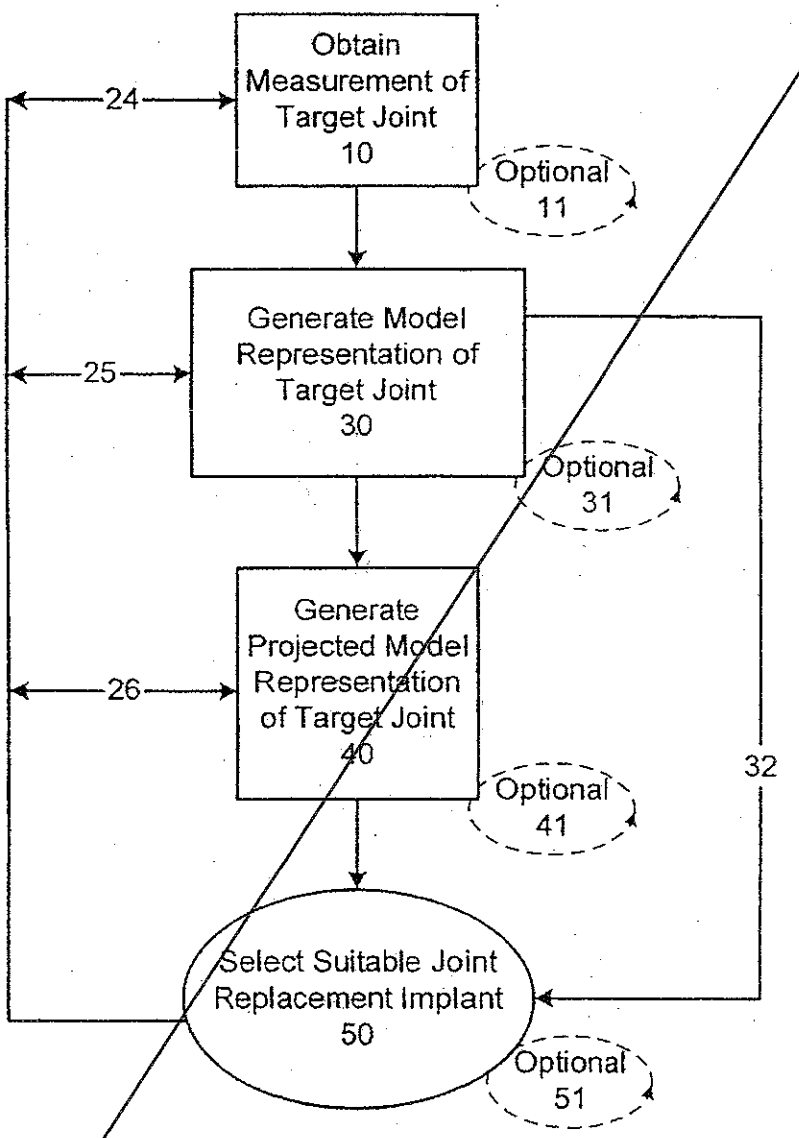

Obtain Measurement of Target Joint 10
Optional 11
24
Generate Model Representation of Target Joint 30
Optional 31
25
Generate Projected Model Representation of Target Joint 40
Optional 41
26
32
Select Suitable Joint Replacement Implant 50
Optional 51

FIG. 1A

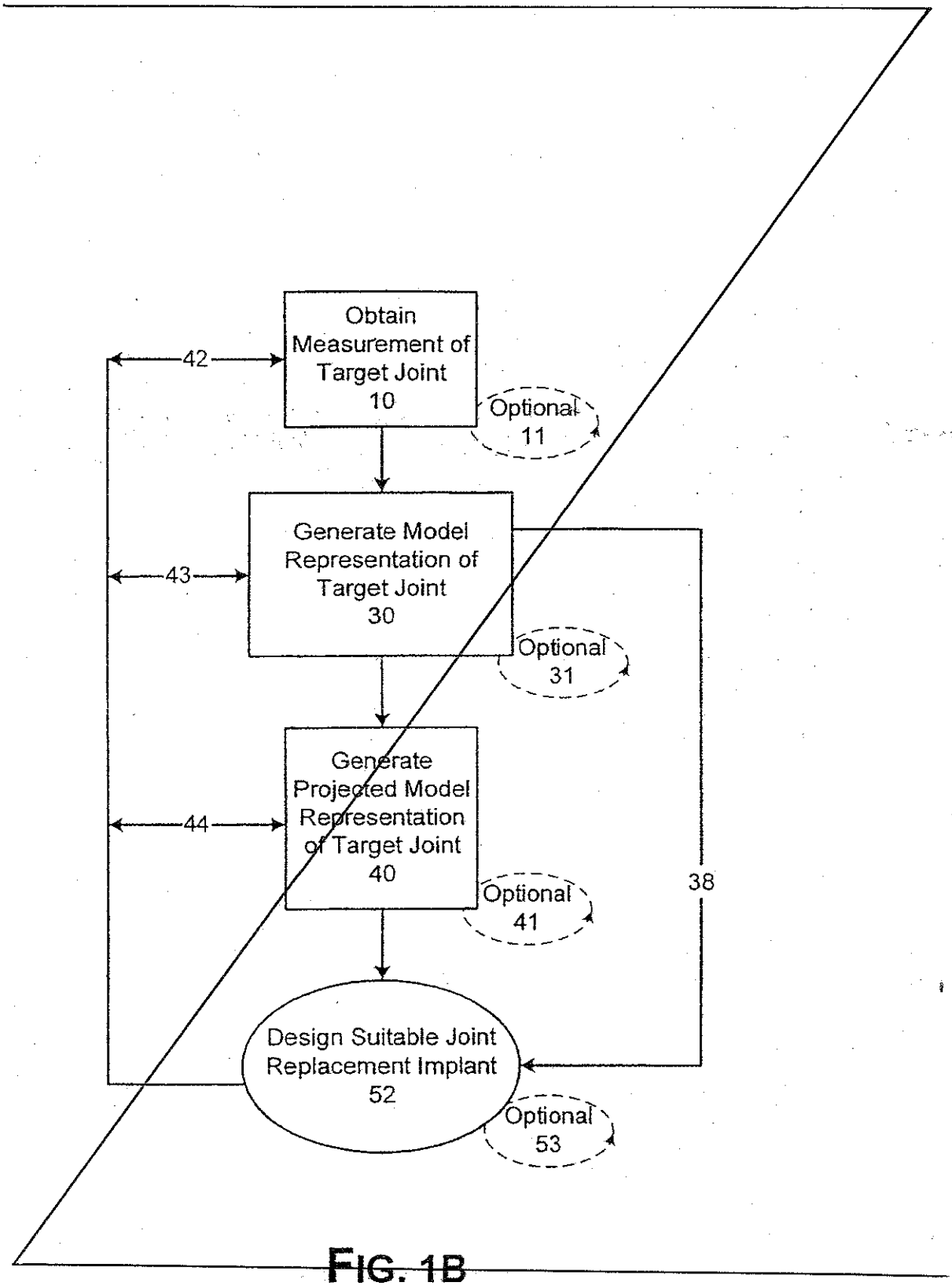

Obtain Measurement of Target Joint 10
Optional 11
42
Generate Model Representation of Target Joint 30
Optional 31
43
Generate Projected Model Representation of Target Joint 40
Optional 41
44
Design Suitable Joint Replacement Implant 52
Optional 53
38

FIG. 1B

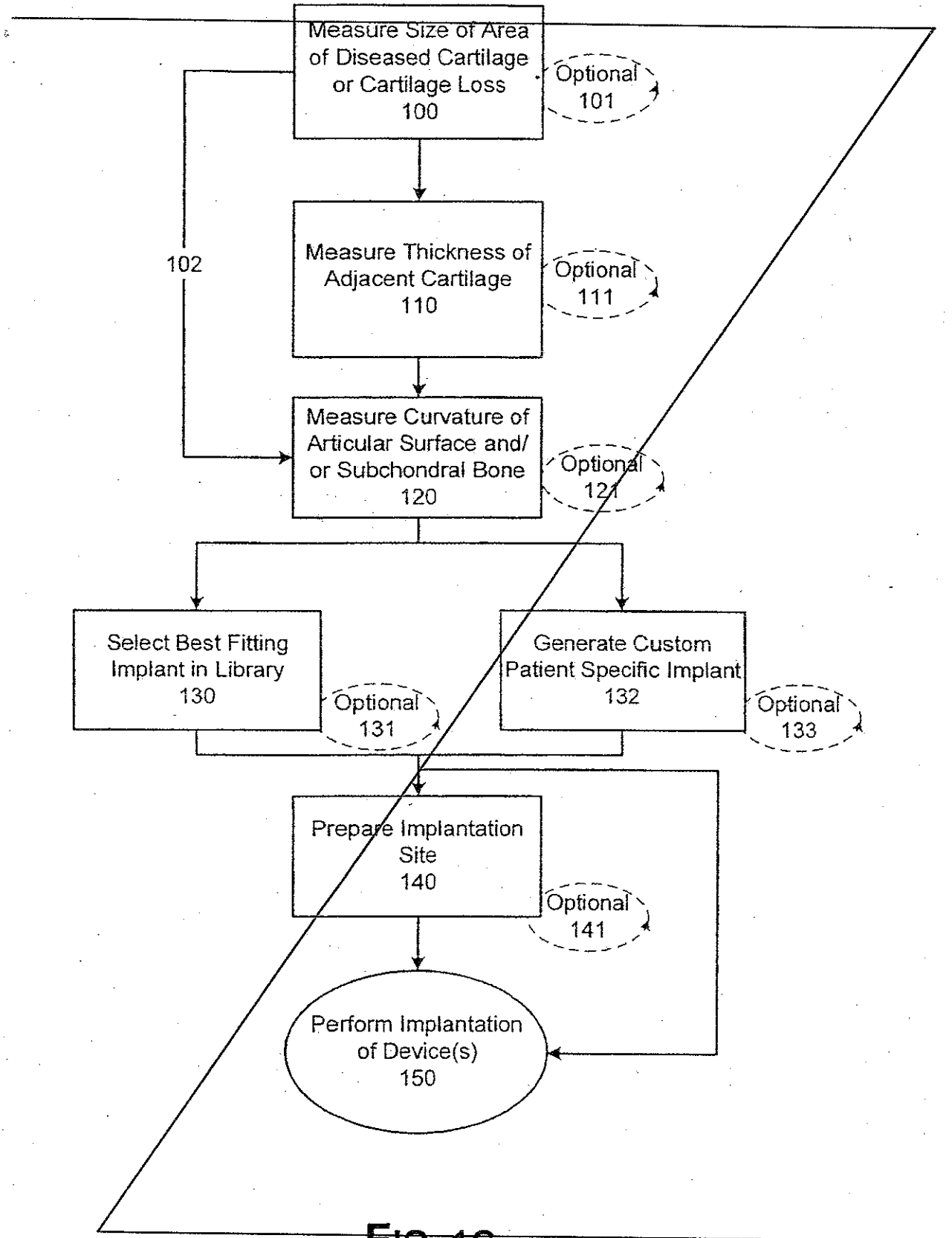

Measure Size of Area of Diseased Cartilage or Cartilage Loss 100
Optional 101
102
Measure Thickness of Adjacent Cartilage 110
Optional 111
Measure Curvature of Articular Surface and/ or Subchondral Bone 120
Optional 121
Select Best Fitting Implant in Library 130
Optional 131
Generate Custom Patient Specific Implant 132
Optional 133
Prepare Implantation Site 140
Optional 141
Perform Implantation of Device(s) 150

FIG. 1C

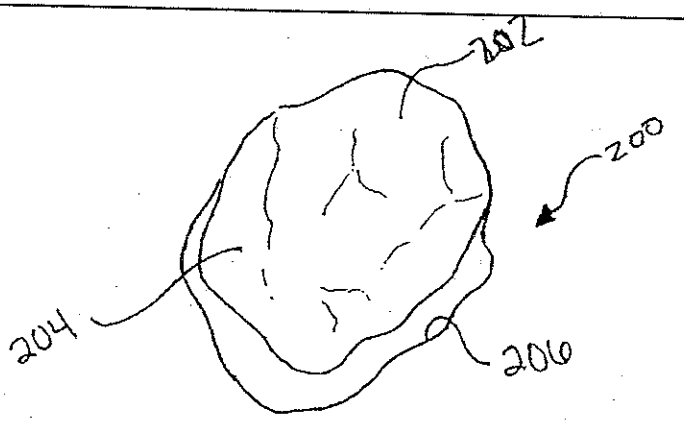


FIG. 2A

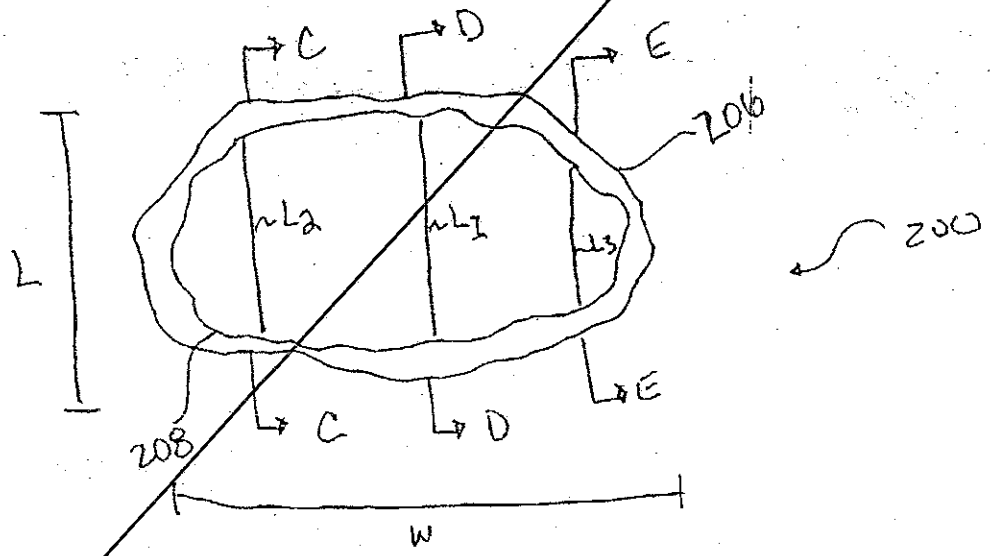


FIG 2B

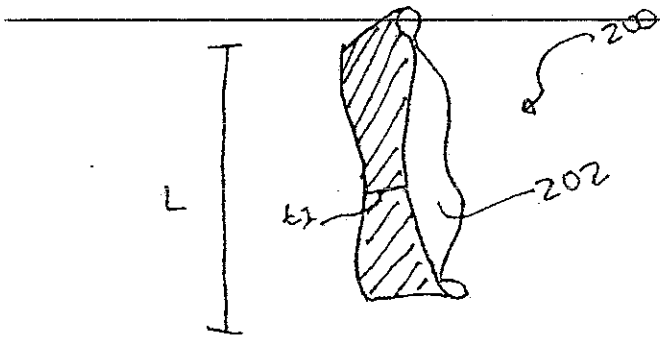


FIG 2C

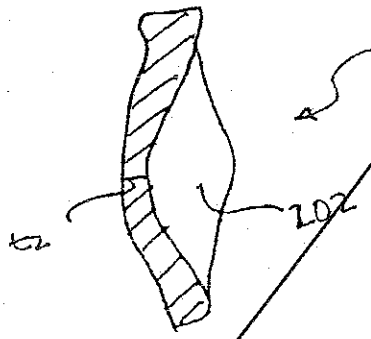


FIG 2D

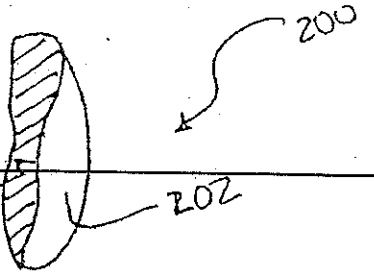


FIG 2E

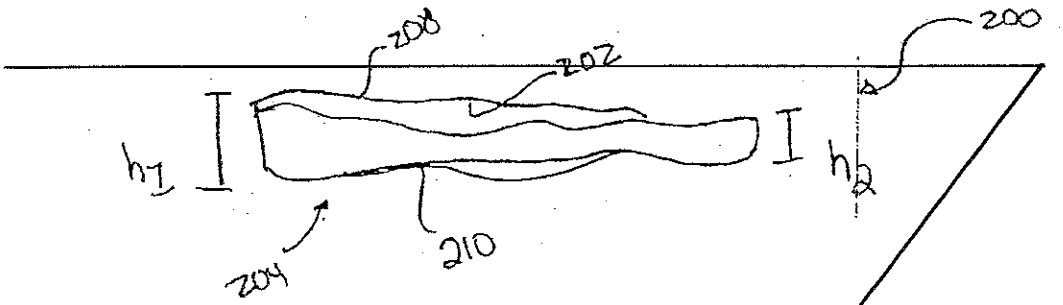


Fig 2F

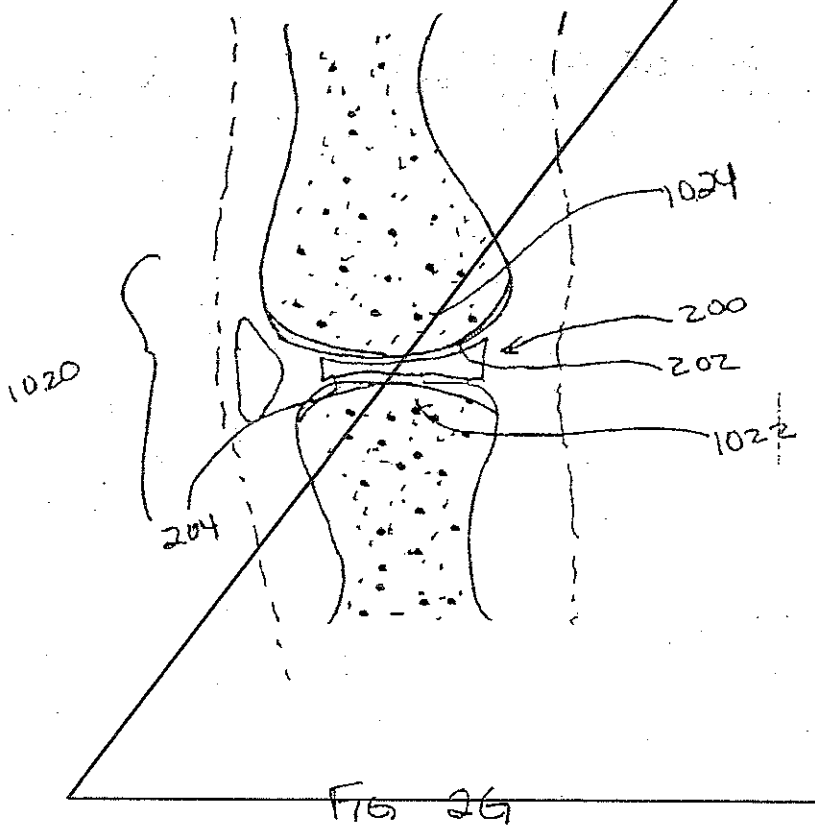


Fig 2G

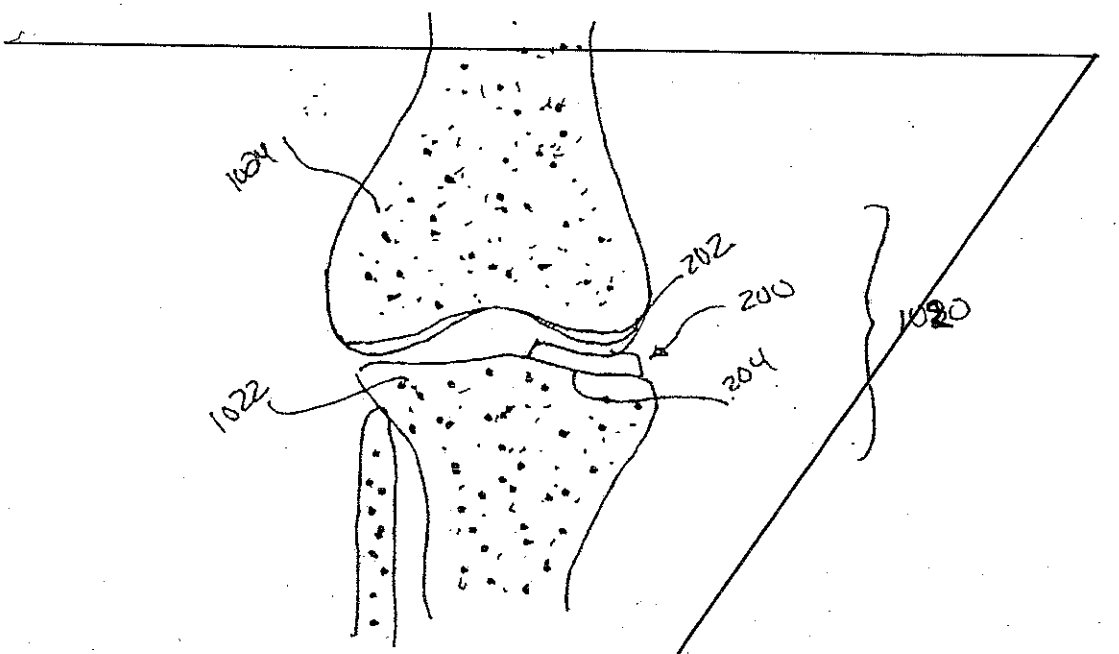


FIG 2H

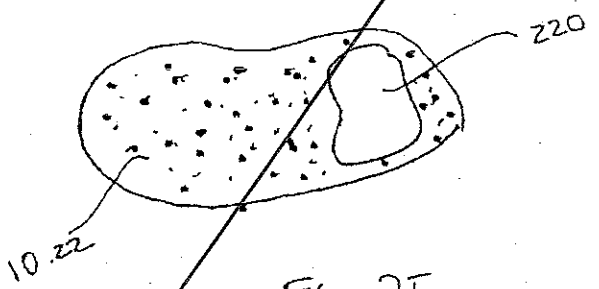


FIG 2I

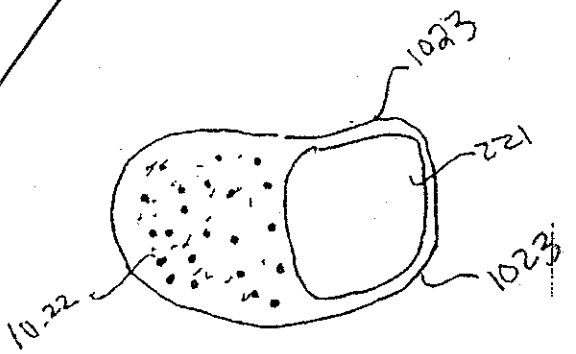


FIG 2J

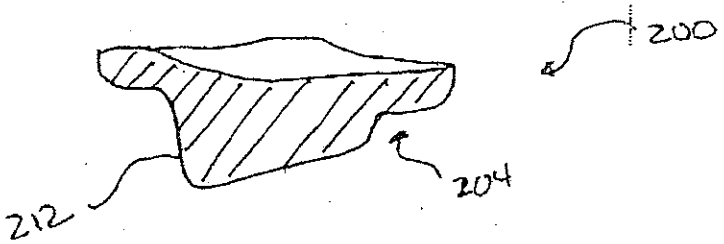


FIG 2K

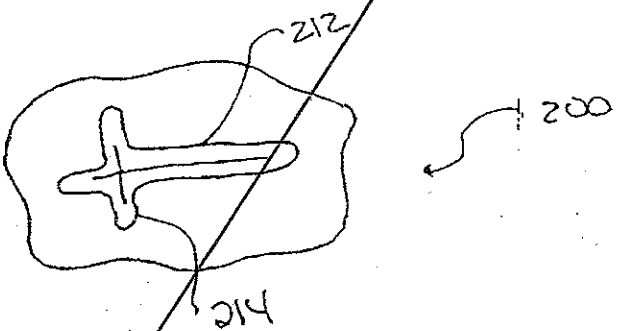


FIG 2L

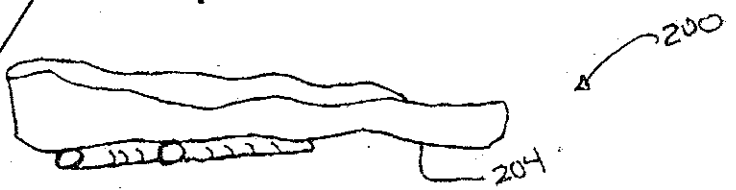


FIG 2M

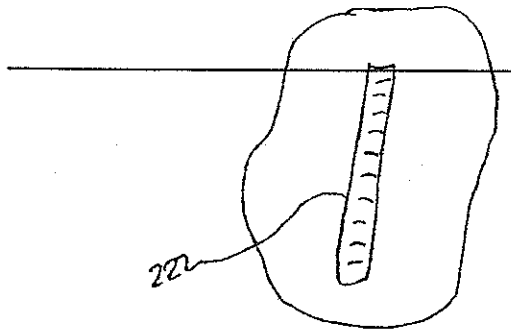


FIG2N1

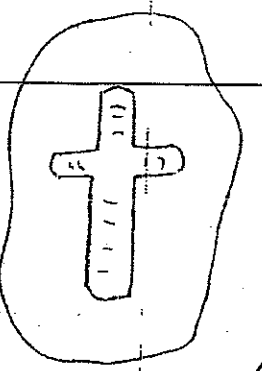


FIG 2O1

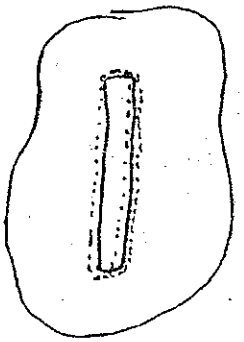


FIG 2N2

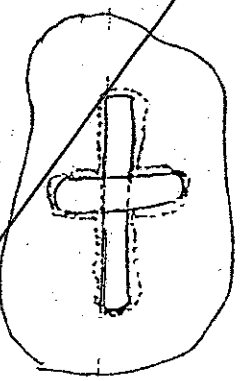


FIG 2O2

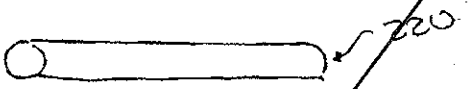


FIG2P





FIG 2Q

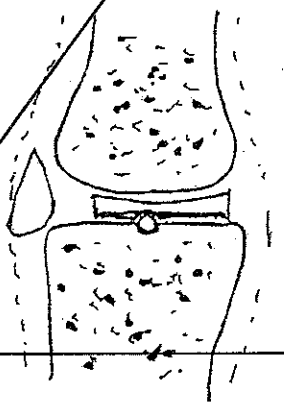
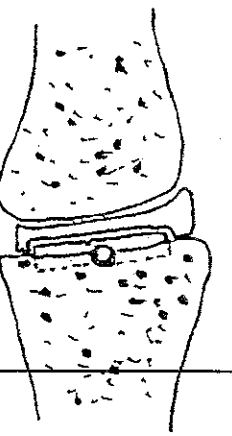


FIG 2R



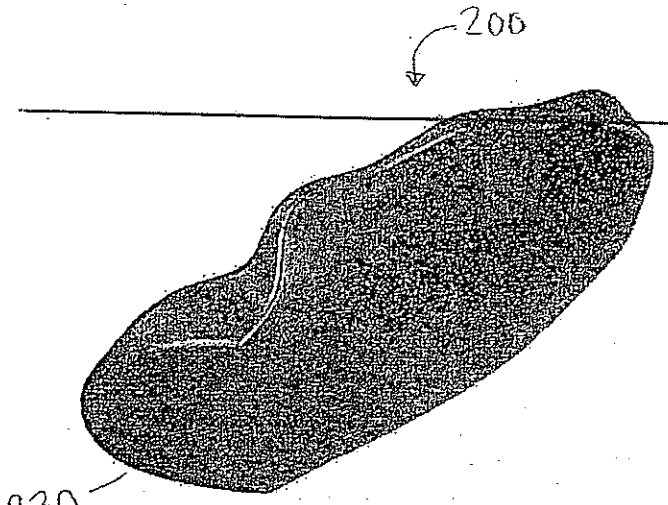


FIG. 2S-1

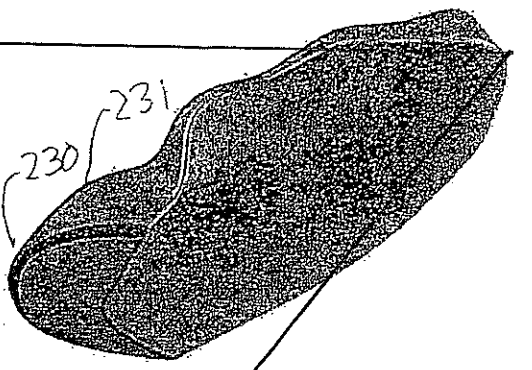


FIG. 2S-2

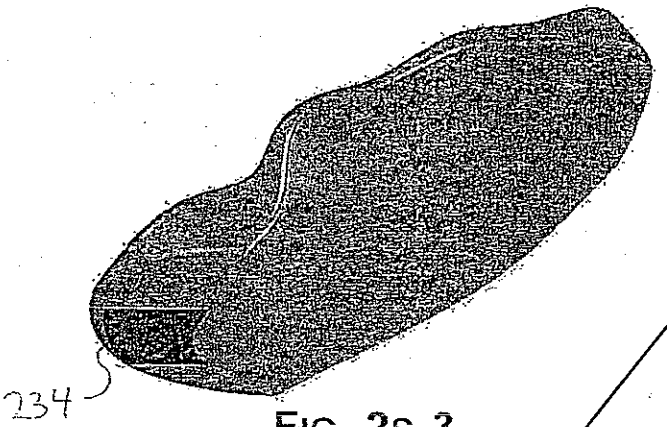


FIG. 2S-3

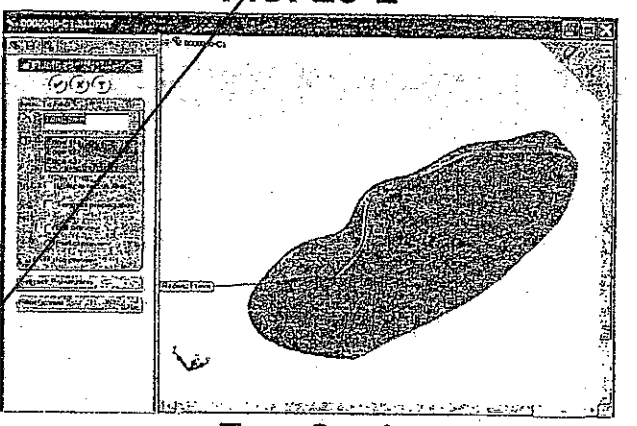


FIG. 2S-4

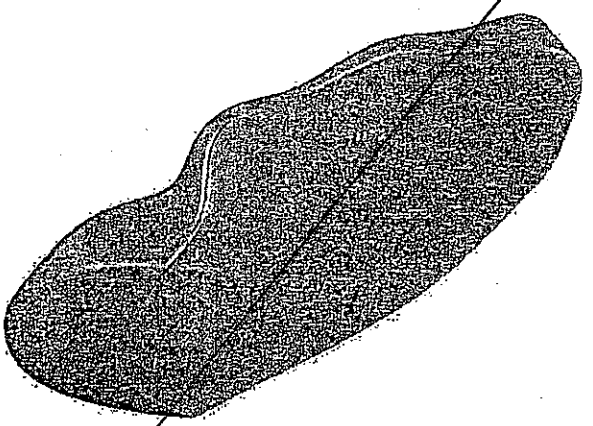


FIG. 2S-5

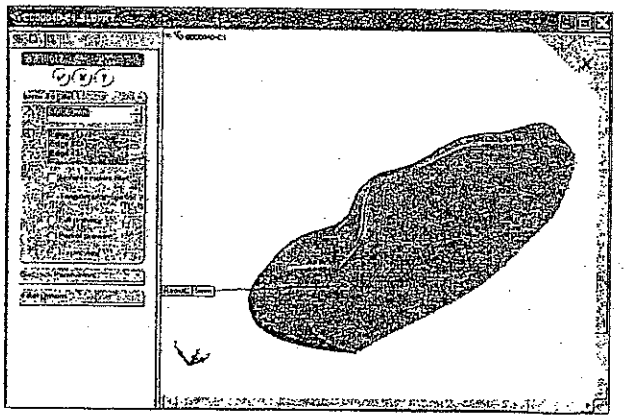


FIG. 2S-6

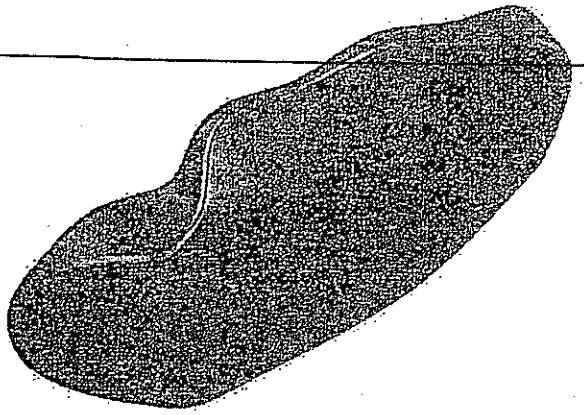


FIG. 2S-7

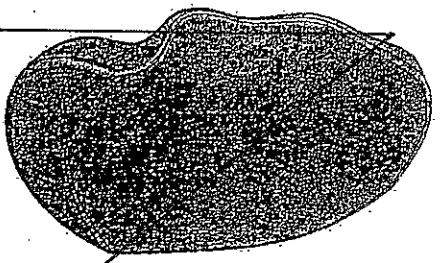


FIG. 2S-8

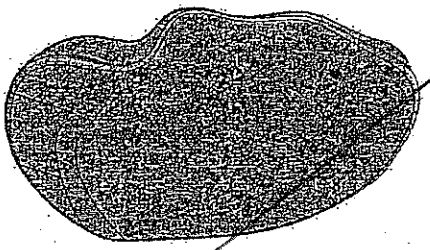
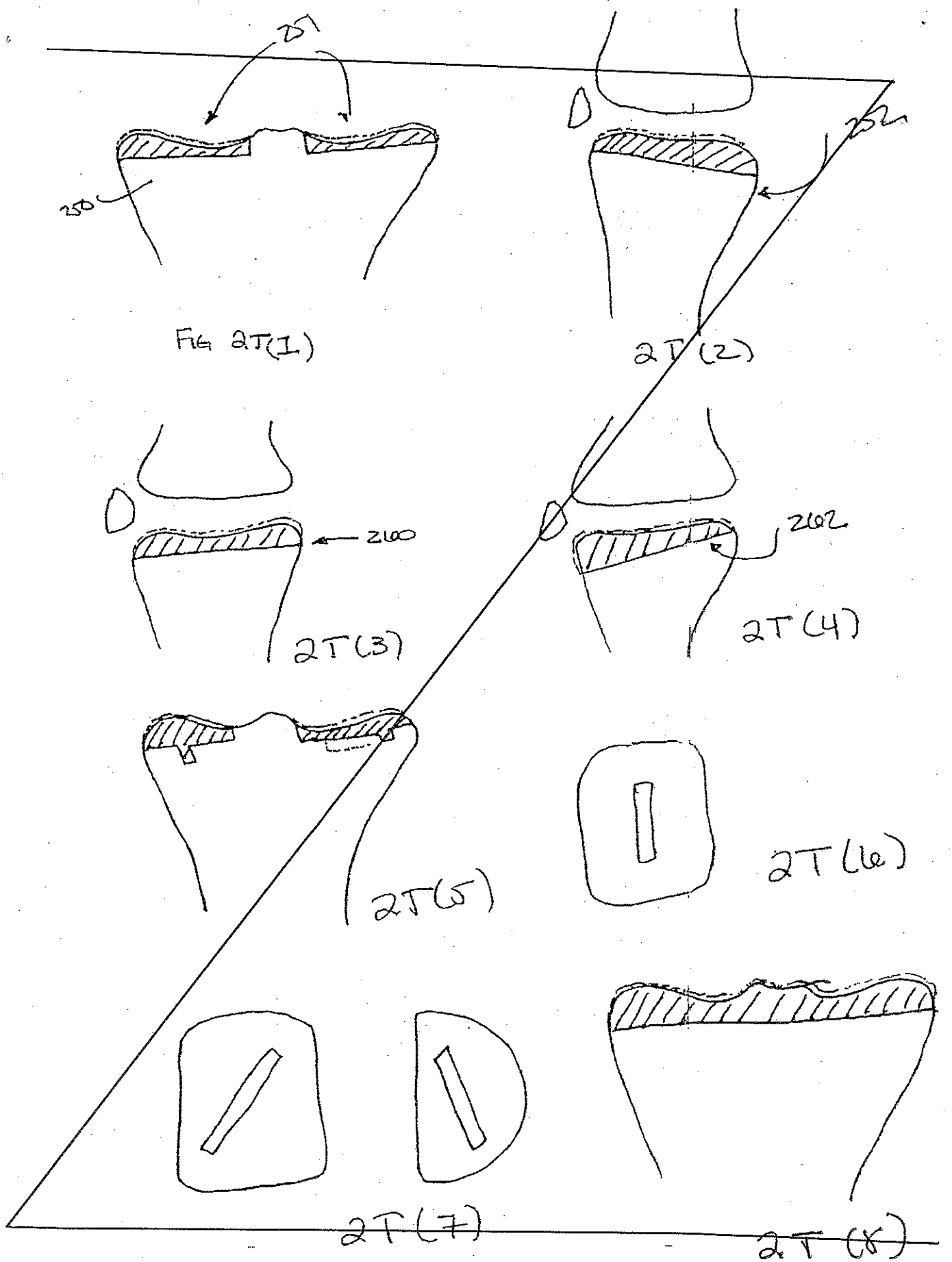


FIG. 2S-9


251
250
252
2T(1)
2T(2)
200
202
2T(3)
2T(4)
2T(5)
2T(6)
2T(7)
2T(8)

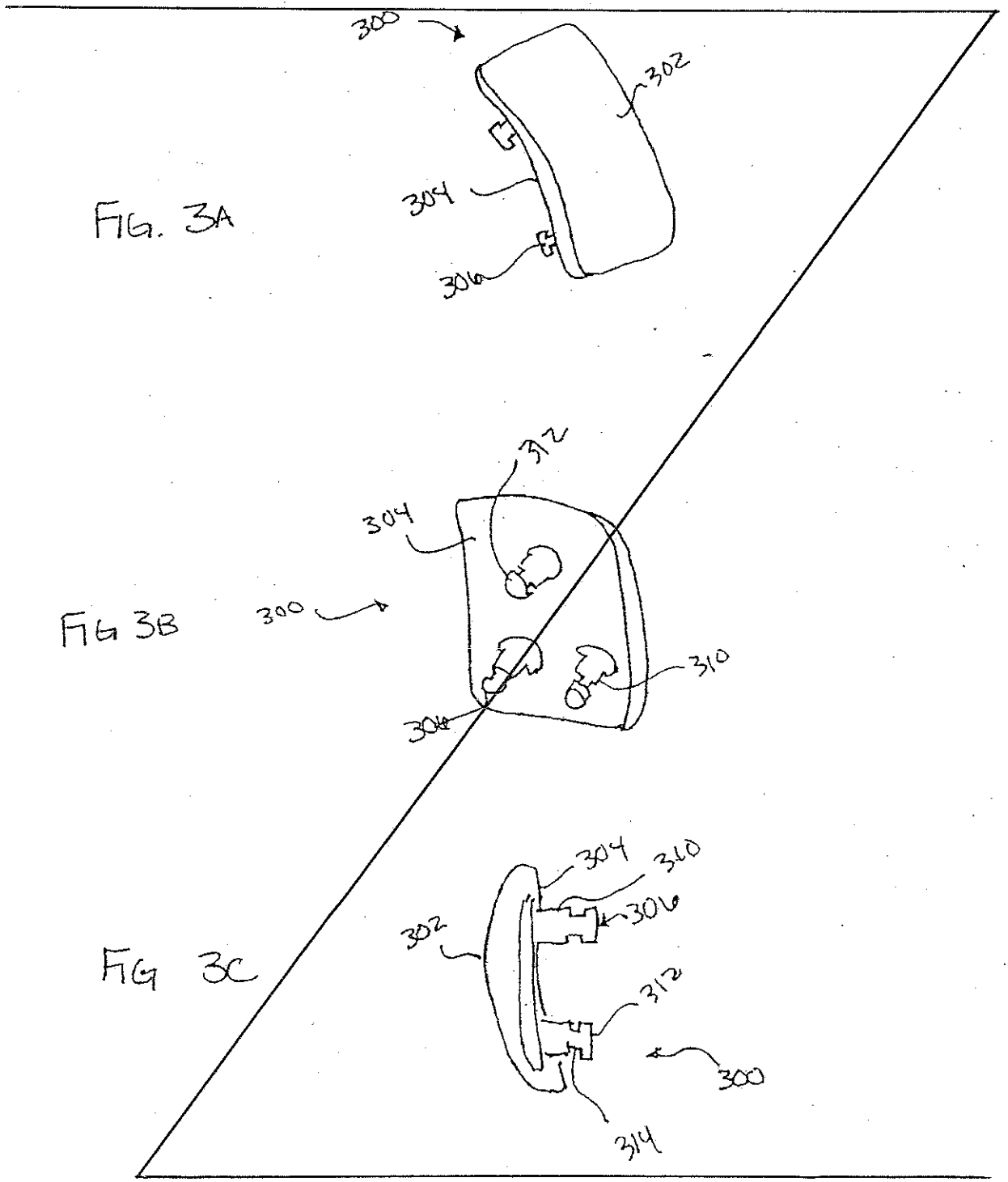

300
302
304
306
FIG. 3A
312
304
300
310
308
FIG 3B
304
310
306
302
312
300
314
FIG 3C

FIG. 3D

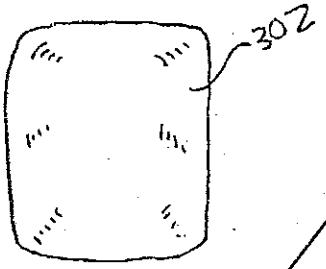


FIG 3E

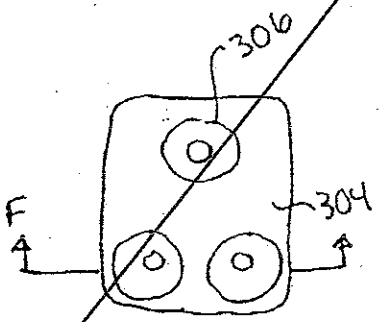


FIG 3F

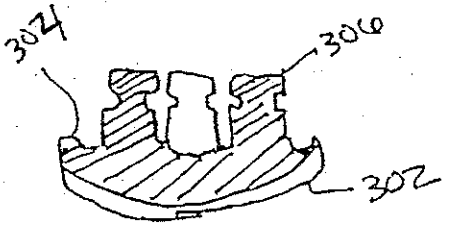
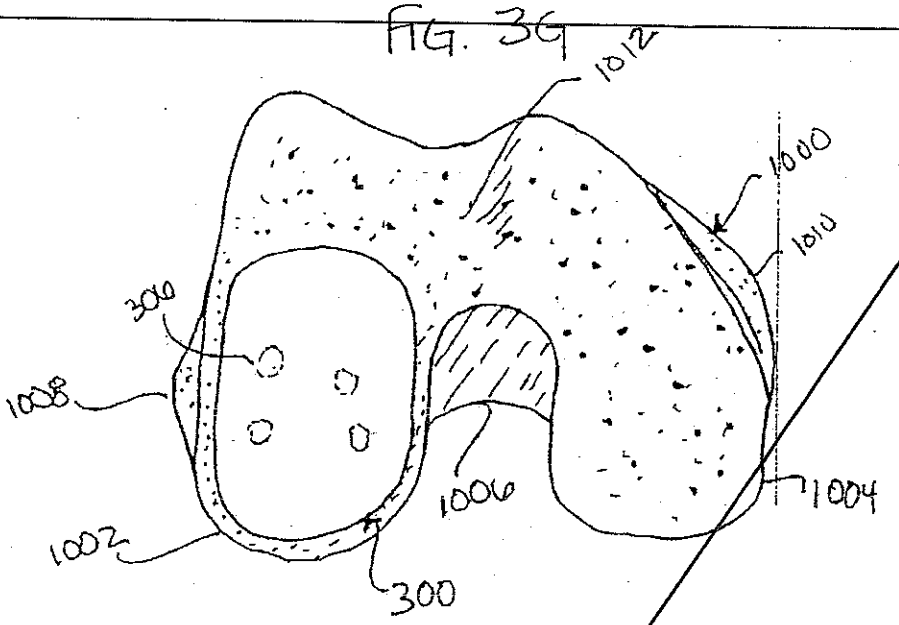


FIG. 3G



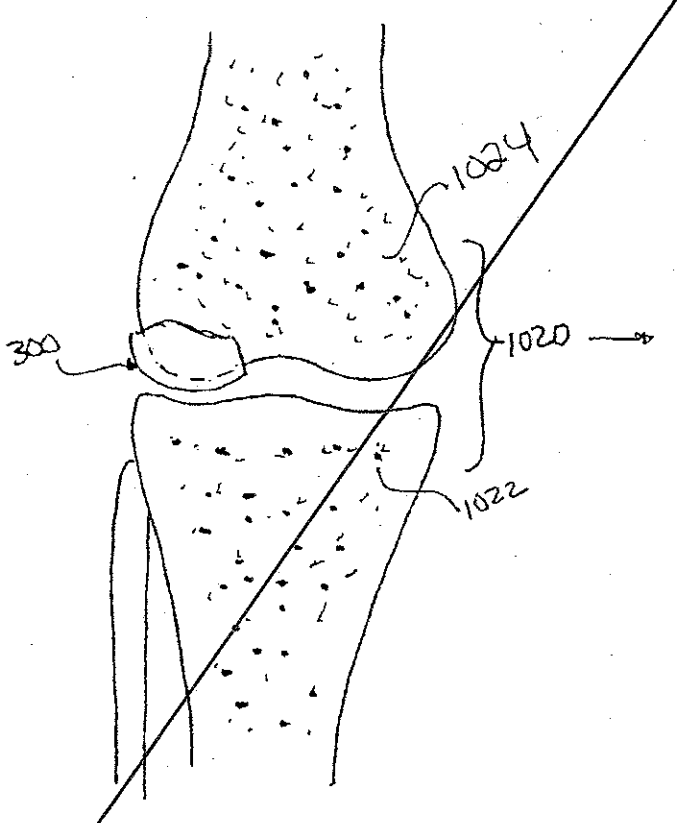


FIG. 3H

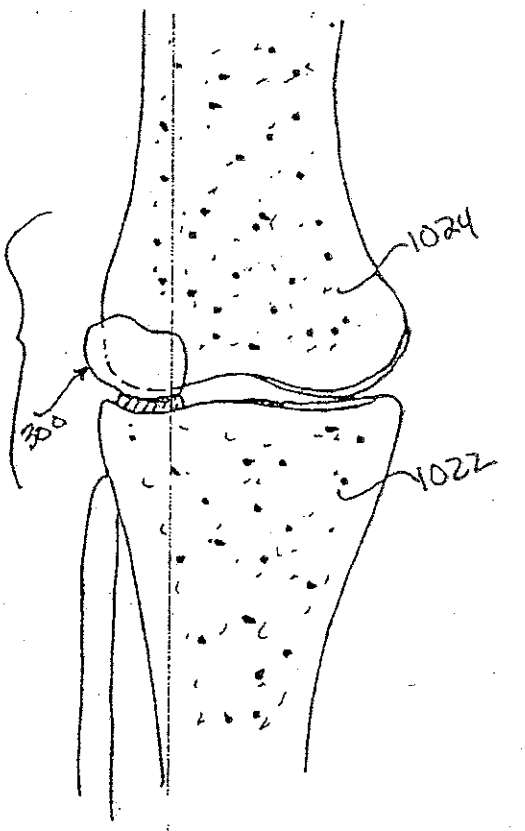


FIG. 3I

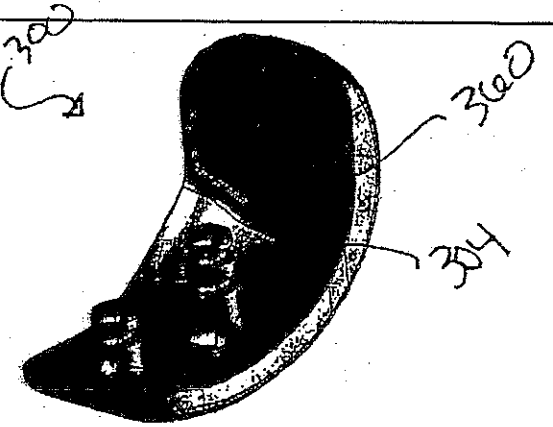


FIG. 3J

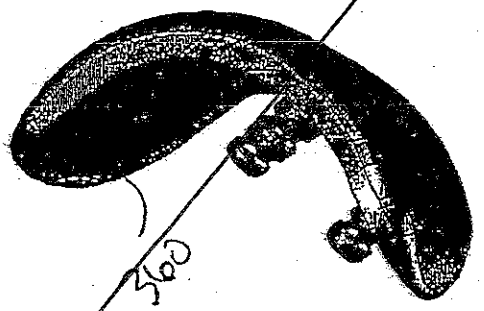


FIG. 3K

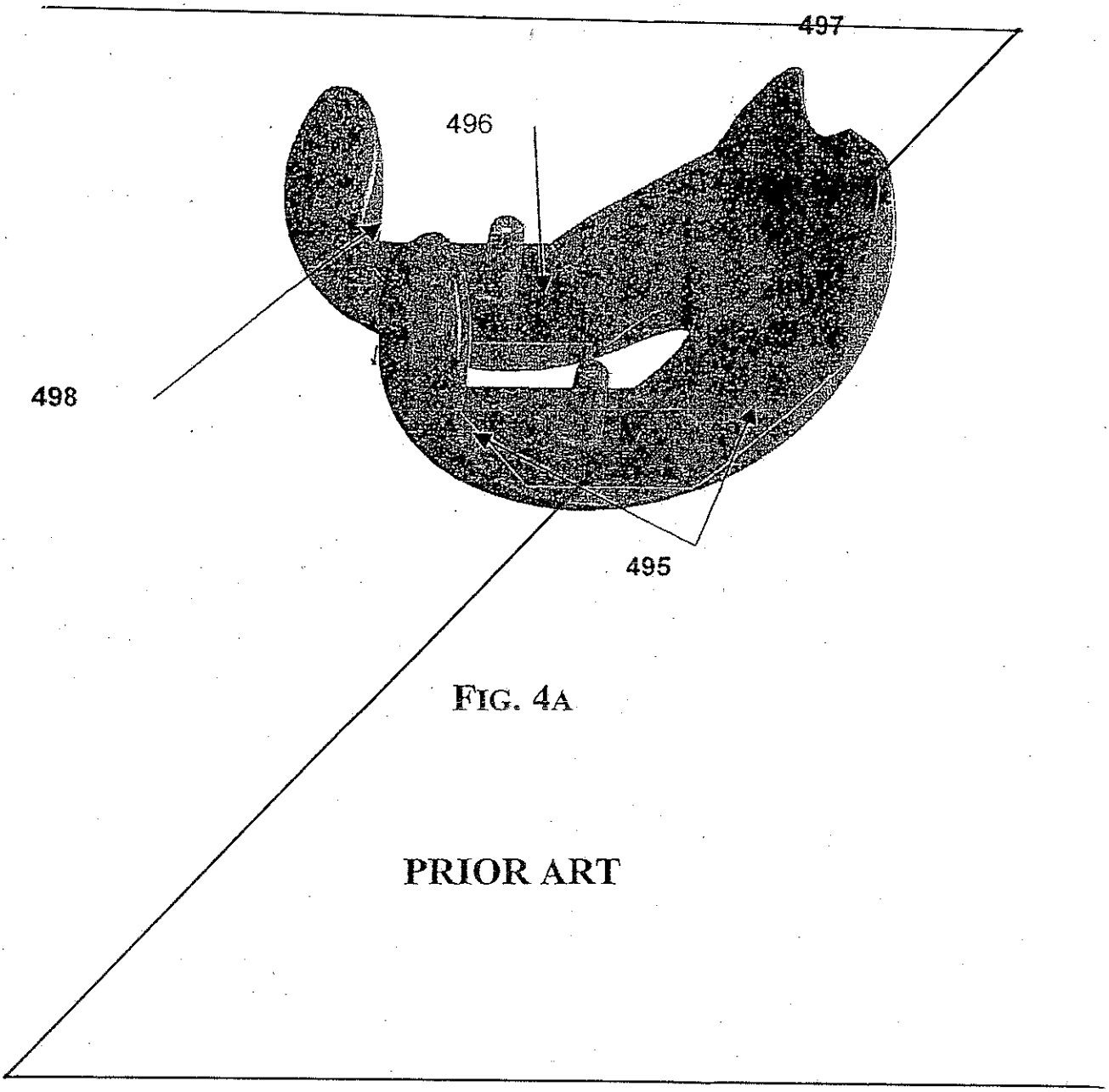


FIG. 4A

PRIOR ART

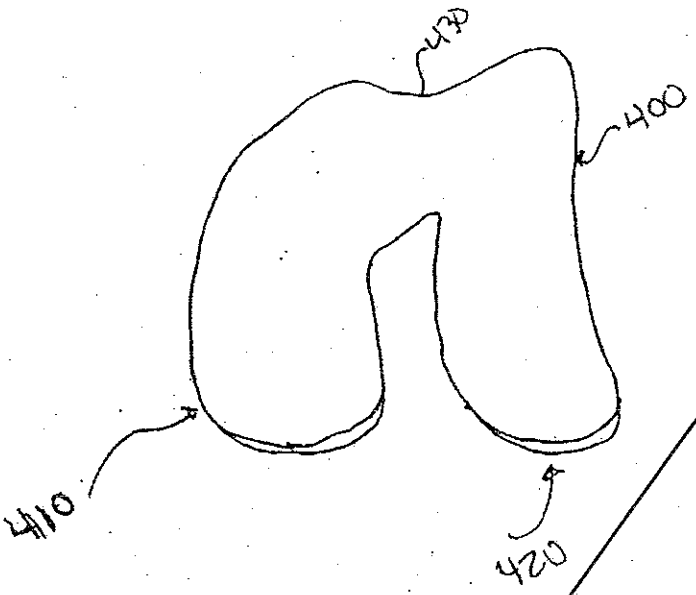


FIG. 4 B

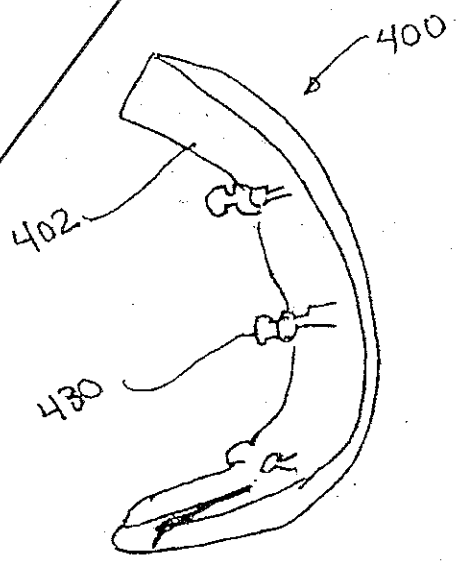


FIG 4 C

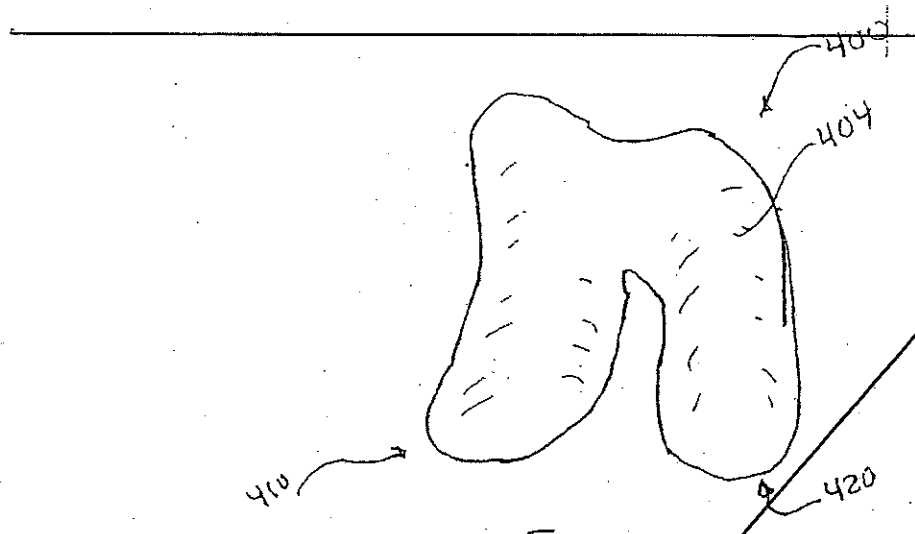


FIG. 4D

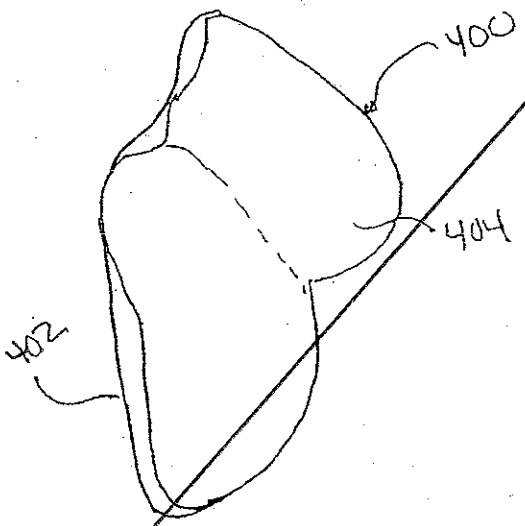


FIG 4E

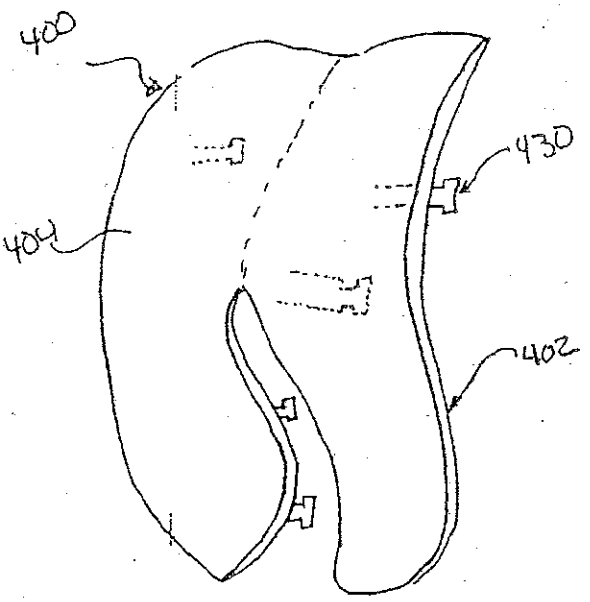


FIG 4F

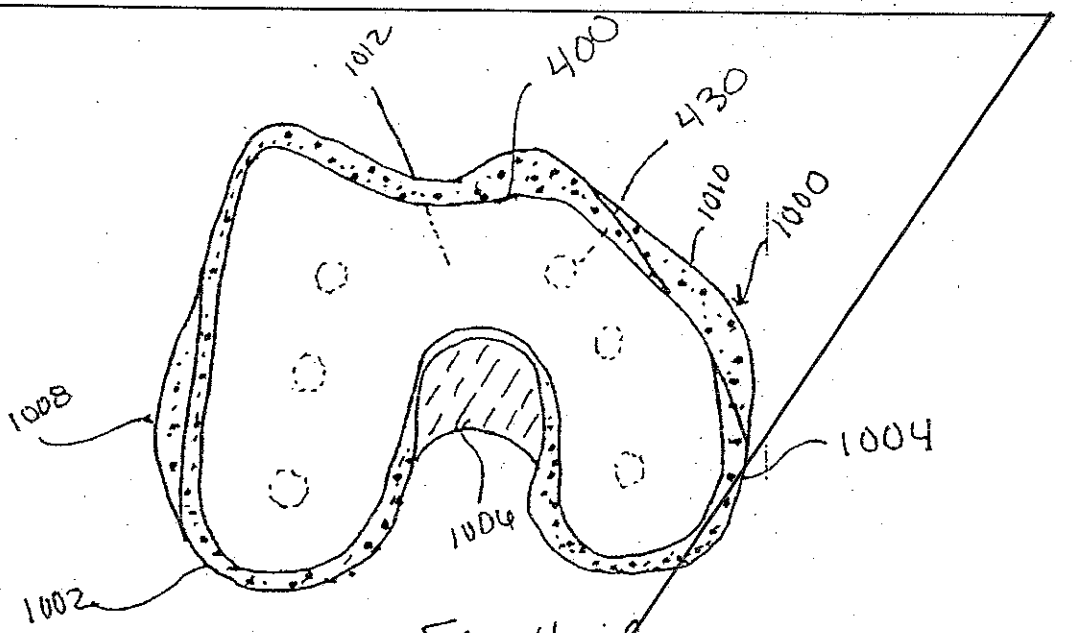


FIG. 4G

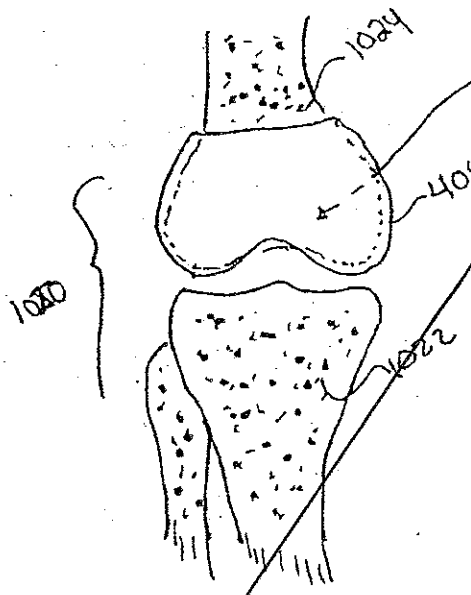


FIG 4H

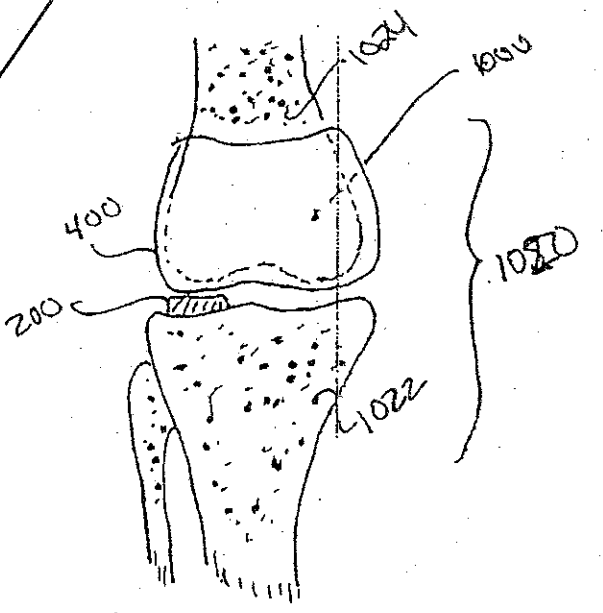


FIG 4I

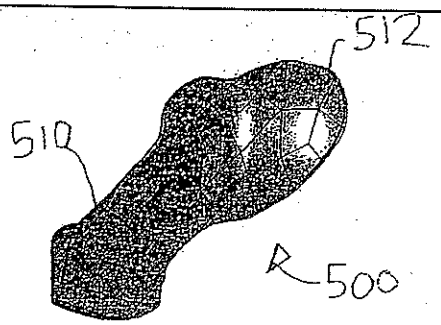


FIG. 5A

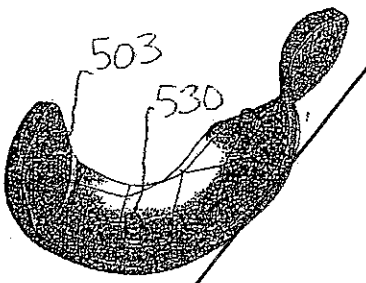


FIG. 5B

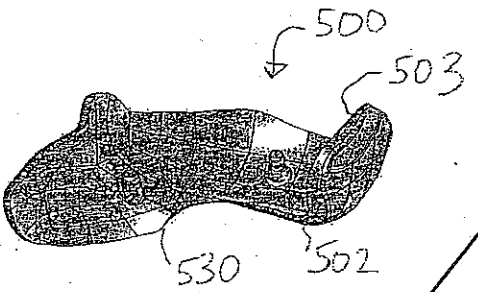


FIG. 5C

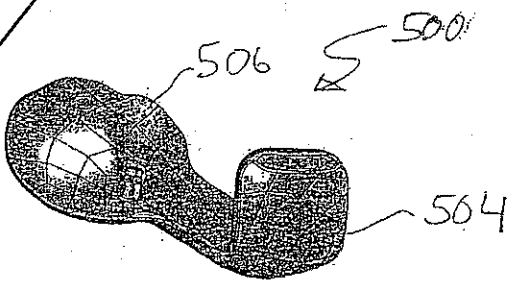


FIG. 5D

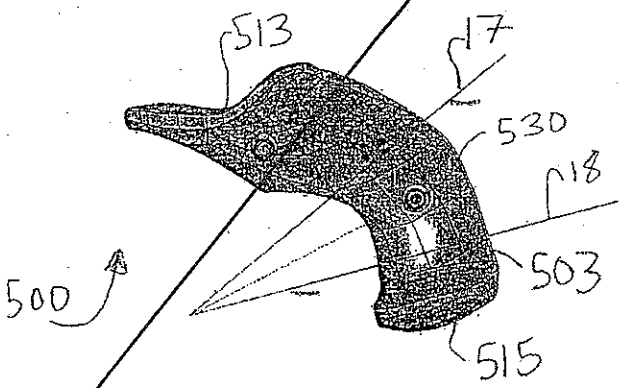


FIG. 5E

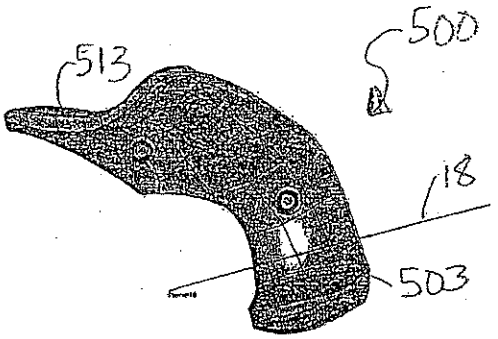


FIG. 5F

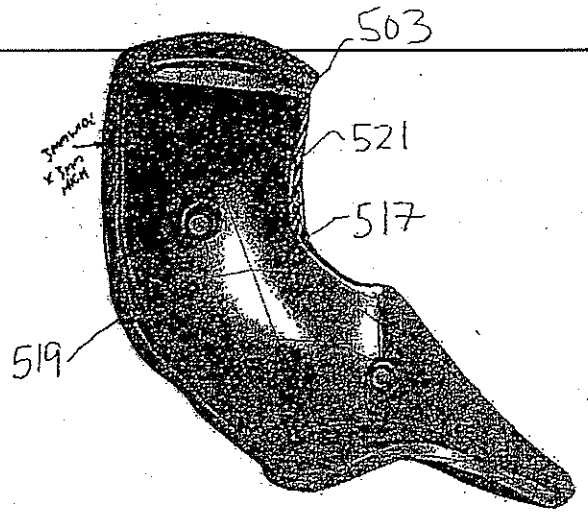


FIG. 5G

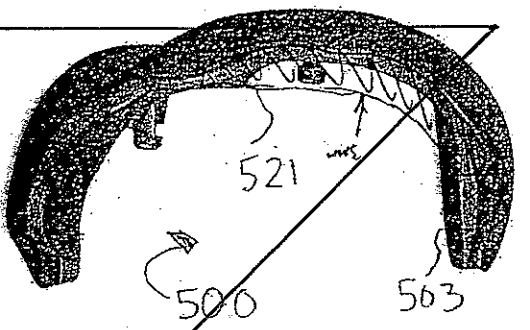


FIG. 5H

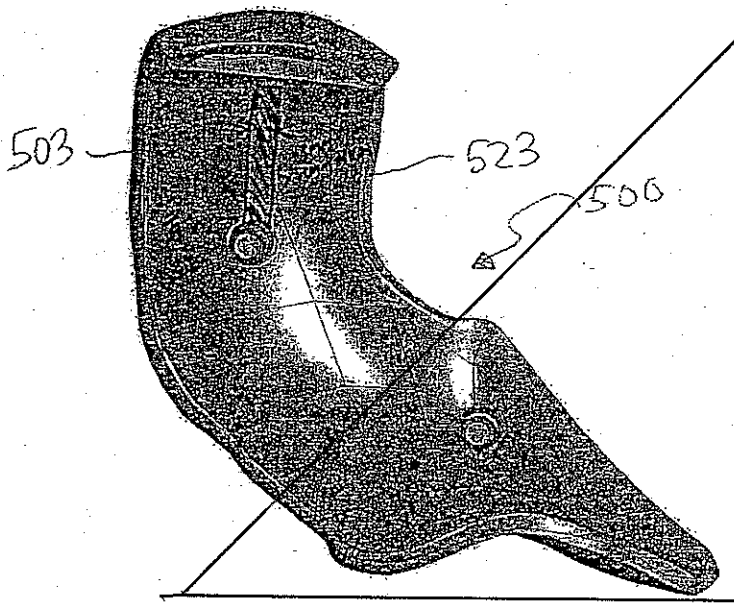


FIG. 5I

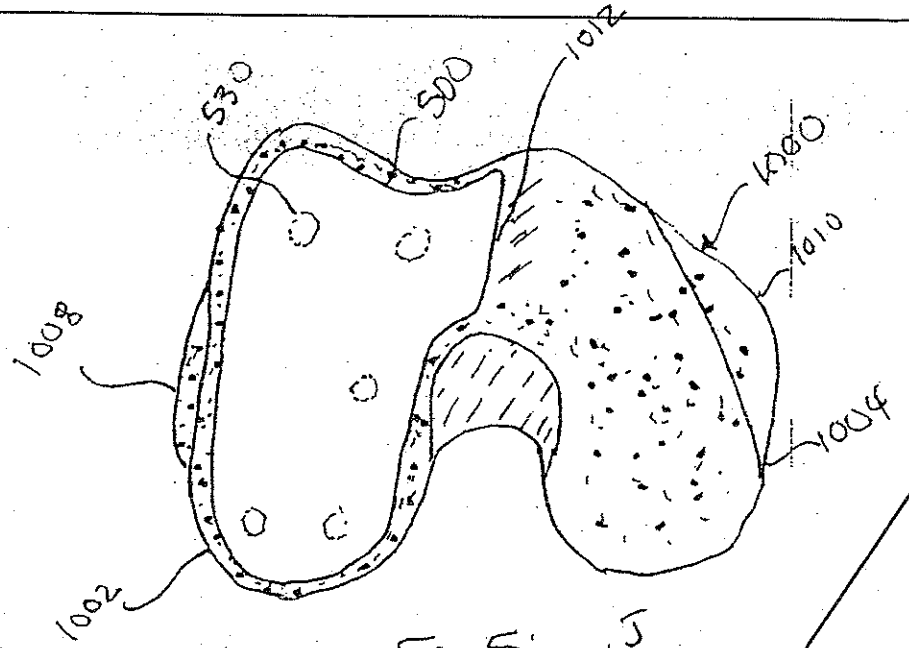


FIG 5. J

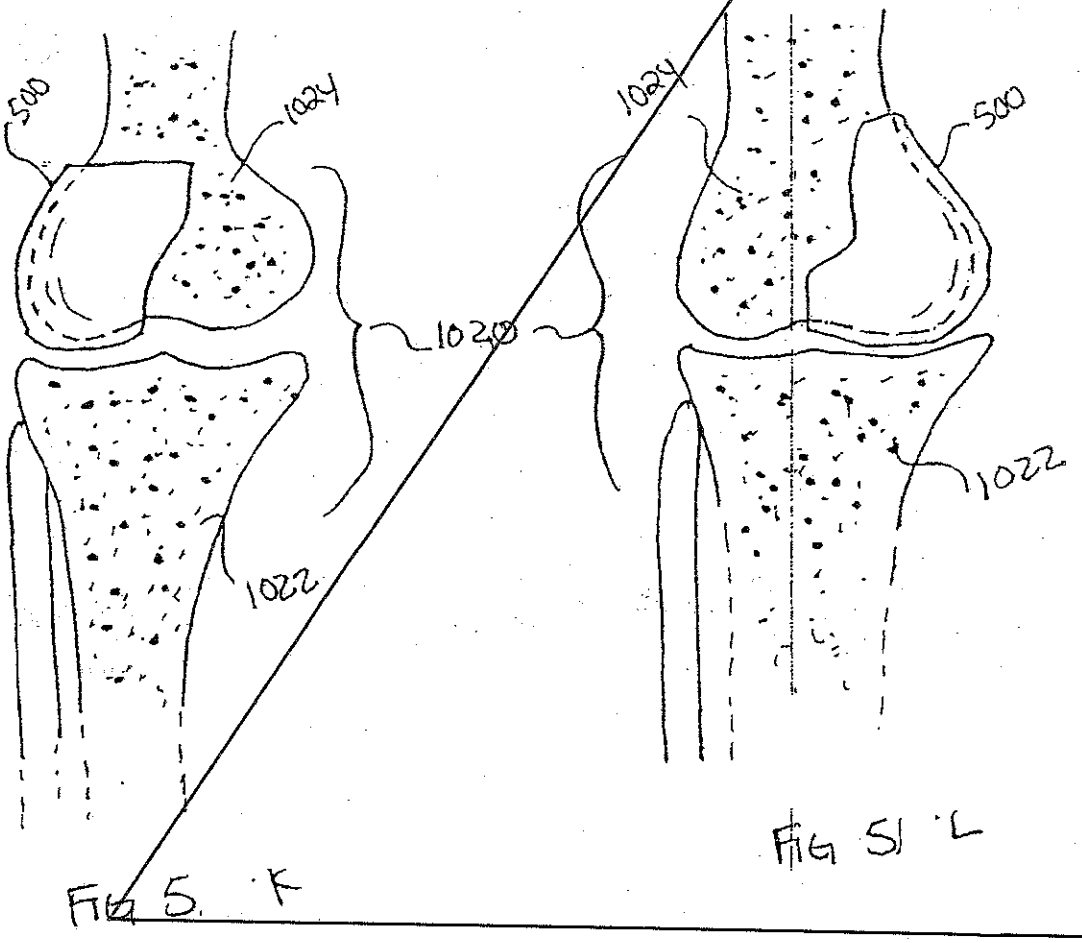


FIG 5. K

FIG 5. L

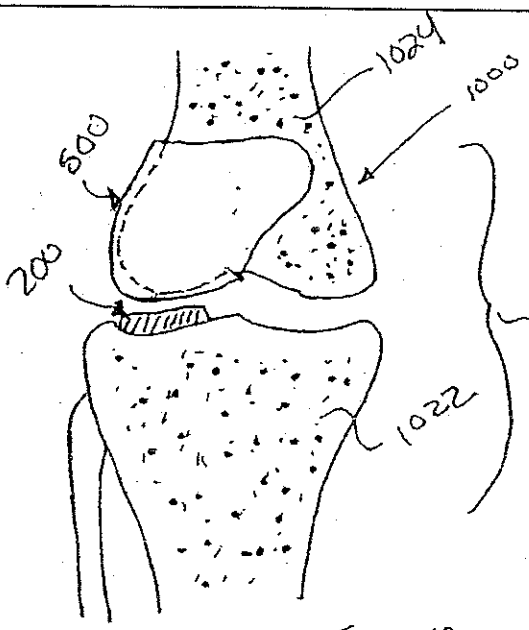


FIG 5M

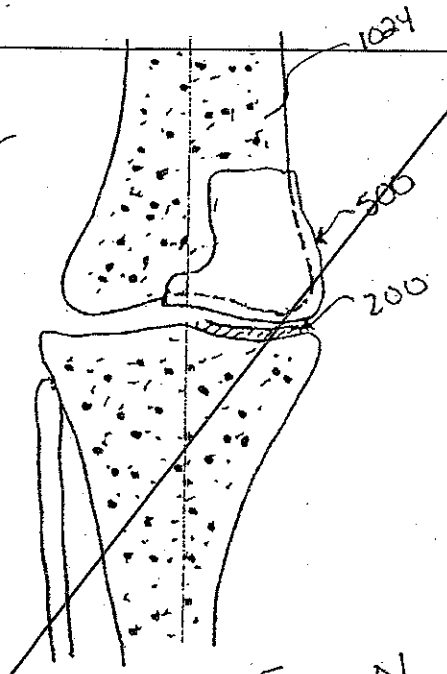


FIG 5N

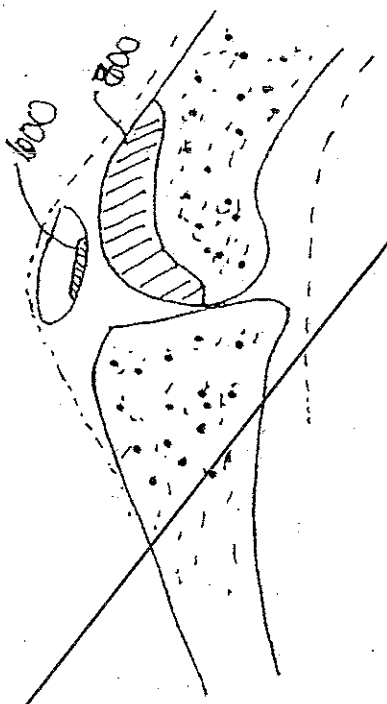


FIG 9A

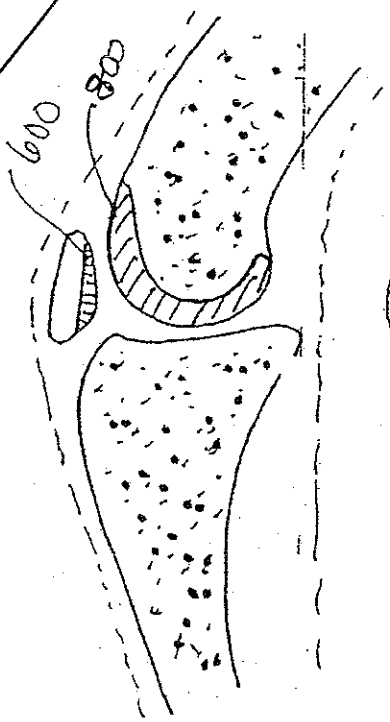


FIG 9B

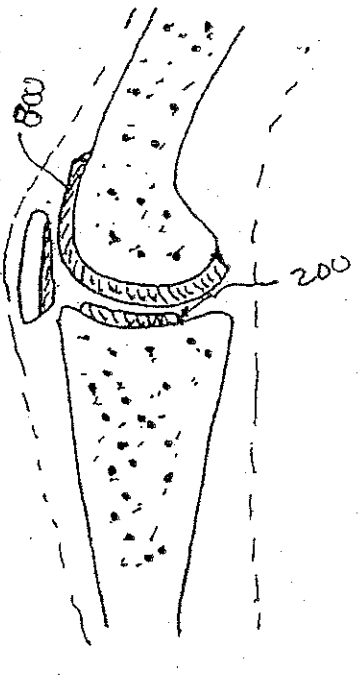


FIG 9C

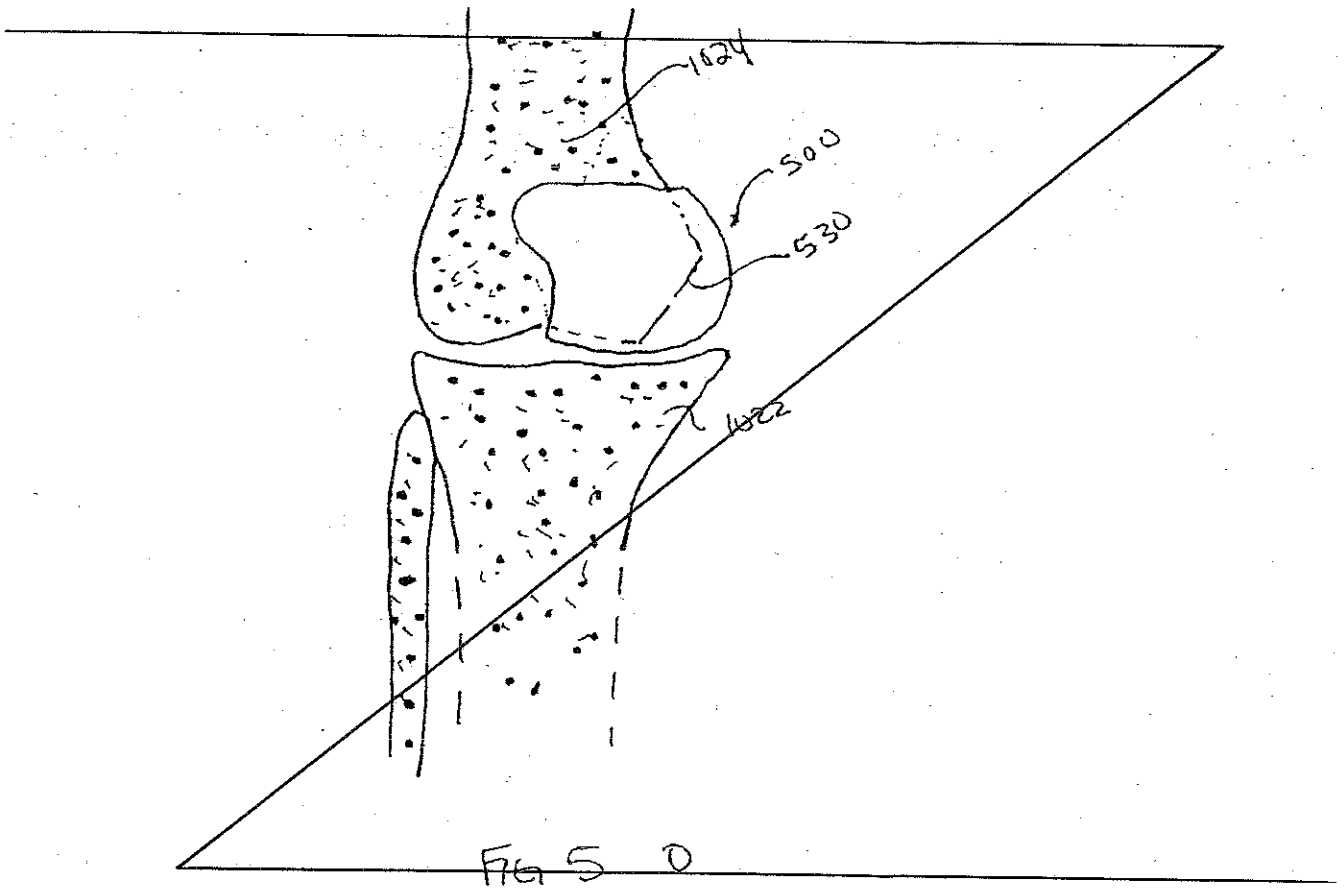


Fig 5 D

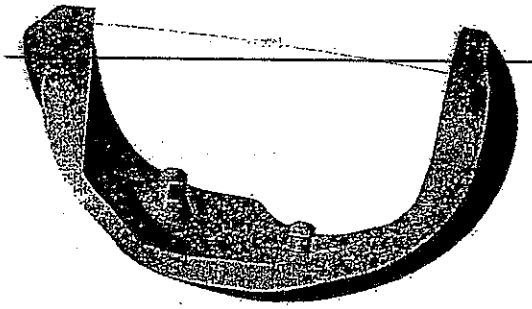


FIG. 5P

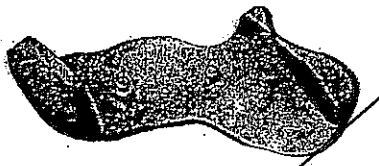


FIG. 5Q

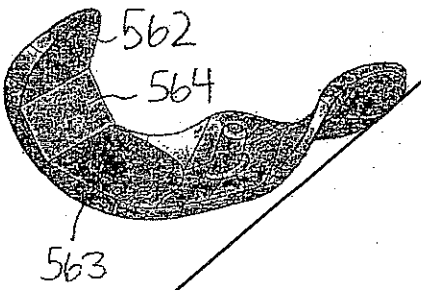


FIG. 5R

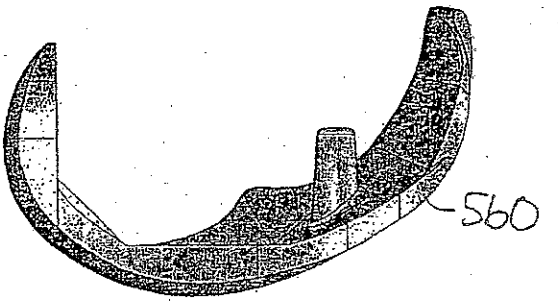


FIG. 5S

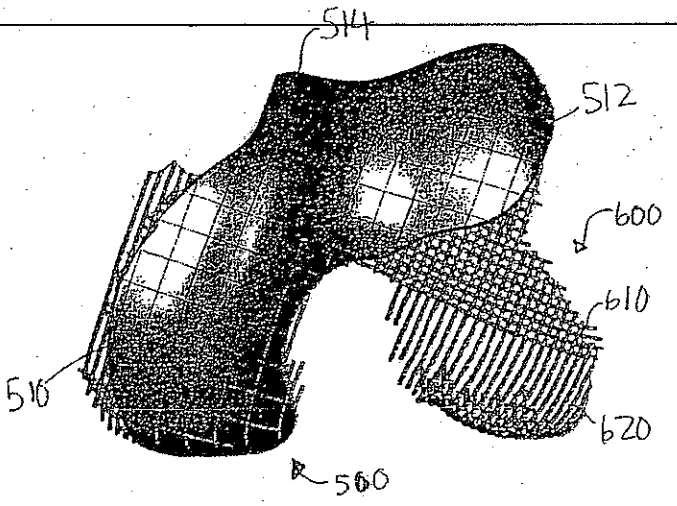


FIG. 6A

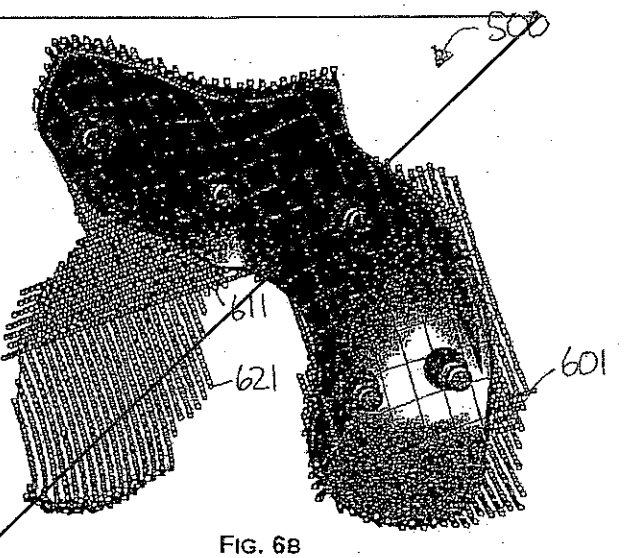


FIG. 6B

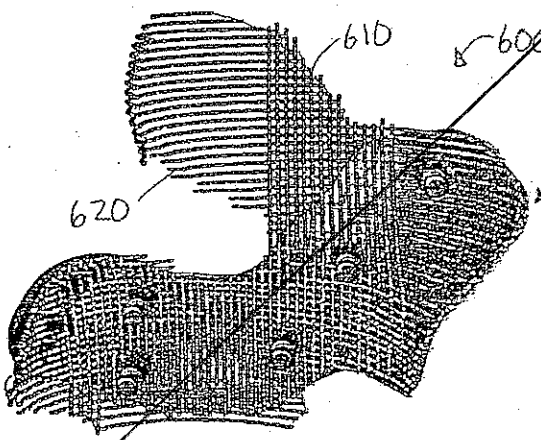


FIG. 6C

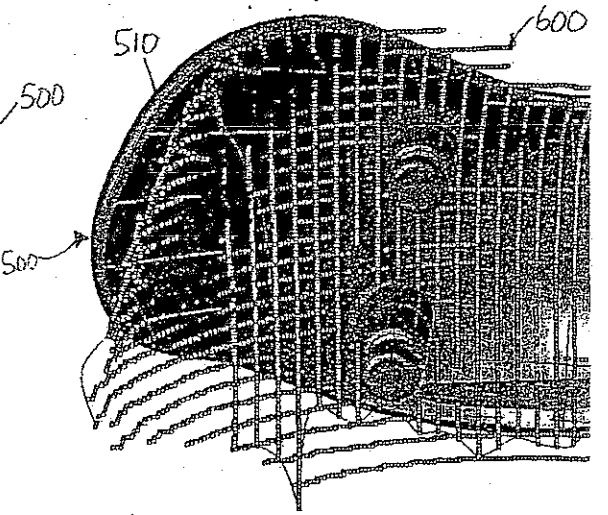


FIG. 6D

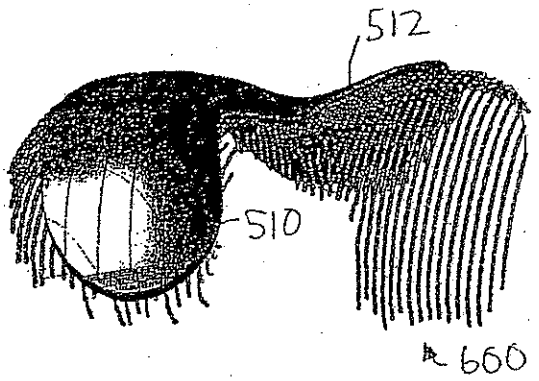


FIG. 6E

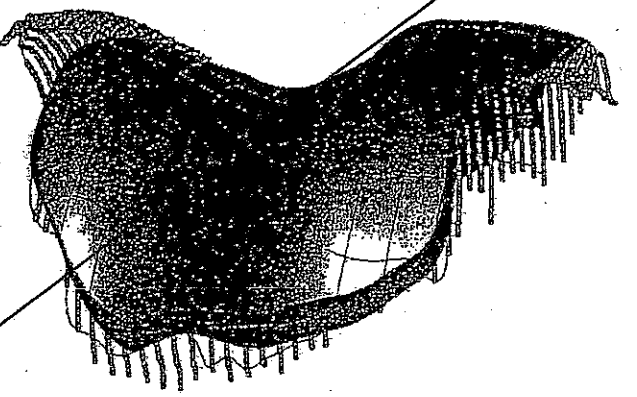


FIG. 6F

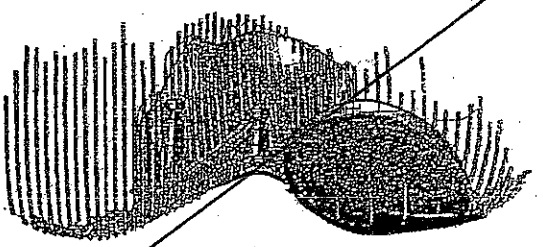


FIG. 6G

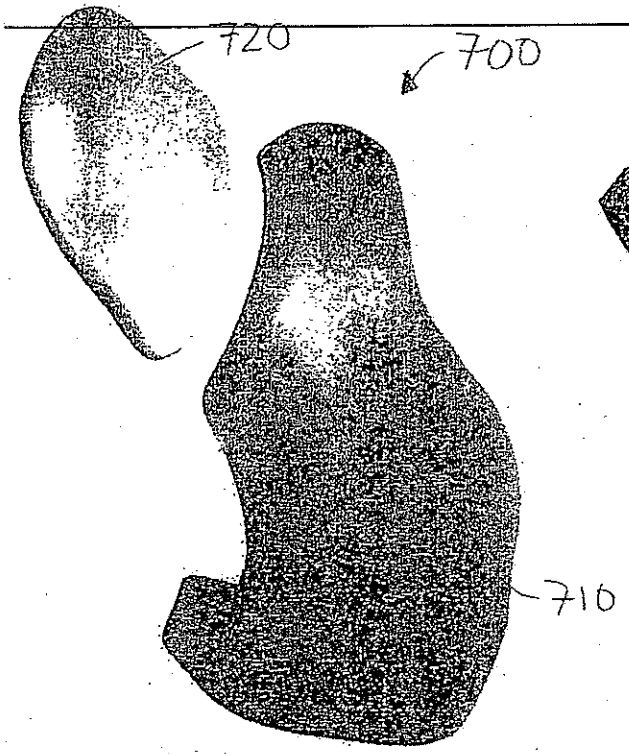


FIG. 7A

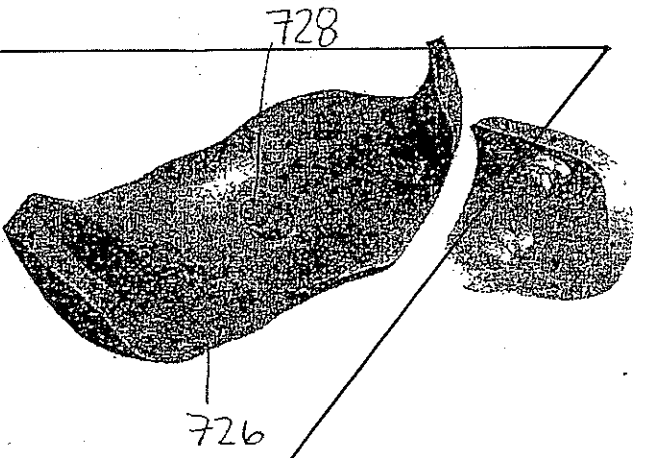


FIG. 7B

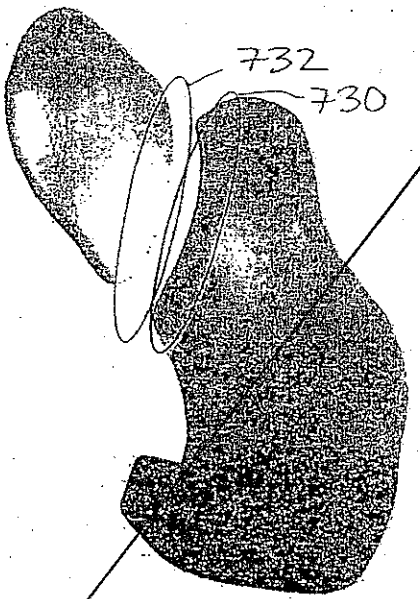


FIG. 7C

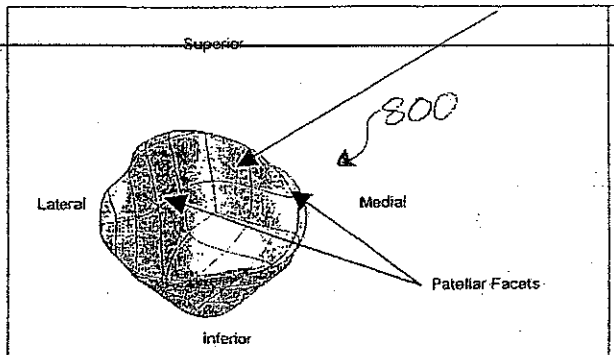


FIG. 8A

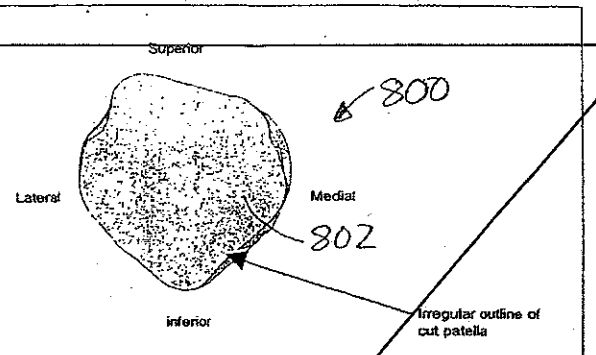


FIG. 8B

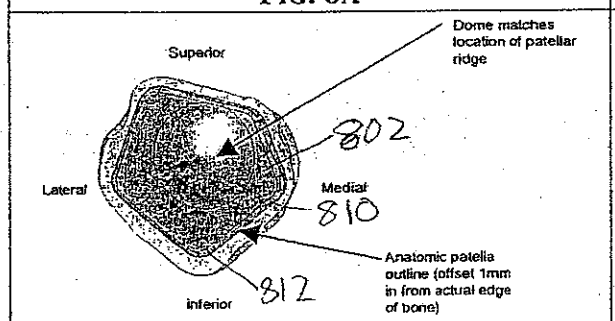


FIG. 8C

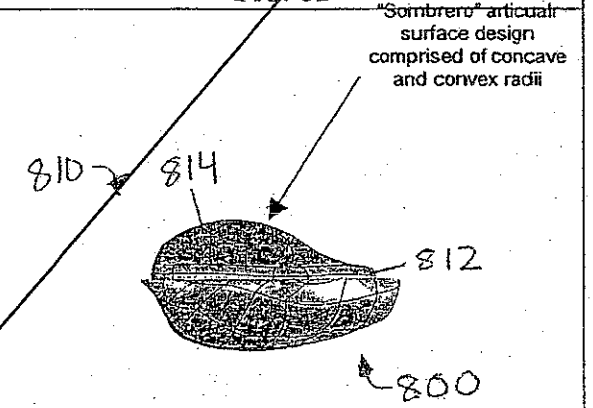


FIG. 8D

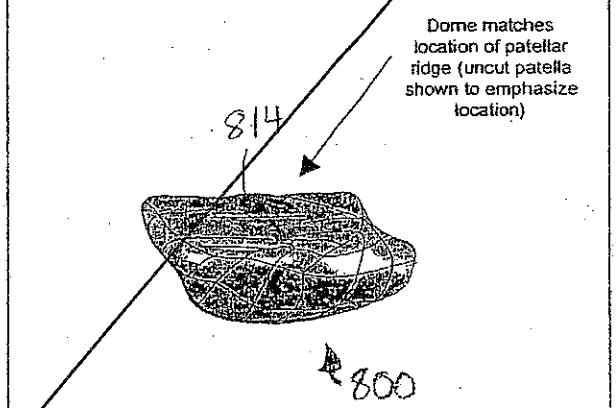


FIG. 8E

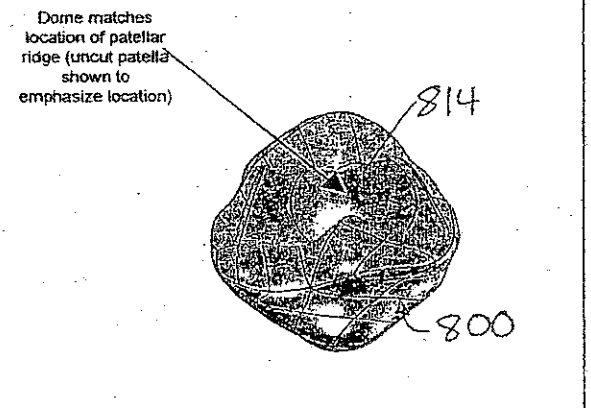


FIG. 8F

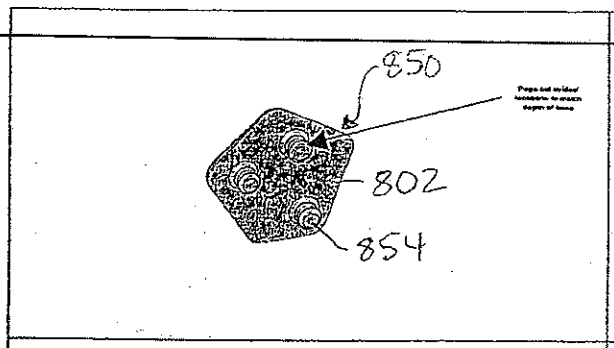


FIG. 8G

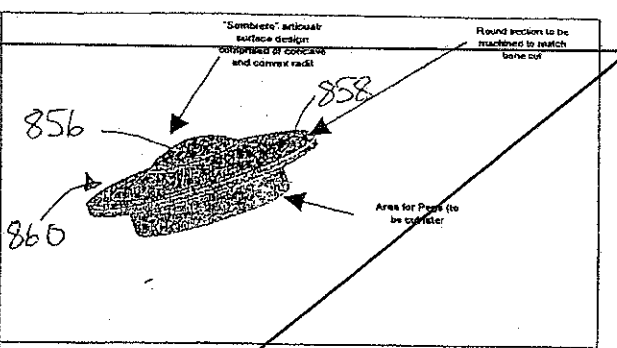


FIG. 8H

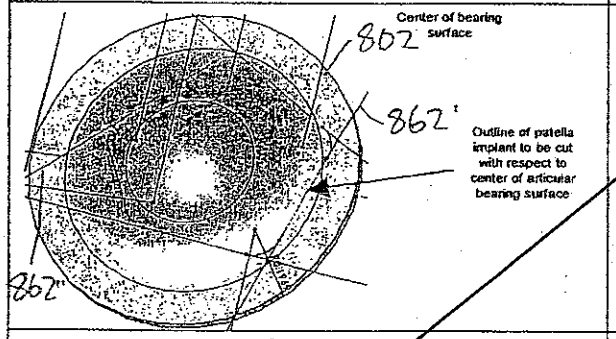


FIG. 8I

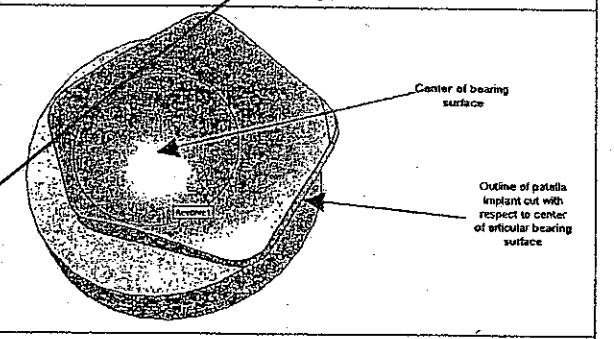
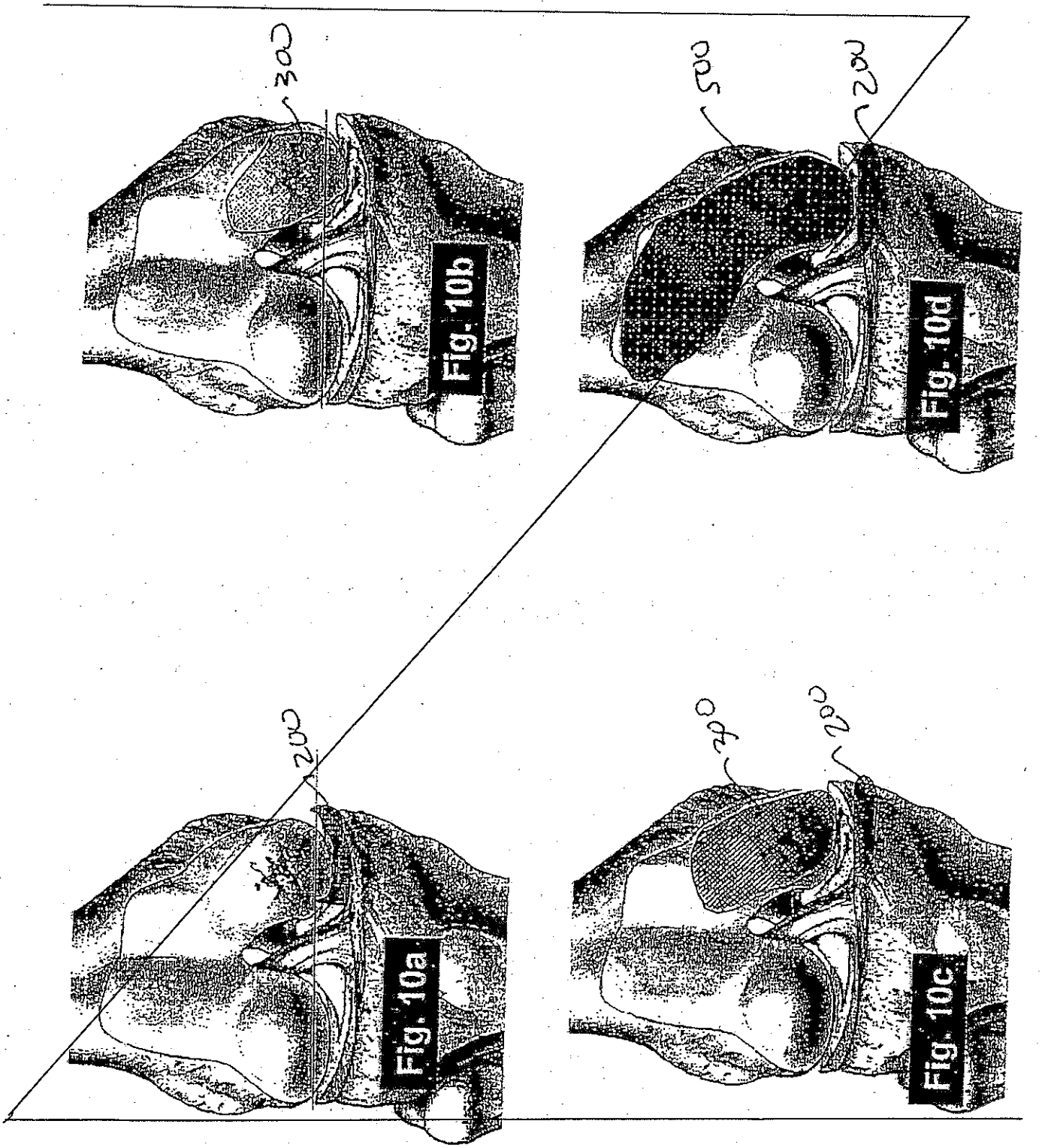


FIG. 8J


300
Fig. 10b
500
200
Fig. 10d
200
Fig. 10a
400
200
Fig. 10c

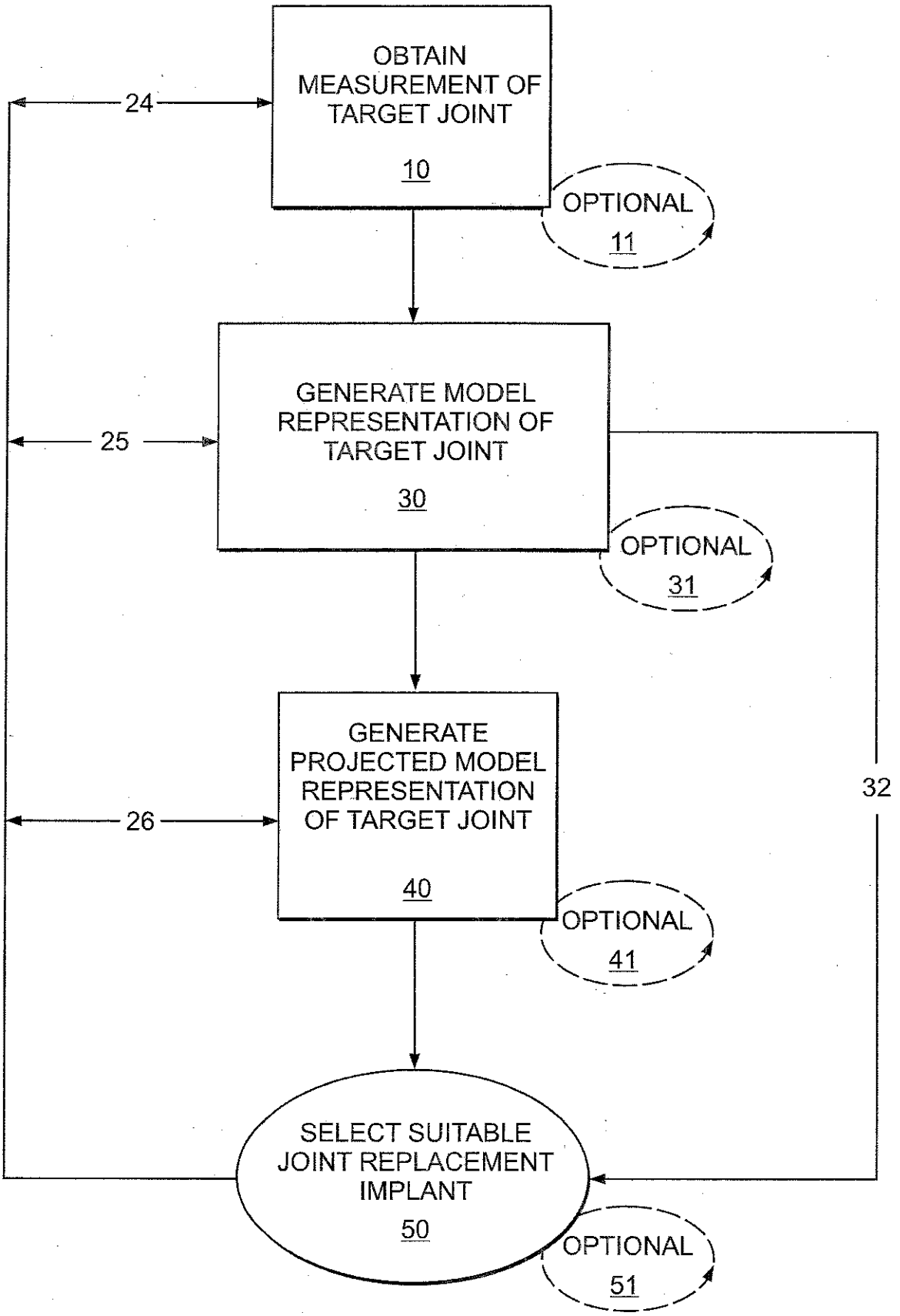

OBTAIN MEASUREMENT OF TARGET JOINT
10
OPTIONAL
11
24
GENERATE MODEL REPRESENTATION OF TARGET JOINT
30
OPTIONAL
31
25
GENERATE PROJECTED MODEL REPRESENTATION OF TARGET JOINT
40
OPTIONAL
41
26
SELECT SUITABLE JOINT REPLACEMENT IMPLANT
50
OPTIONAL
51
32

FIG. 1A

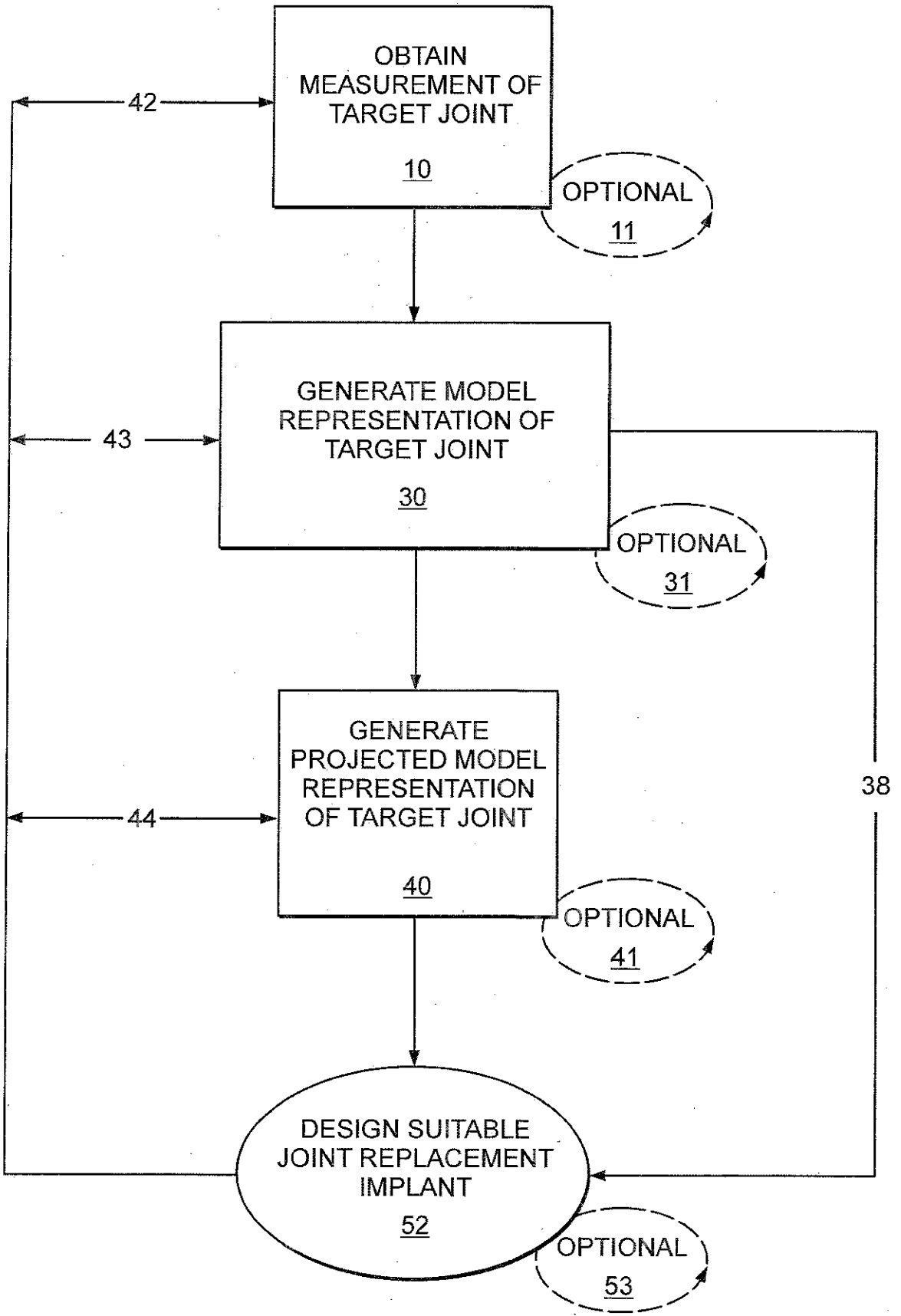

OBTAIN MEASUREMENT OF TARGET JOINT
10
OPTIONAL
11
42
GENERATE MODEL REPRESENTATION OF TARGET JOINT
30
OPTIONAL
31
43
GENERATE PROJECTED MODEL REPRESENTATION OF TARGET JOINT
40
OPTIONAL
41
44
38
DESIGN SUITABLE JOINT REPLACEMENT IMPLANT
52
OPTIONAL
53

FIG. 1B

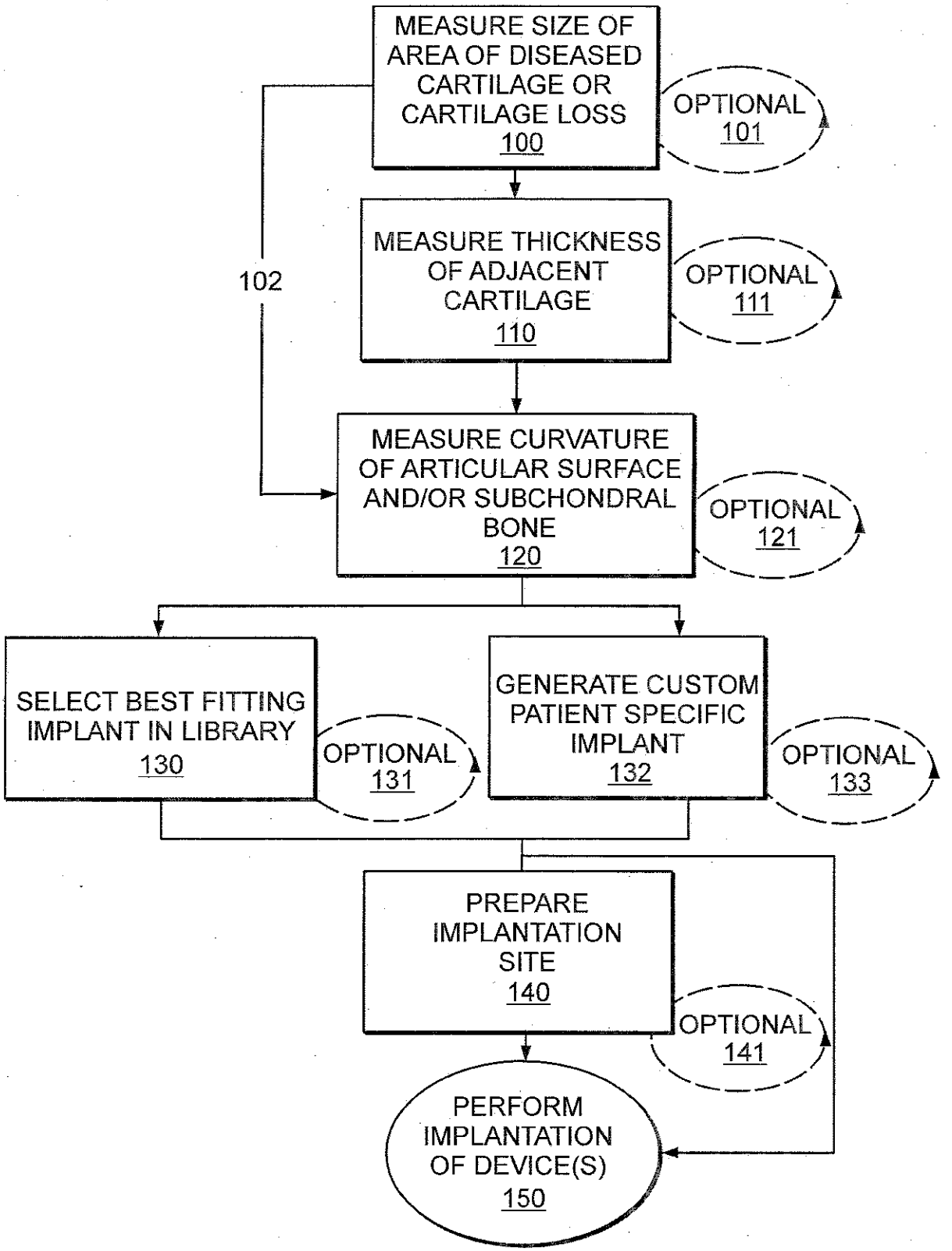

MEASURE SIZE OF AREA OF DISEASED CARTILAGE OR CARTILAGE LOSS 100
OPTIONAL 101
MEASURE THICKNESS OF ADJACENT CARTILAGE 110
OPTIONAL 111
102
MEASURE CURVATURE OF ARTICULAR SURFACE AND/OR SUBCHONDRAL BONE 120
OPTIONAL 121
SELECT BEST FITTING IMPLANT IN LIBRARY 130
OPTIONAL 131
GENERATE CUSTOM PATIENT SPECIFIC IMPLANT 132
OPTIONAL 133
PREPARE IMPLANTATION SITE 140
OPTIONAL 141
PERFORM IMPLANTATION OF DEVICE(S) 150

FIG. 1C

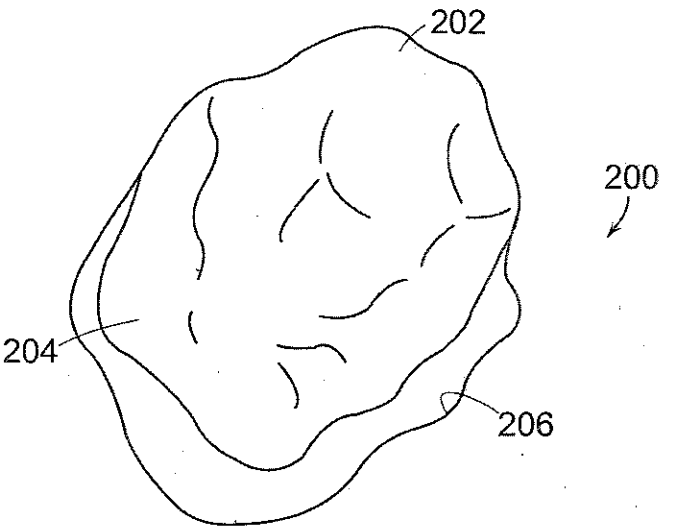


FIG. 2A

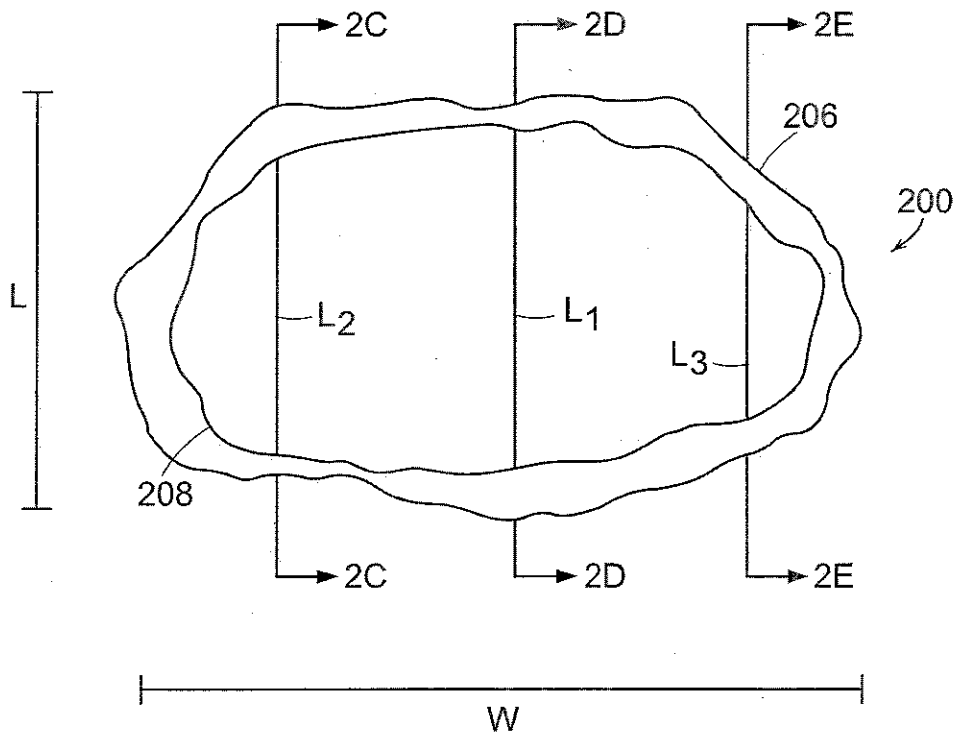


FIG. 2B

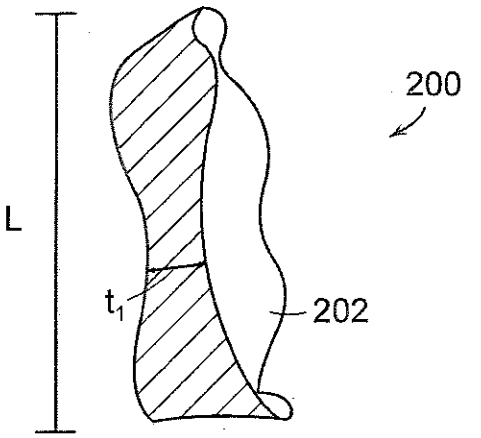


FIG. 2C

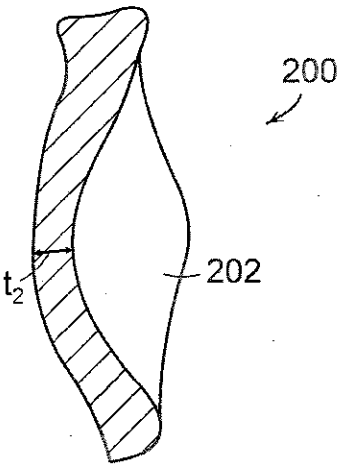


FIG. 2D

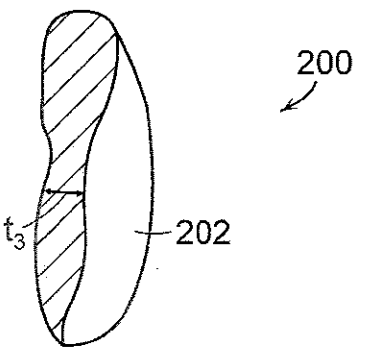


FIG. 2E

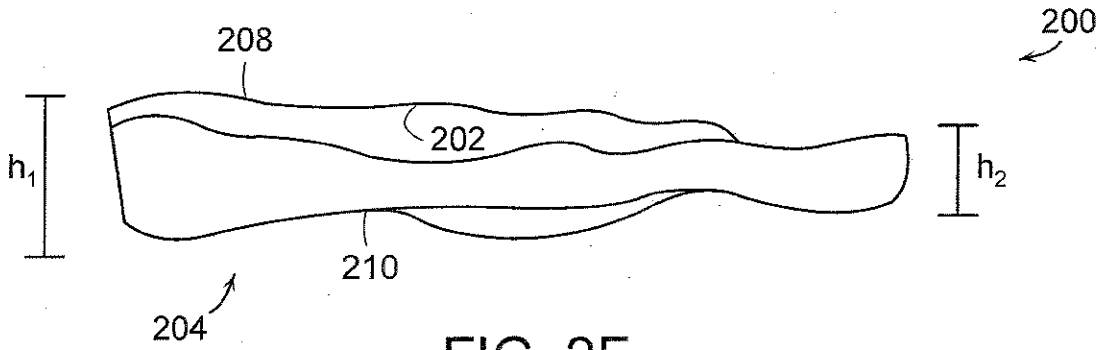


FIG. 2F

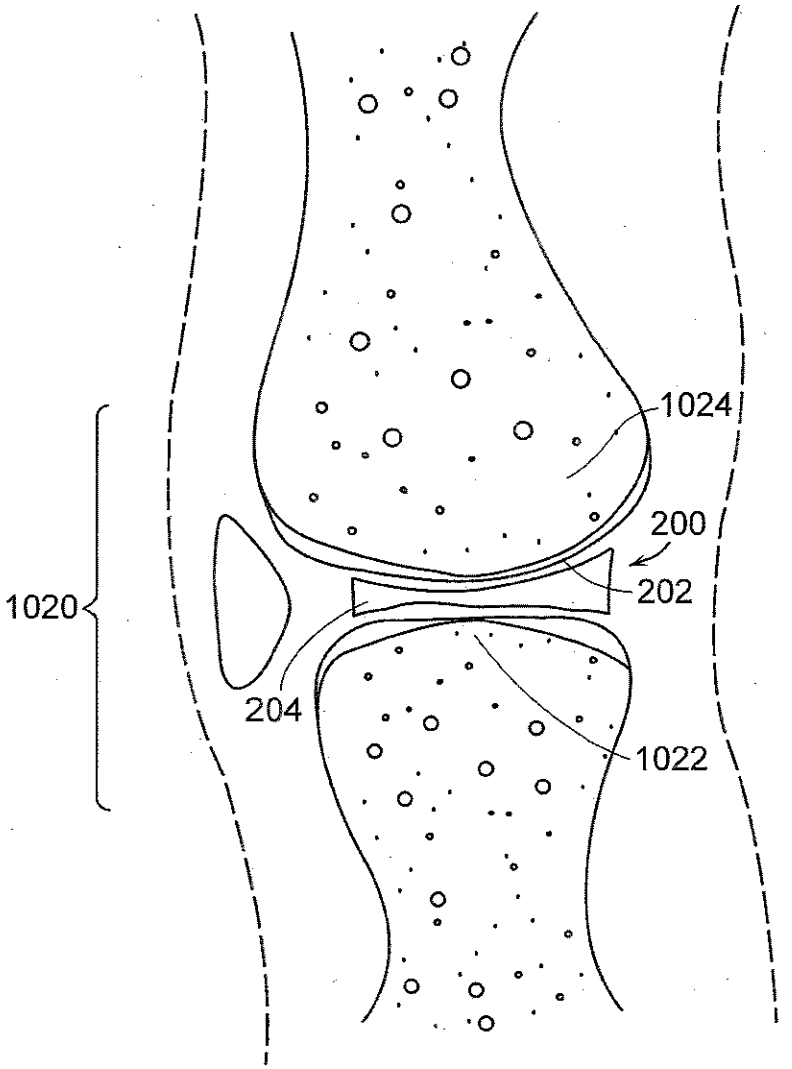


FIG. 2G

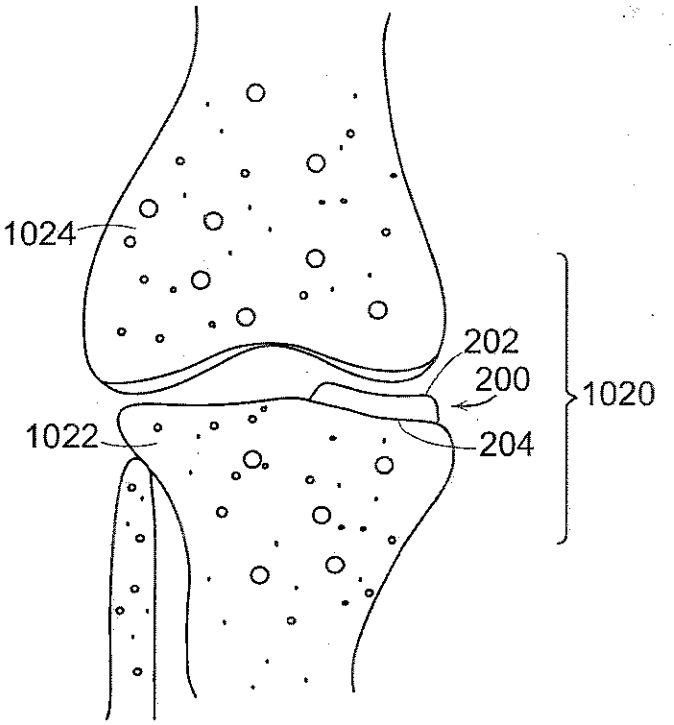


FIG. 2H

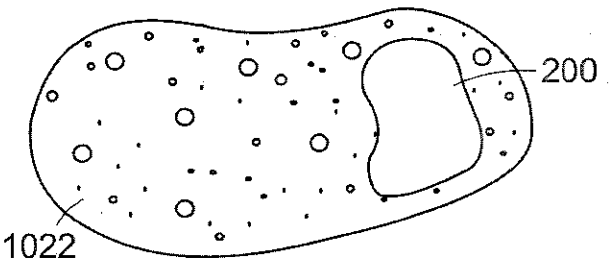


FIG. 2I

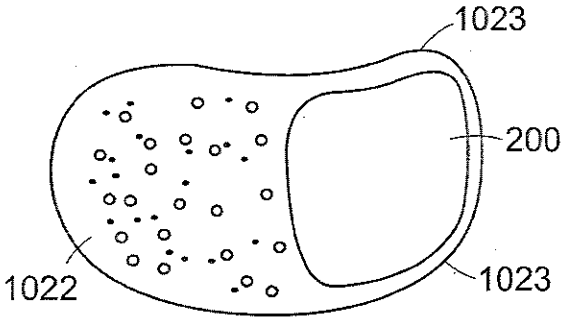


FIG. 2J

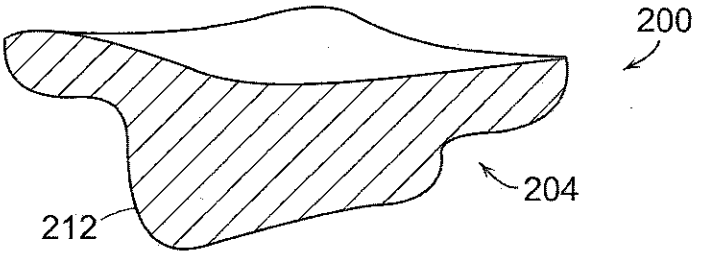


FIG. 2K

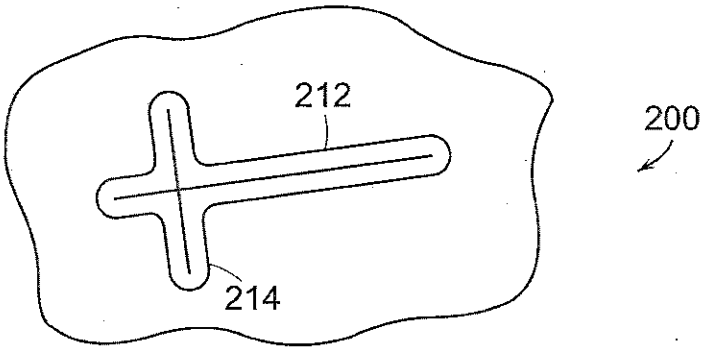


FIG. 2L

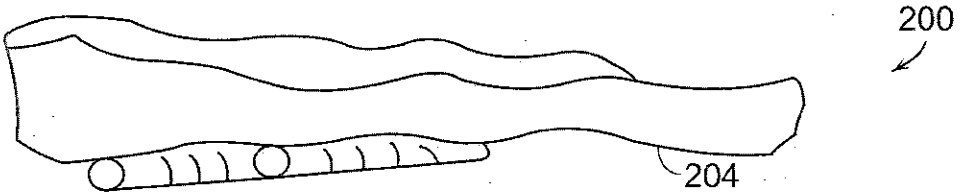


FIG. 2M

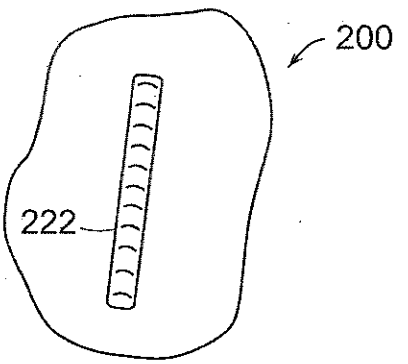


FIG. 2N 1

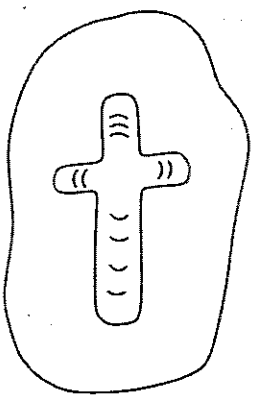


FIG. 2O 1

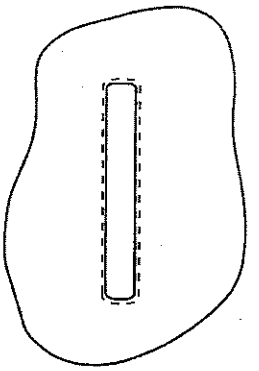


FIG. 2N 2

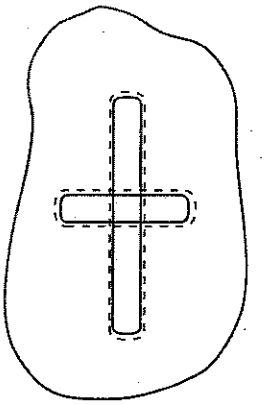


FIG. 2O 2

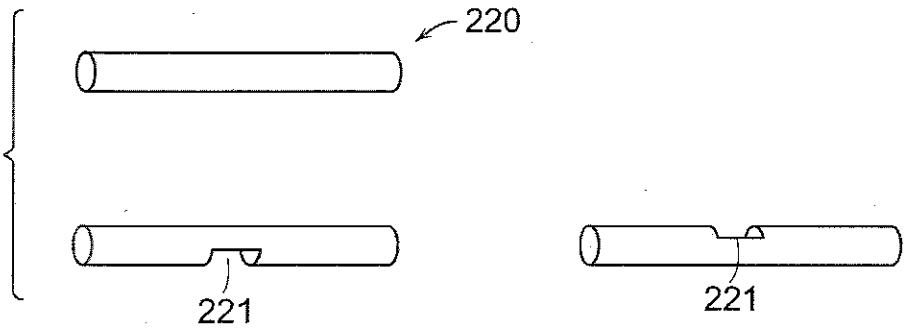


FIG. 2P

FIG. 2Q

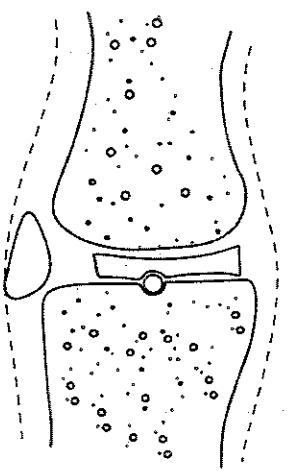
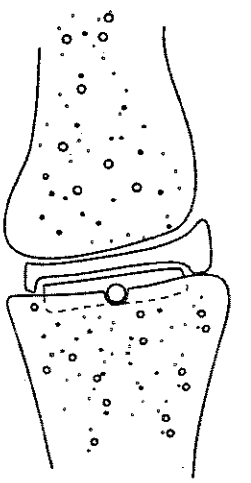


FIG. 2R



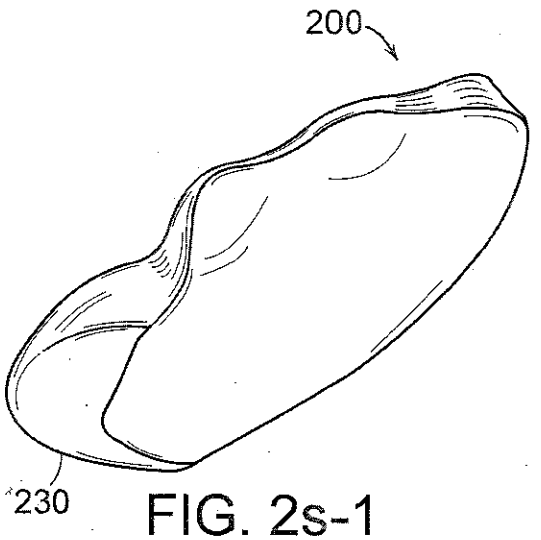


FIG. 2s-1

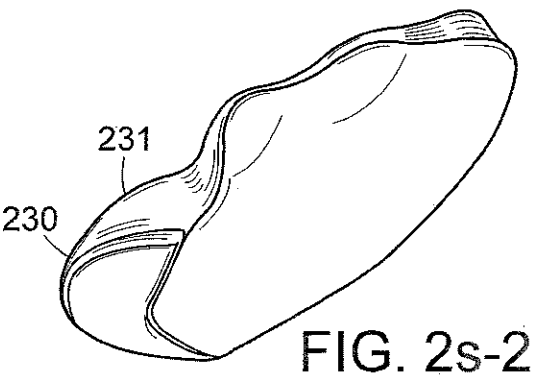


FIG. 2s-2

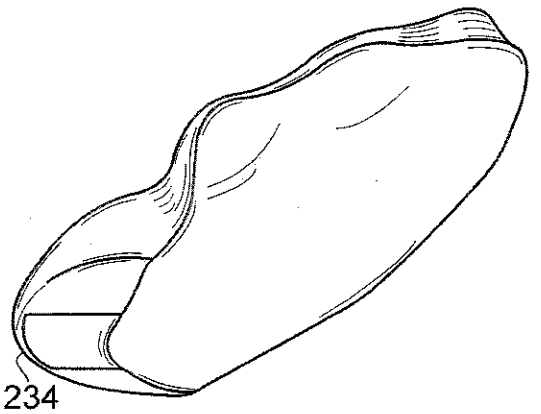


FIG. 2s-3

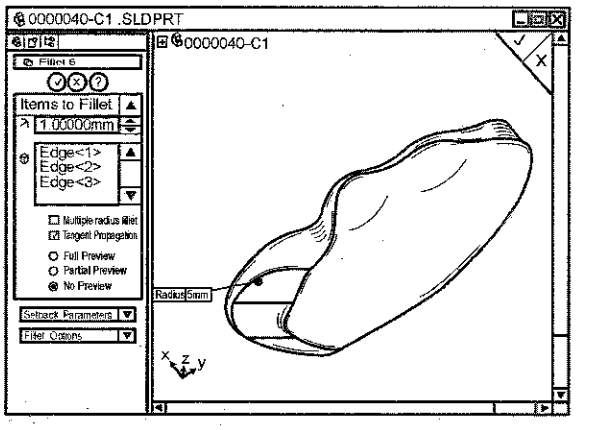


FIG. 2s-4

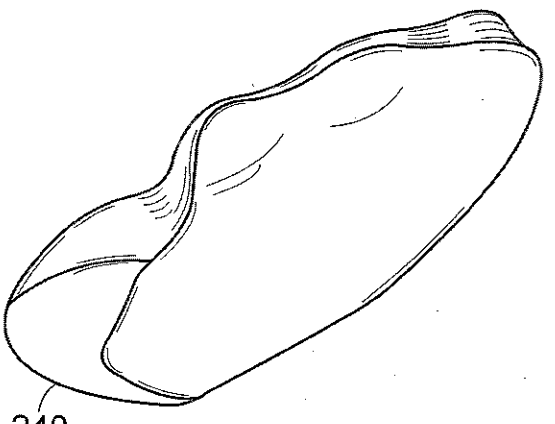


FIG. 2s-5

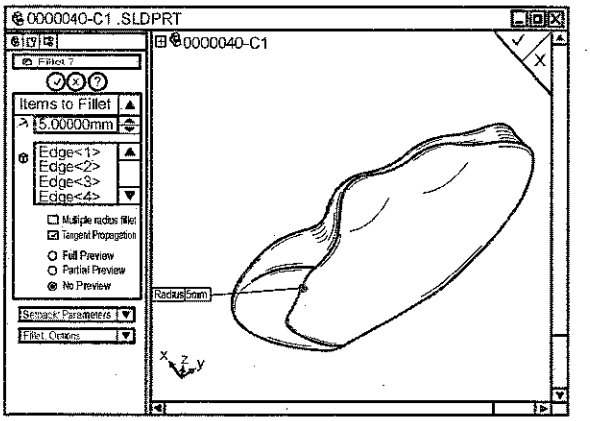


FIG. 2s-6

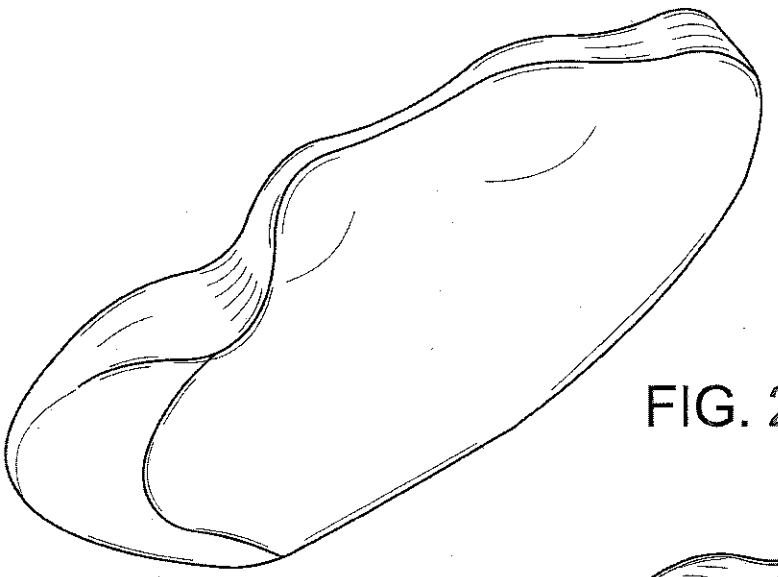


FIG. 2s-7

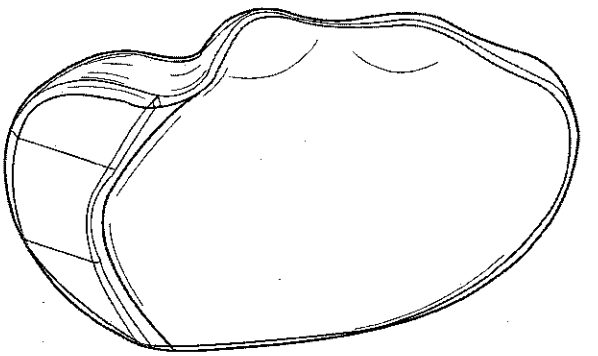


FIG. 2s-8

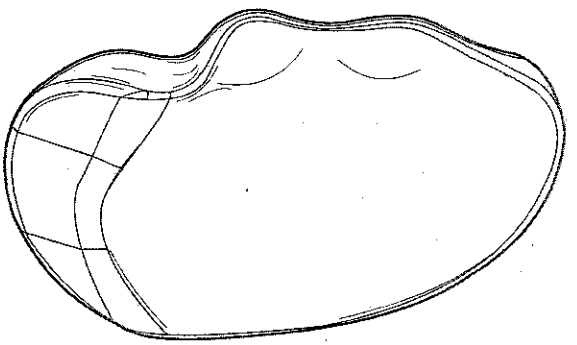


FIG. 2s-9

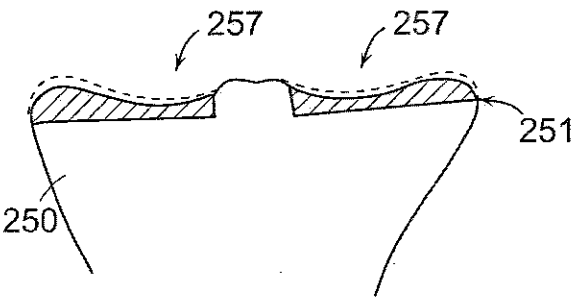


FIG. 2T(1)

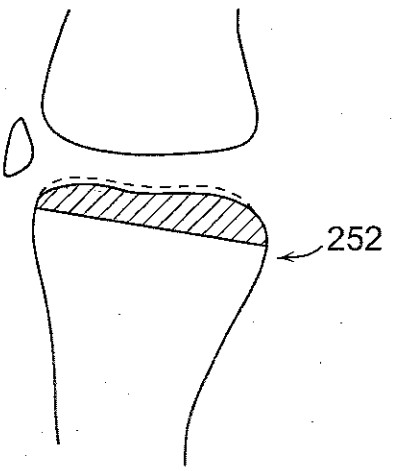


FIG. 2T(2)

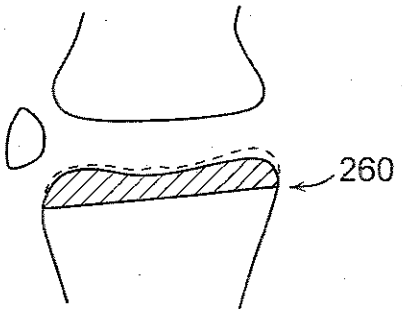


FIG. 2T(3)

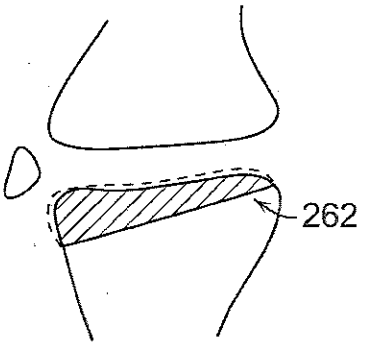


FIG. 2T(4)

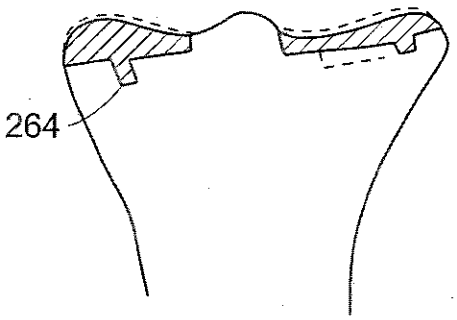


FIG. 2T(5)

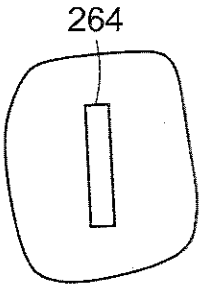


FIG. 2T(6)

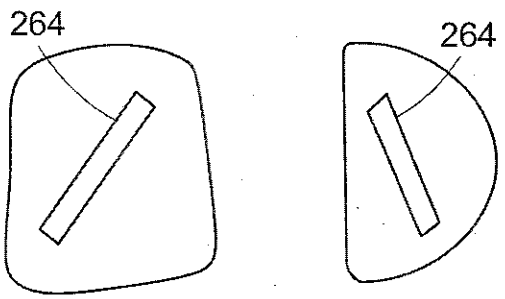


FIG. 2T(7)

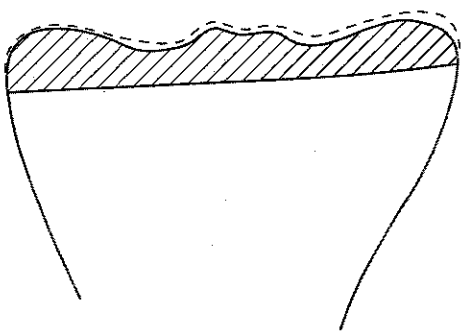


FIG. 2T(8)

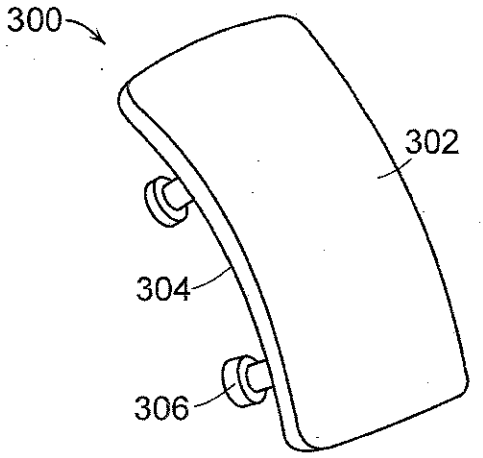


FIG. 3A

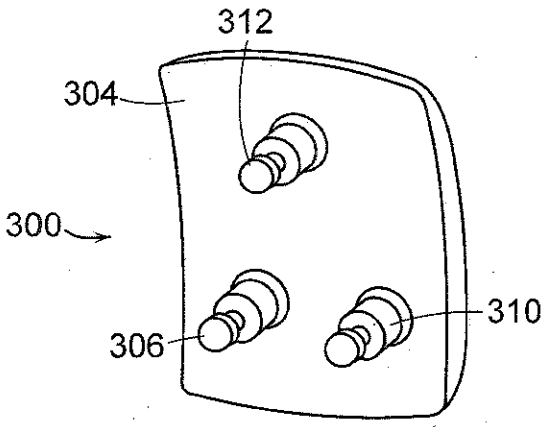


FIG. 3B

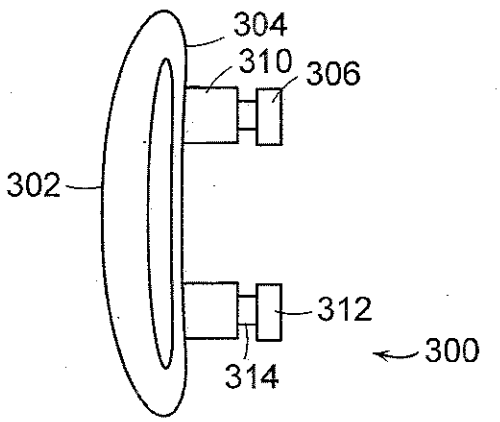


FIG. 3C

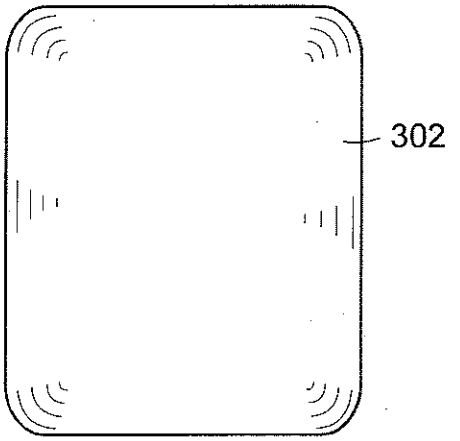


FIG. 3D

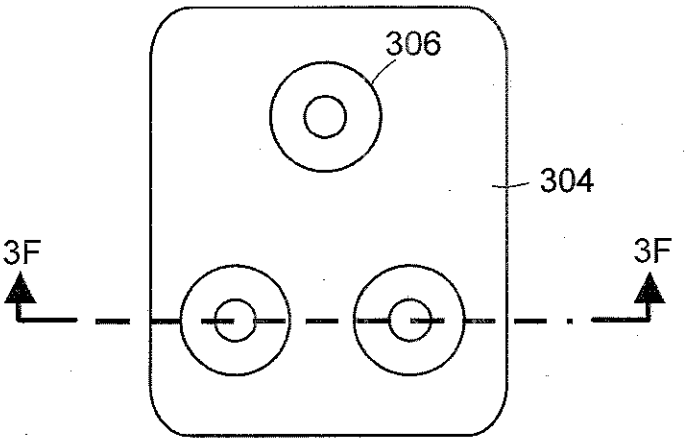


FIG. 3E

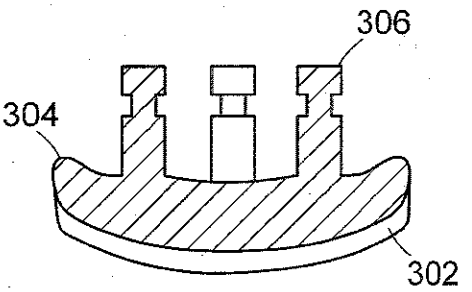


FIG. 3F

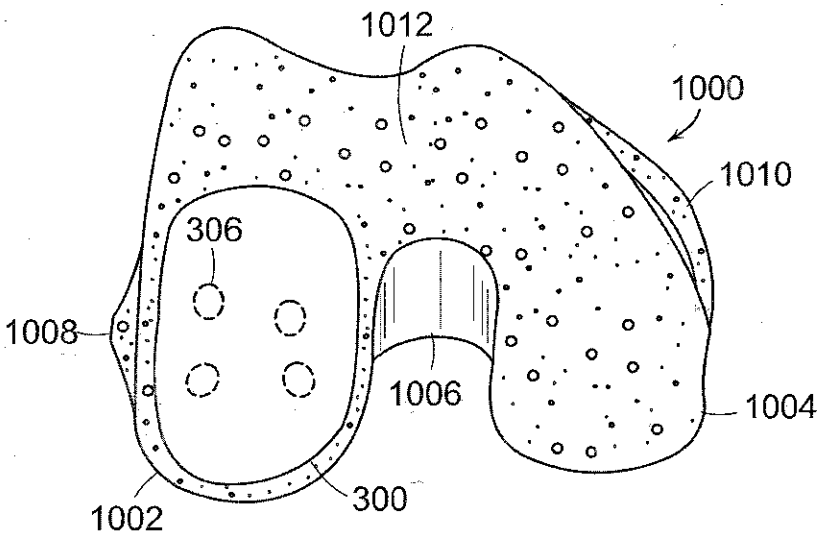


FIG. 3G

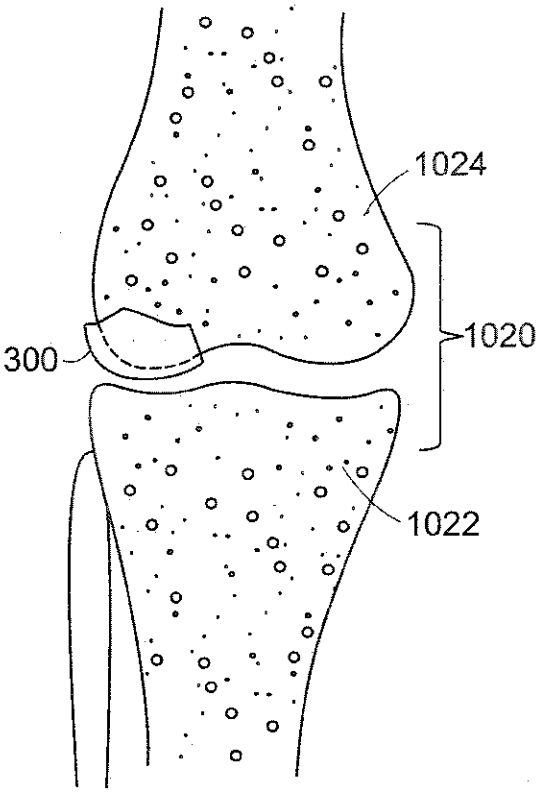


FIG. 3H

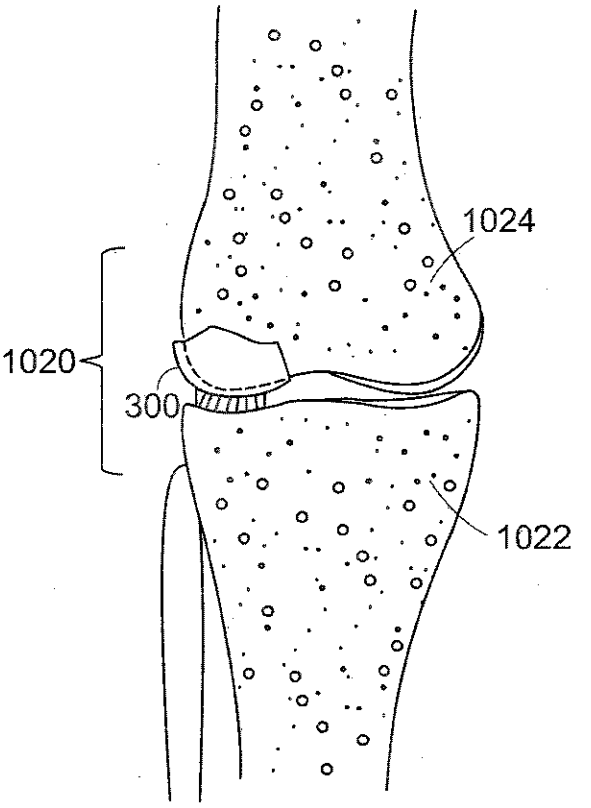


FIG. 3I

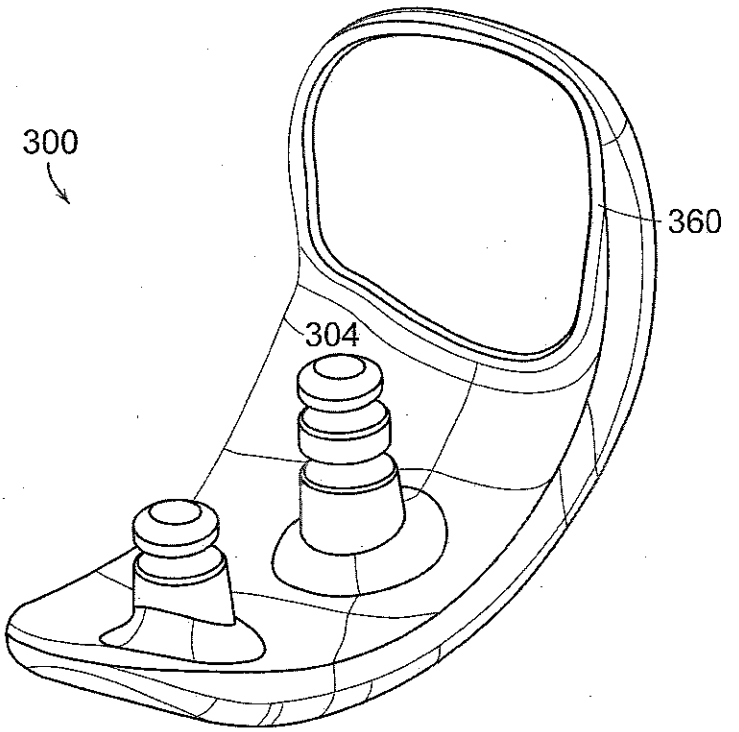


FIG. 3J

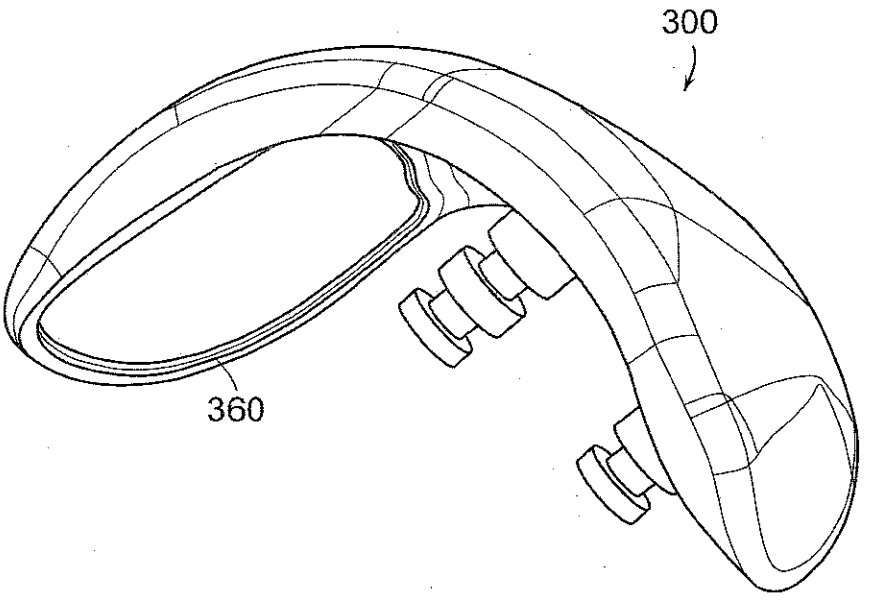
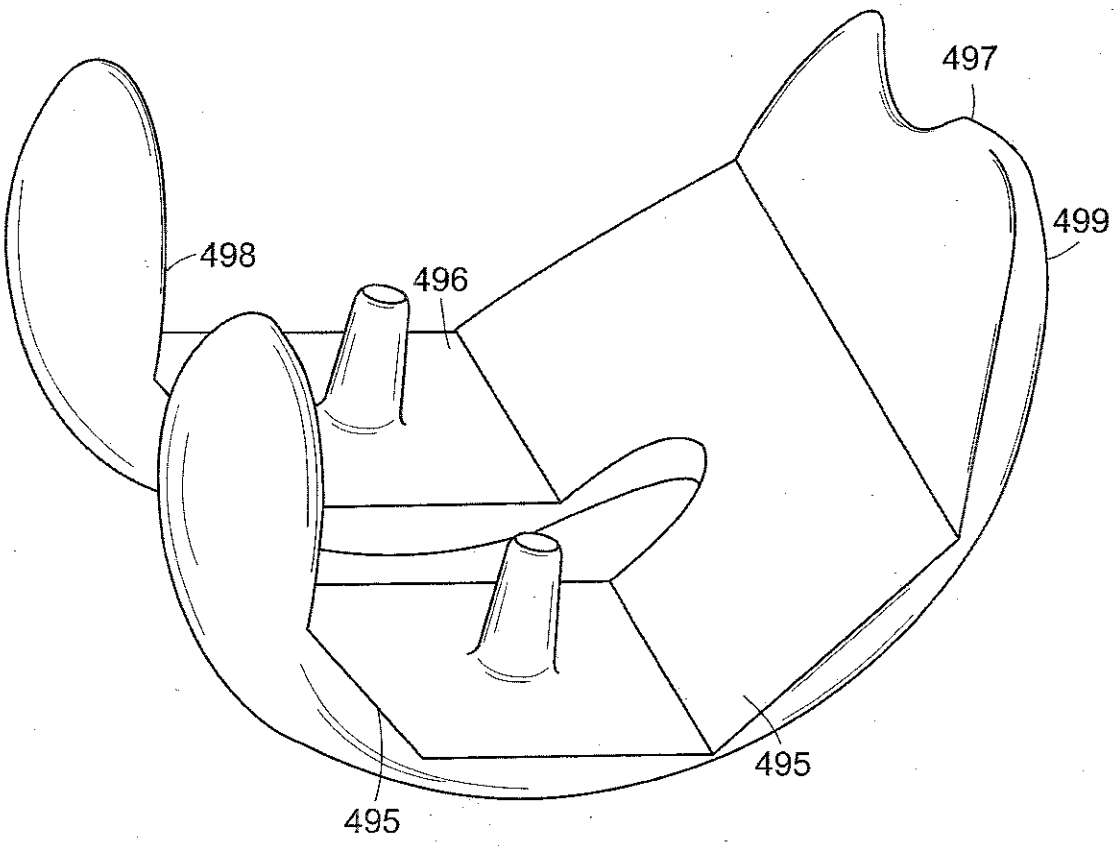


FIG. 3K



PRIOR ART

FIG. 4A

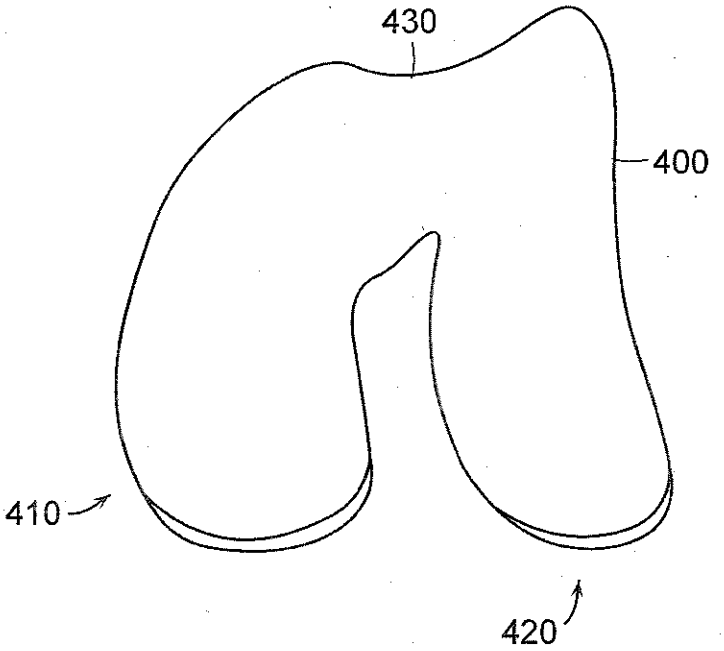


FIG. 4B

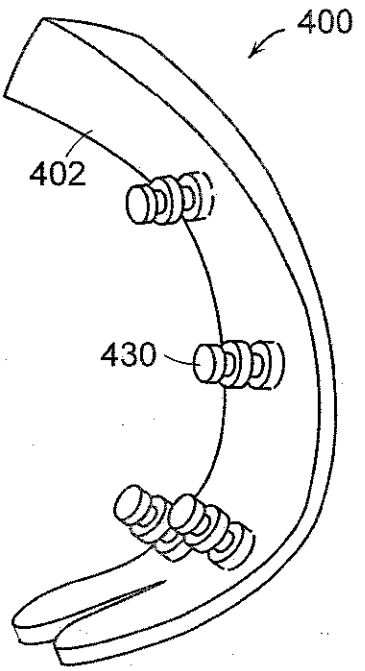


FIG. 4C

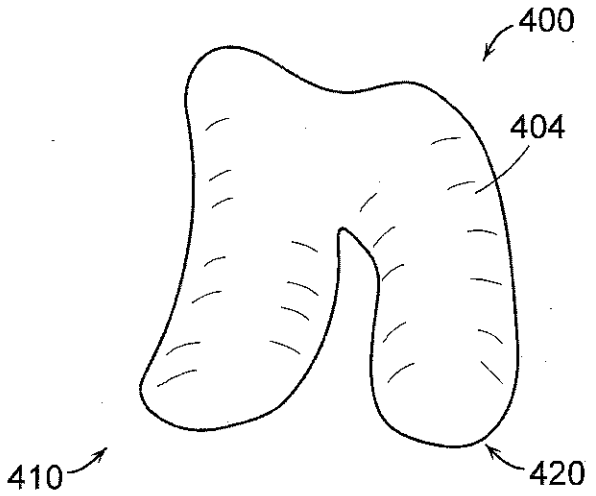


FIG. 4D

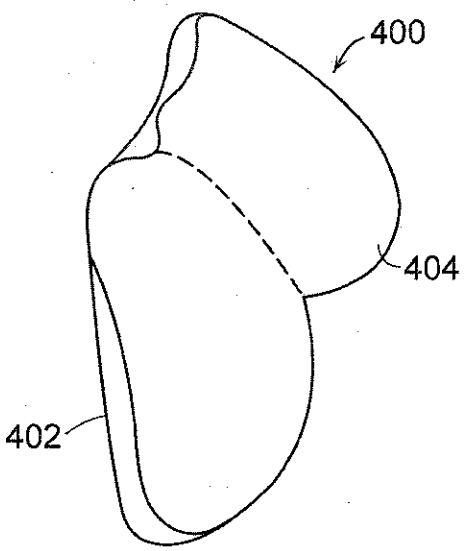


FIG. 4E

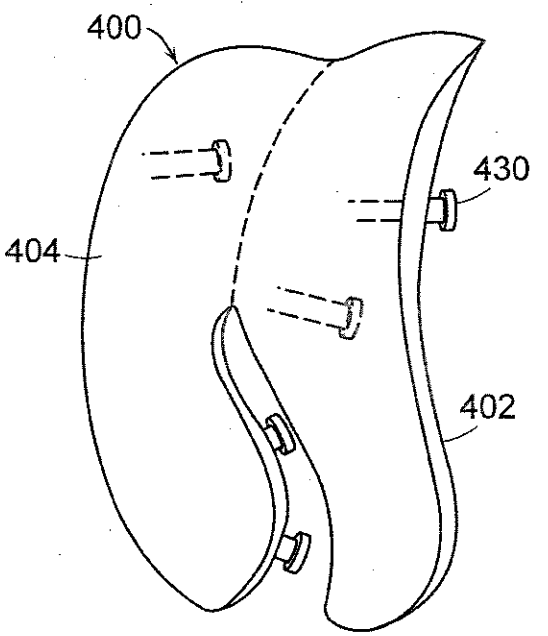


FIG. 4F

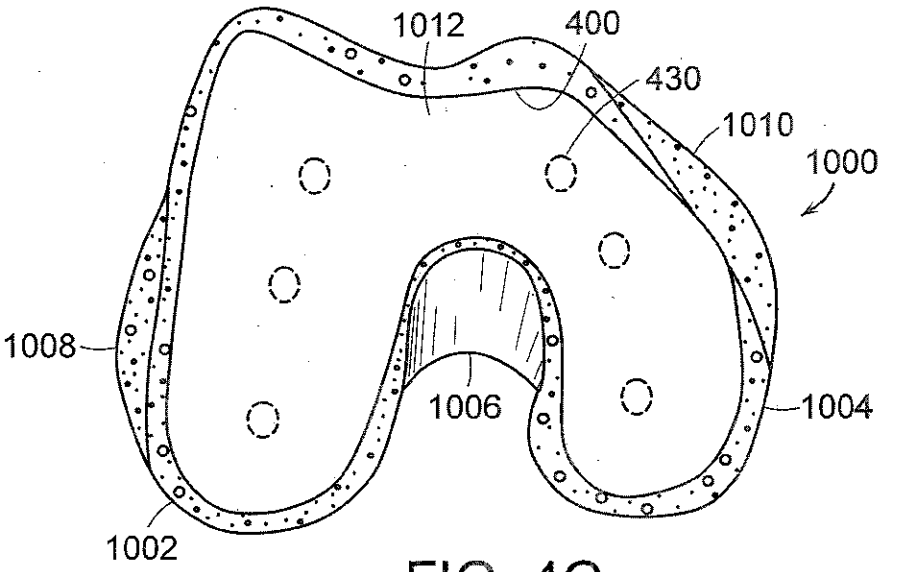


FIG. 4G

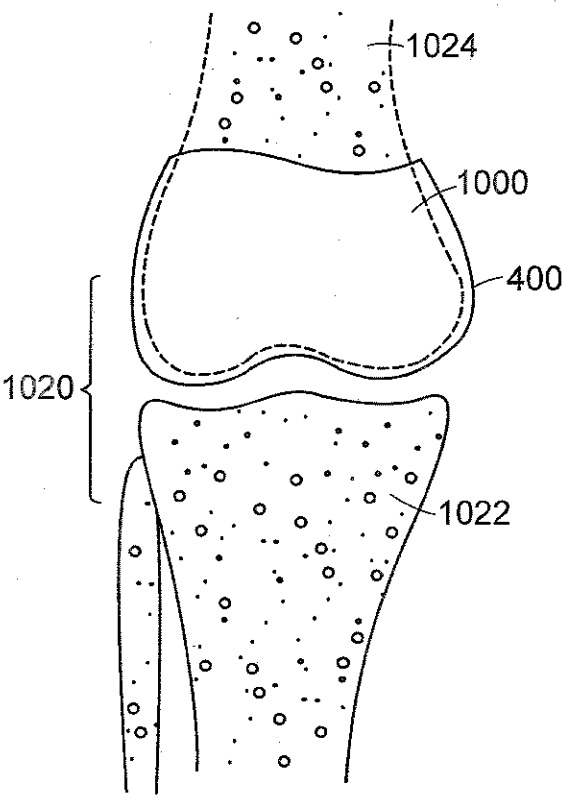


FIG. 4H

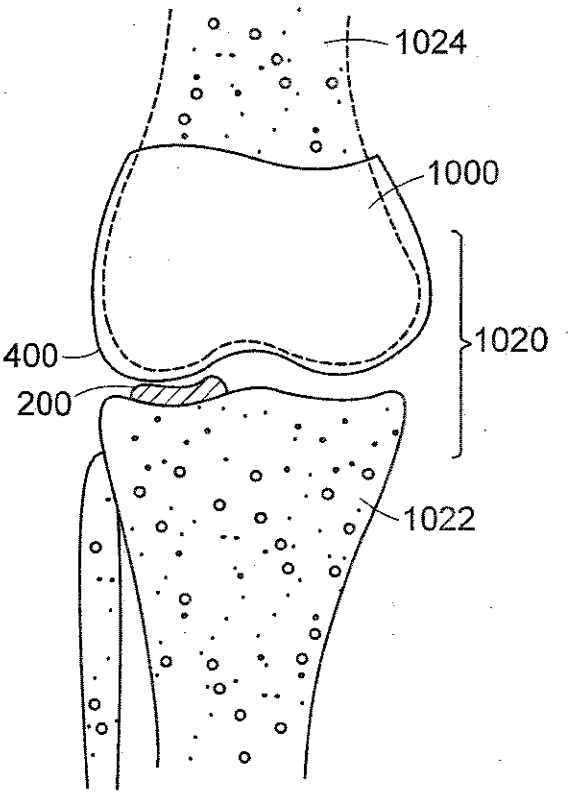


FIG. 4I

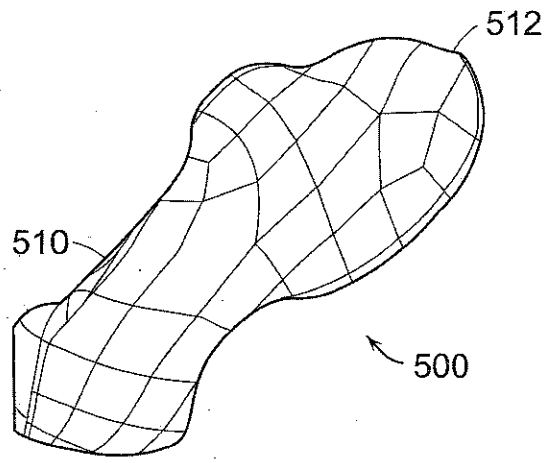


FIG. 5A

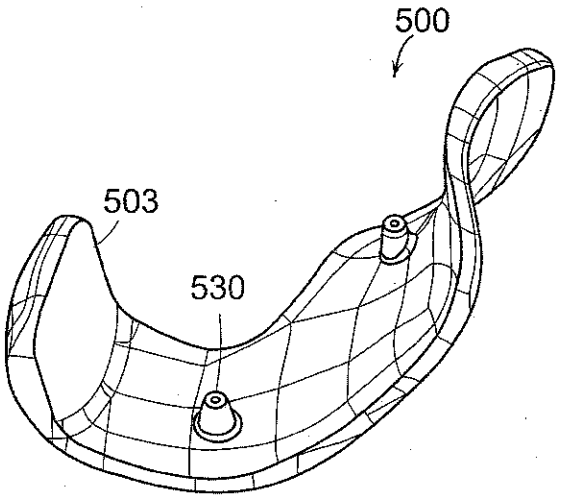


FIG. 5B

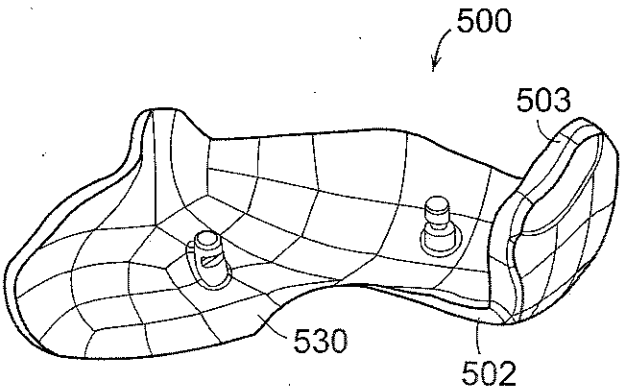


FIG. 5C

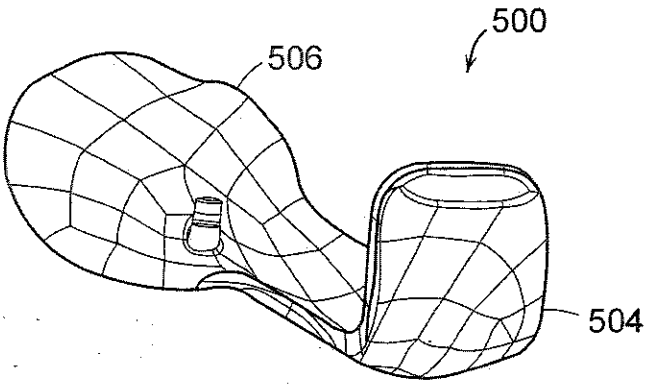


FIG. 5D

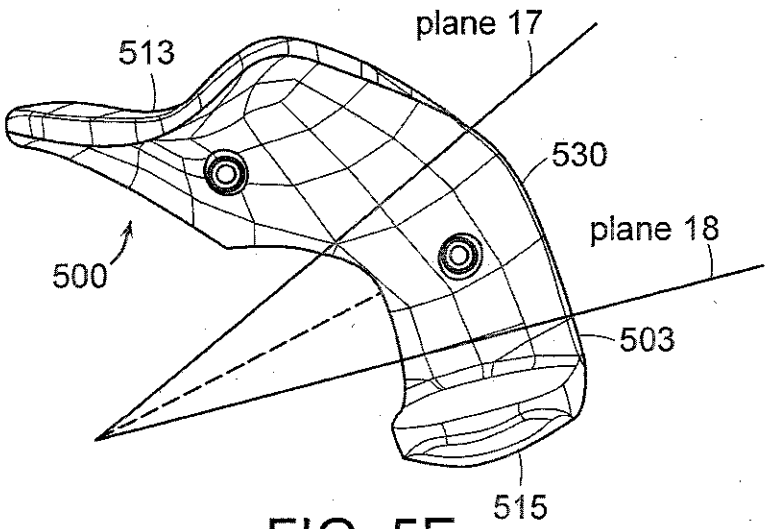


FIG. 5E

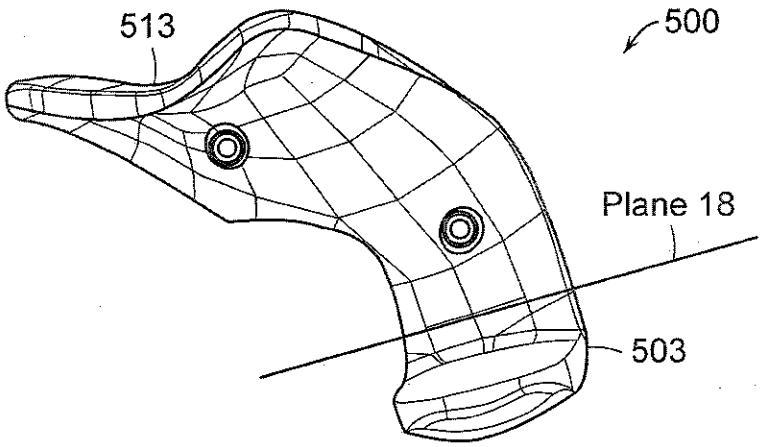


FIG. 5F

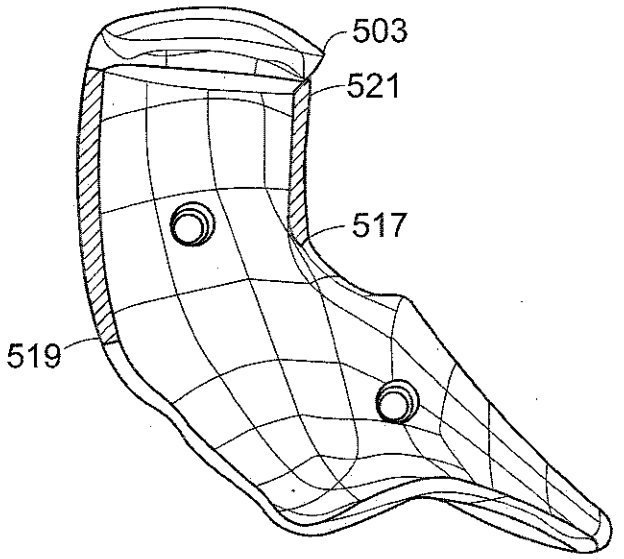


FIG. 5G

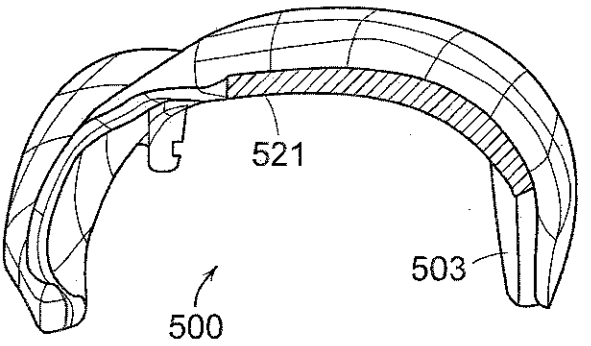


FIG. 5H

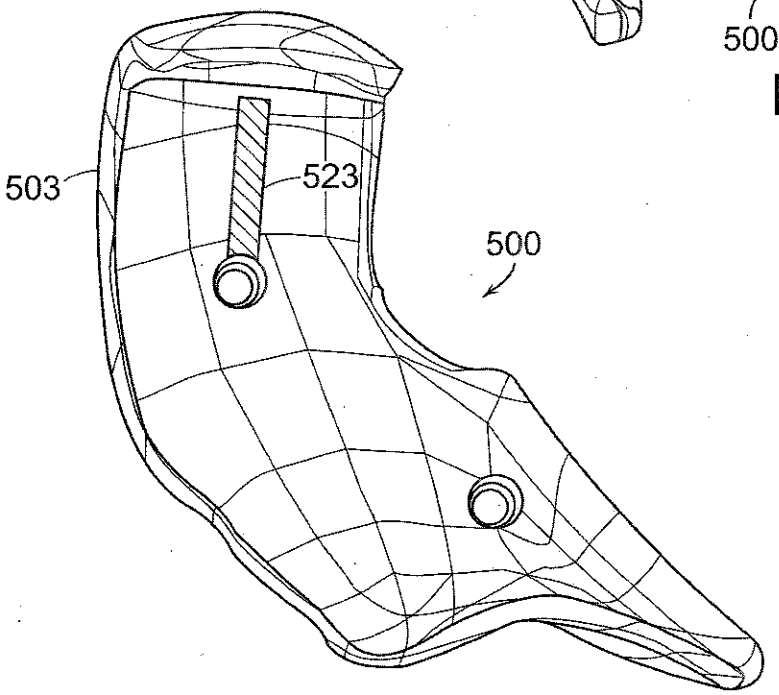


FIG. 5I

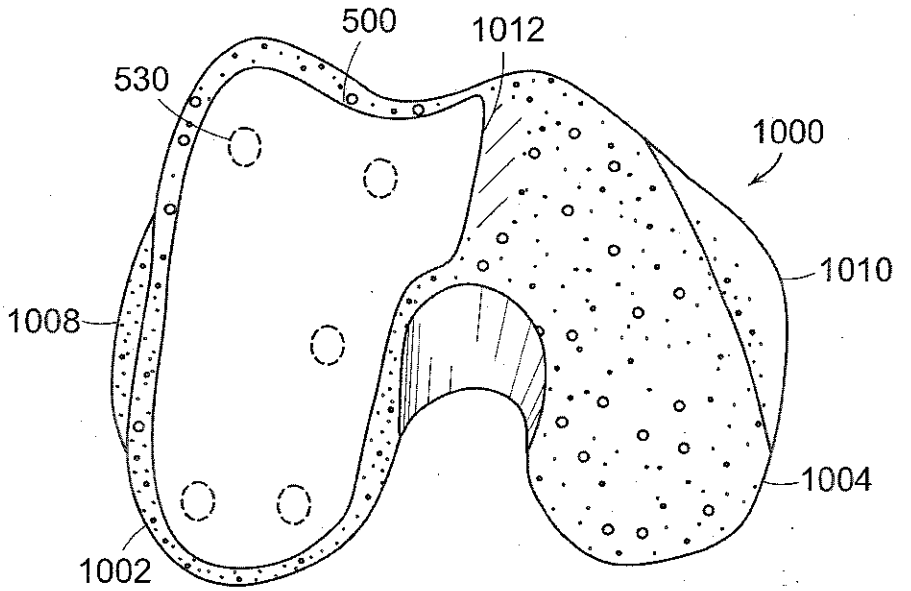


FIG. 5J

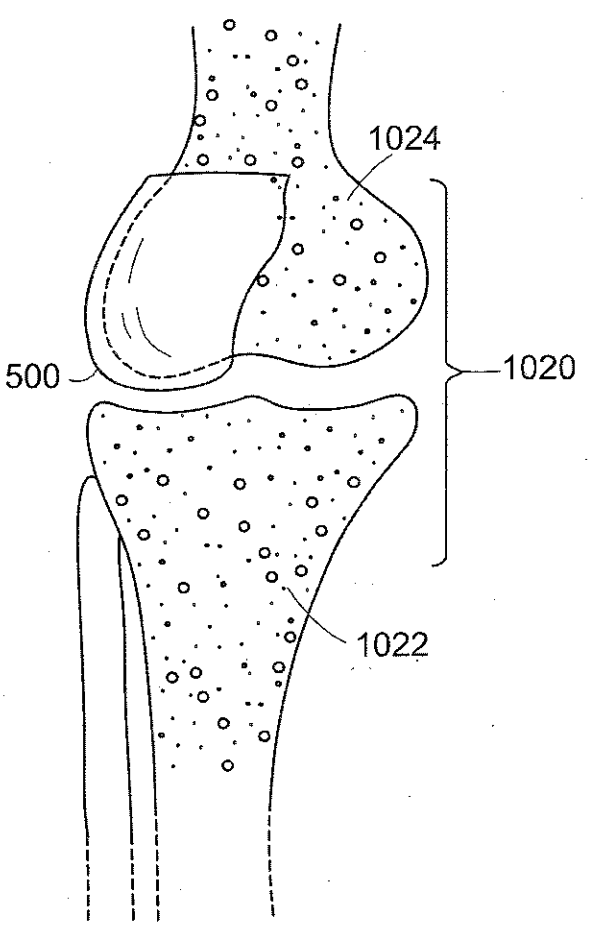


FIG. 5K

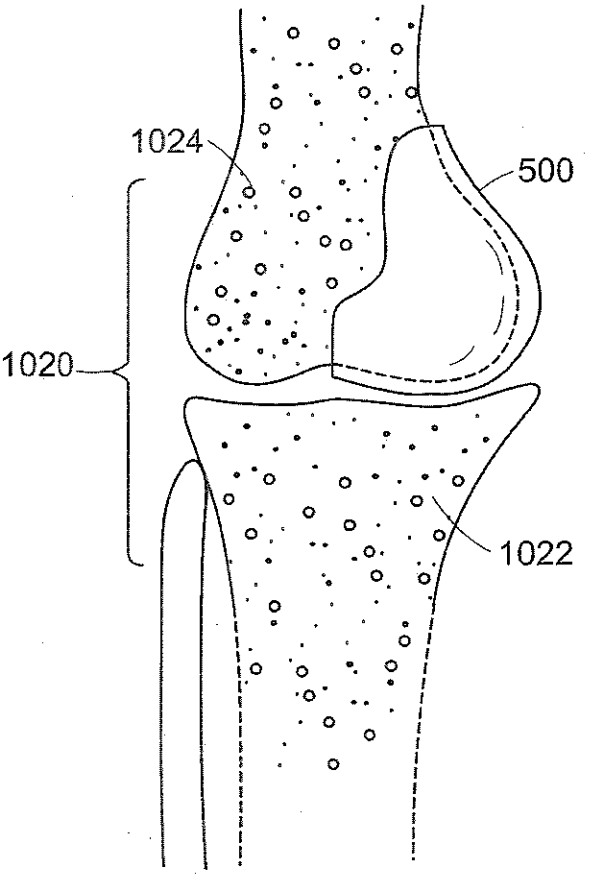


FIG. 5L

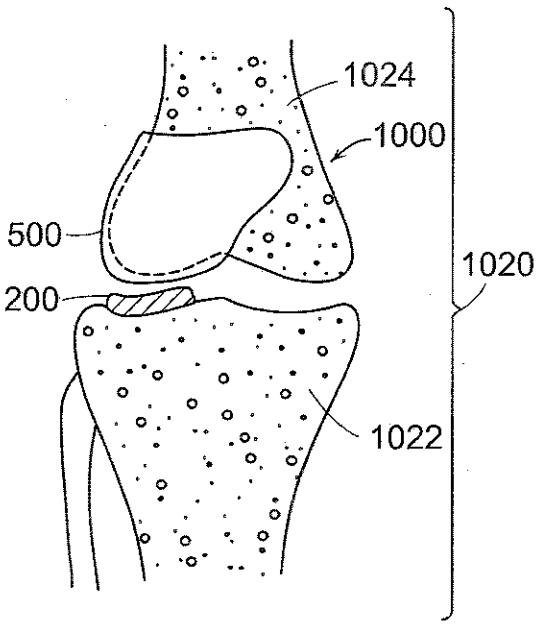


FIG. 5M

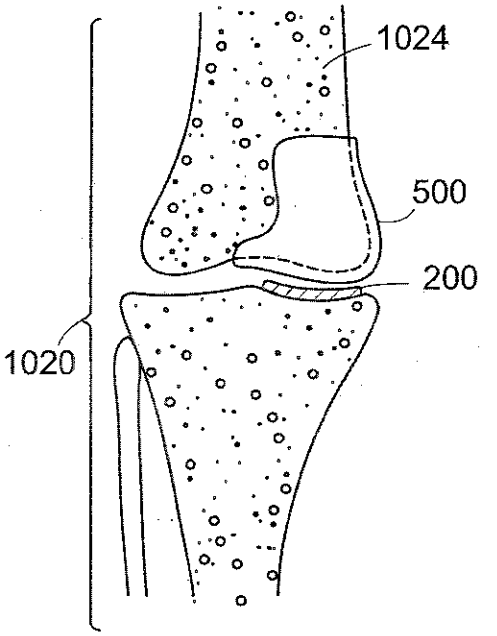


FIG. 5N

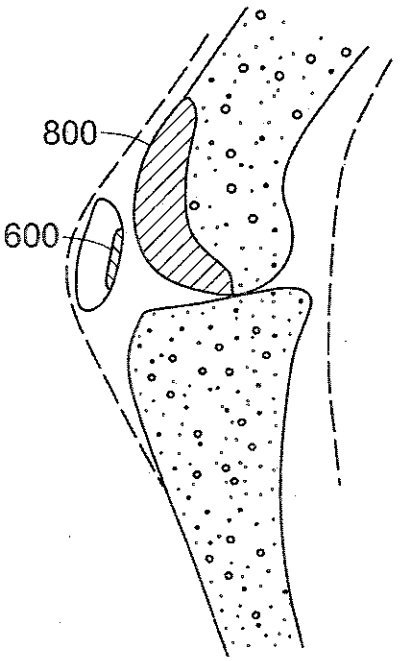


FIG. 9A

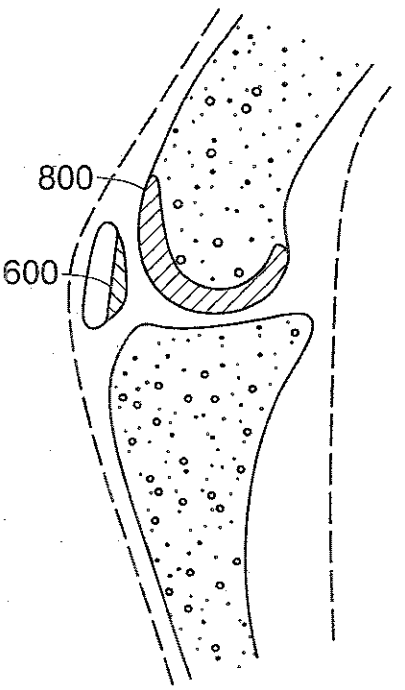


FIG. 9B

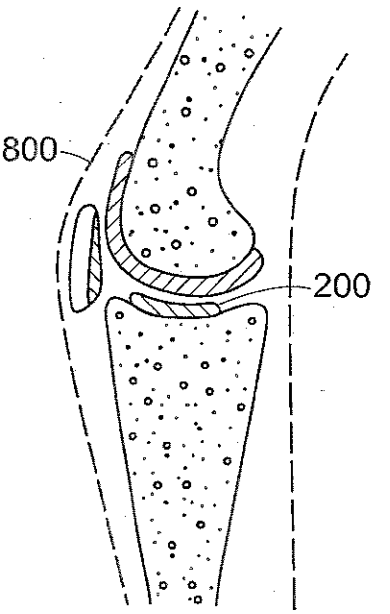


FIG. 9C

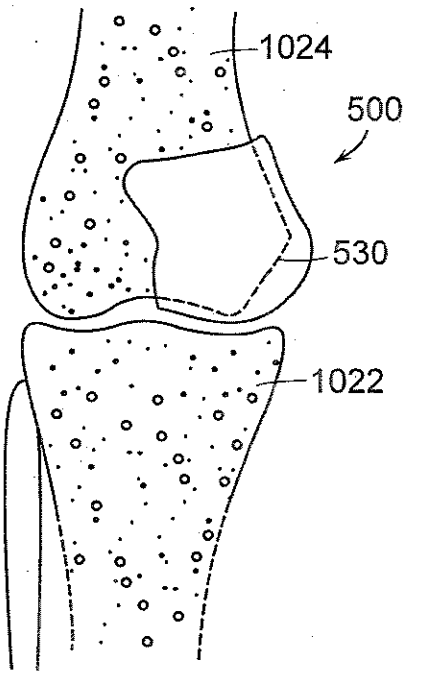


FIG. 5D

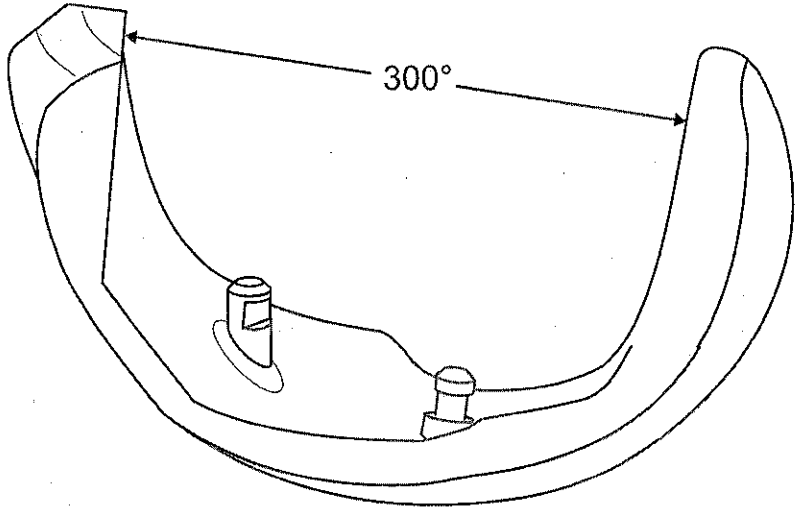


FIG. 5P

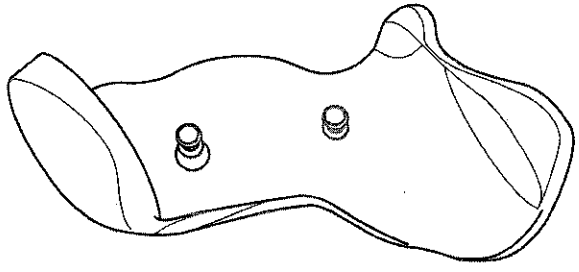


FIG. 5Q

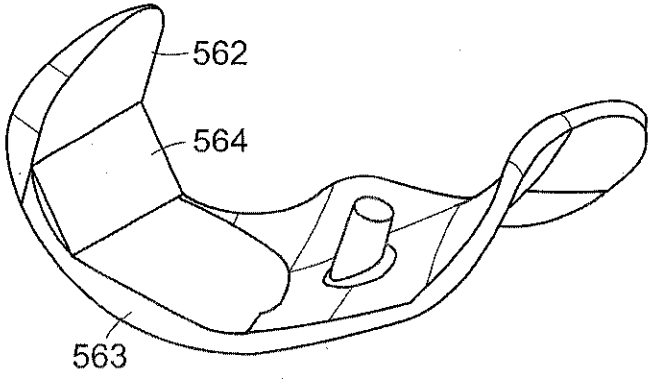


FIG. 5R

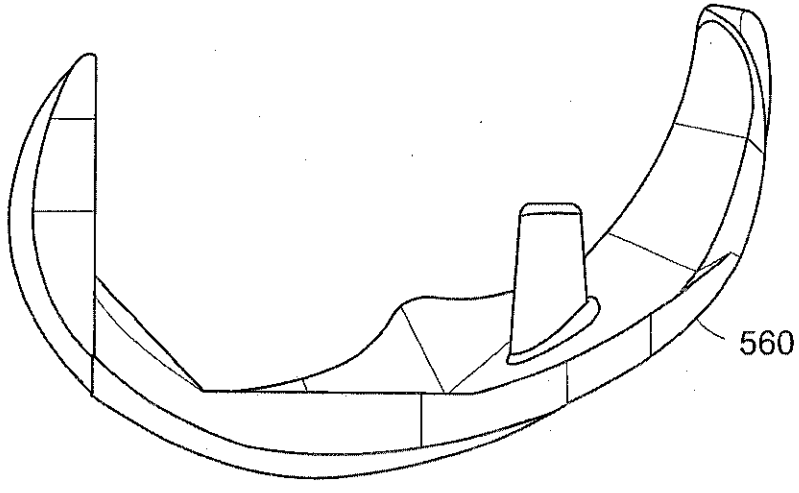


FIG. 5S

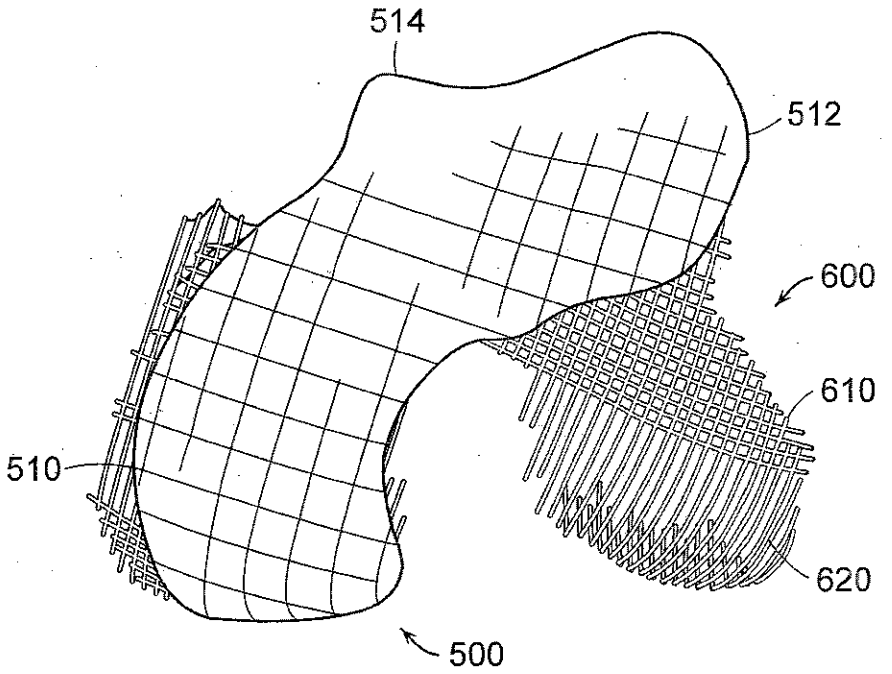


FIG. 6A

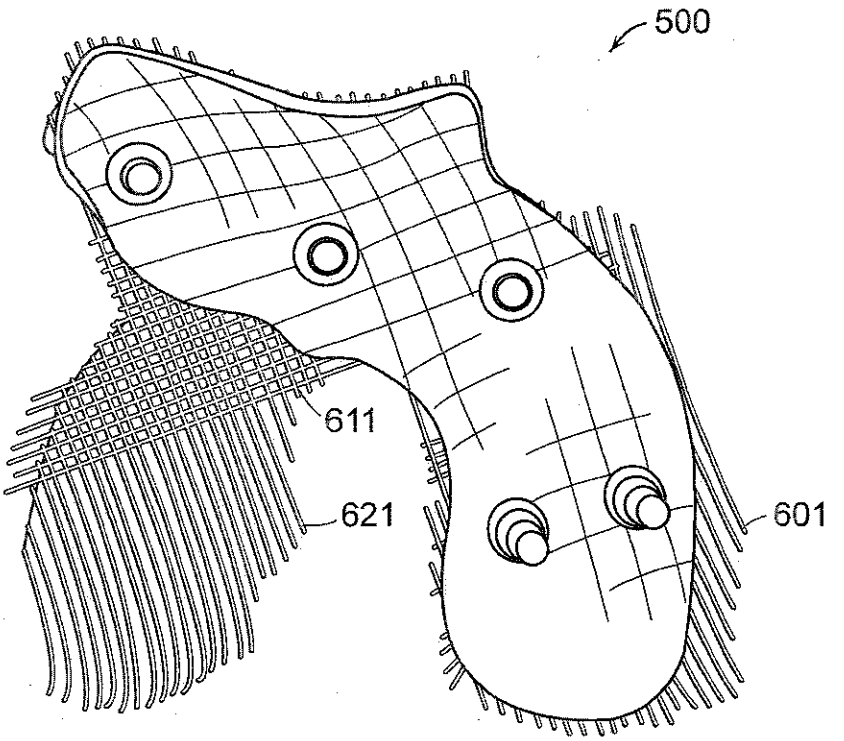


FIG. 6B

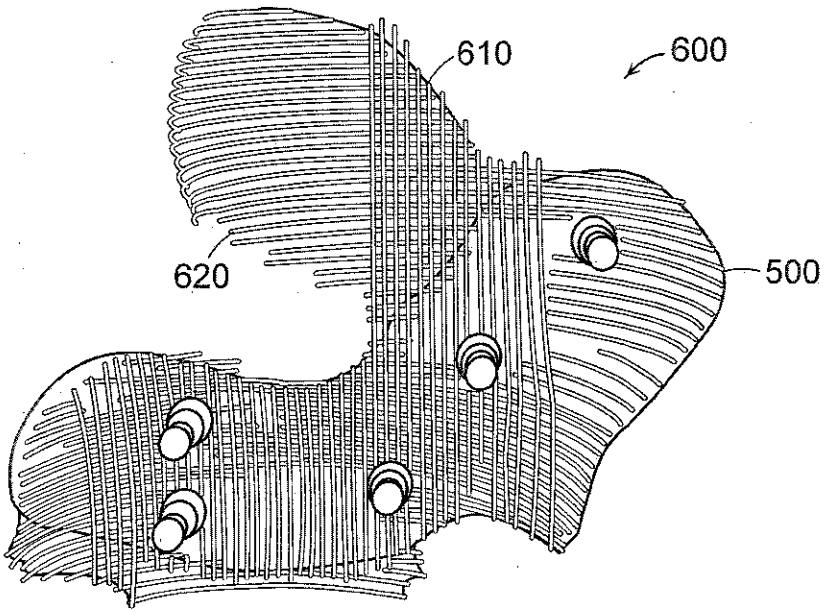


FIG. 6C

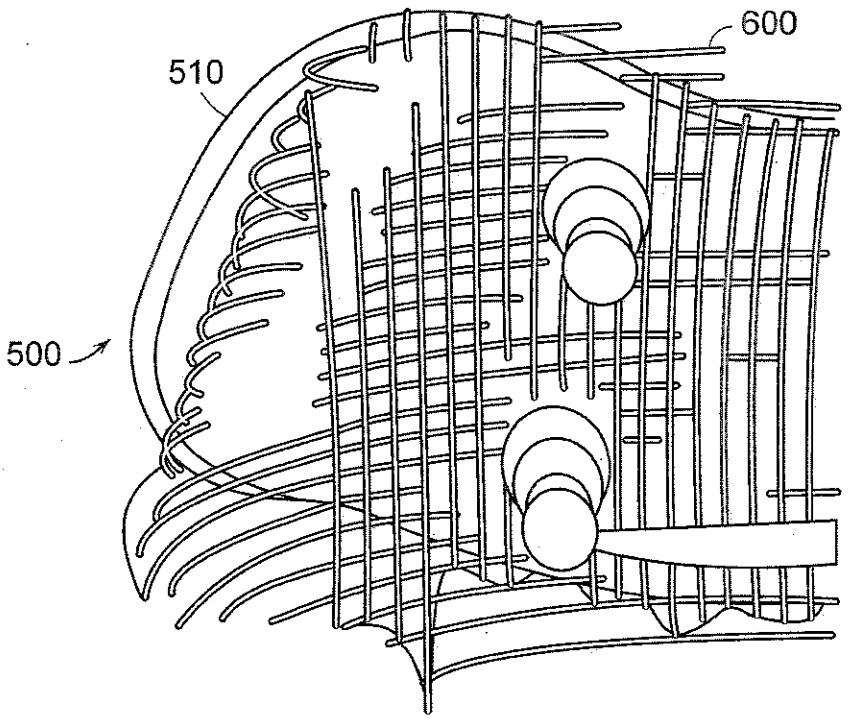


FIG. 6D

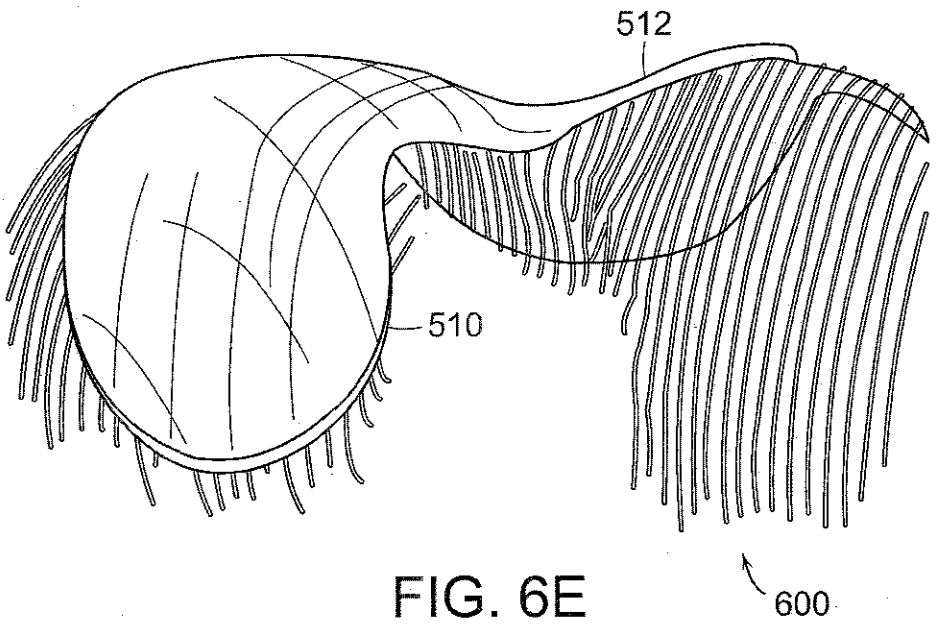


FIG. 6E

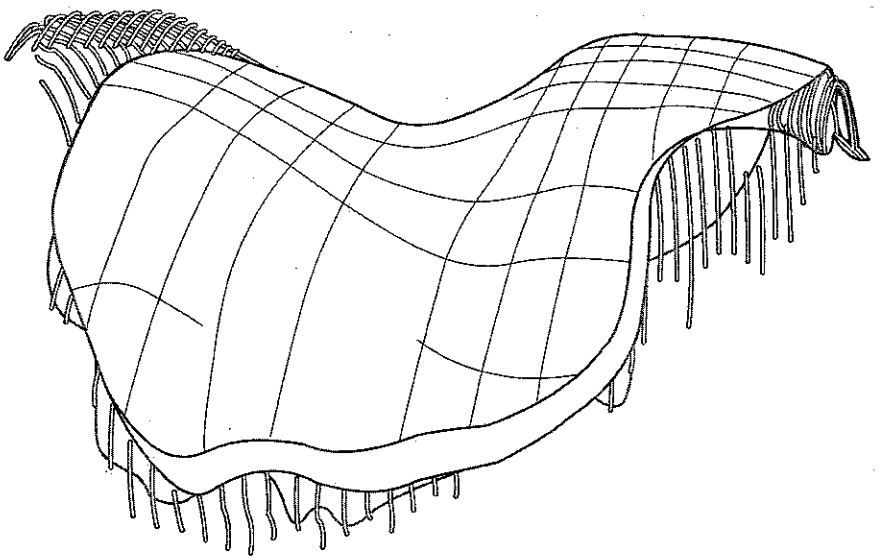


FIG. 6F

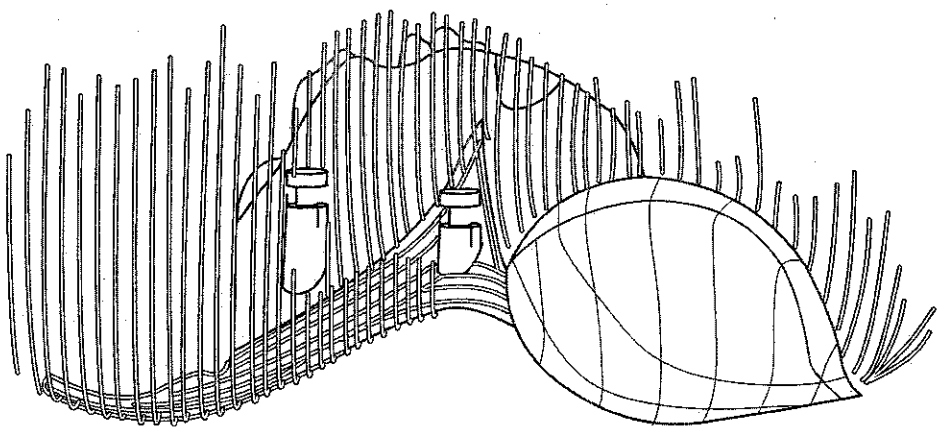


FIG. 6G

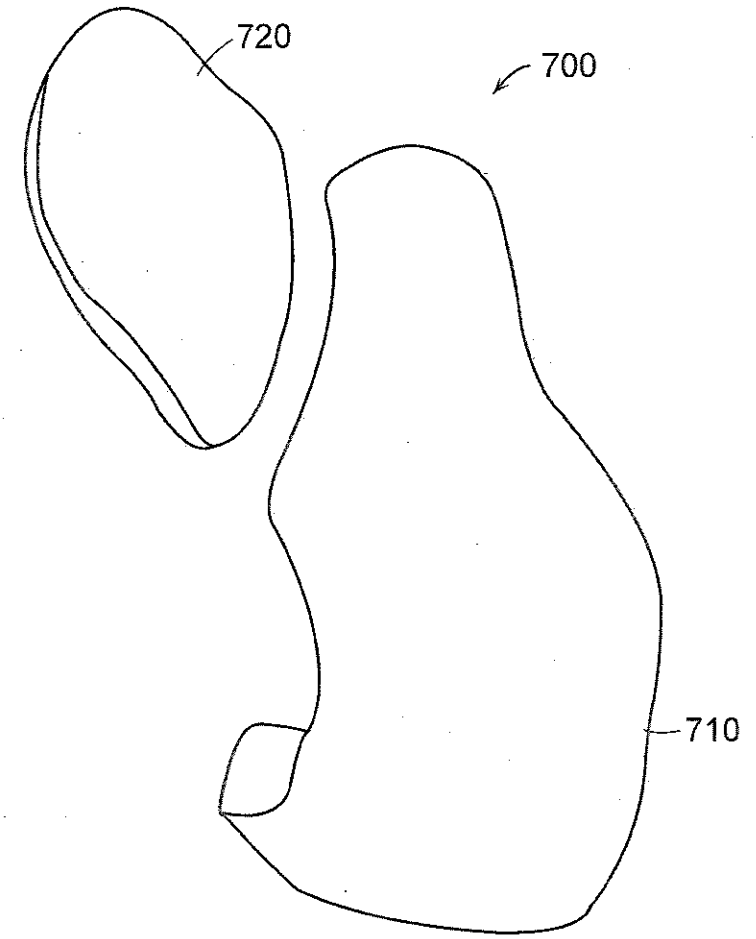


FIG. 7A

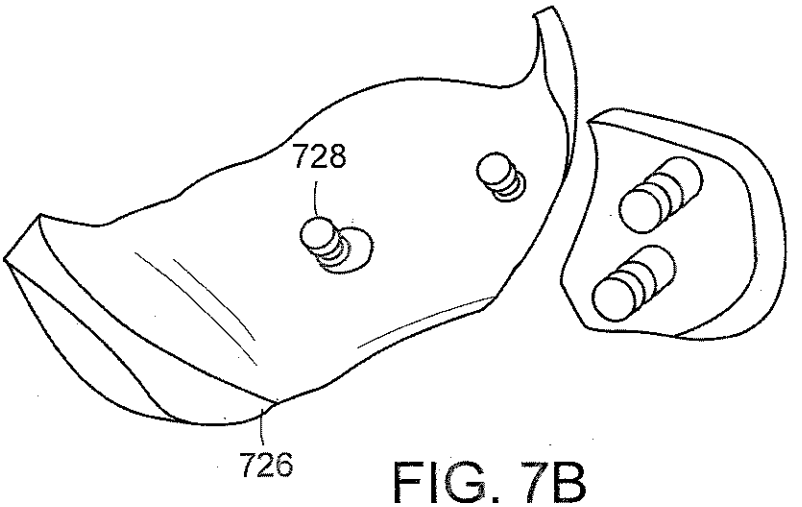


FIG. 7B

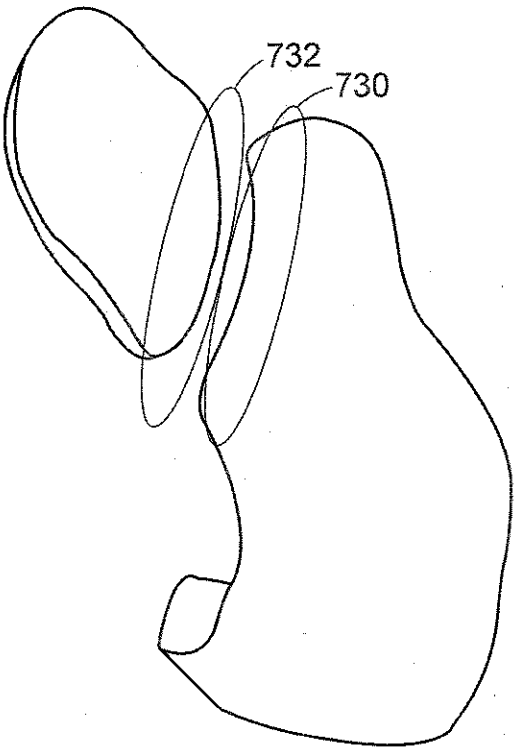


FIG. 7C

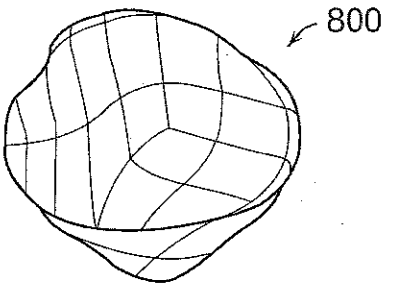


FIG. 8A

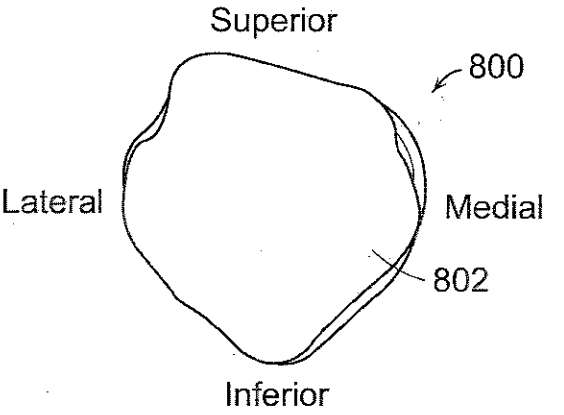


FIG. 8B

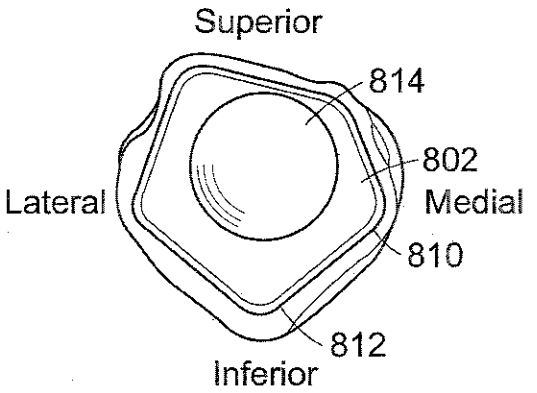


FIG. 8C

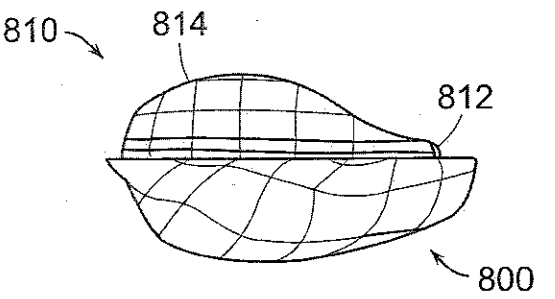


FIG. 8D

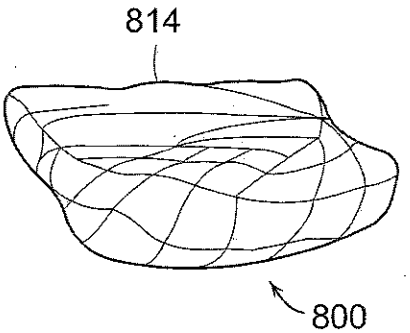


FIG. 8E

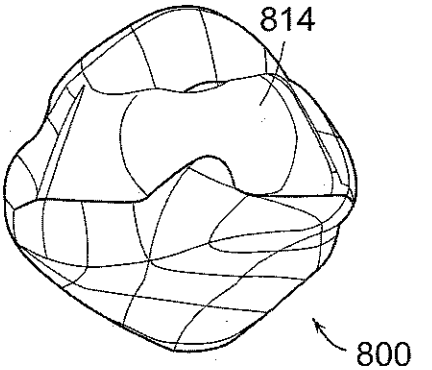


FIG. 8F

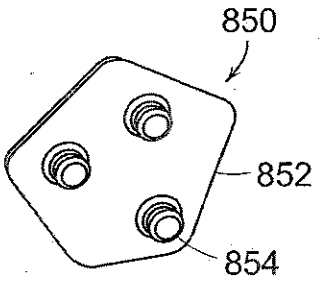


FIG. 8G

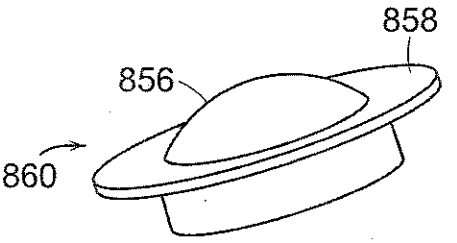


FIG. 8H

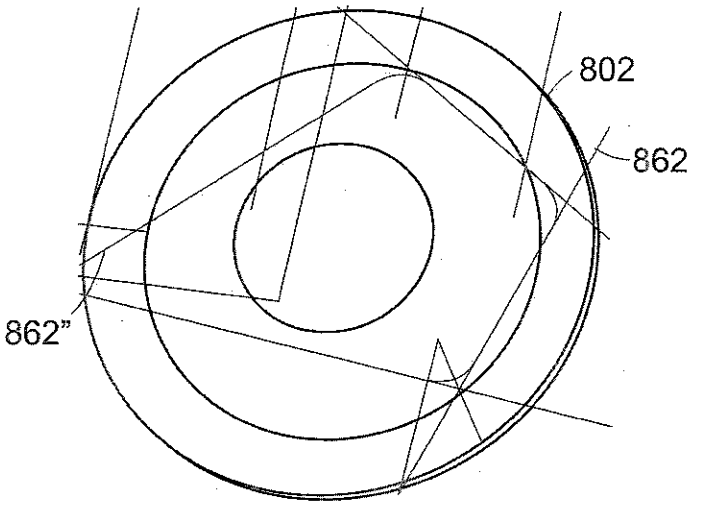


FIG. 8I

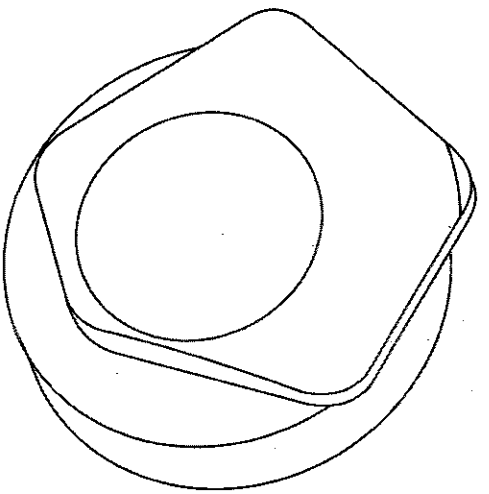


FIG. 8J

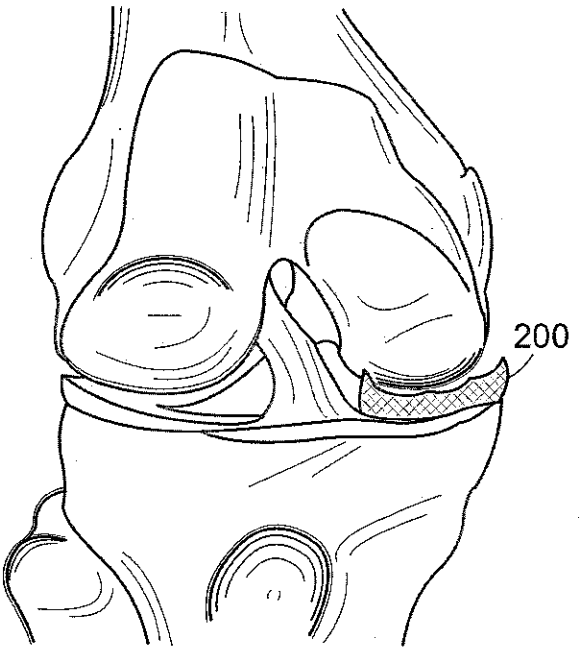


FIG. 10A

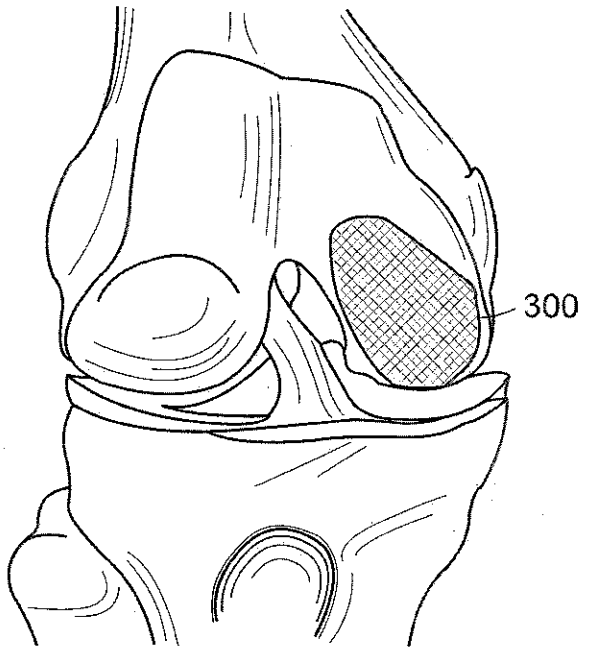


FIG. 10B

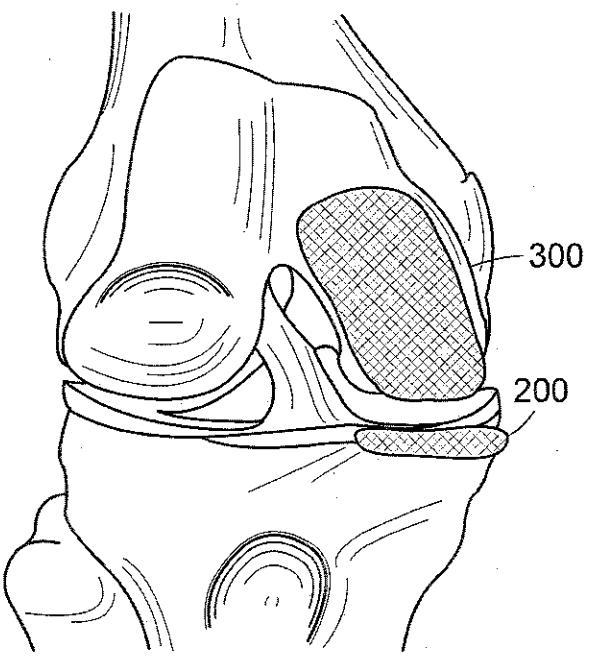


FIG. 10C

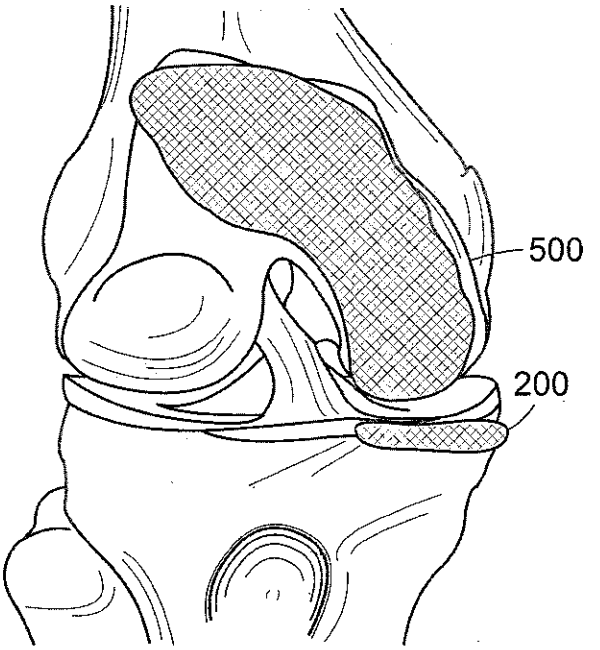


FIG. 10D