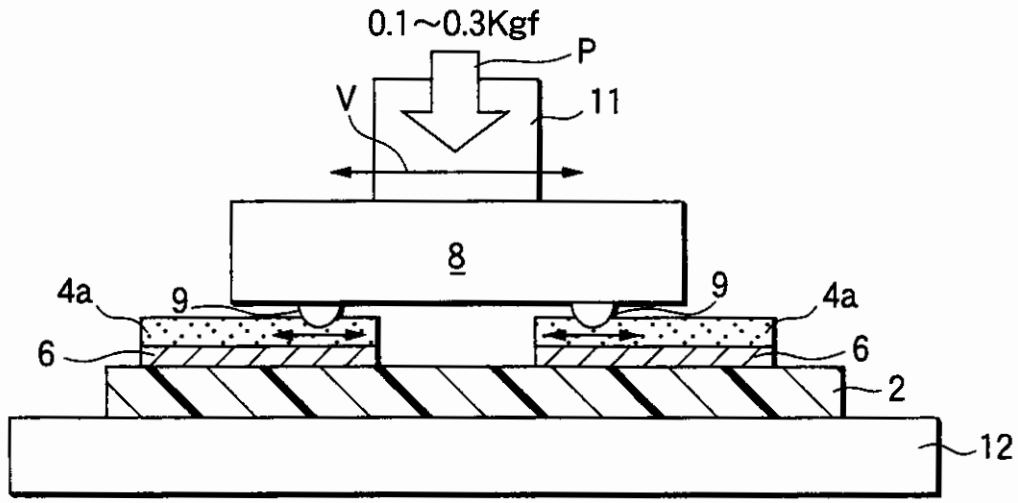


FIG.2C

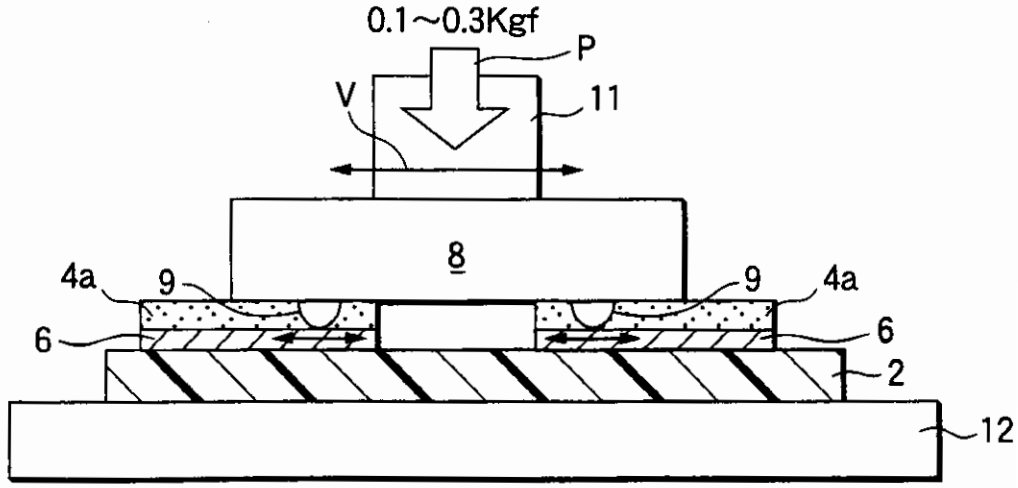


FIG.3

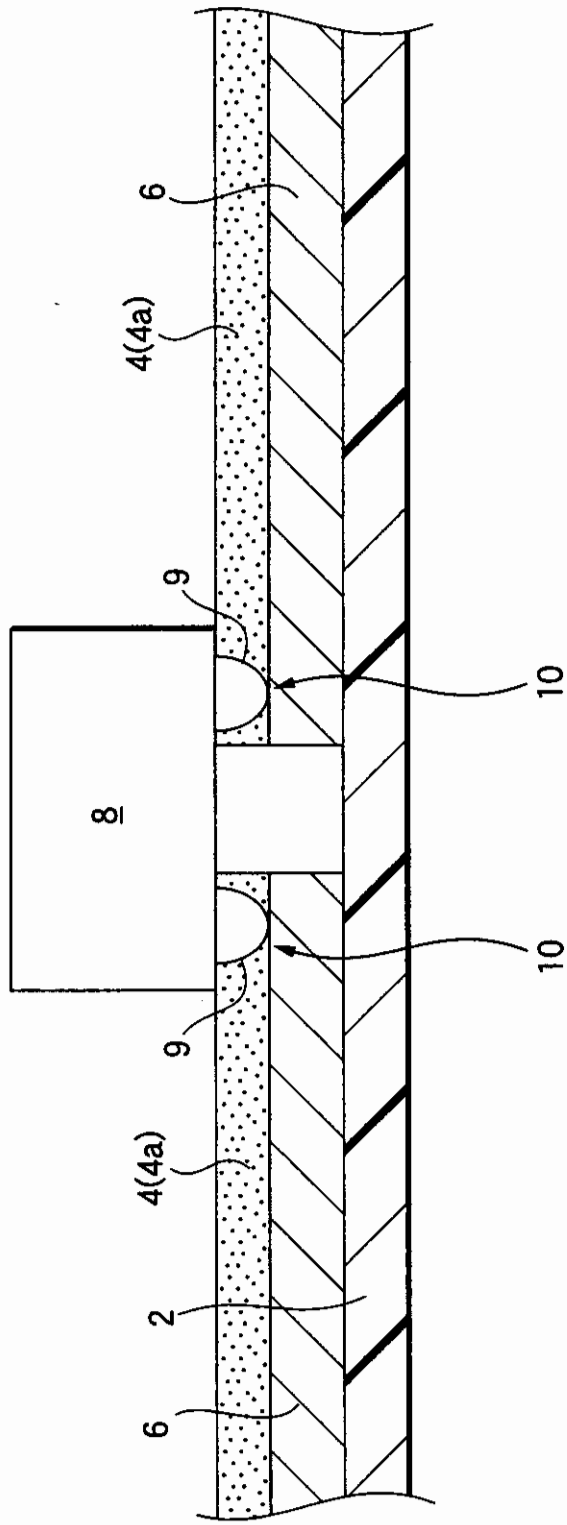


FIG.4

SEMICONDUCTOR MOUNTING METHOD	ULTRASONIC BORDING OF FOUR-STUD BUMP	EMBODIMENT 1
SHARE STRENGTH (g)	200~250	500~800

FIG.5

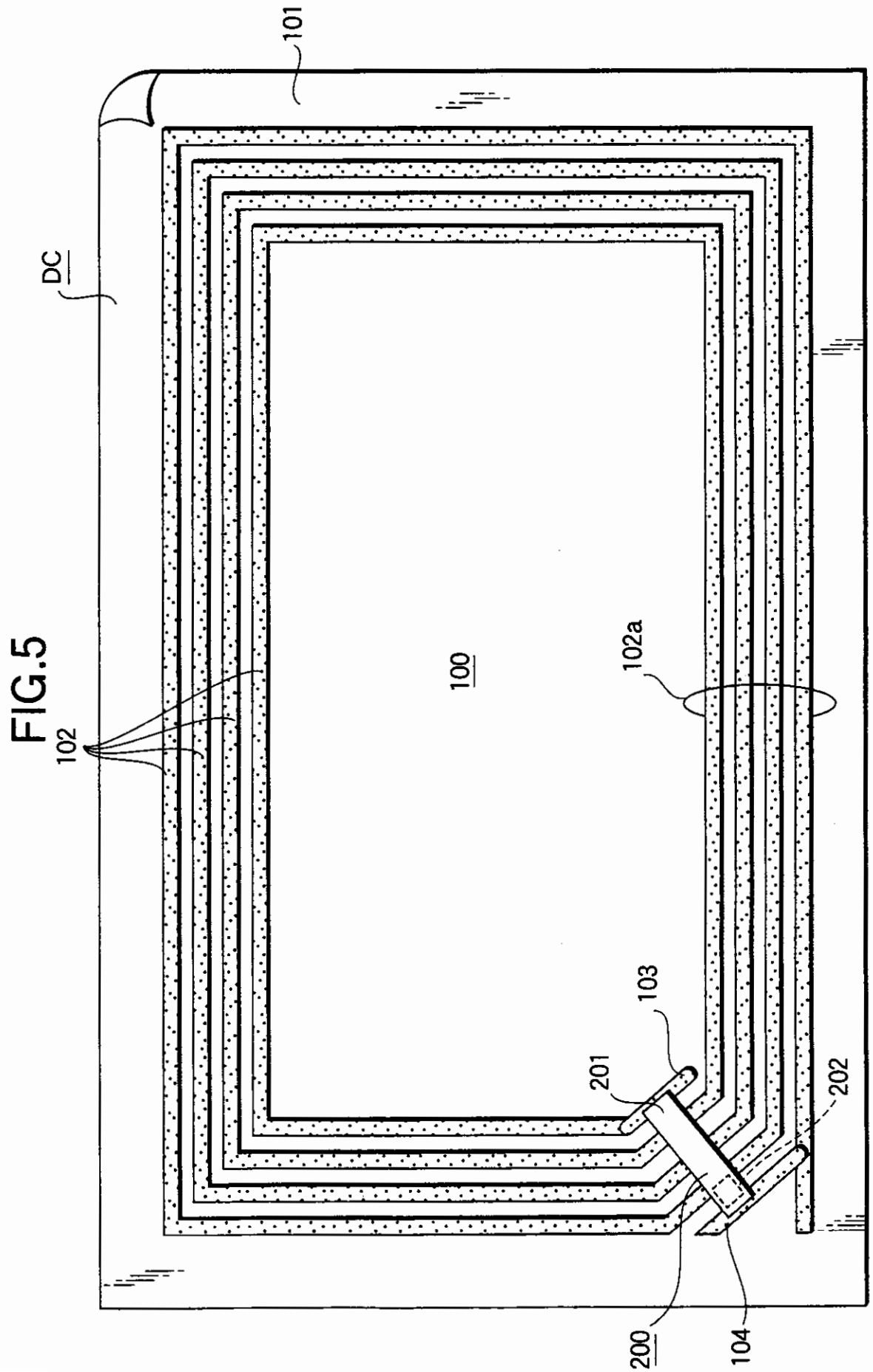


FIG.6

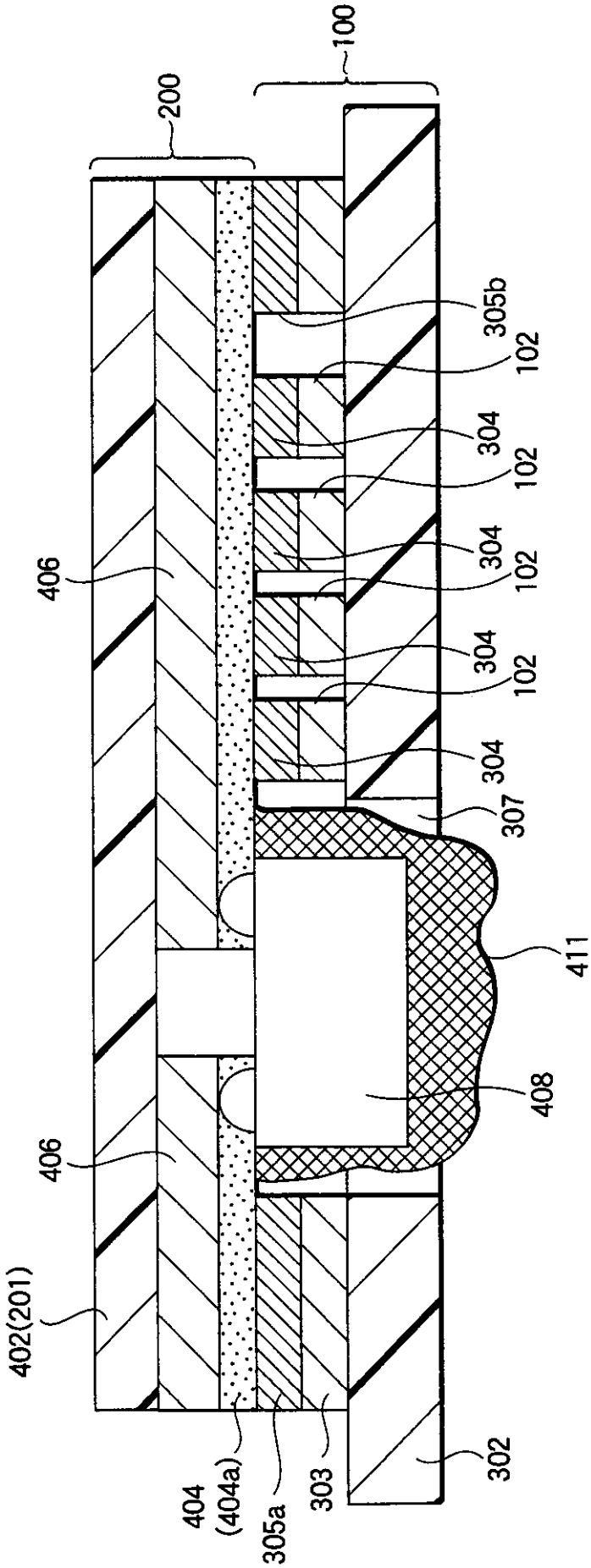

100
200
305b
102
304
102
304
102
304
102
304
307
411
408
406
406
402(201)
404
(404a)
305a
303
302

FIG.7A

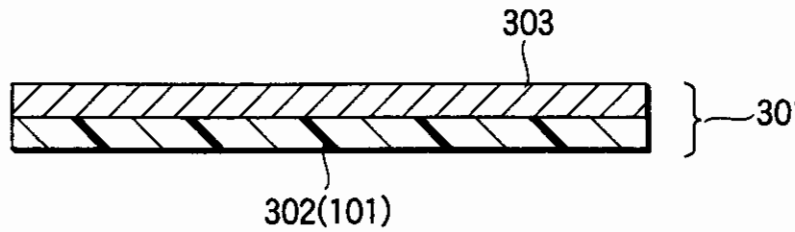


FIG.7B

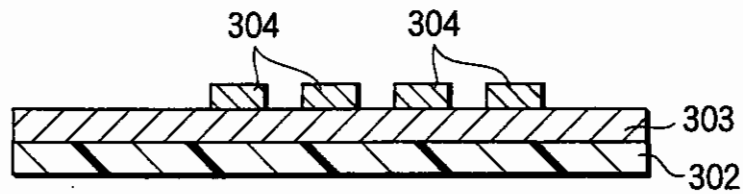


FIG.7C

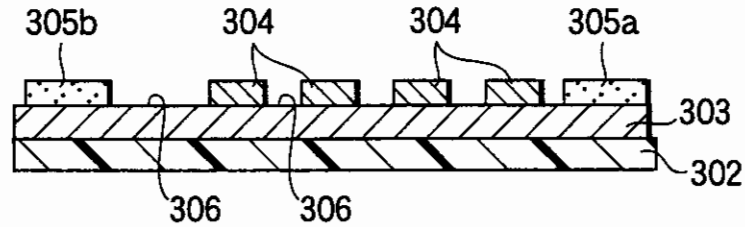


FIG.7D

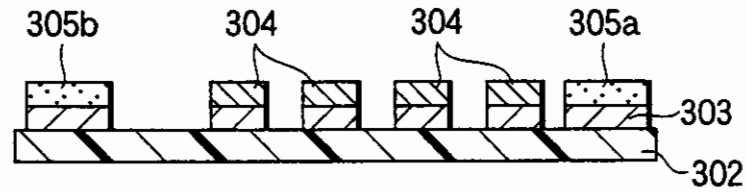


FIG.7E

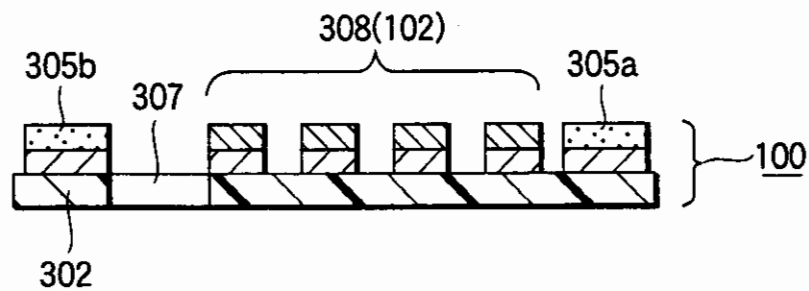


FIG.8A METALLIC FOIL LAMINATION MANUFACTURING PROCESS

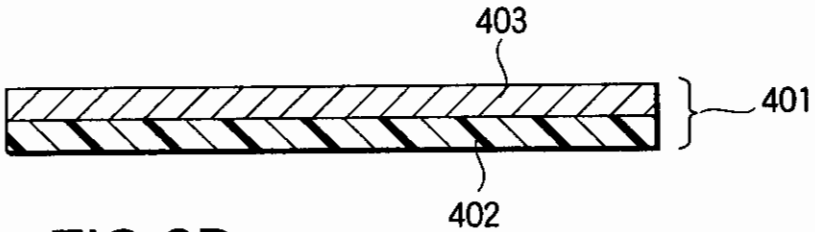


FIG.8B ETCHING MASK PRINTING PROCESS

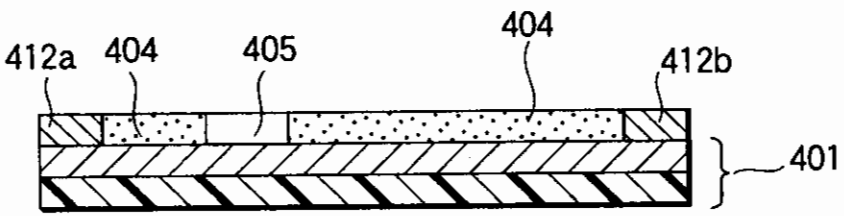


FIG.8C ETCHING PROCESS

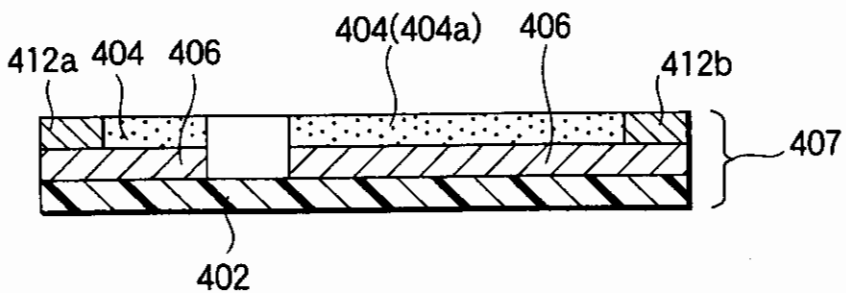


FIG.8D ULTRASONIC MOUNTING PROCESS

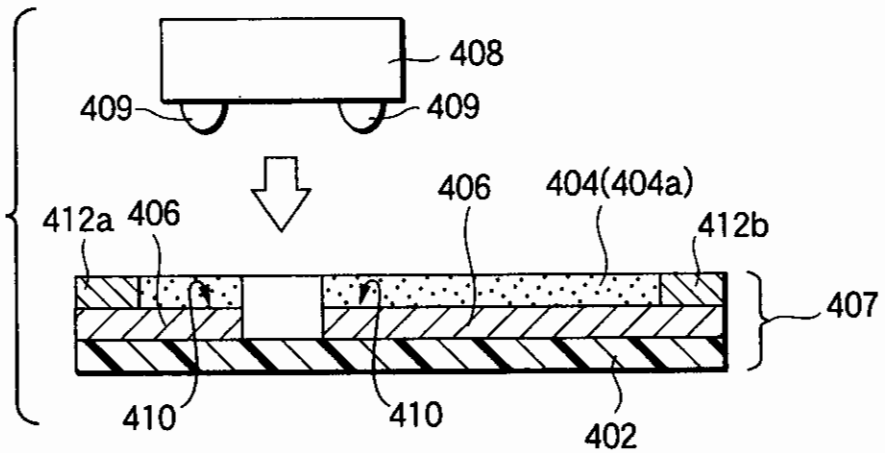


FIG.8E BORDING PROCESS

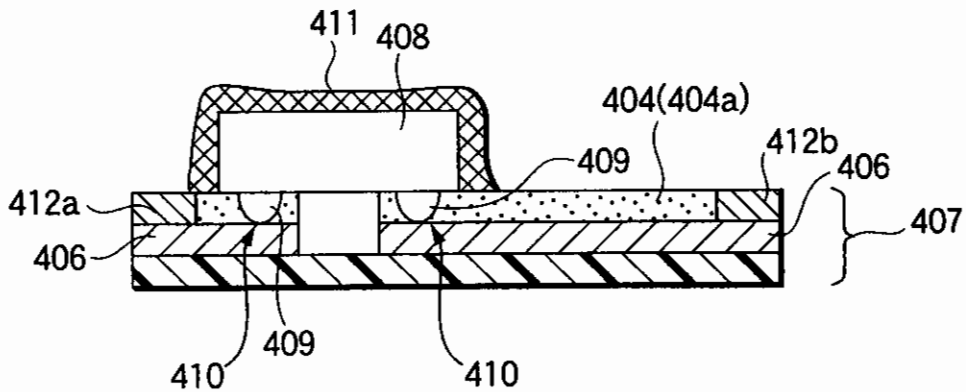


FIG.9A

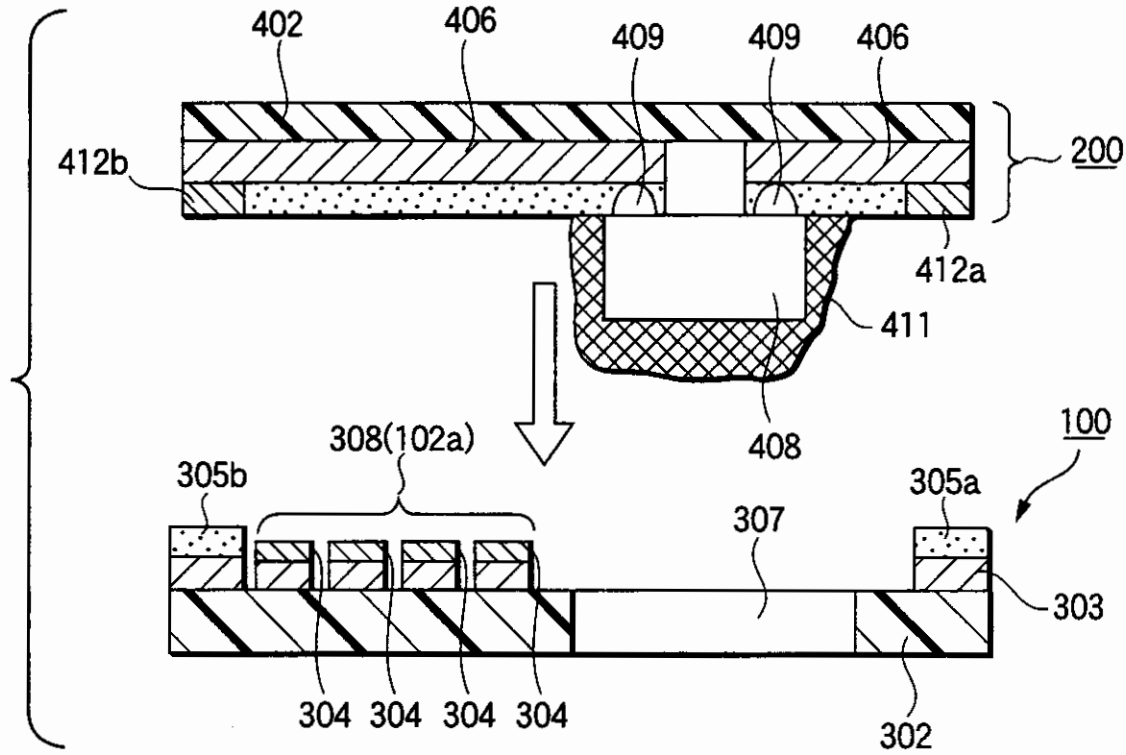

402
406
409
409
406
412b
200
412a
411
408
100
308(102a)
305b
305a
307
303
304
304
304
304
302

FIG.9B

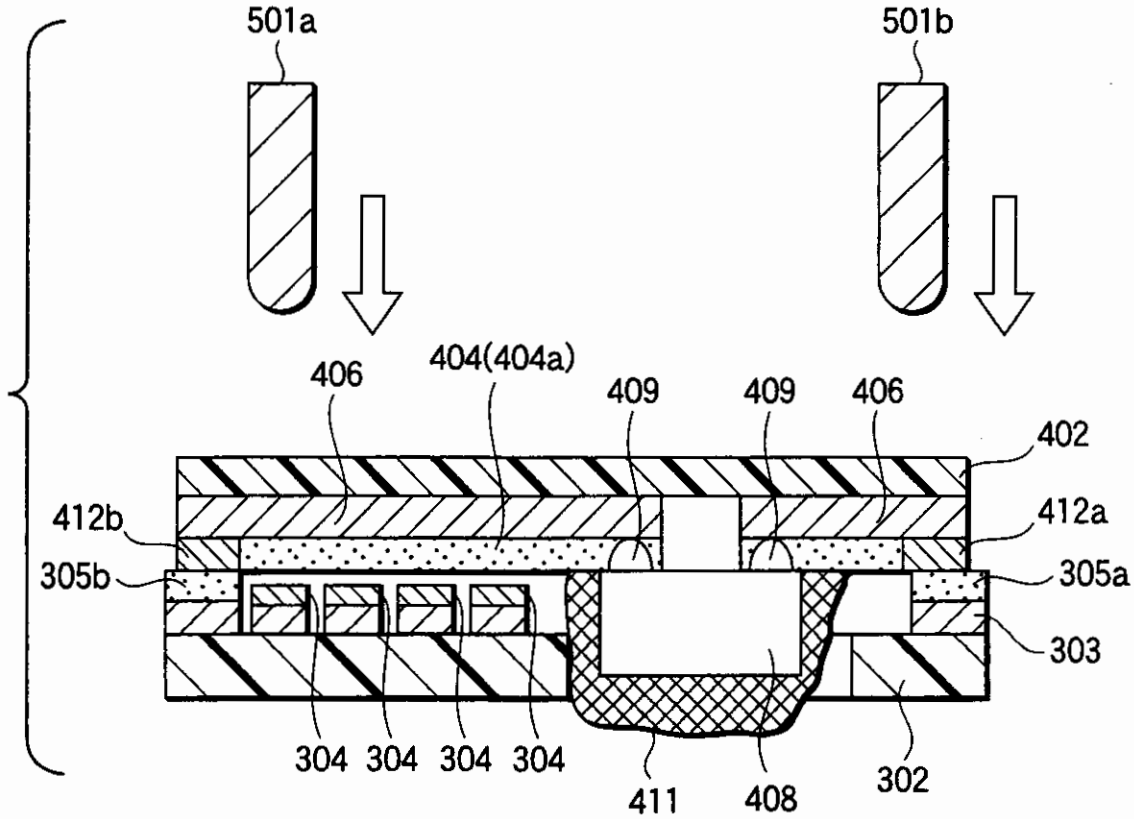

501a
501b
406
404(404a)
409
409
406
402
412b
412a
305b
305a
303
304
304
304
304
411
408
302

FIG.10A

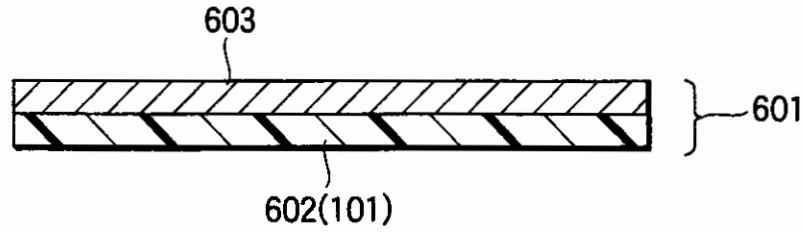


FIG.10B

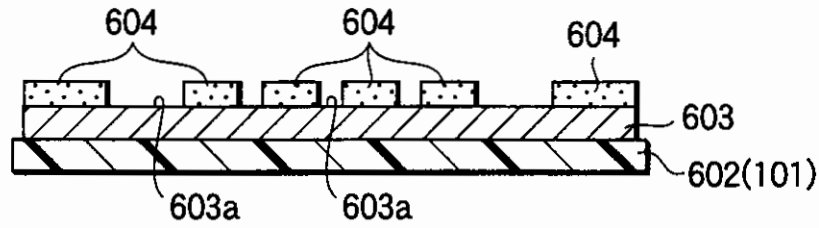


FIG.10C

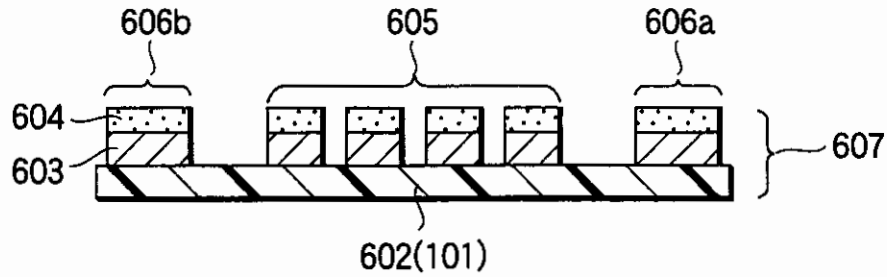


FIG.11A METALLIC FOIL LAMINATION MANUFACTURING PROCESS

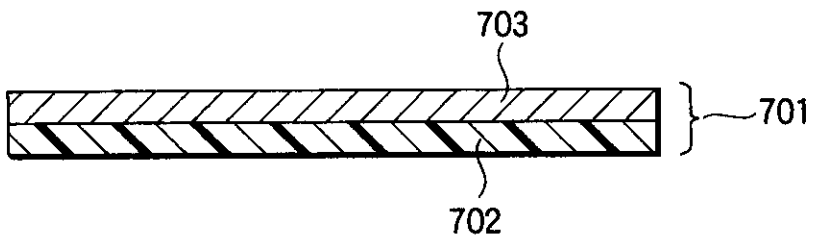


FIG.11B ETCHING MASK PRINTING PROCESS

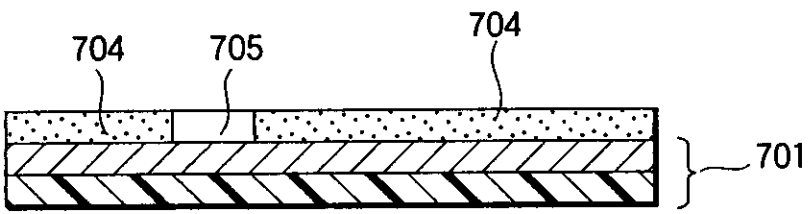


FIG.11C ETCHING PROCESS

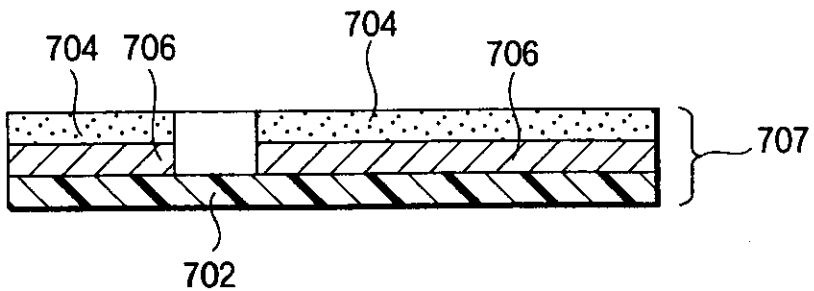


FIG.11D ULTRASONIC MOUNTING PROCESS

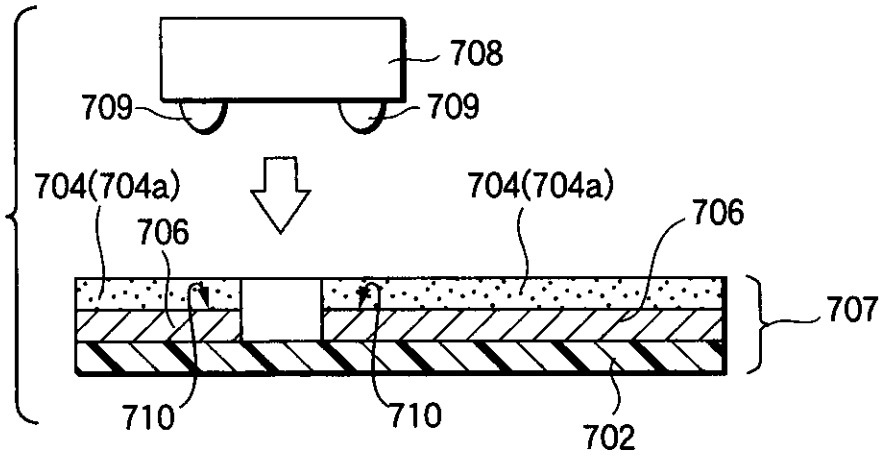


FIG.11E BORDING PROCESS

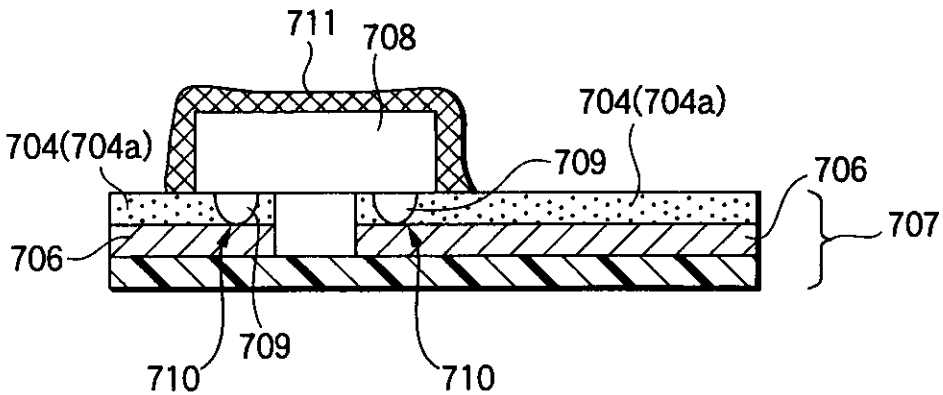


FIG.12A

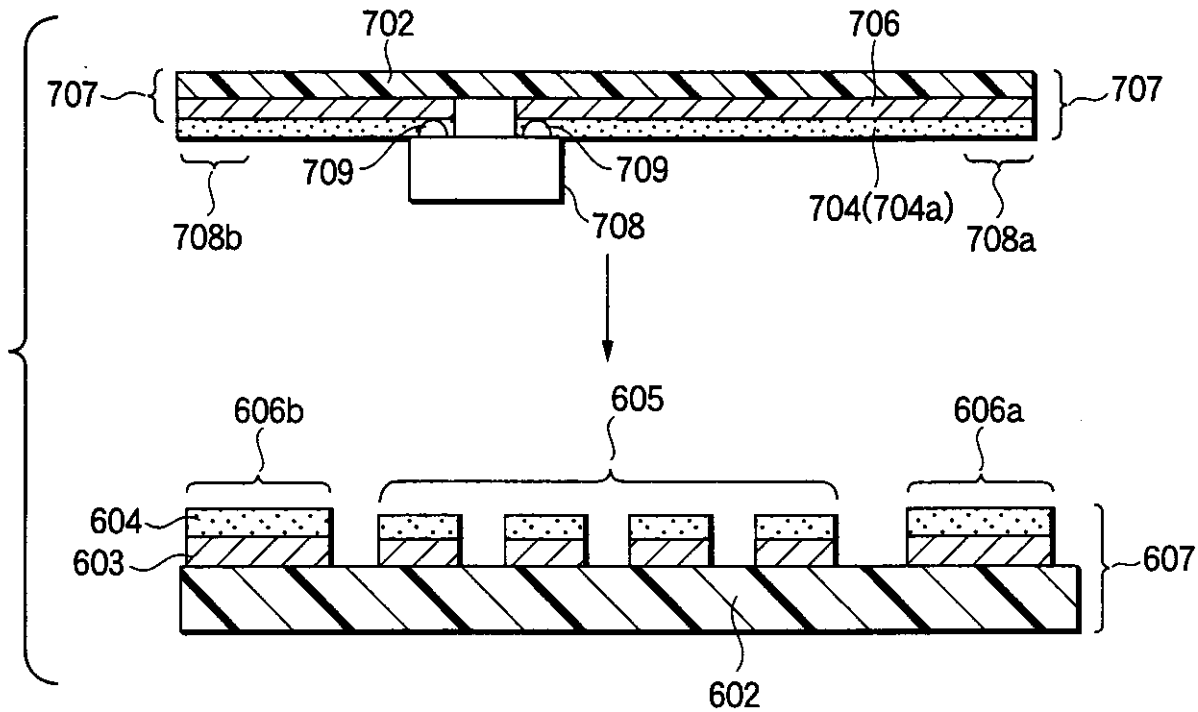


FIG.12B

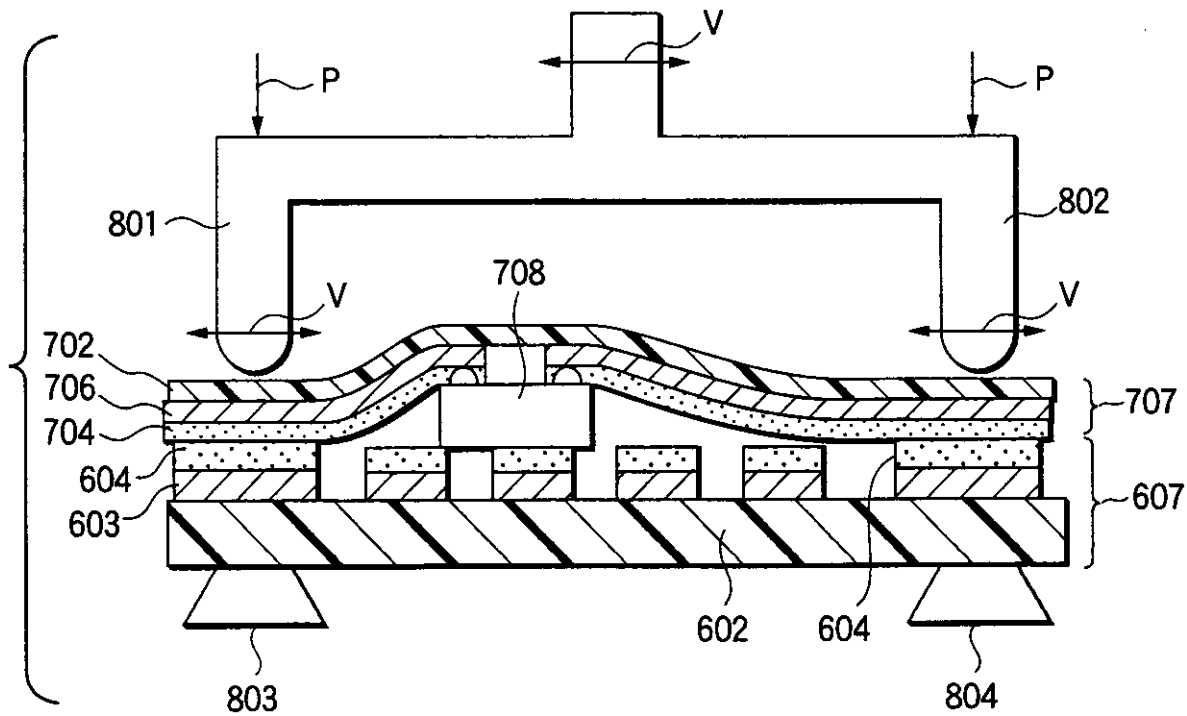


FIG.13

ELAPSED TIME OF TEST	0hr	120hr	250hr
COMMUNICATION DISTANCE (mm)	95	106	101

FIG.14

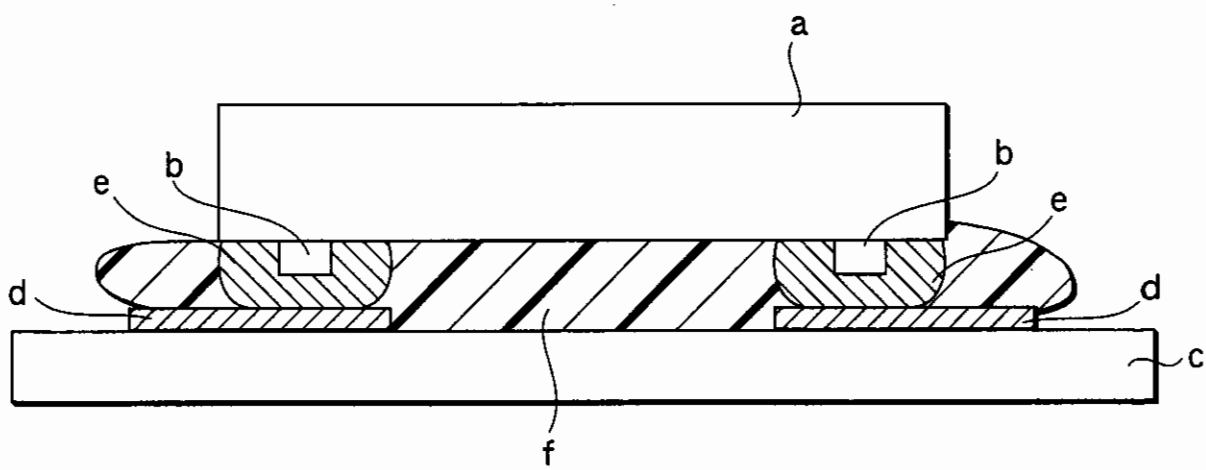


FIG.15

