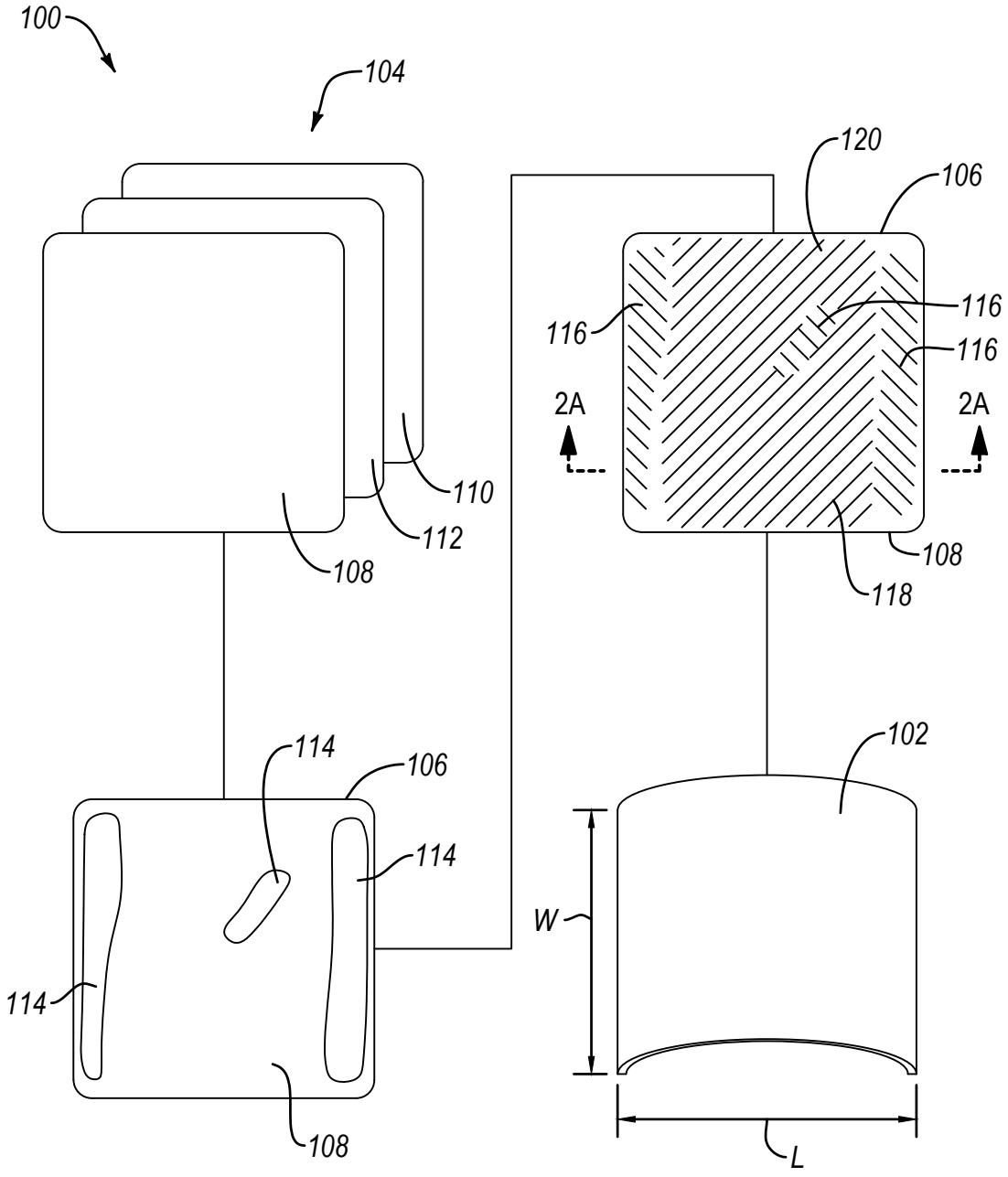

100
104
120
106
116
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116
2A
2A
110
112
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114
108
102
W
L

FIG. 1

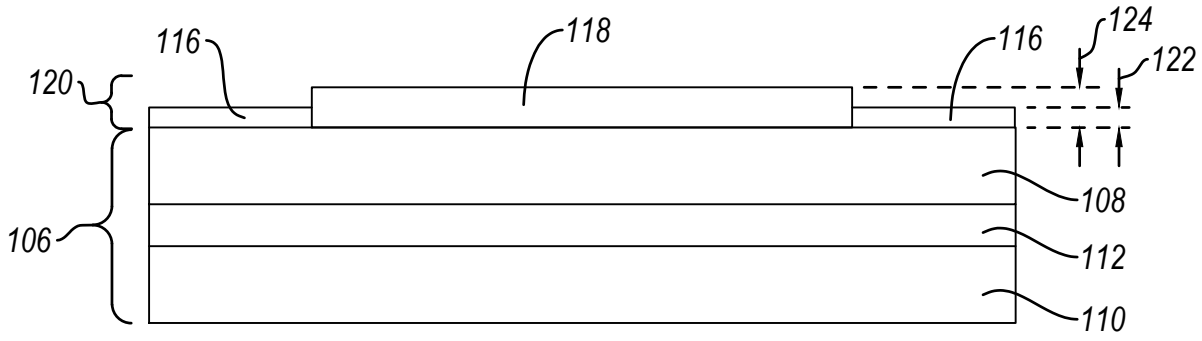

116
118
116
124
122
120
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112
110

FIG. 2A

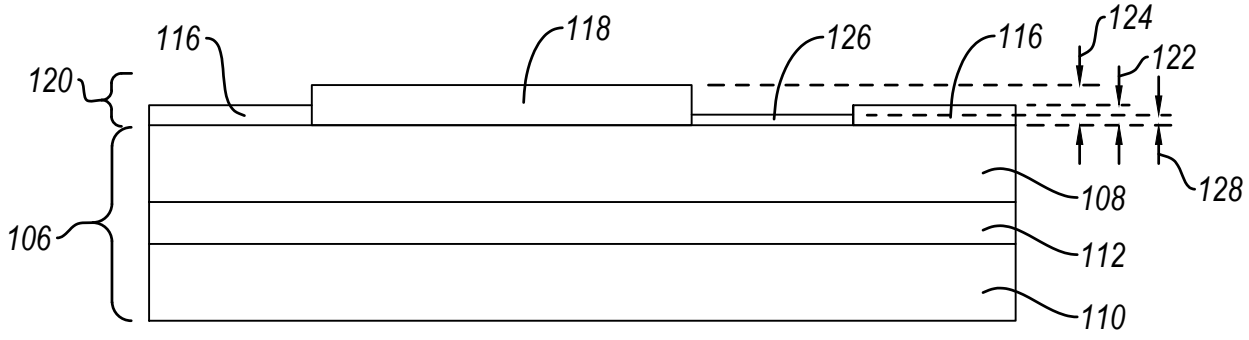

116
118
126
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FIG. 2B

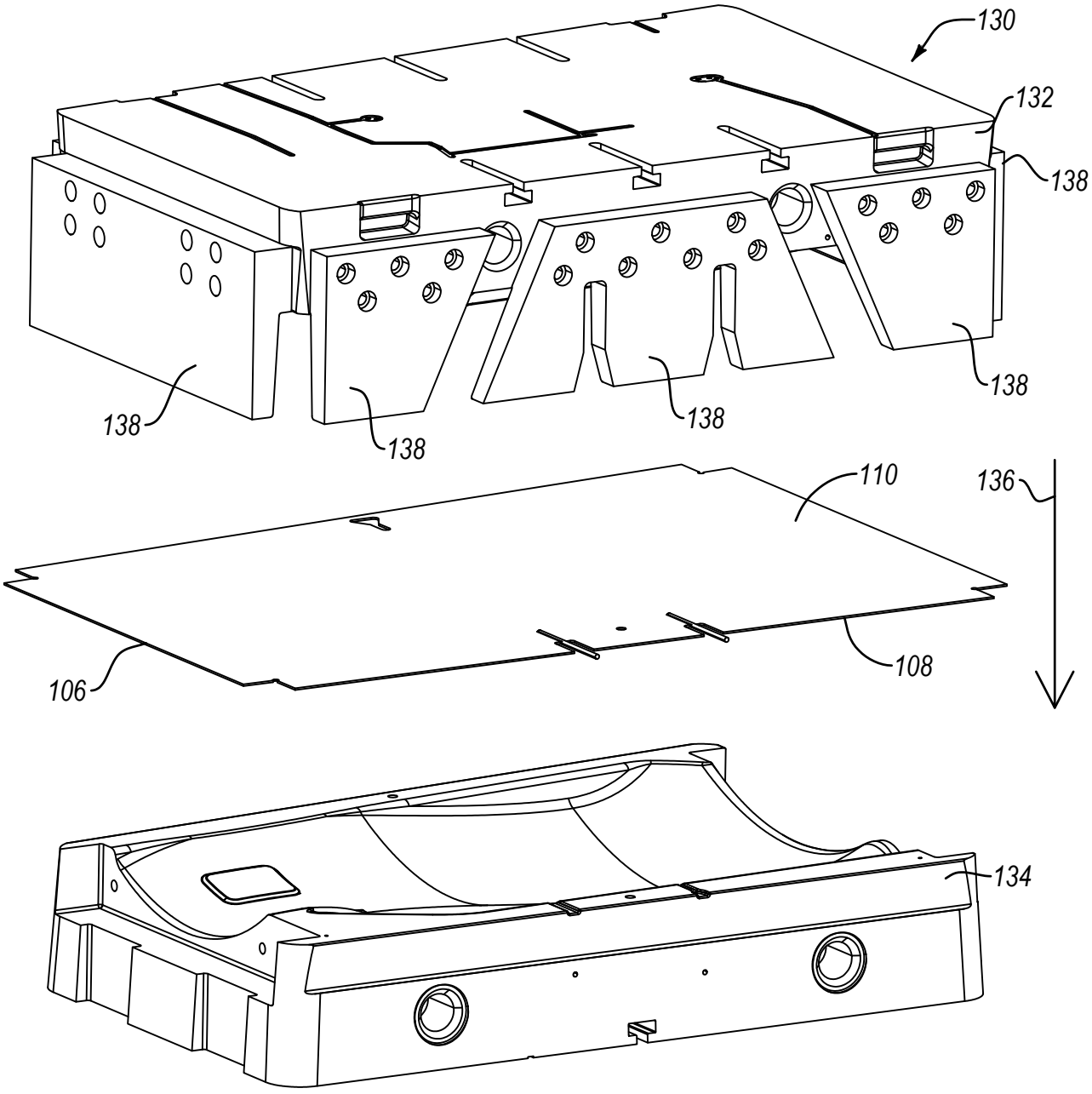


FIG. 3

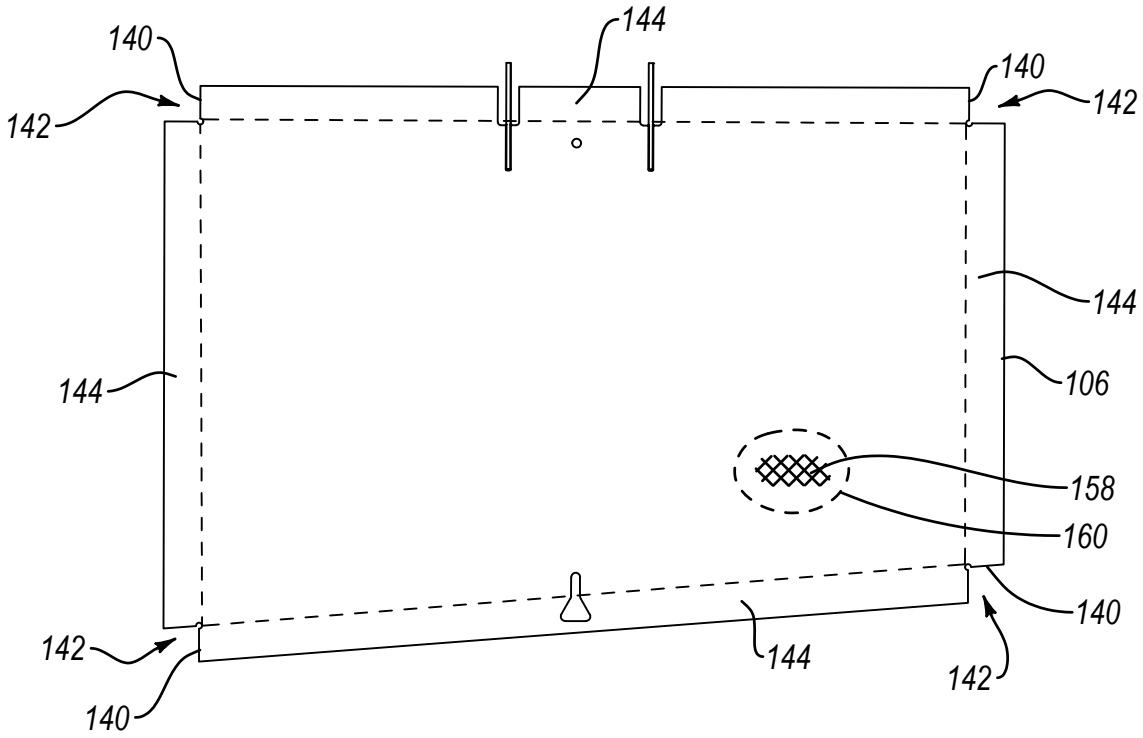

140
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142
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144
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160
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142
140

FIG. 4A

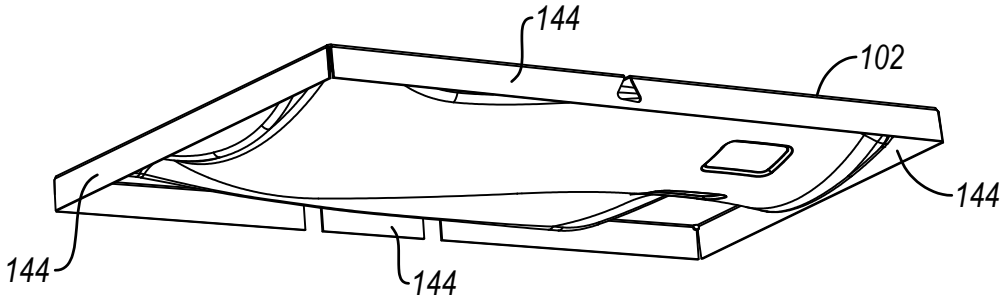

144
102
144
144
144

FIG. 4B

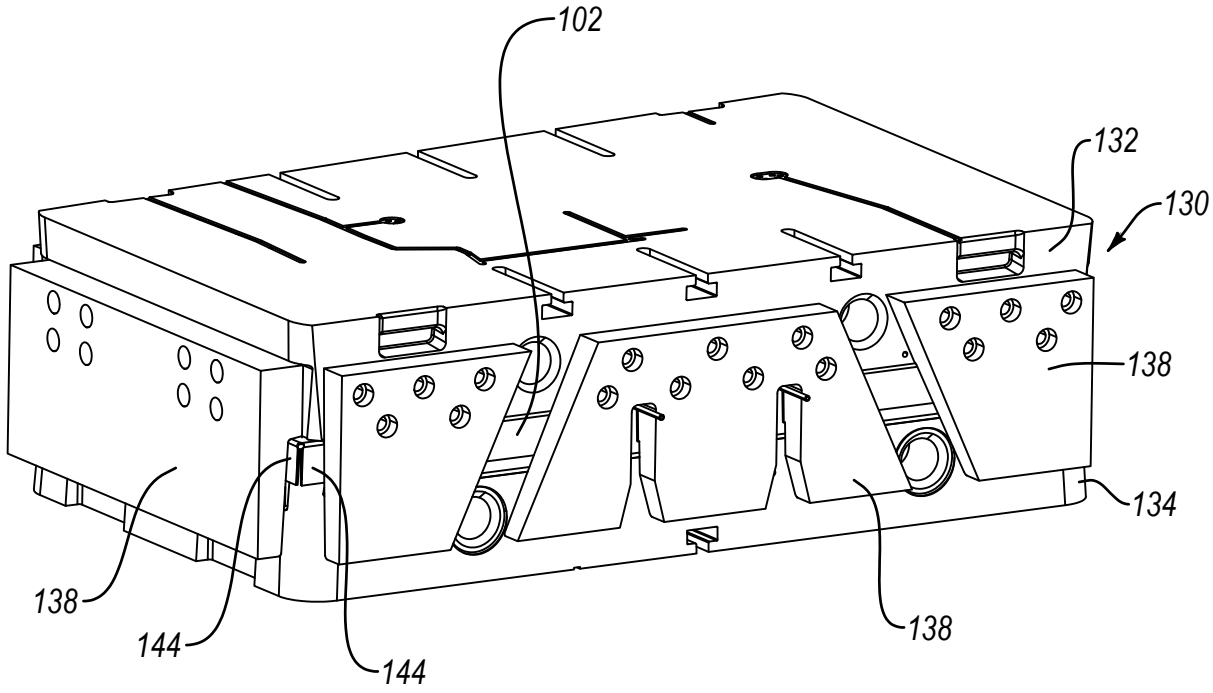


FIG. 5

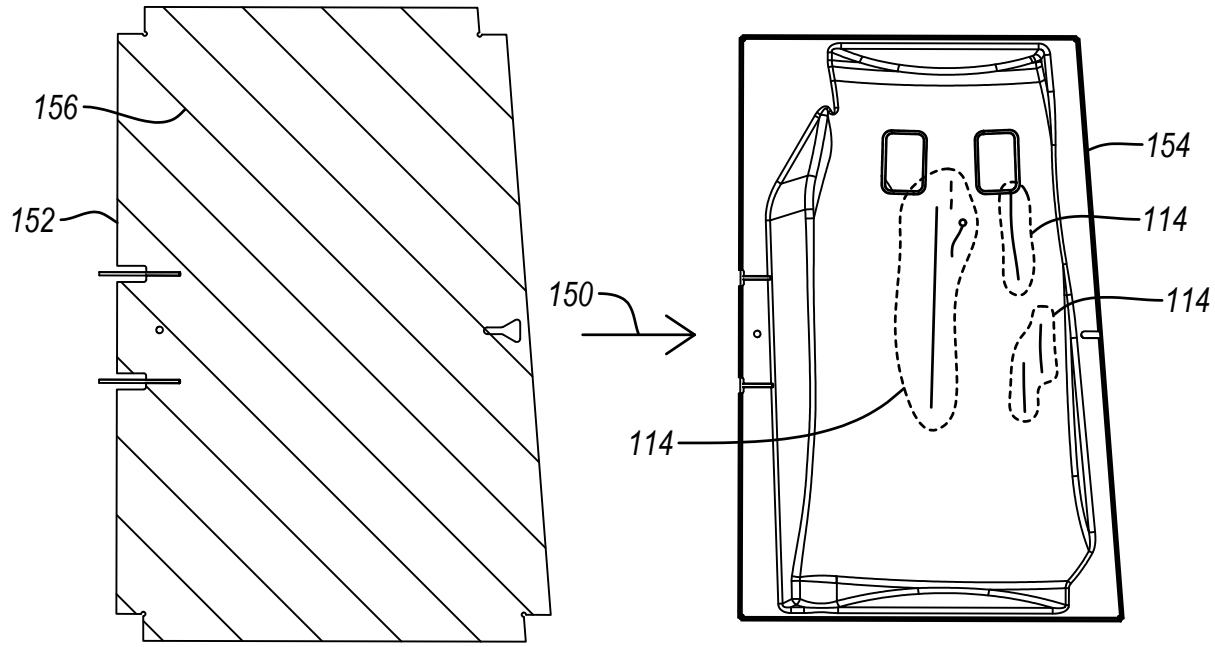


FIG. 6A

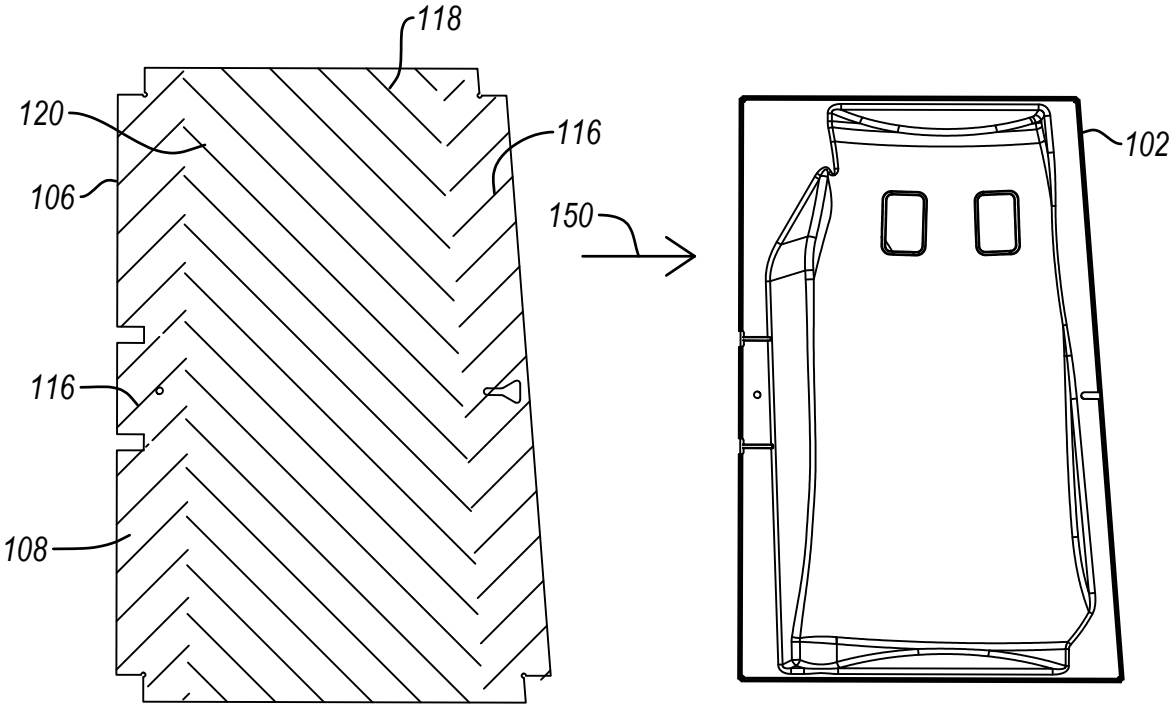


FIG. 6B

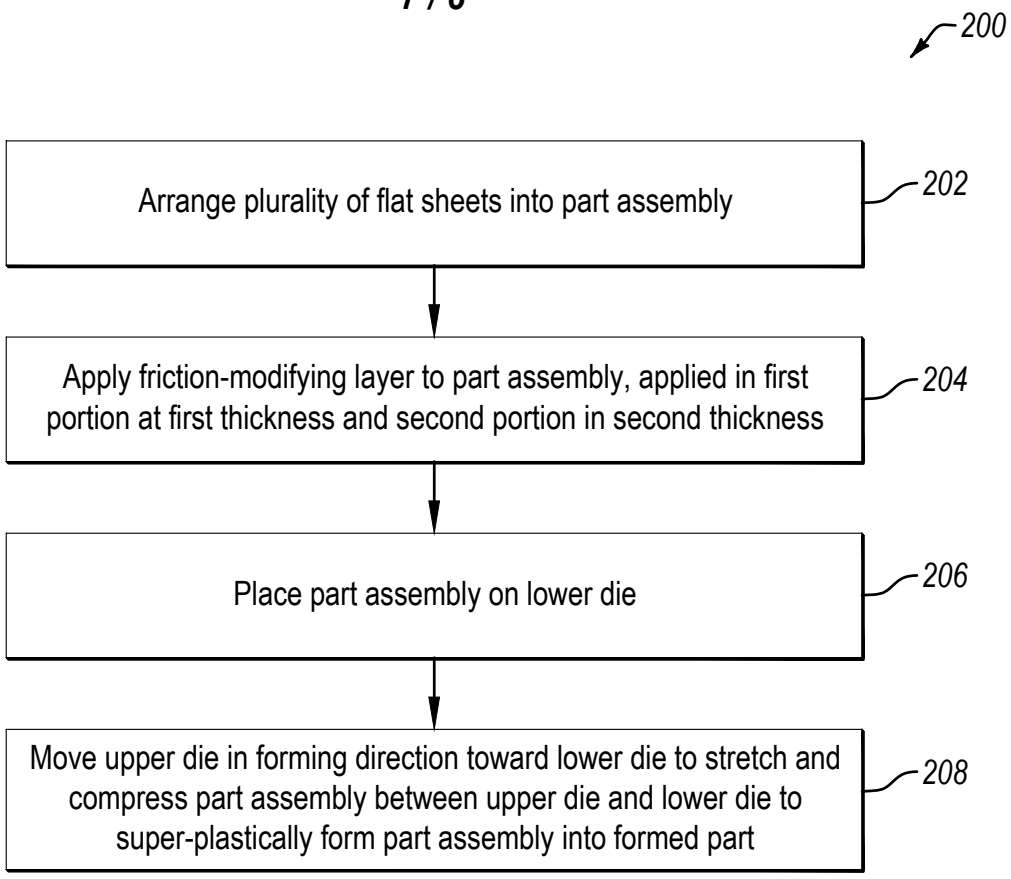

200
Arrange plurality of flat sheets into part assembly
202
Apply friction-modifying layer to part assembly, applied in first portion at first thickness and second portion in second thickness
204
Place part assembly on lower die
206
Move upper die in forming direction toward lower die to stretch and compress part assembly between upper die and lower die to super-plastically form part assembly into formed part
208

FIG. 7

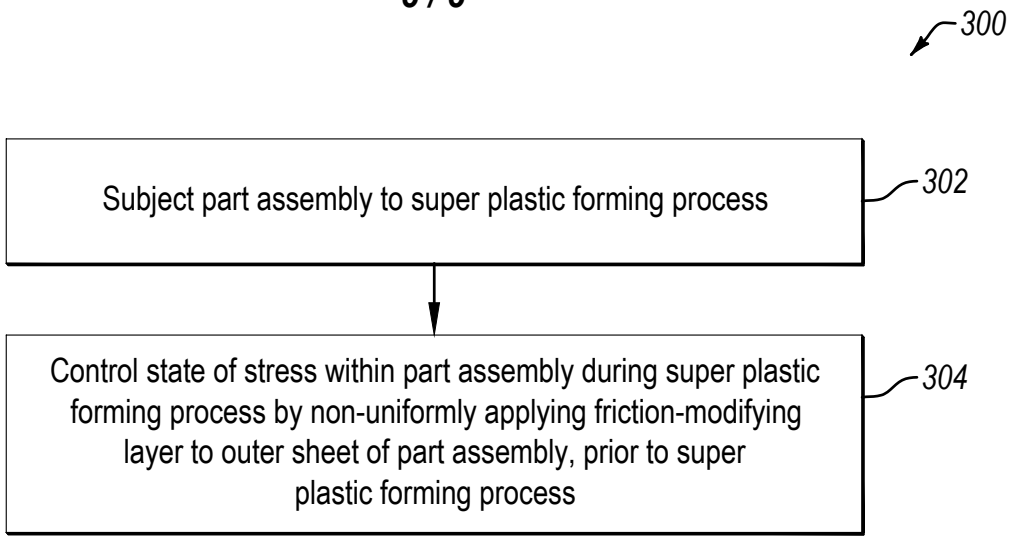

300
Subject part assembly to super plastic forming process
302
Control state of stress within part assembly during super plastic forming process by non-uniformly applying friction-modifying layer to outer sheet of part assembly, prior to super plastic forming process
304

FIG. 8