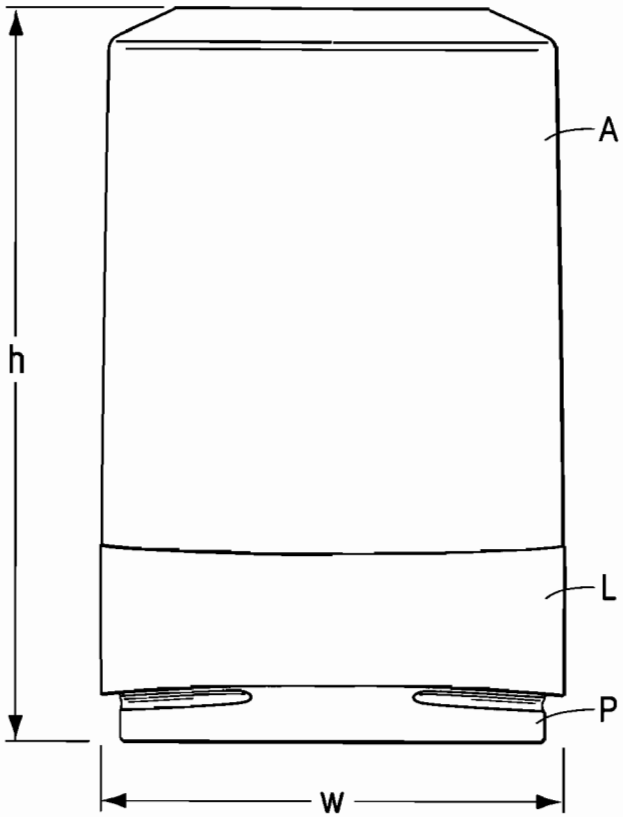


FIG 1

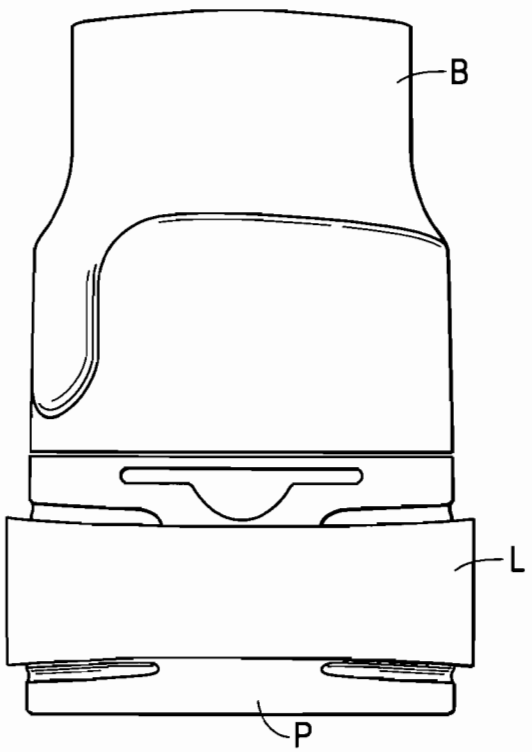


FIG 2

FIG. 5

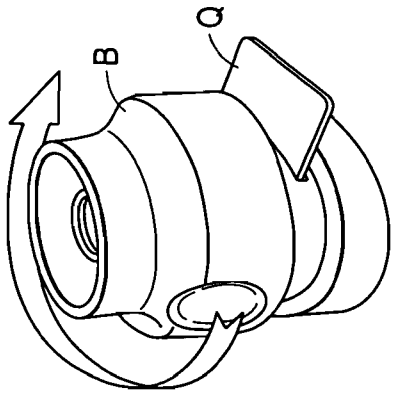


FIG. 8

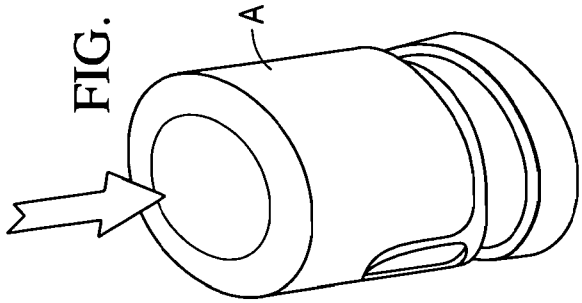


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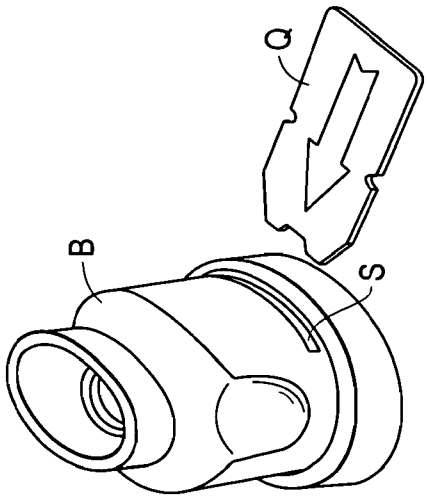


FIG. 7

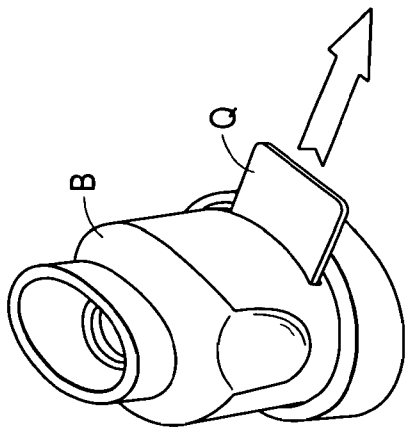


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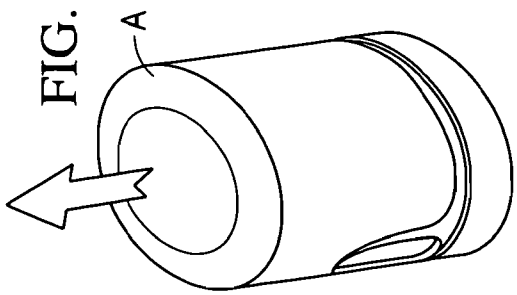
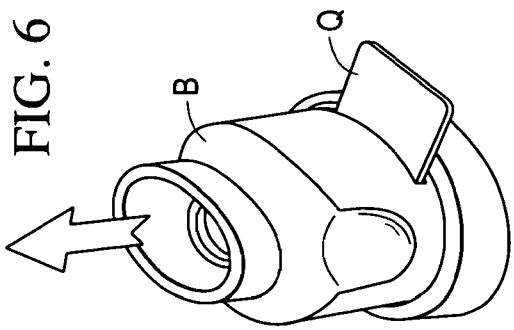


FIG. 6



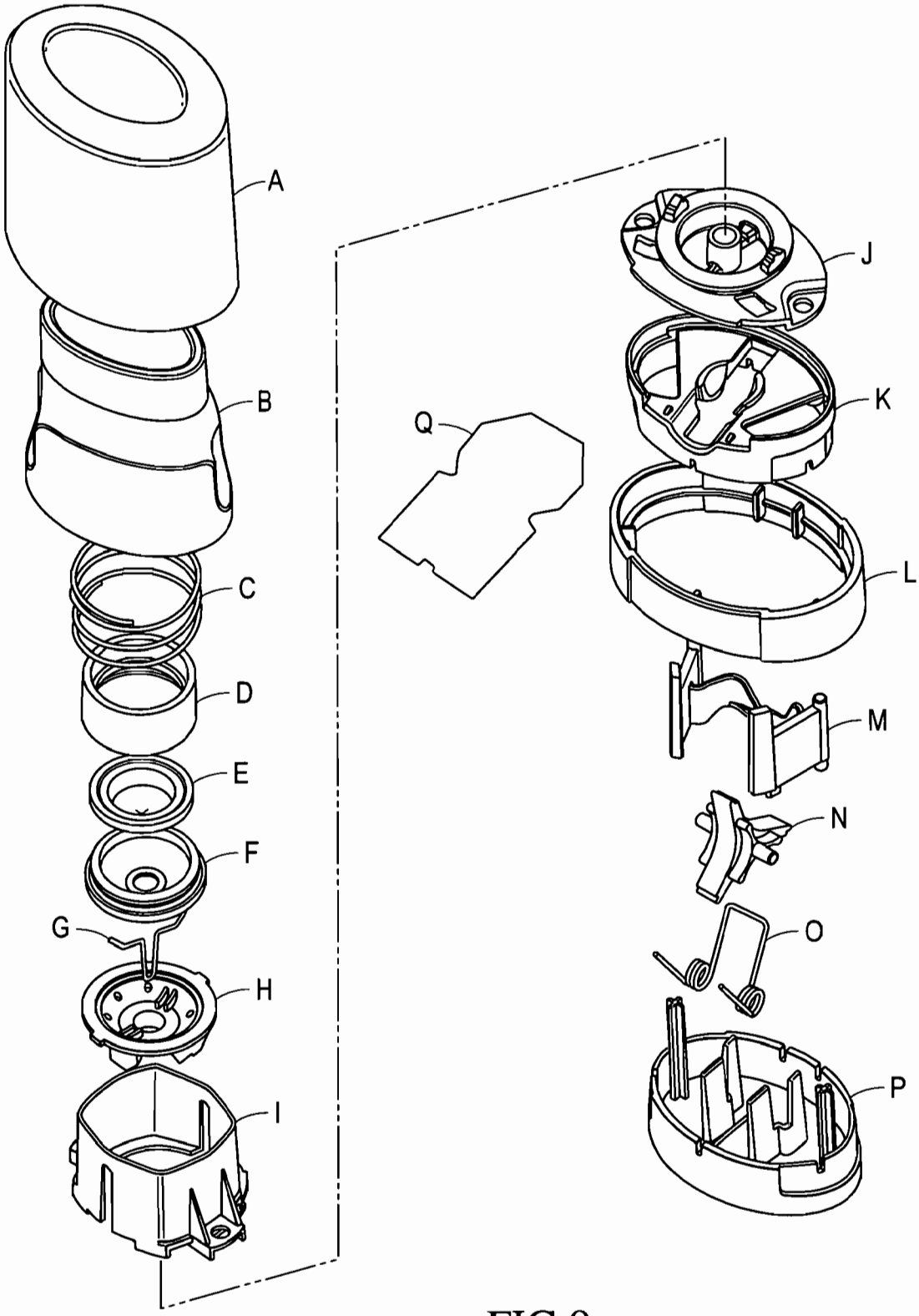


FIG 9

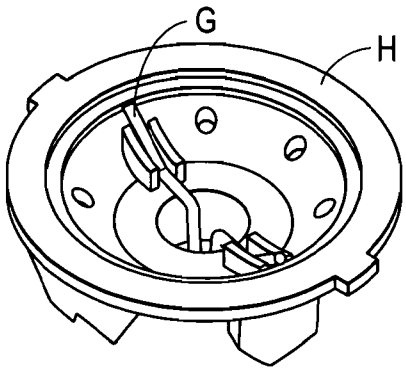


FIG 10

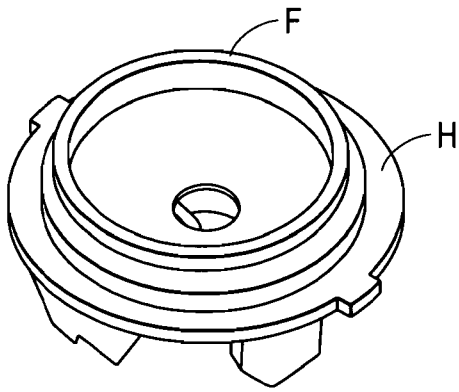


FIG 11

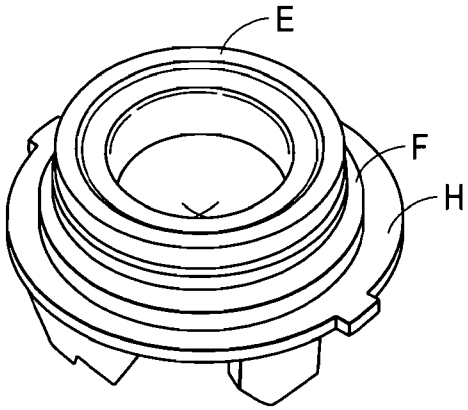


FIG 12

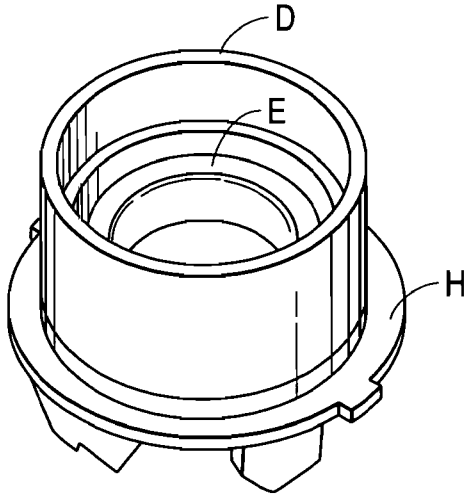


FIG 13

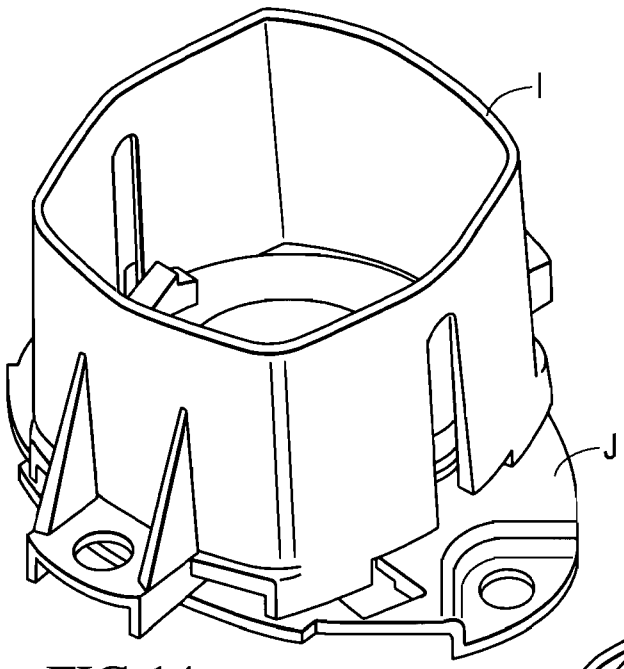


FIG 14

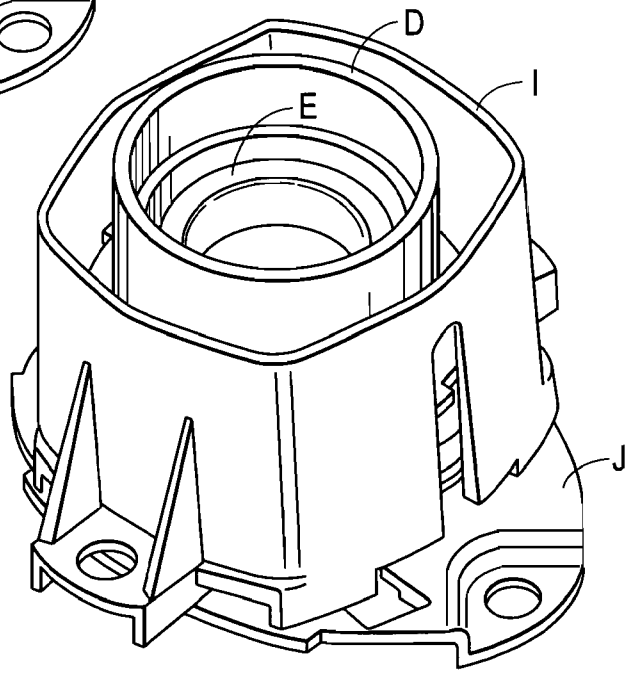


FIG 15

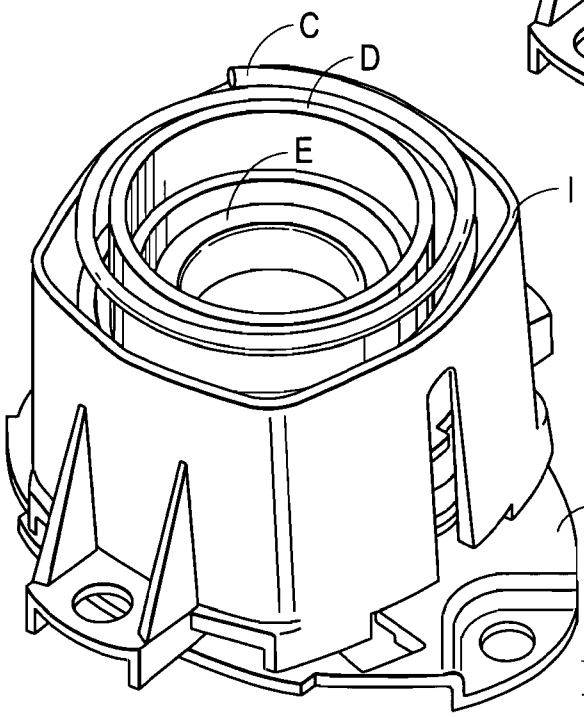


FIG 16

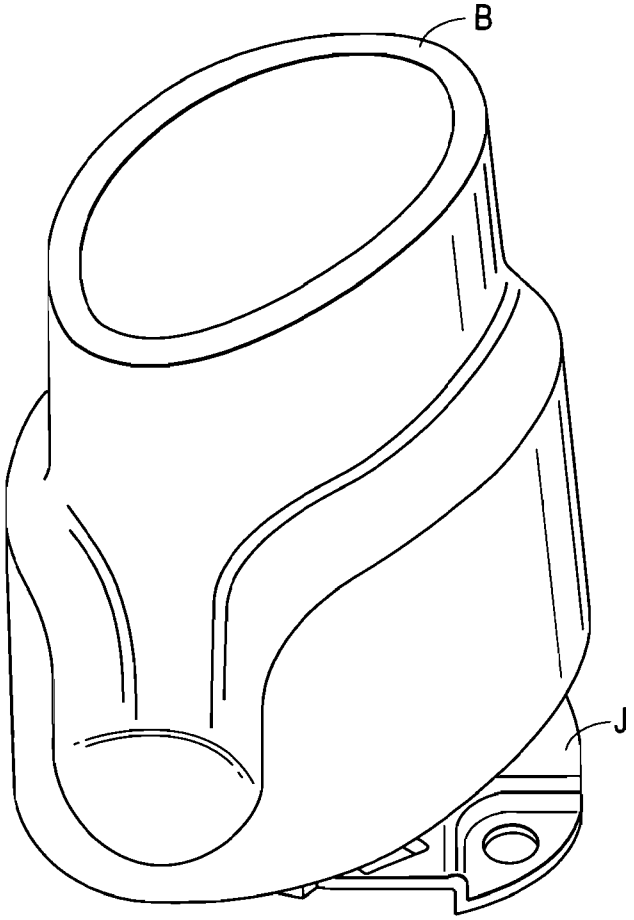


FIG 17

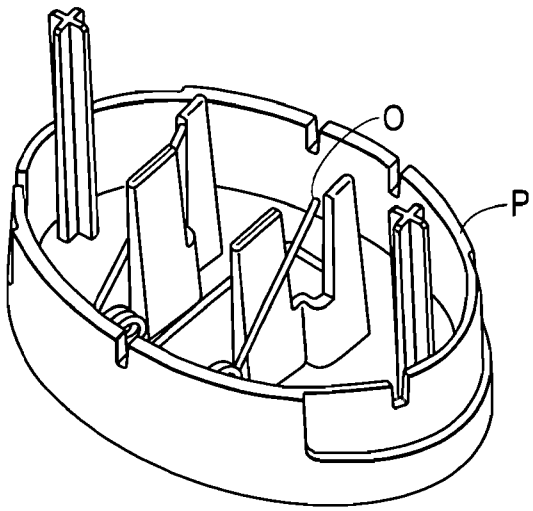


FIG 18

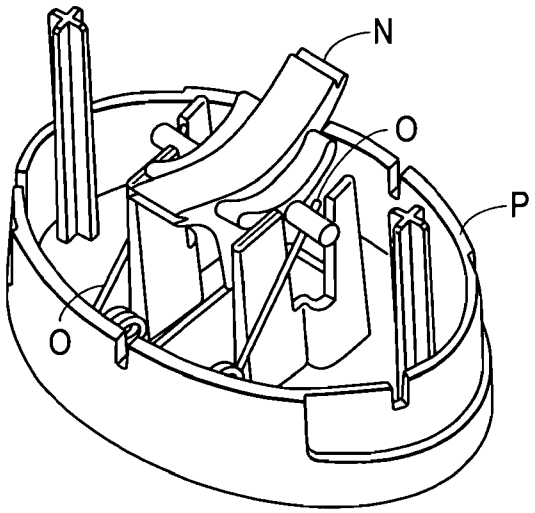


FIG 19

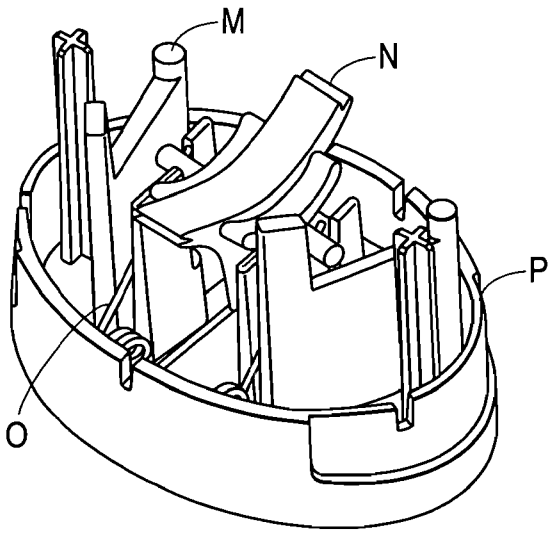


FIG 20

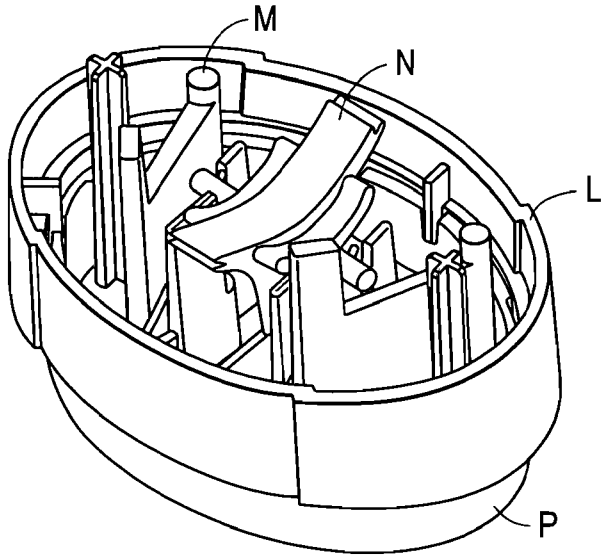


FIG 21

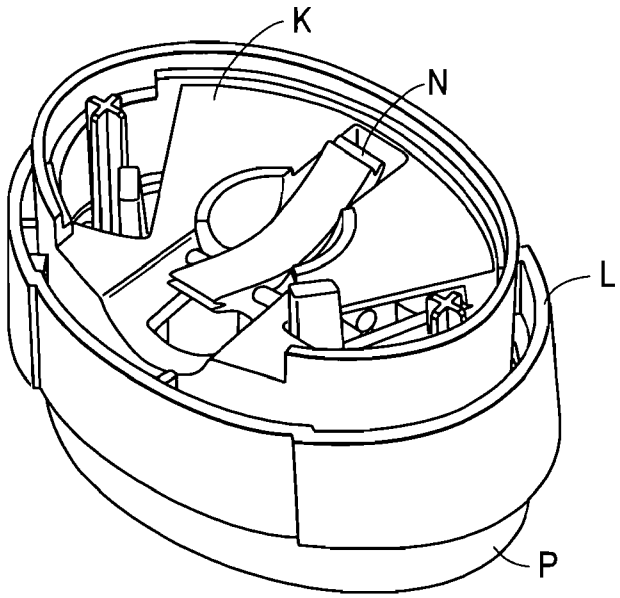


FIG 22

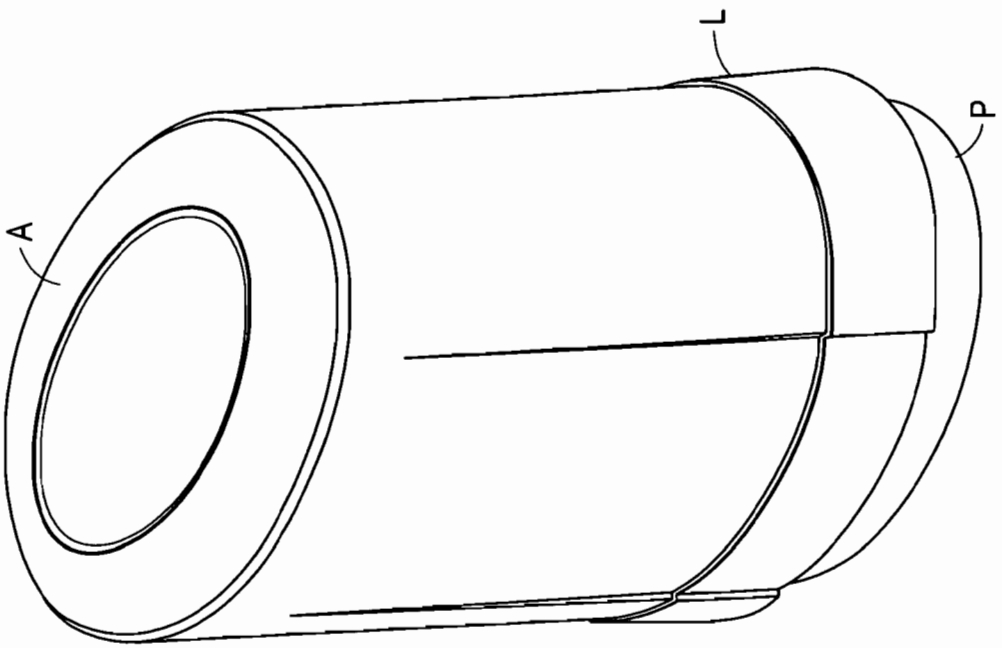


FIG 24

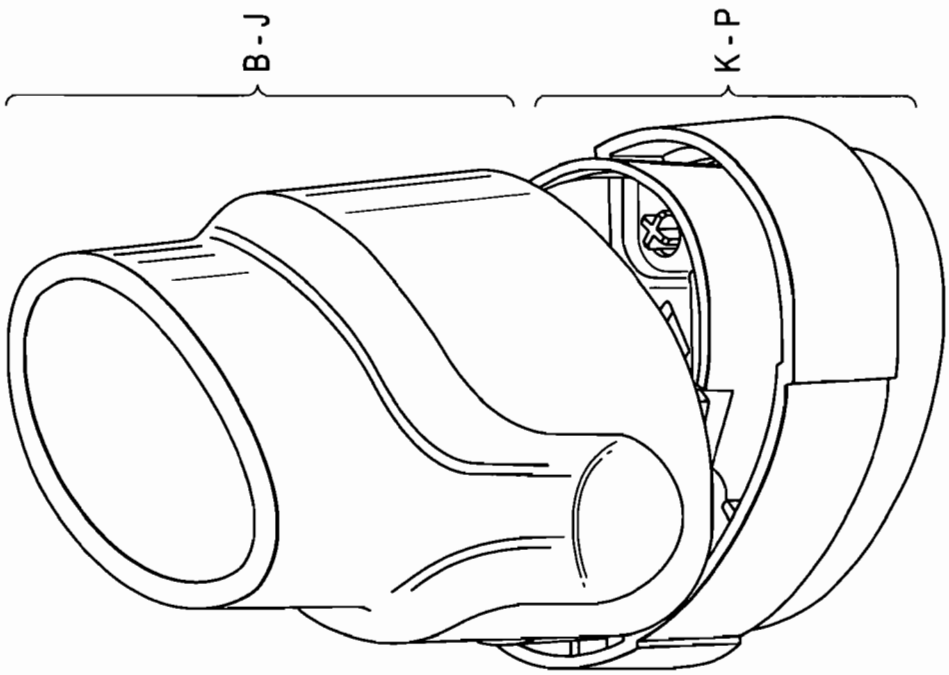


FIG 23

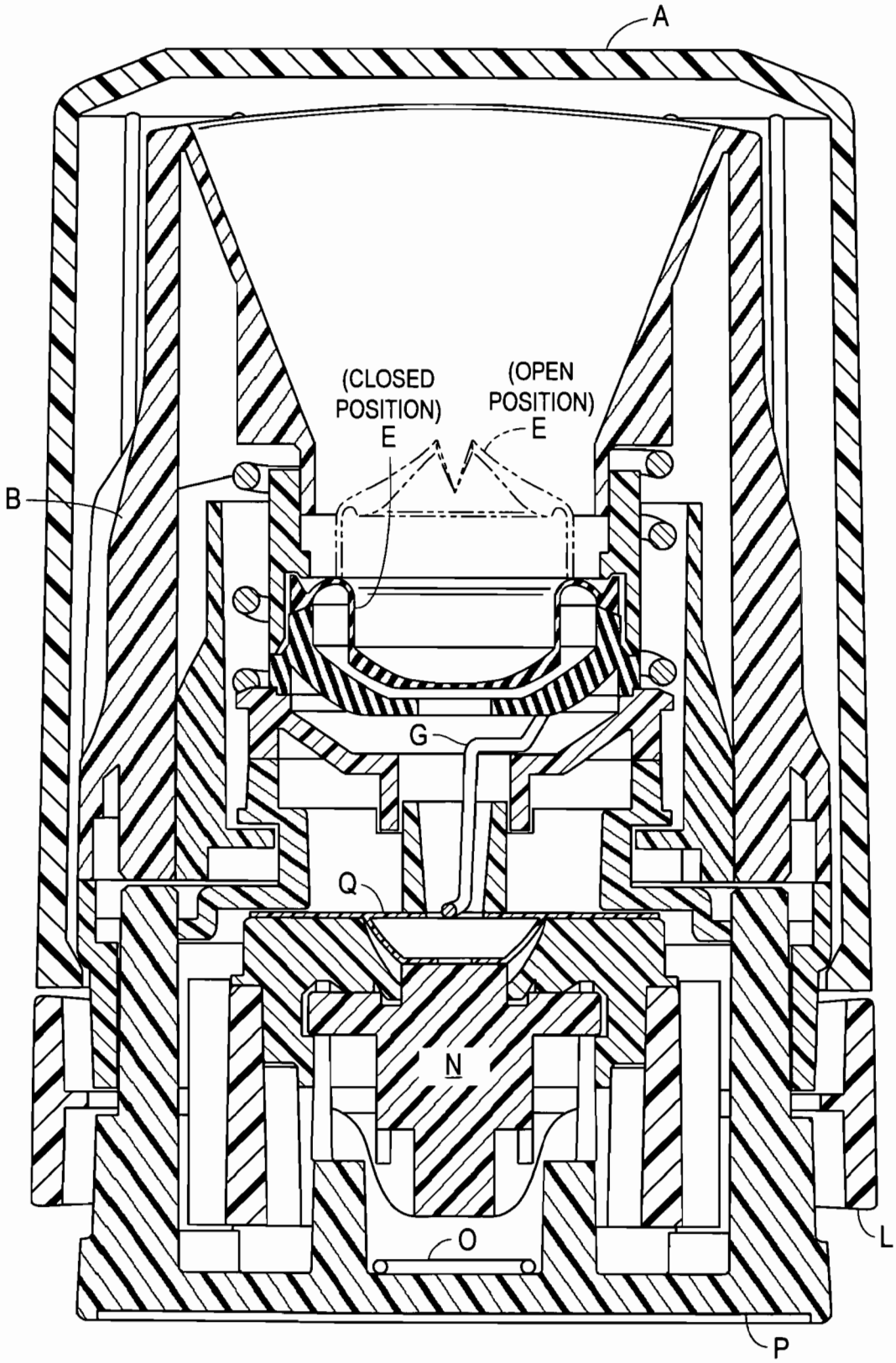


FIG 25

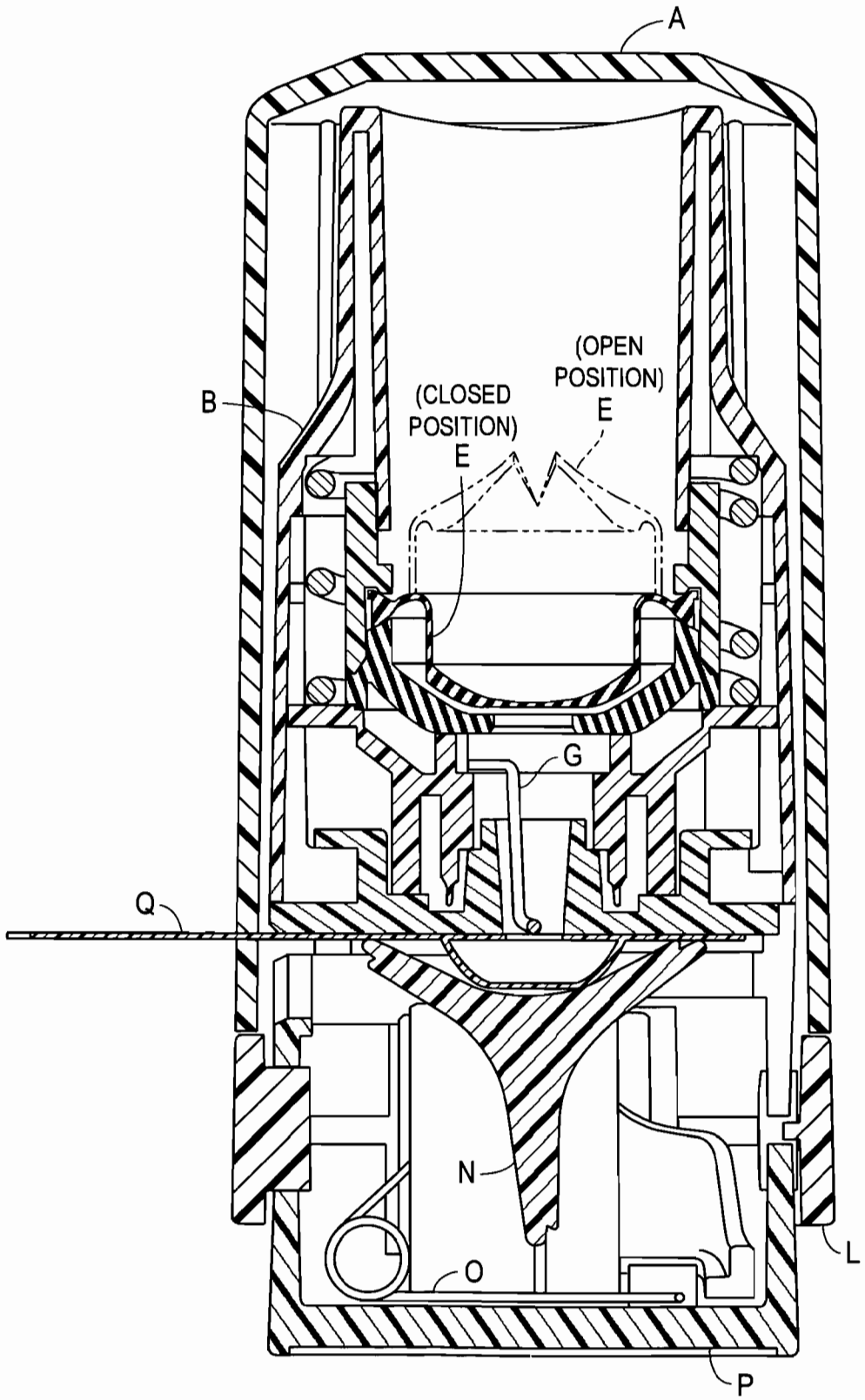


FIG 26

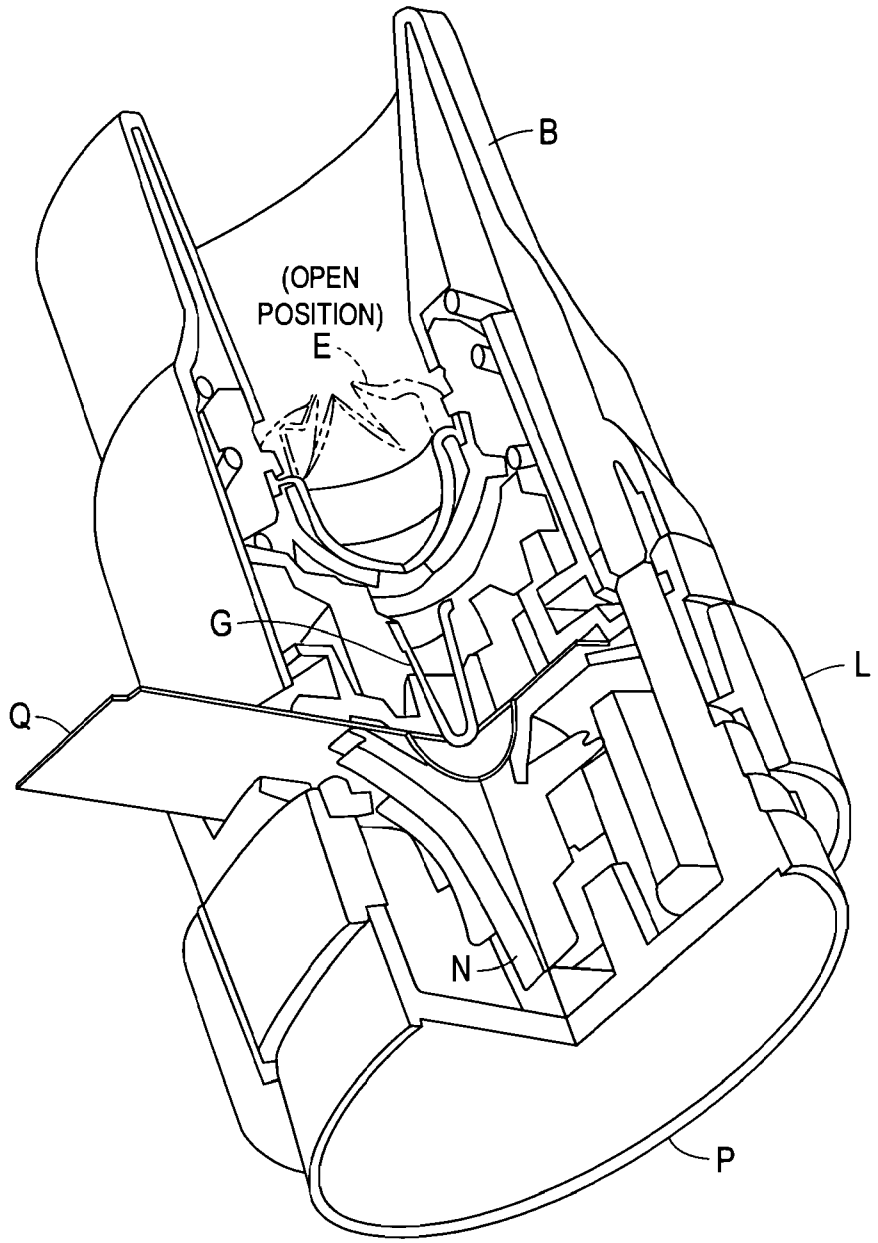


FIG 27

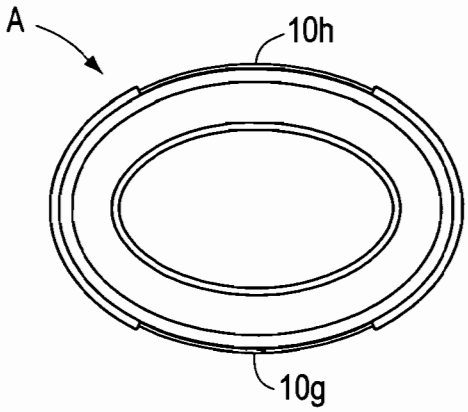


FIG. 28

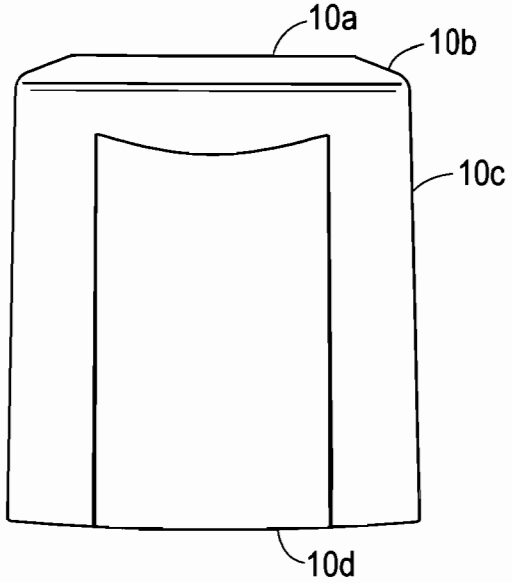


FIG. 29

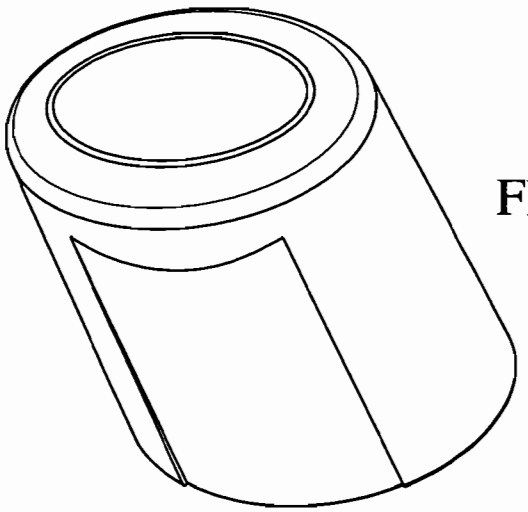


FIG. 30

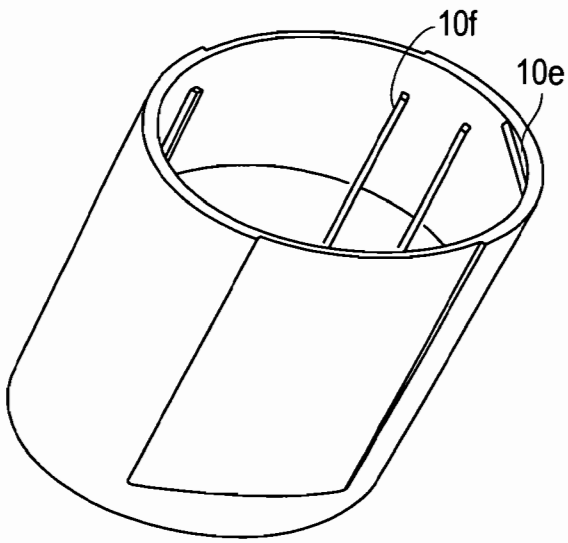


FIG. 31

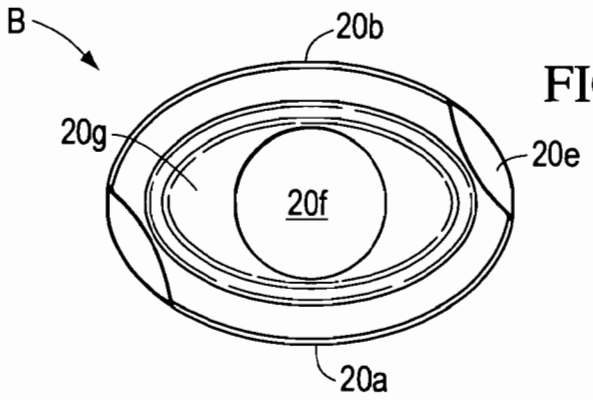
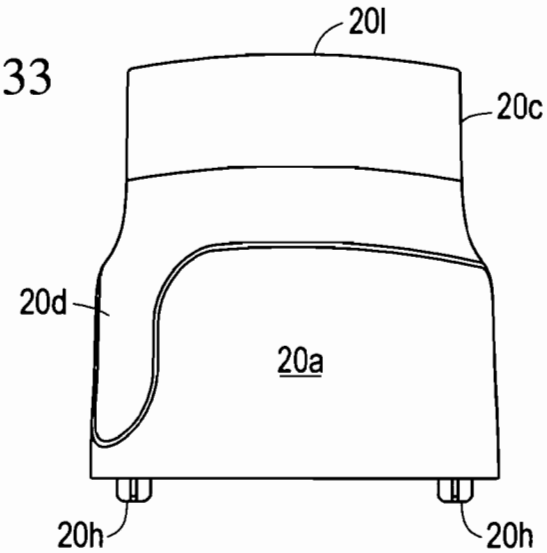


FIG. 32

FIG. 33



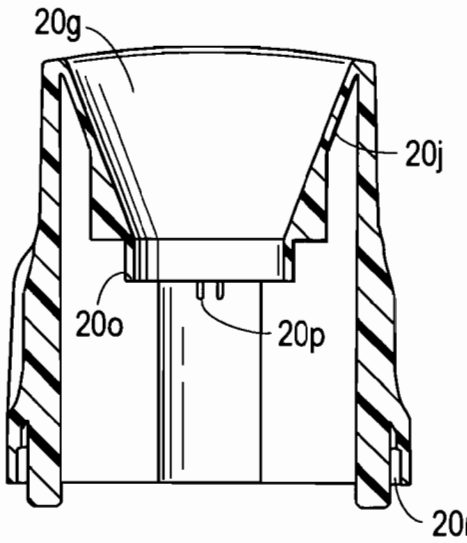


FIG. 34

FIG. 35

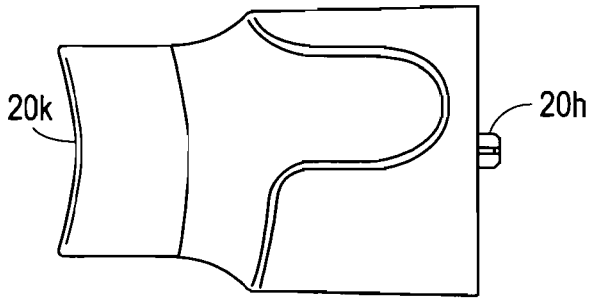


FIG. 36

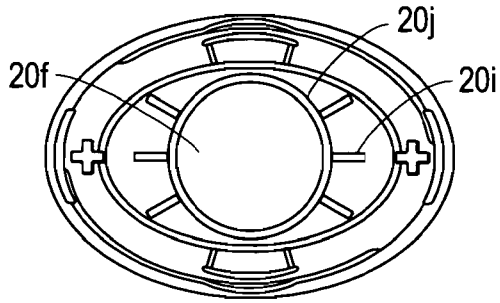
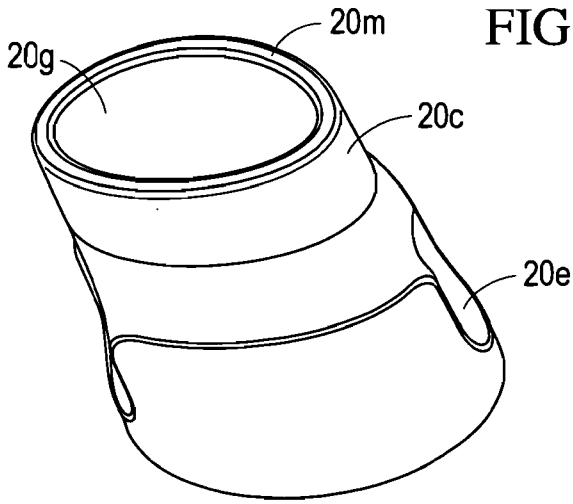


FIG. 37



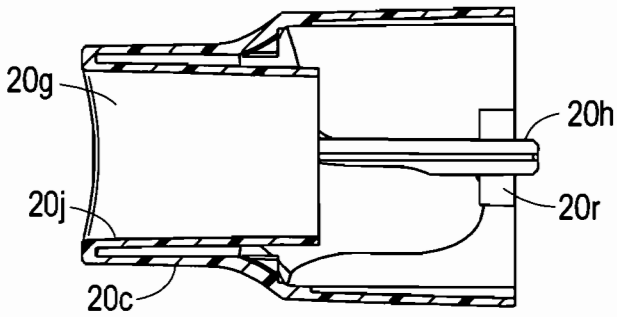


FIG. 38

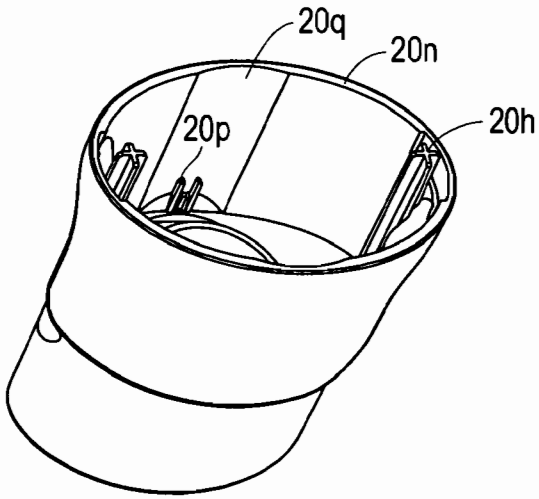
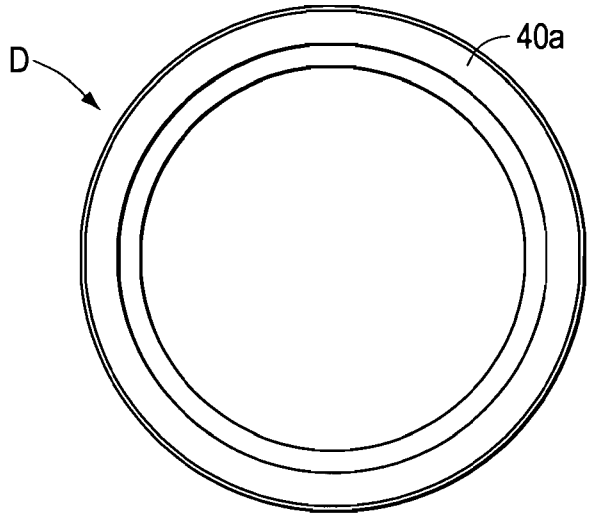


FIG. 39

FIG. 40



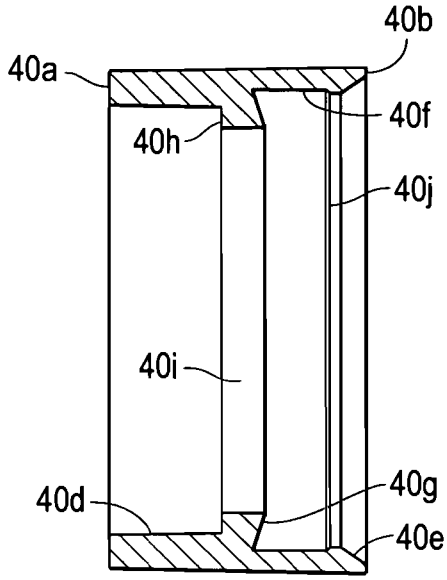
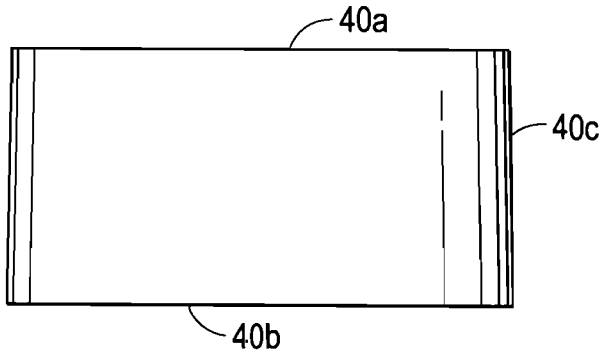


FIG. 42

FIG. 41



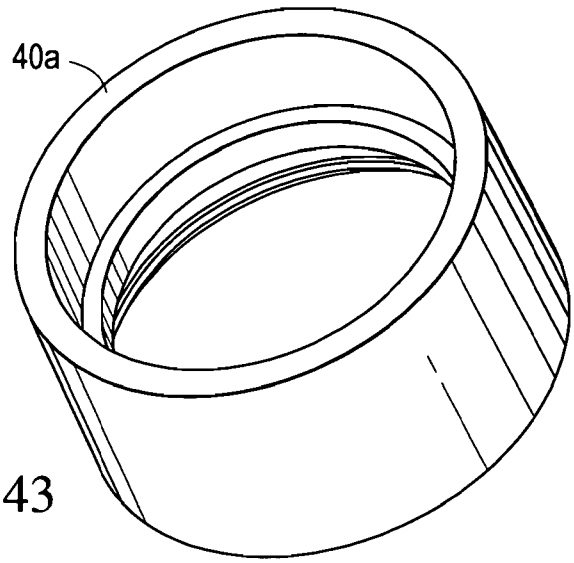


FIG. 43

FIG. 44

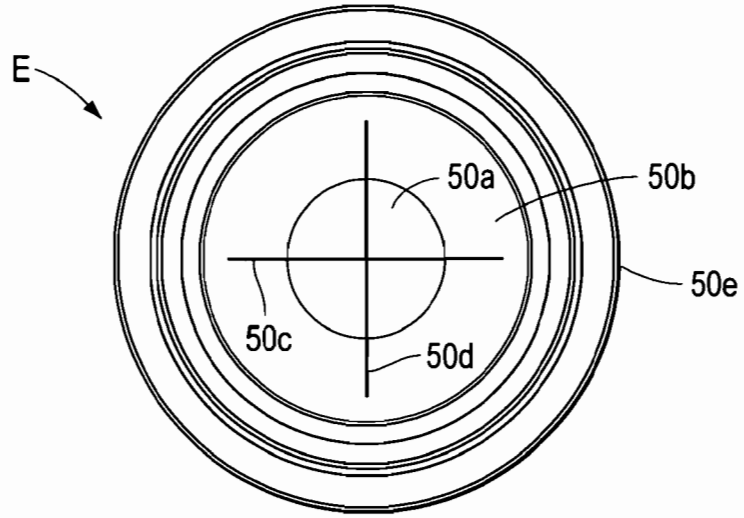
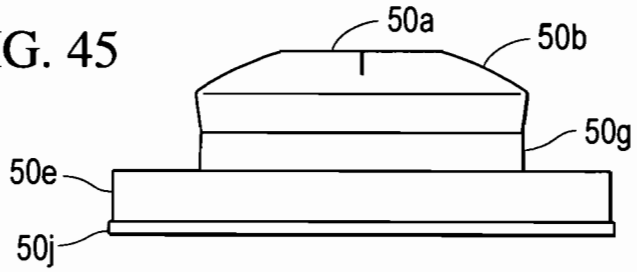


FIG. 45



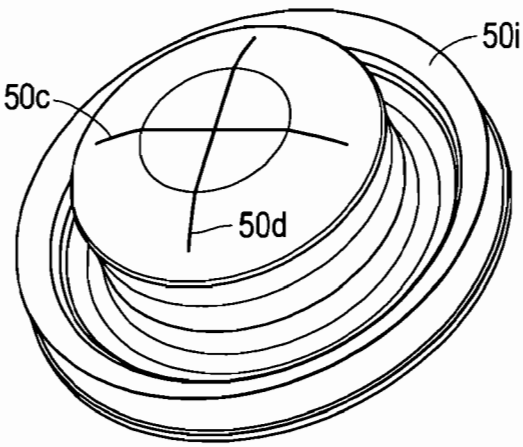


FIG. 46

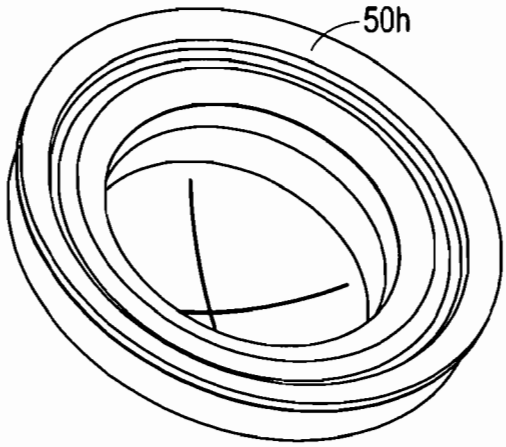


FIG. 47

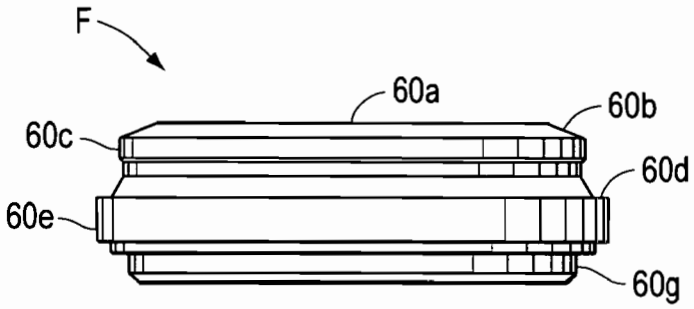
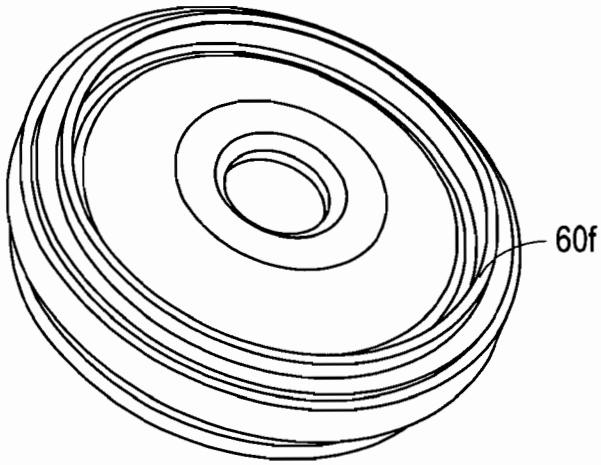


FIG. 48

FIG. 49



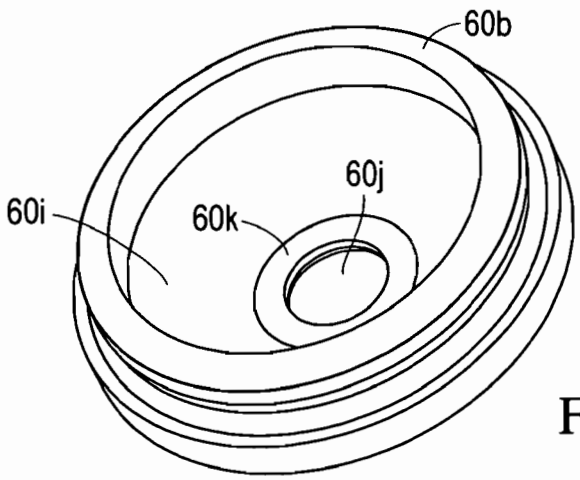


FIG. 50

FIG. 51

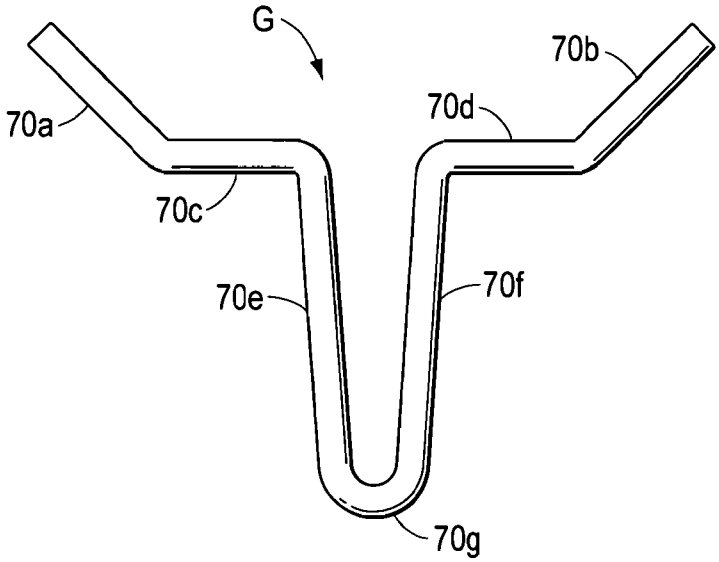


FIG. 52

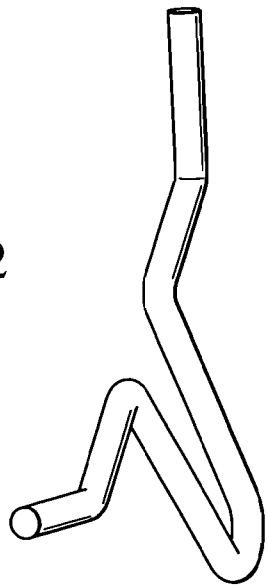


FIG. 53

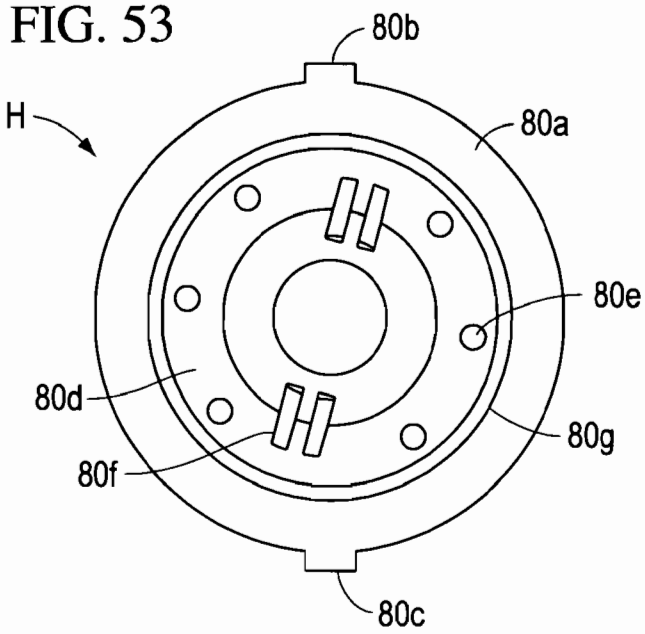


FIG. 54

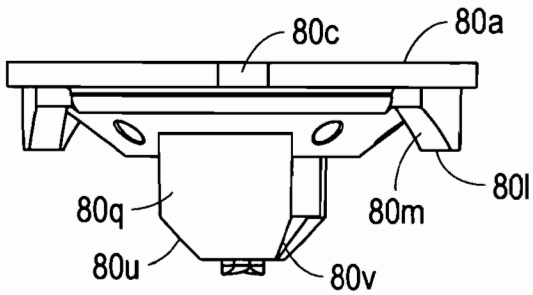
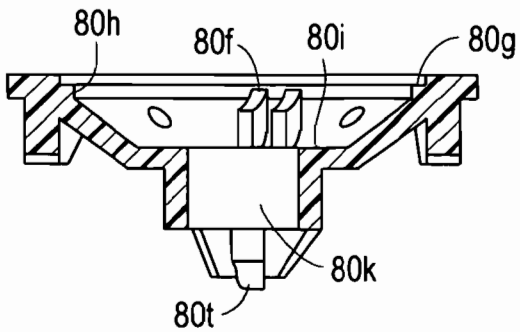


FIG. 55



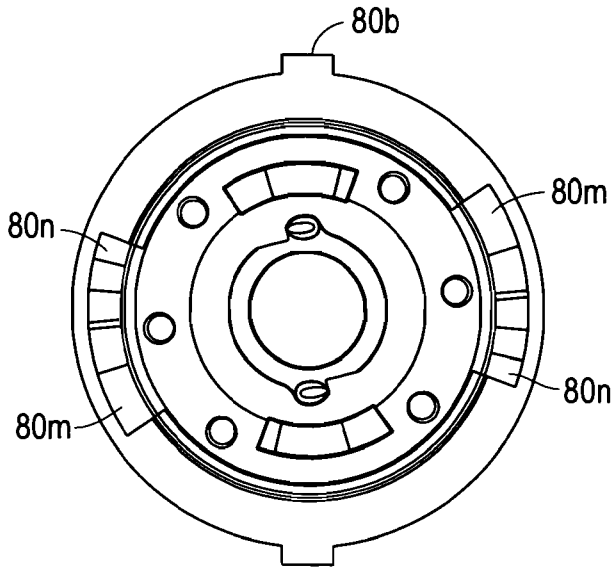


FIG. 56

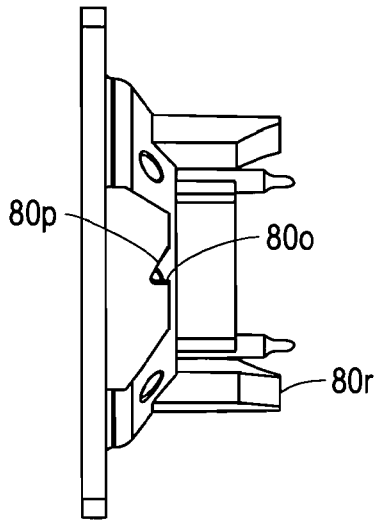


FIG. 57

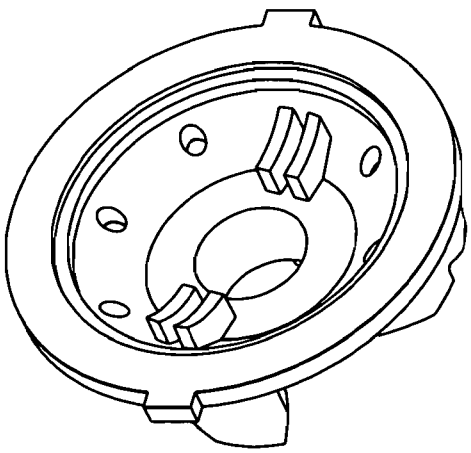


FIG. 58

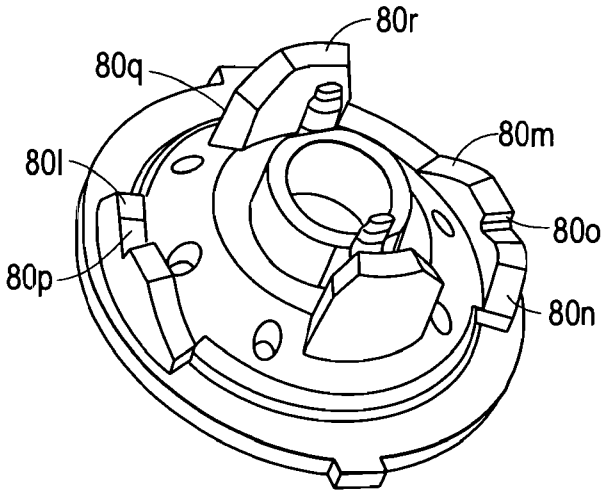


FIG. 59

FIG. 60

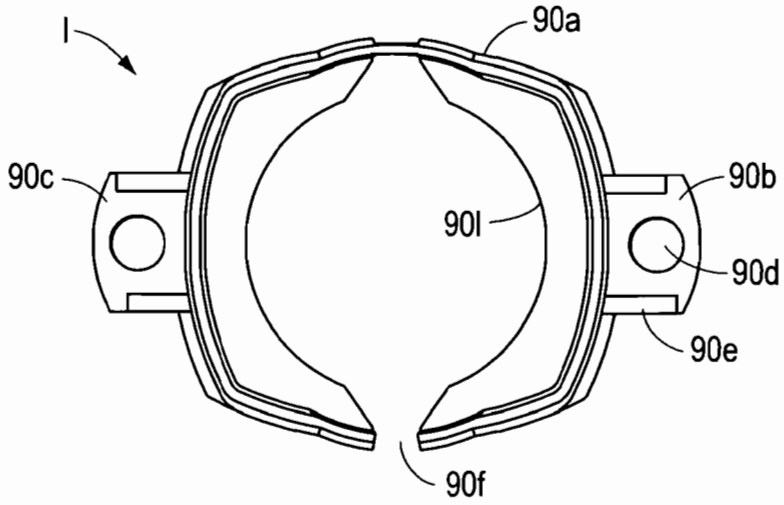


FIG. 61

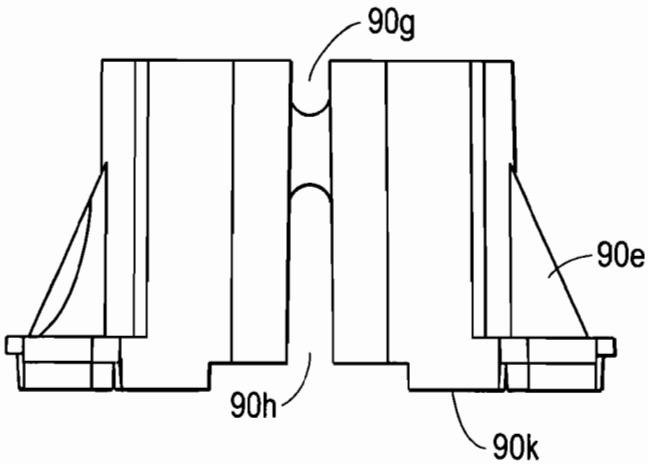
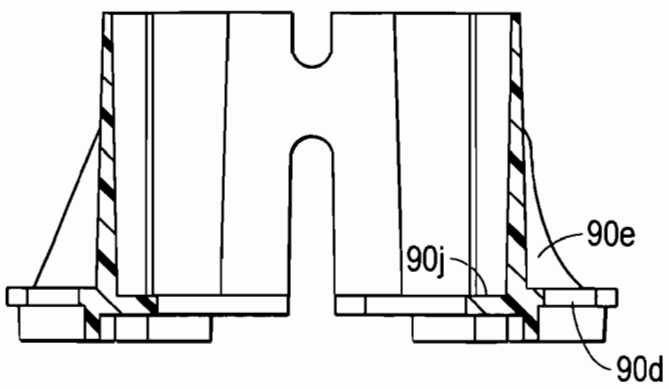


FIG. 62



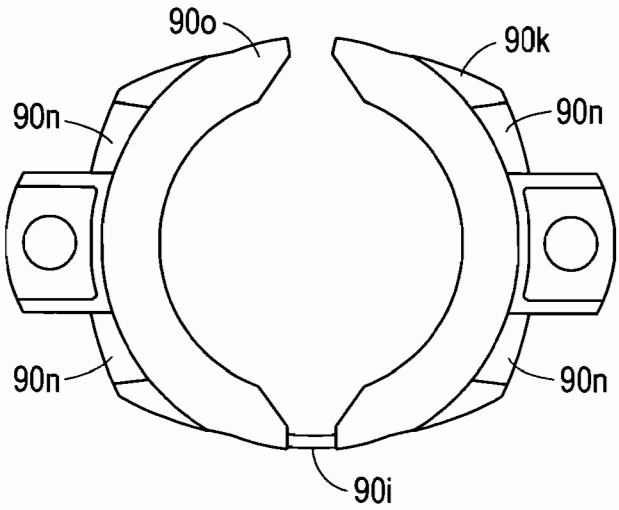


FIG. 63

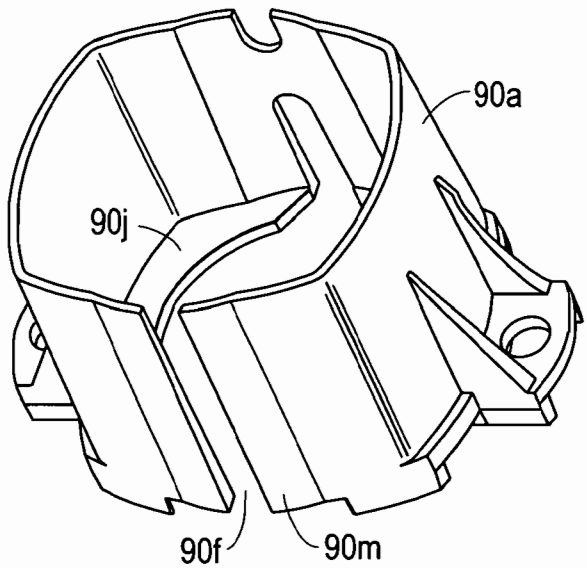


FIG. 64

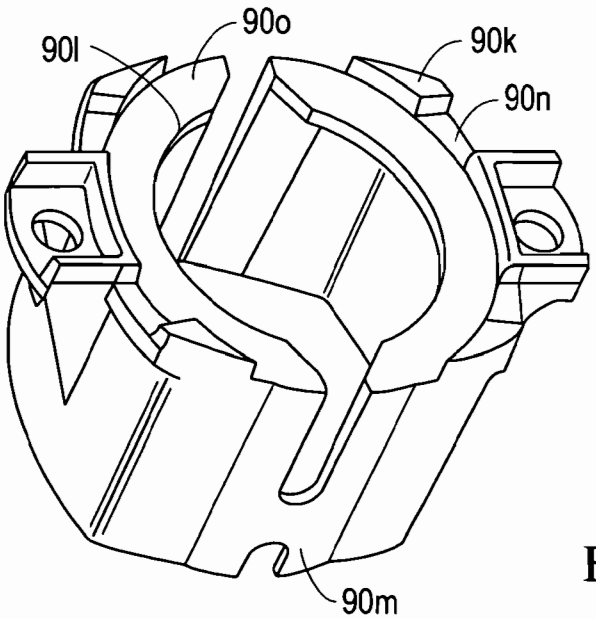


FIG. 65

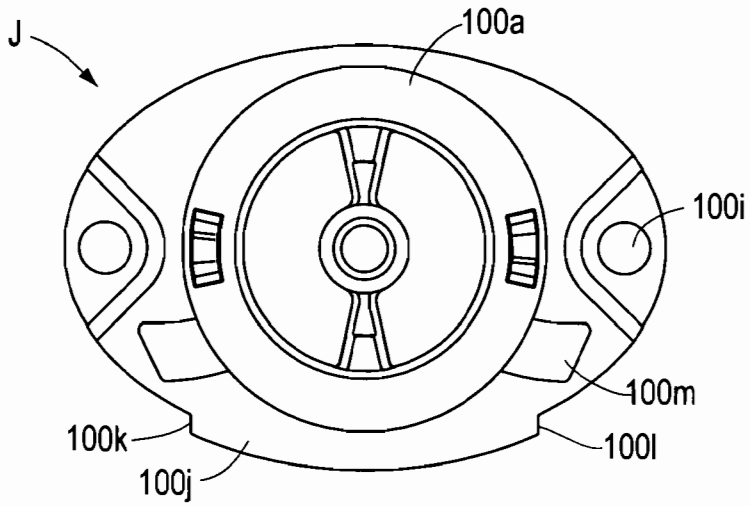


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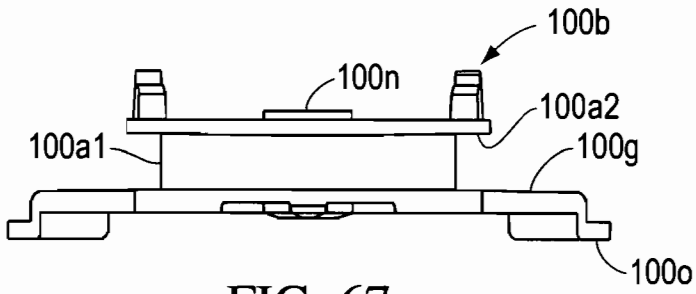


FIG. 67

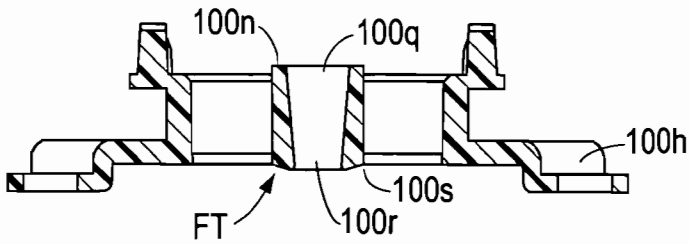
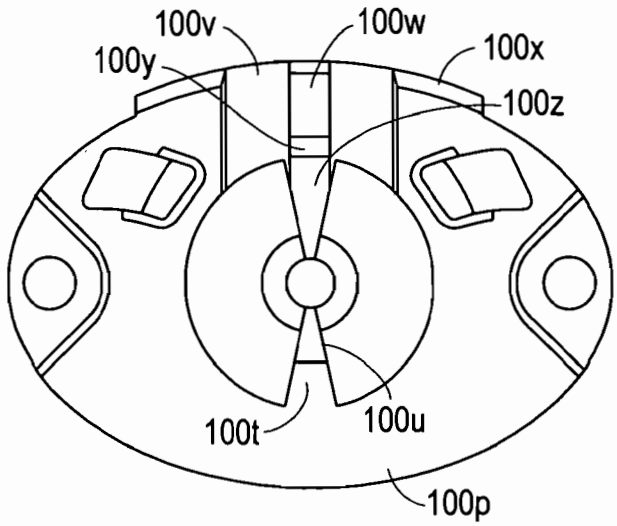


FIG. 68

FIG. 69



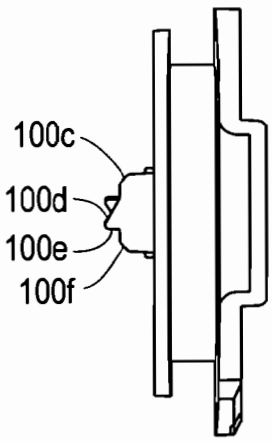


FIG. 70

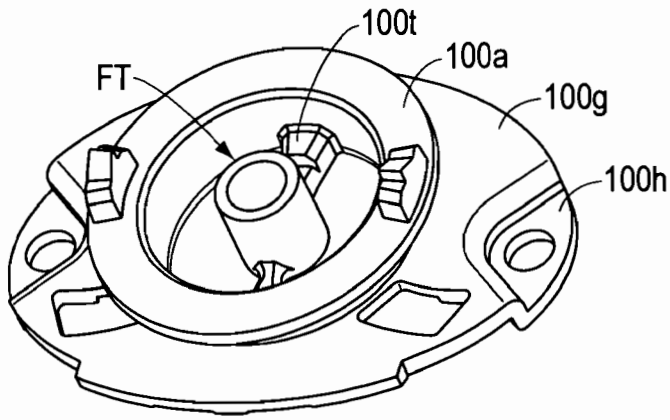


FIG. 71

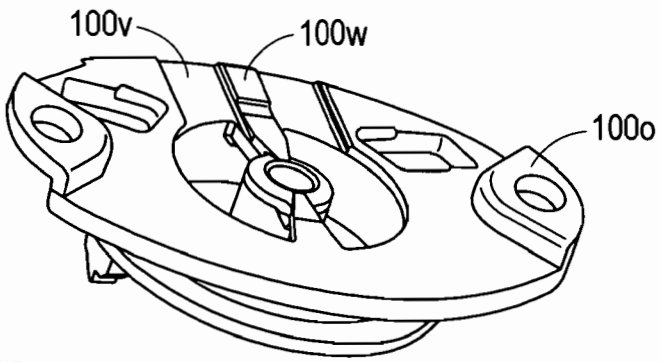


FIG. 72

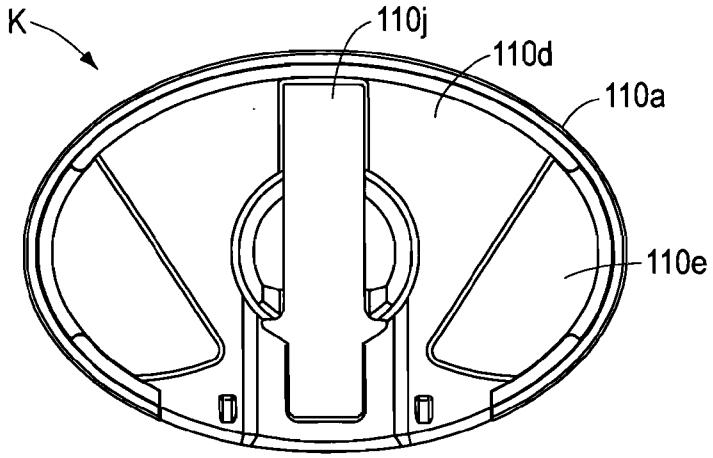


FIG. 73

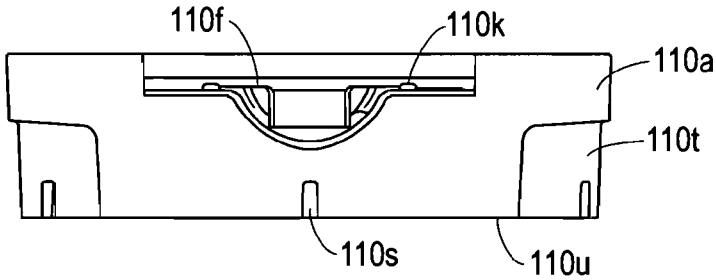


FIG. 74

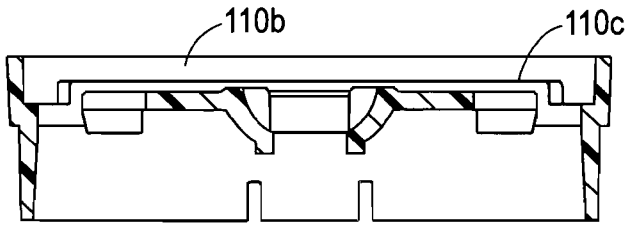
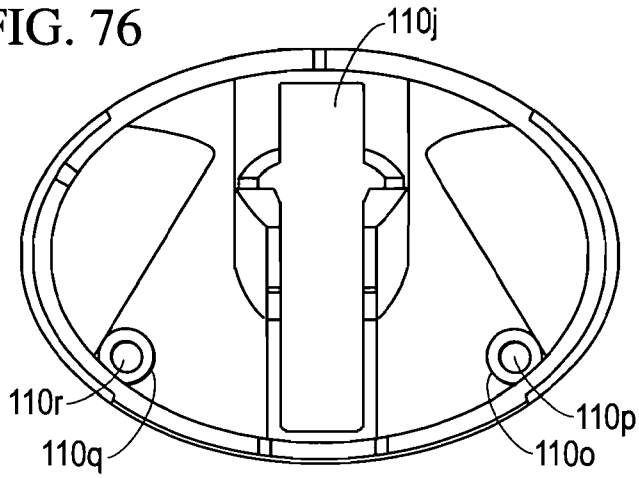


FIG. 75

FIG. 76



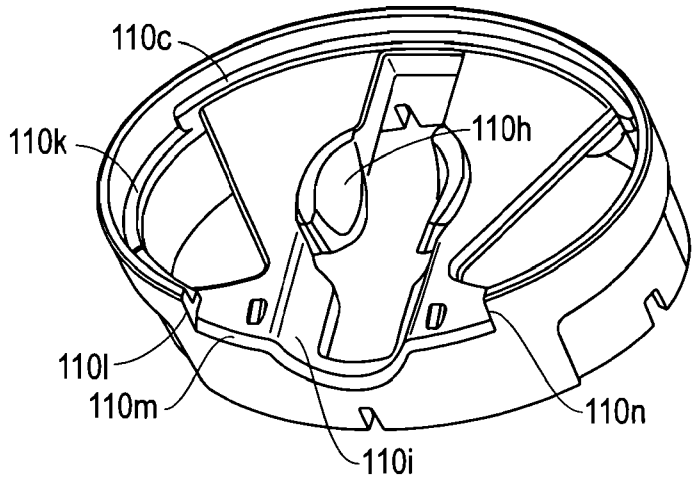


FIG. 77

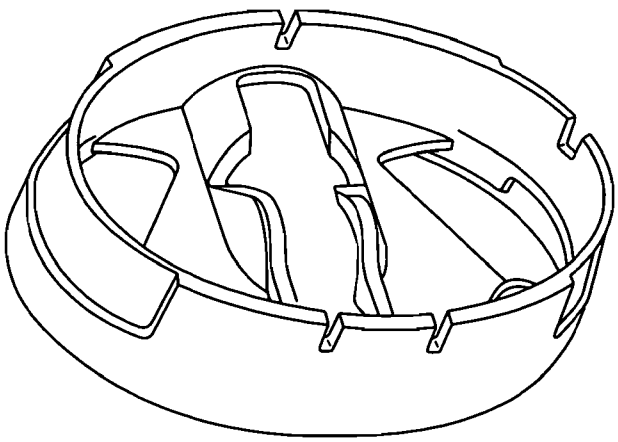


FIG. 78

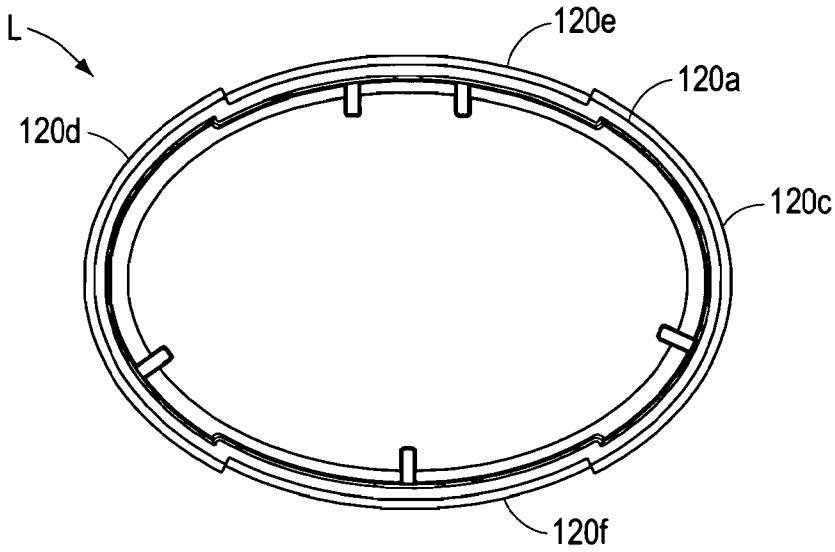


FIG. 79

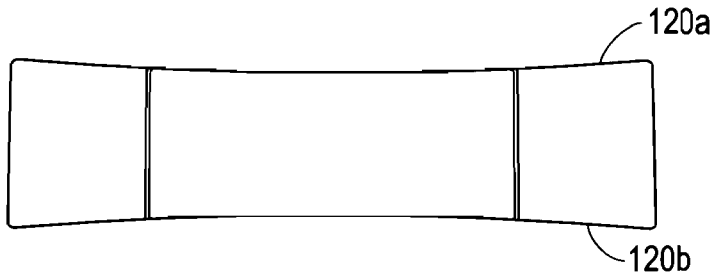


FIG. 80

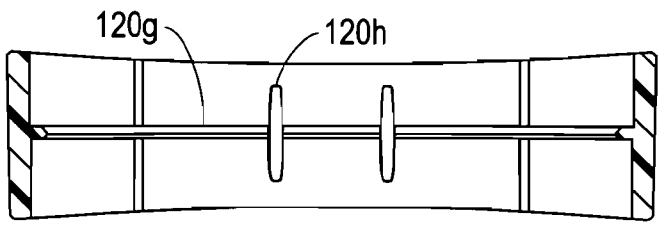


FIG. 81

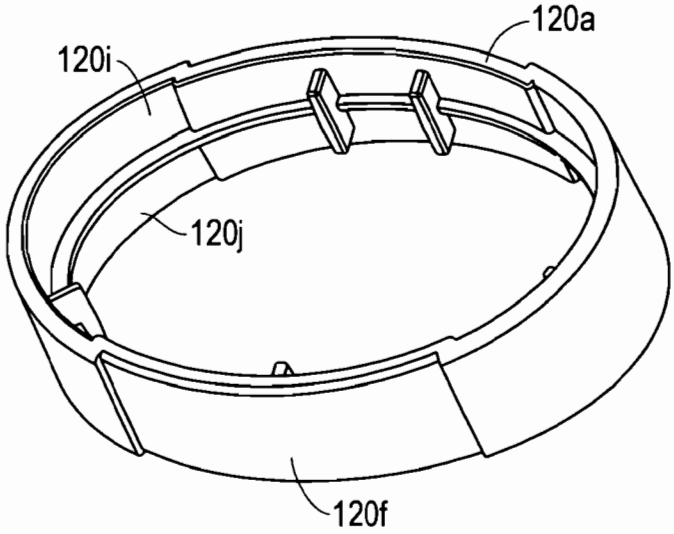


FIG. 82

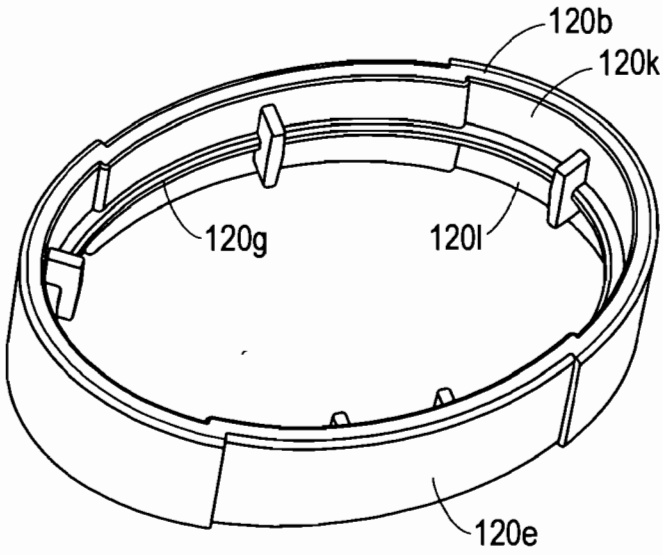


FIG. 83

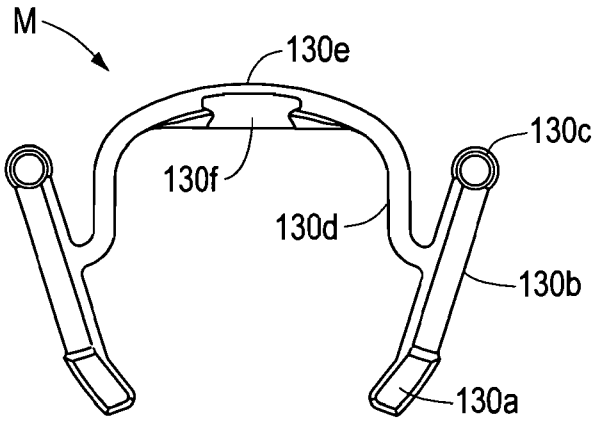


FIG. 84

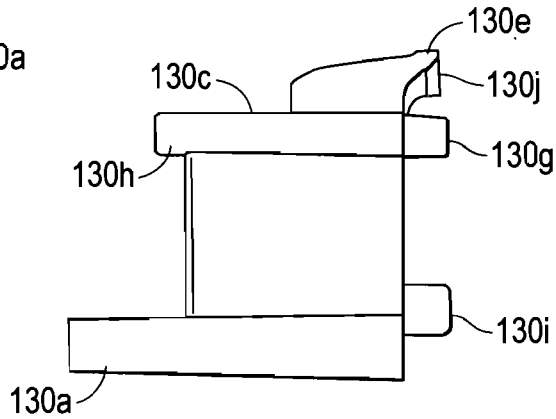


FIG. 85

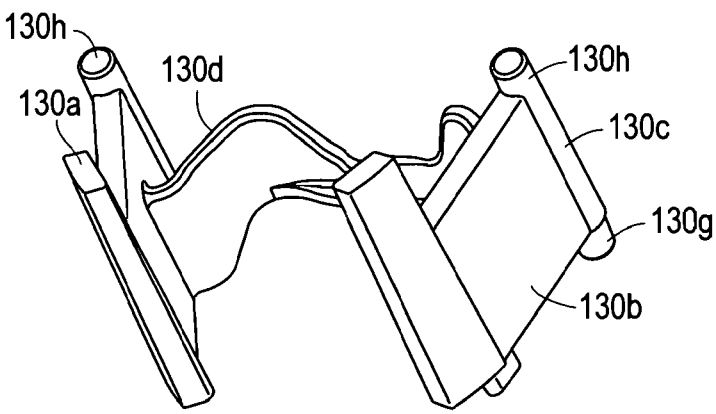


FIG. 86

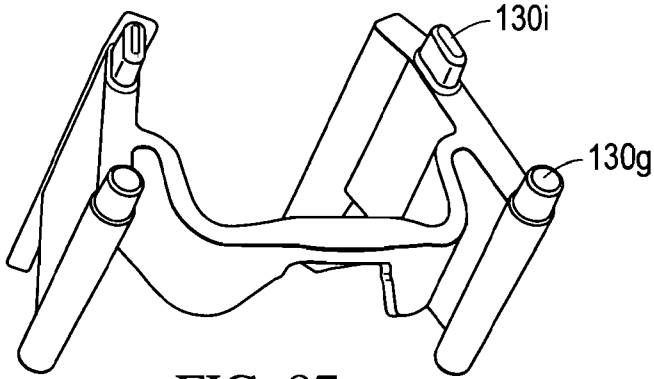


FIG. 87

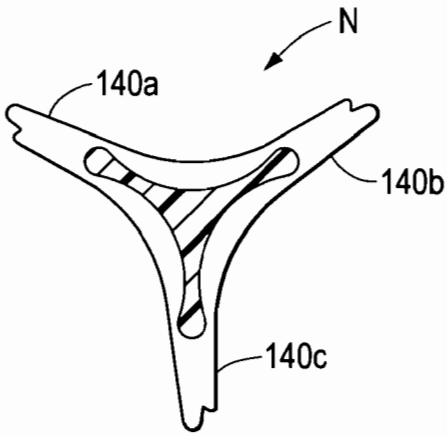


FIG. 88

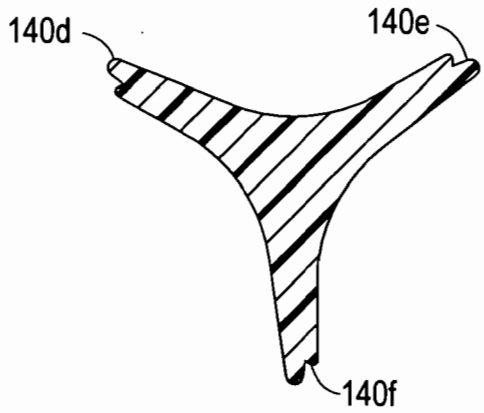


FIG. 89

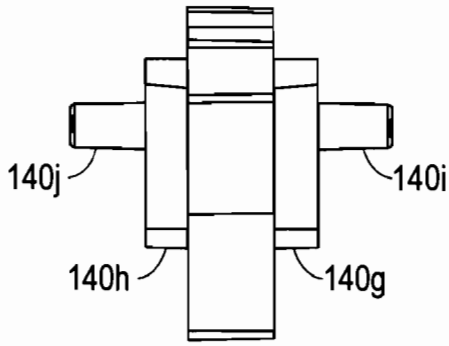


FIG. 90

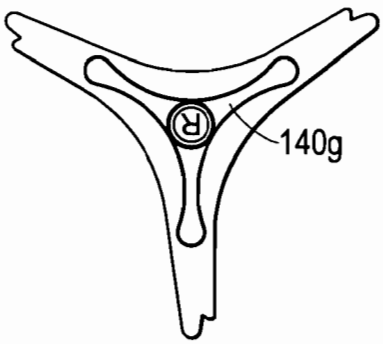


FIG. 91

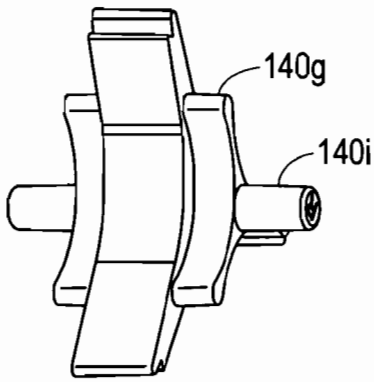


FIG. 92

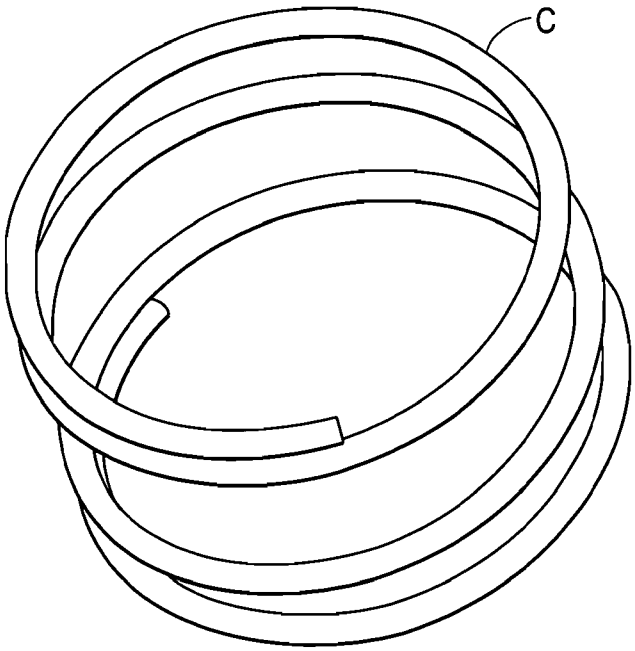


FIG 93

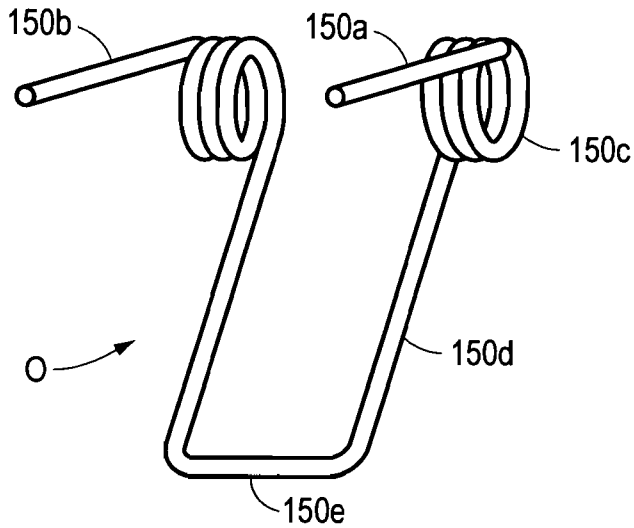


FIG 94

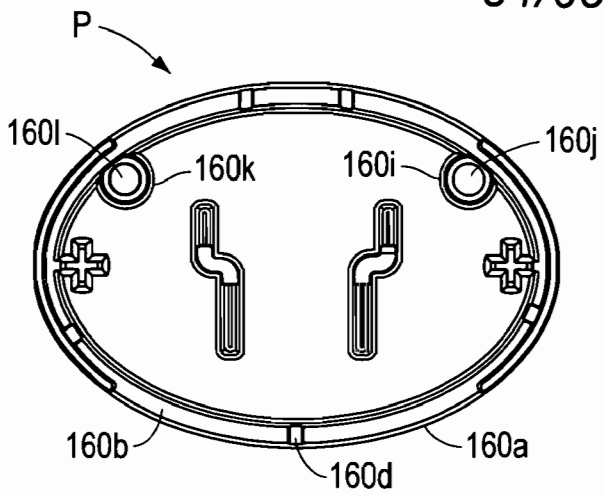


FIG 95

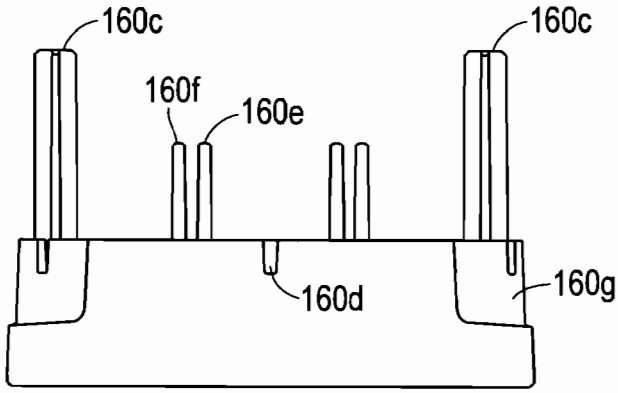


FIG 96

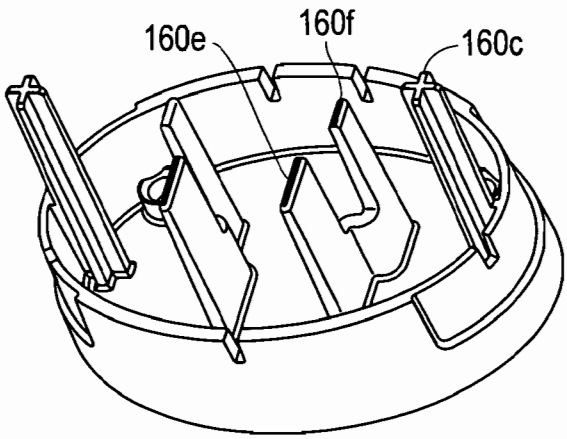


FIG 97

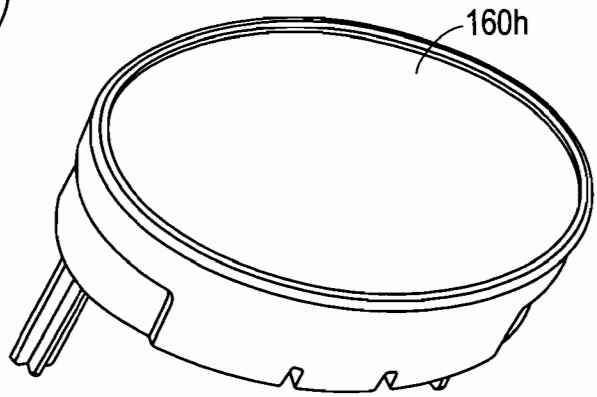


FIG 98

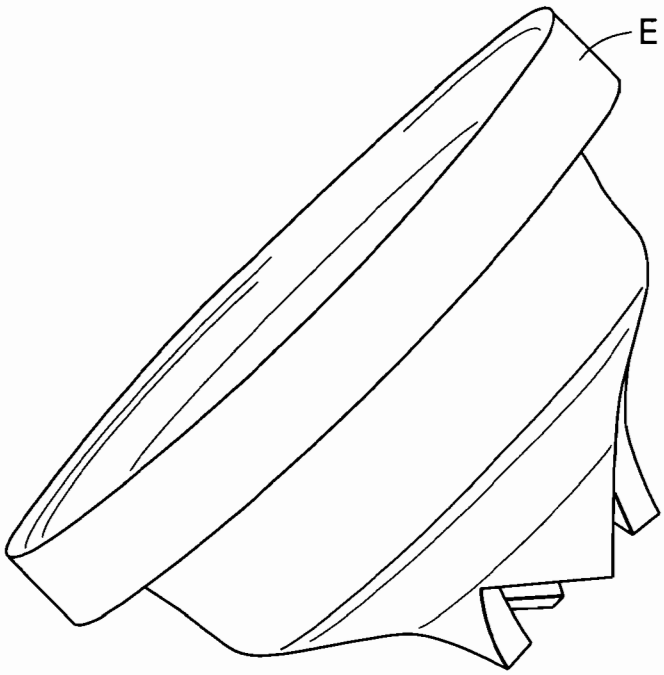


FIG. 99

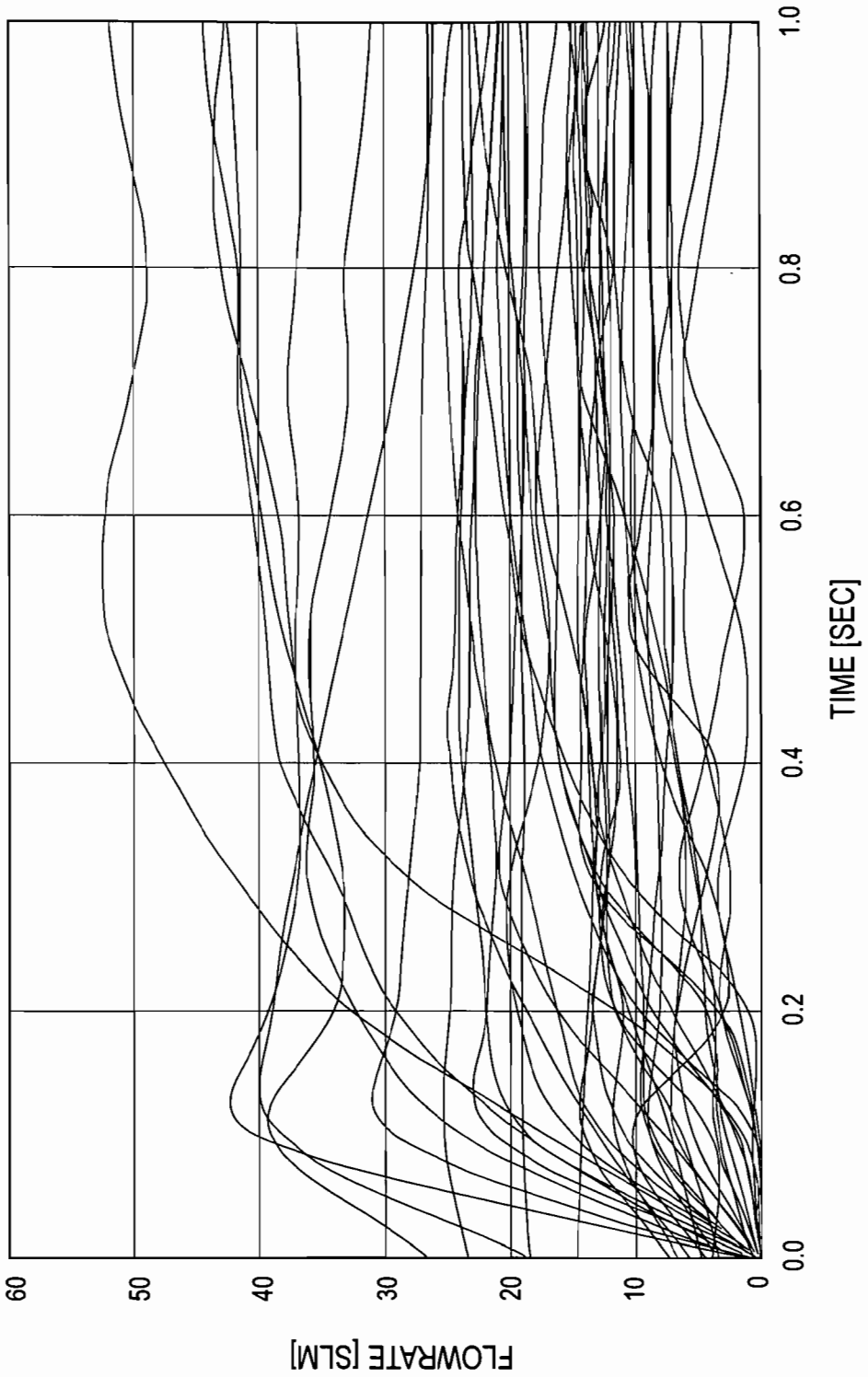

FLOW RATE OVER TIME WITHOUT TRIGGER
FLOWRATE [SLM]
0
10
20
30
40
50
60
TIME [SEC]
0.0
0.2
0.4
0.6
0.8
1.0

FIG. 100

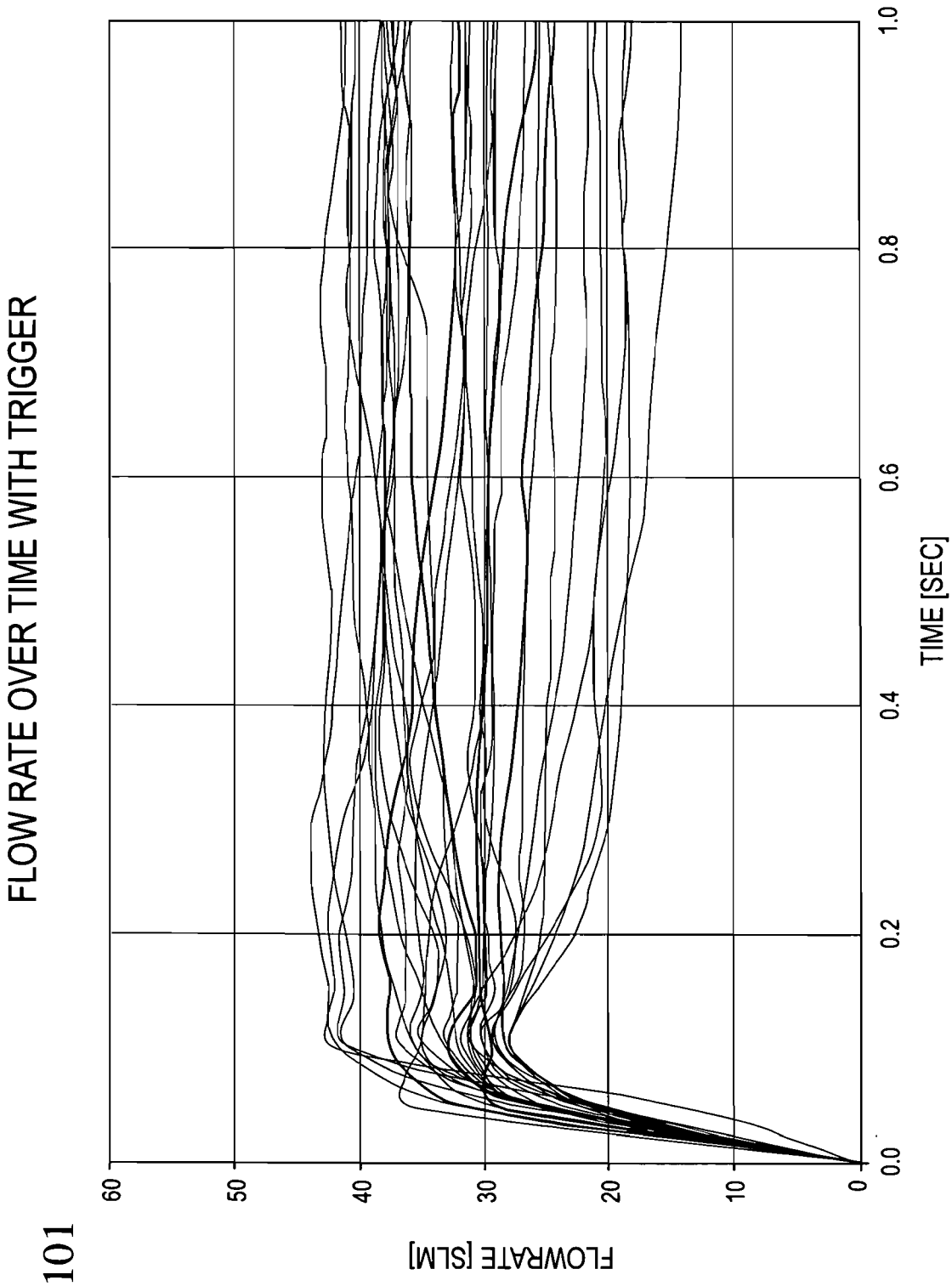

FLOW RATE OVER TIME WITH TRIGGER
FLOWRATE [SLM]
60
50
40
30
20
10
0
0.0
0.2
0.4
0.6
0.8
1.0
TIME [SEC]

FIG. 101

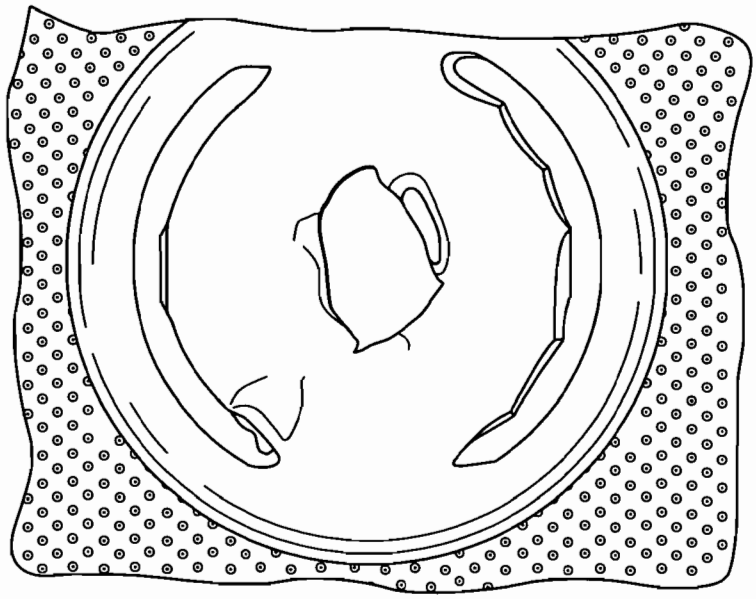


FIG 102

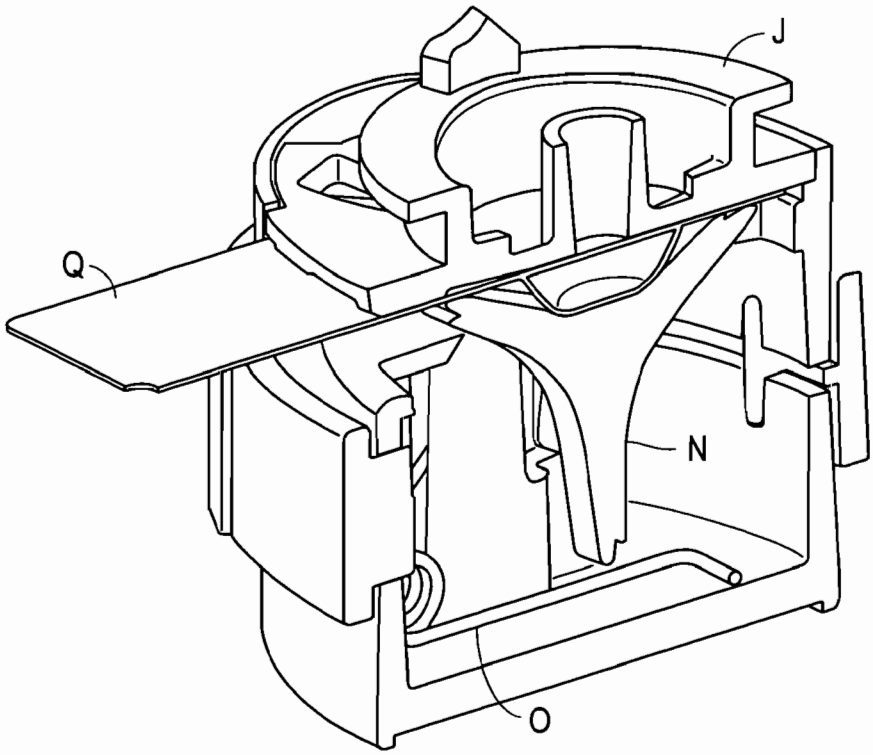


FIG 103

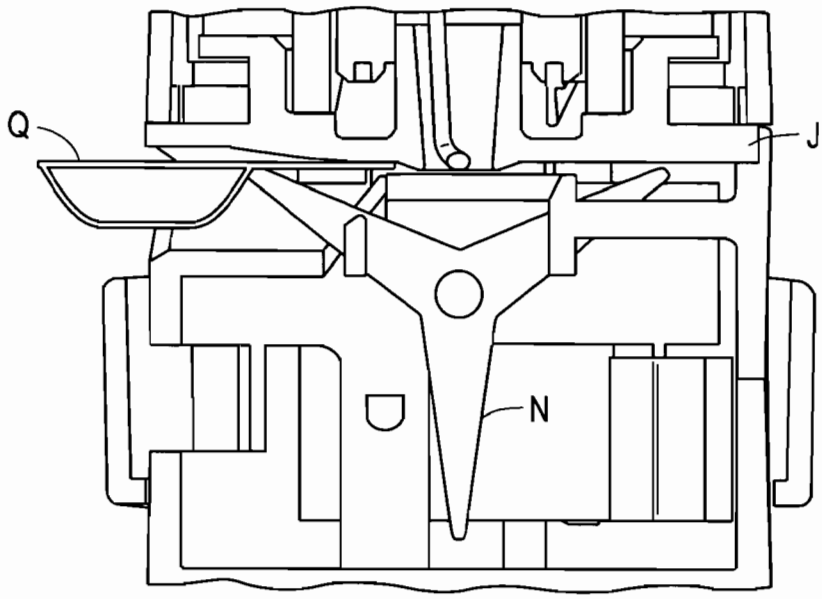


FIG 104

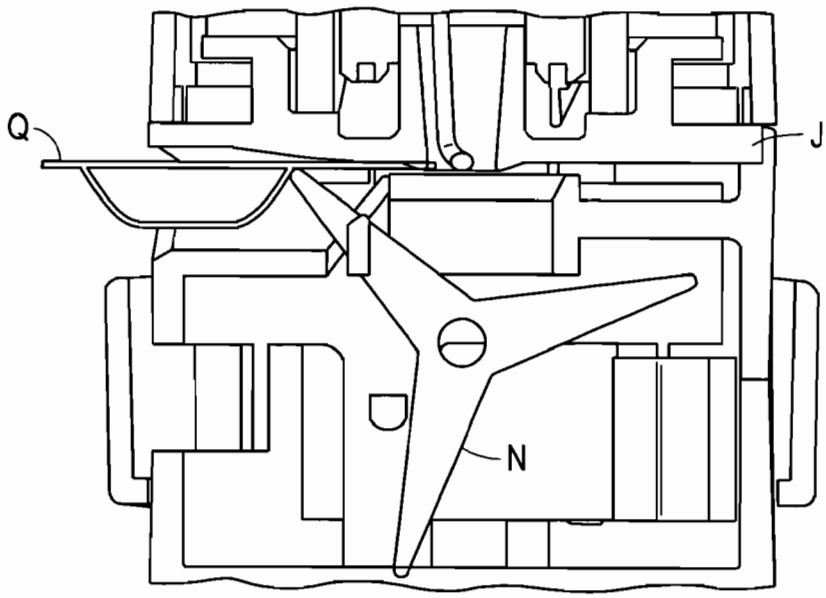


FIG 105

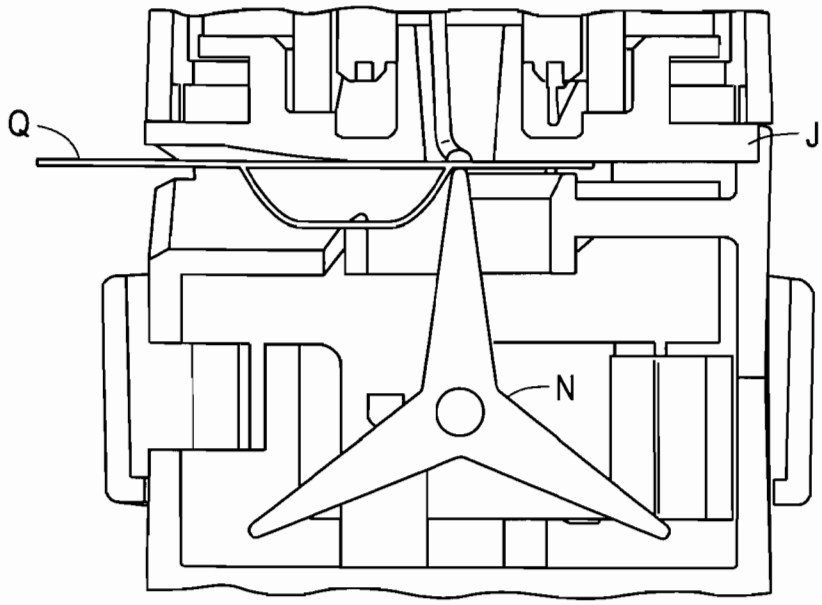


FIG 106

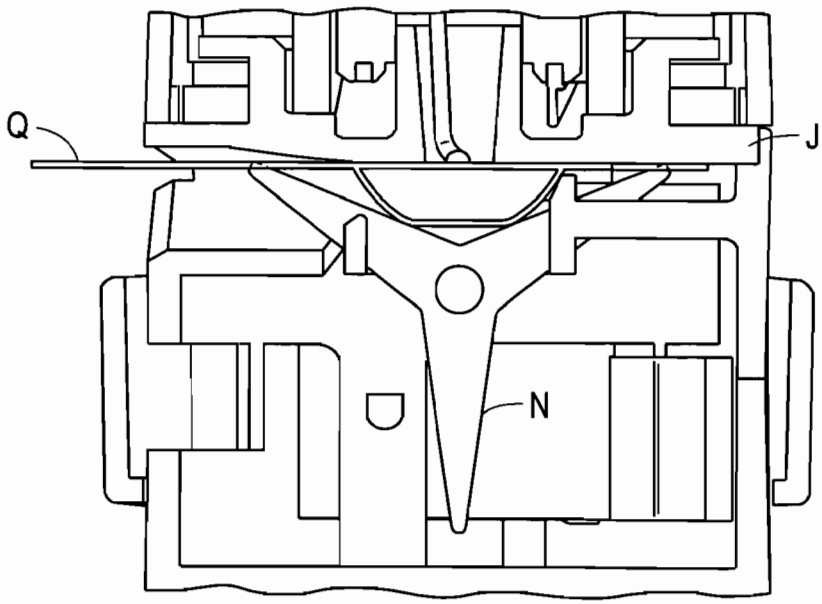


FIG 107

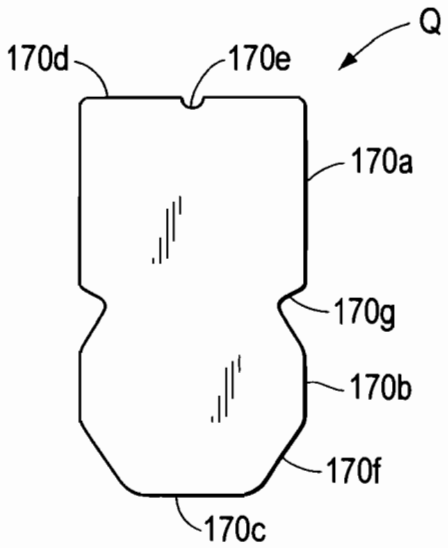


FIG 108

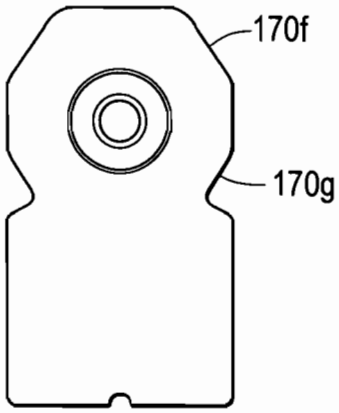


FIG 110

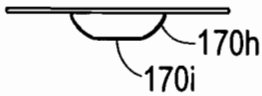


FIG 109

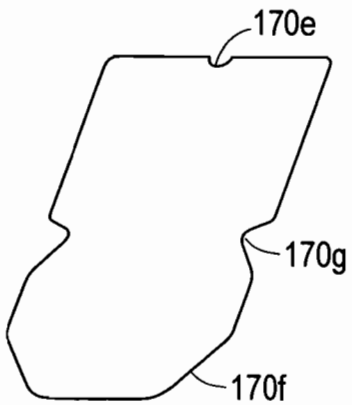


FIG 111

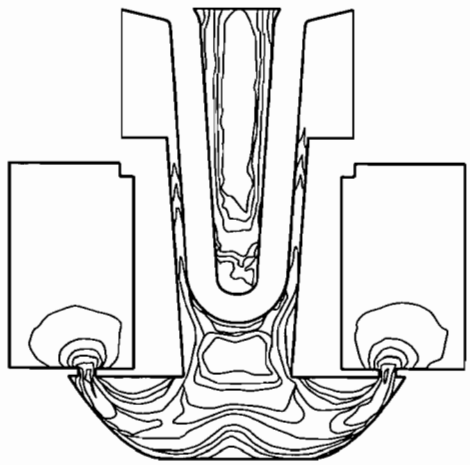
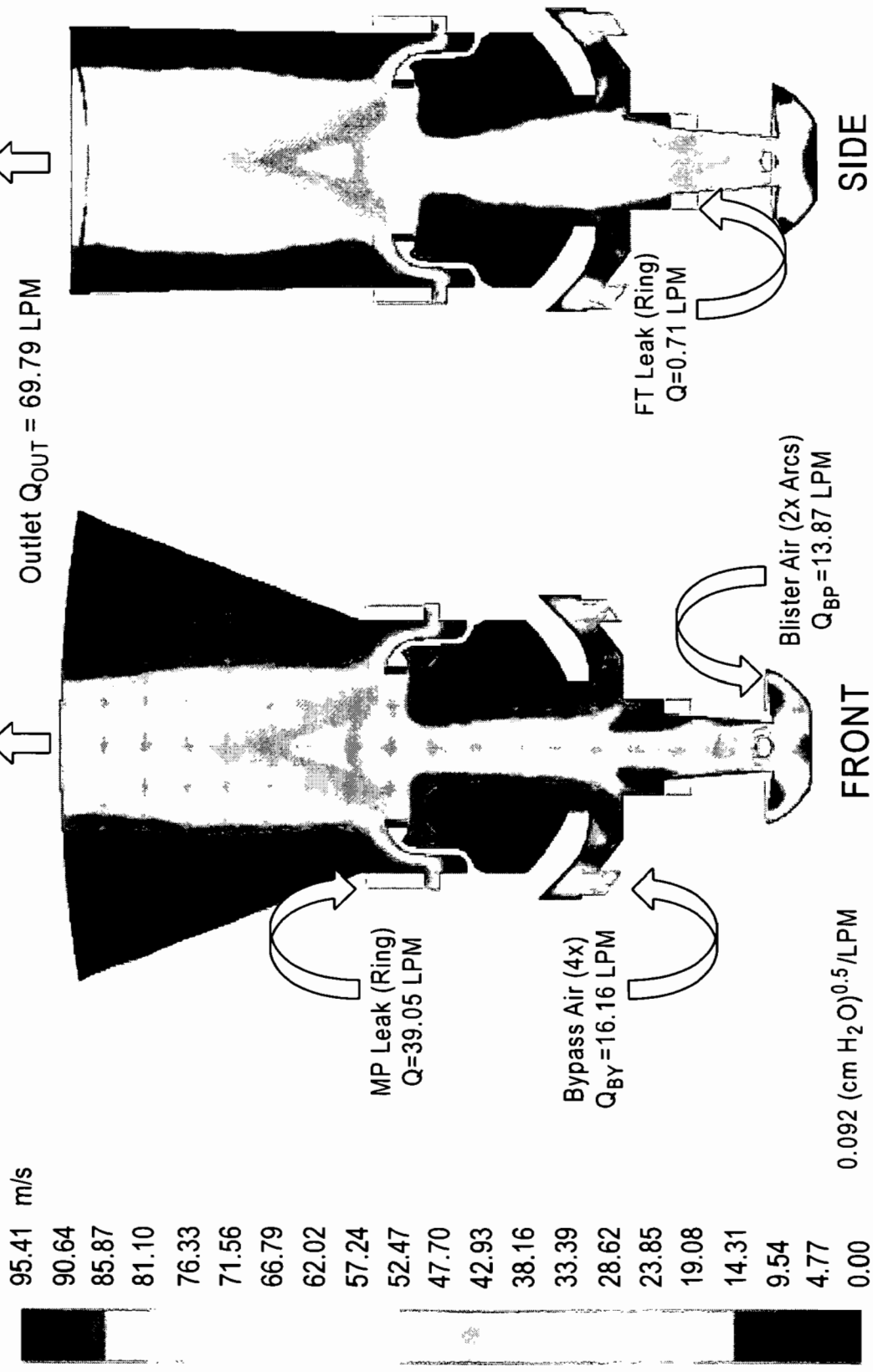


FIG 112

FIG. 113


1st Order Velocity Profile at ΔP = 4kPa
Outlet Q_{OUT} = 69.79 LPM
MP Leak (Ring)
Q=39.05 LPM
Bypass Air (4x)
Q_{BY}=16.16 LPM
Blister Air (2x Arcs)
Q_{BP}=13.87 LPM
FT Leak (Ring)
Q=0.71 LPM
FRONT
SIDE
m/s
95.41
90.64
85.87
81.10
76.33
71.56
66.79
62.02
57.24
52.47
47.70
42.93
38.16
33.39
28.62
23.85
19.08
14.31
9.54
4.77
0.00
0.092 (cm H_2O)$^{0.5}$/LPM

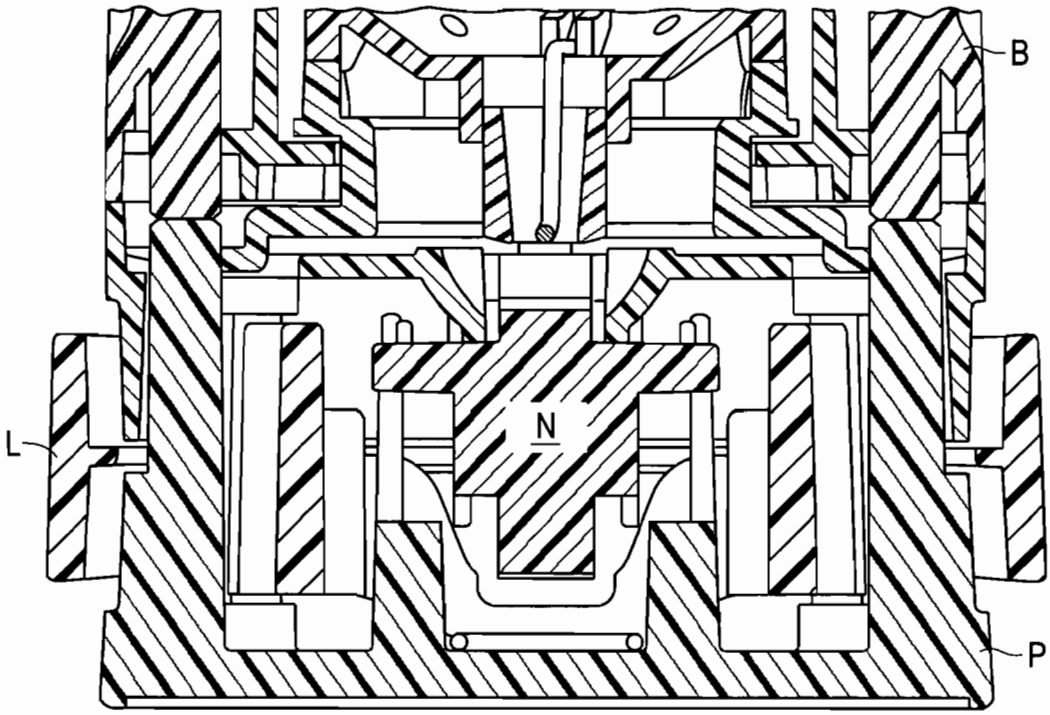


FIG. 114

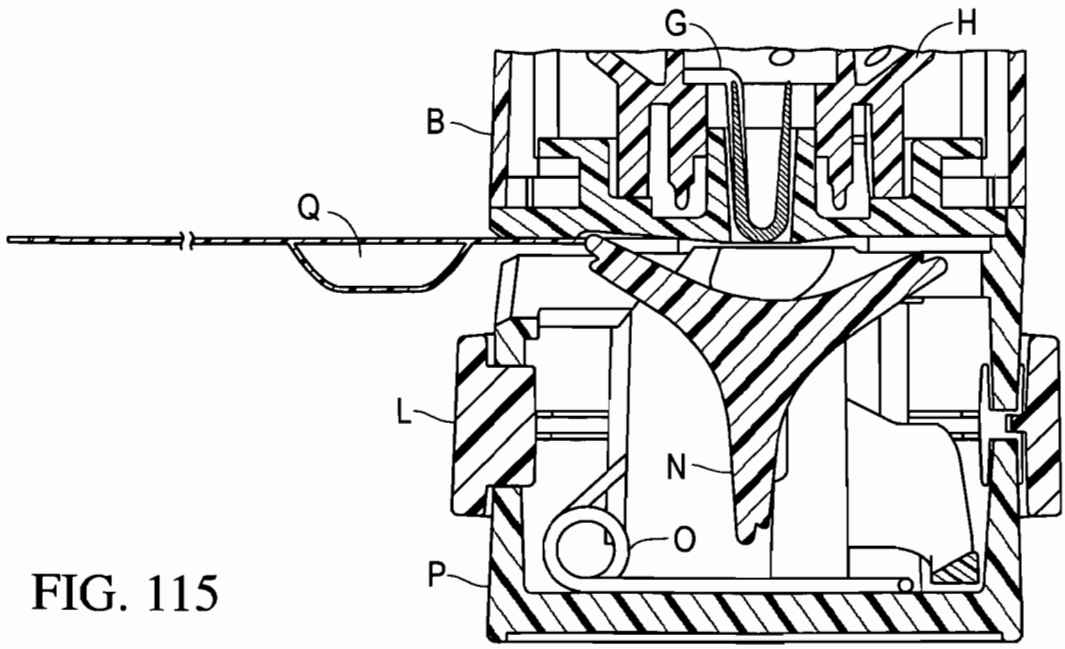


FIG. 115

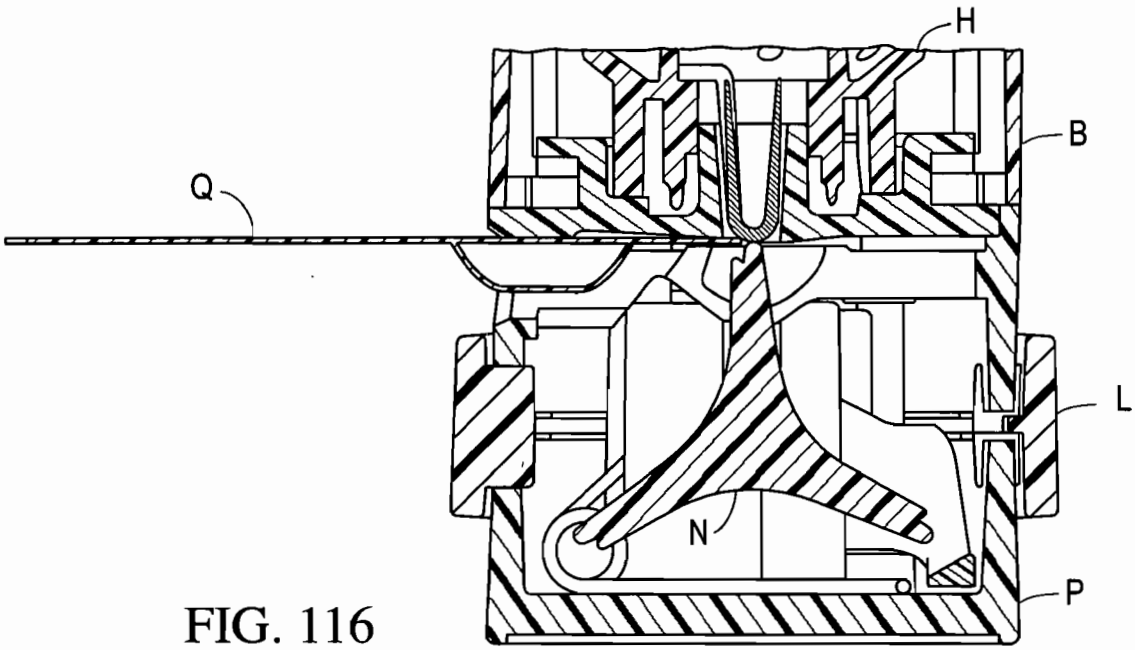


FIG. 116

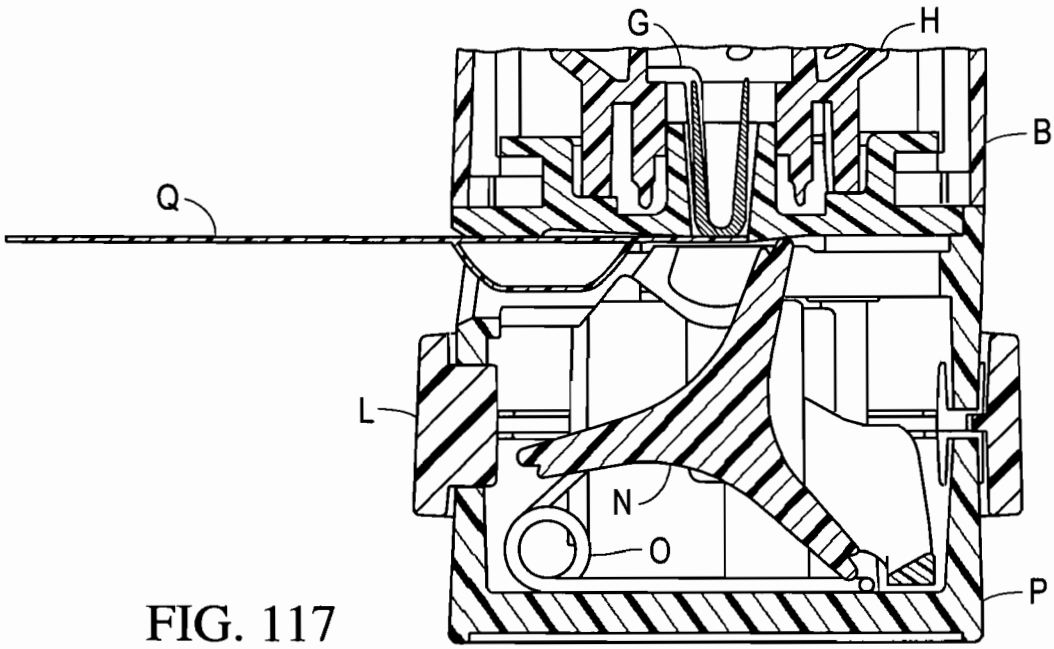


FIG. 117

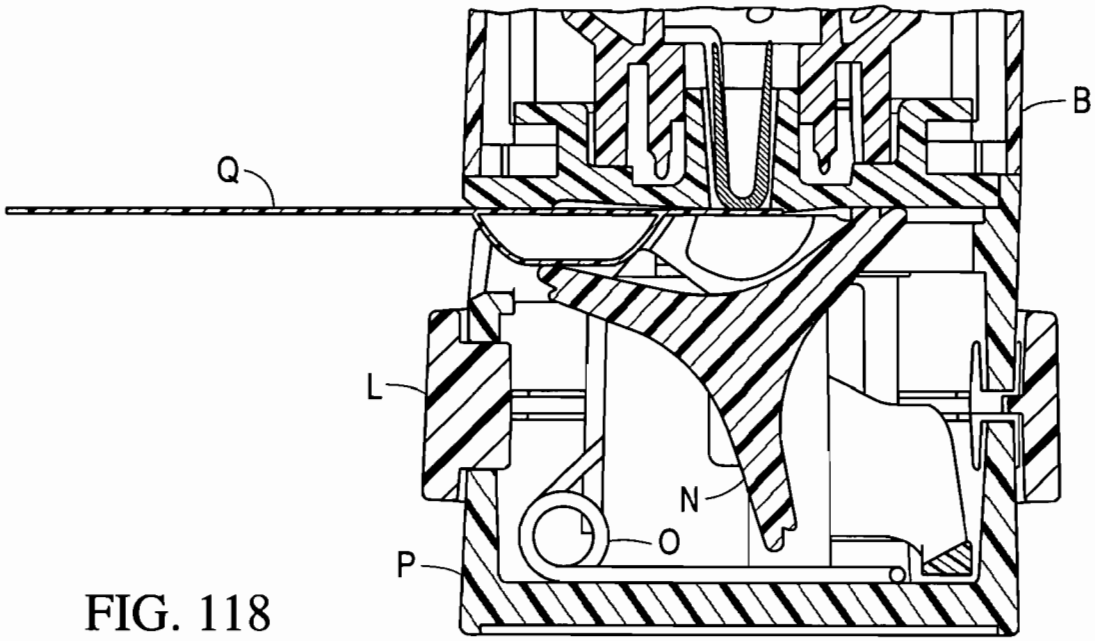


FIG. 118

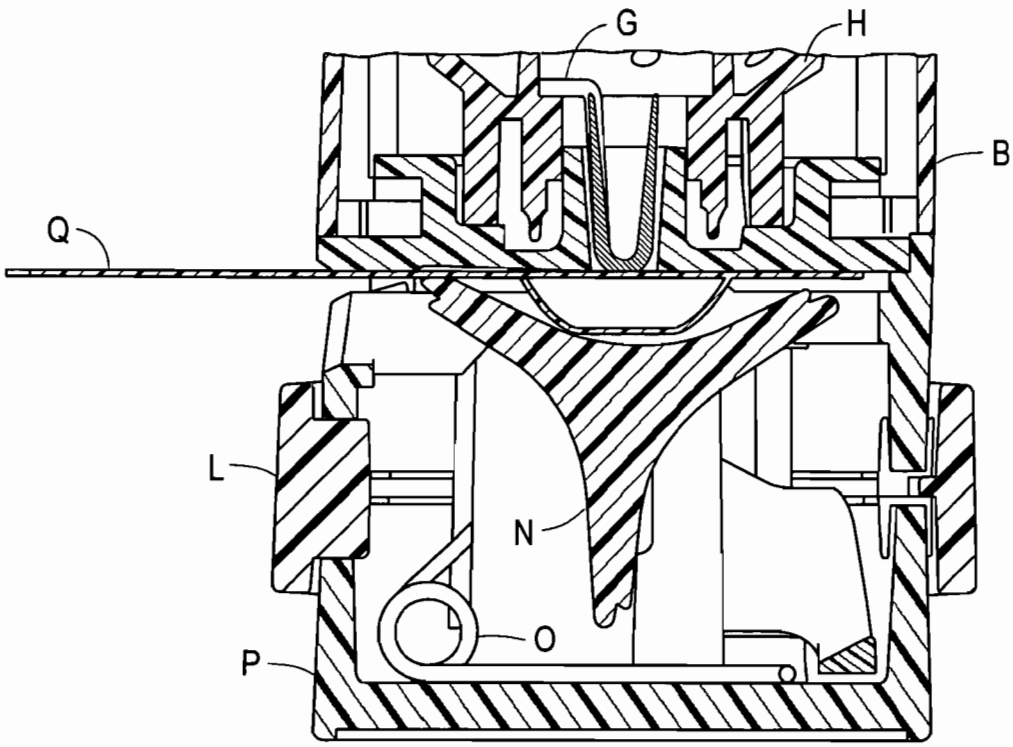


FIG. 119

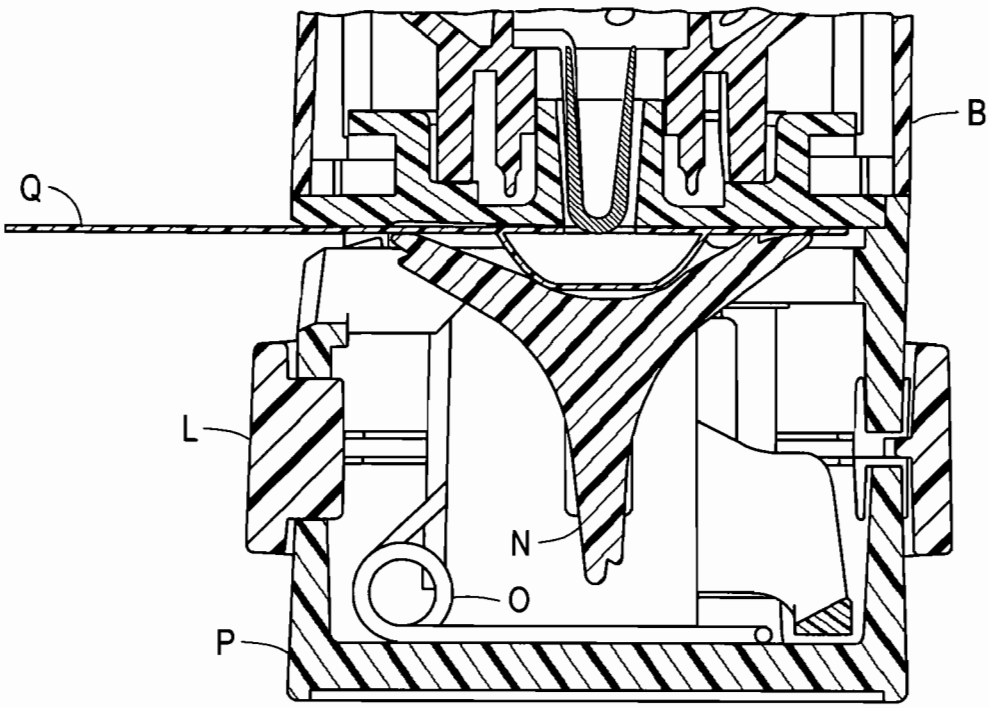


FIG. 120

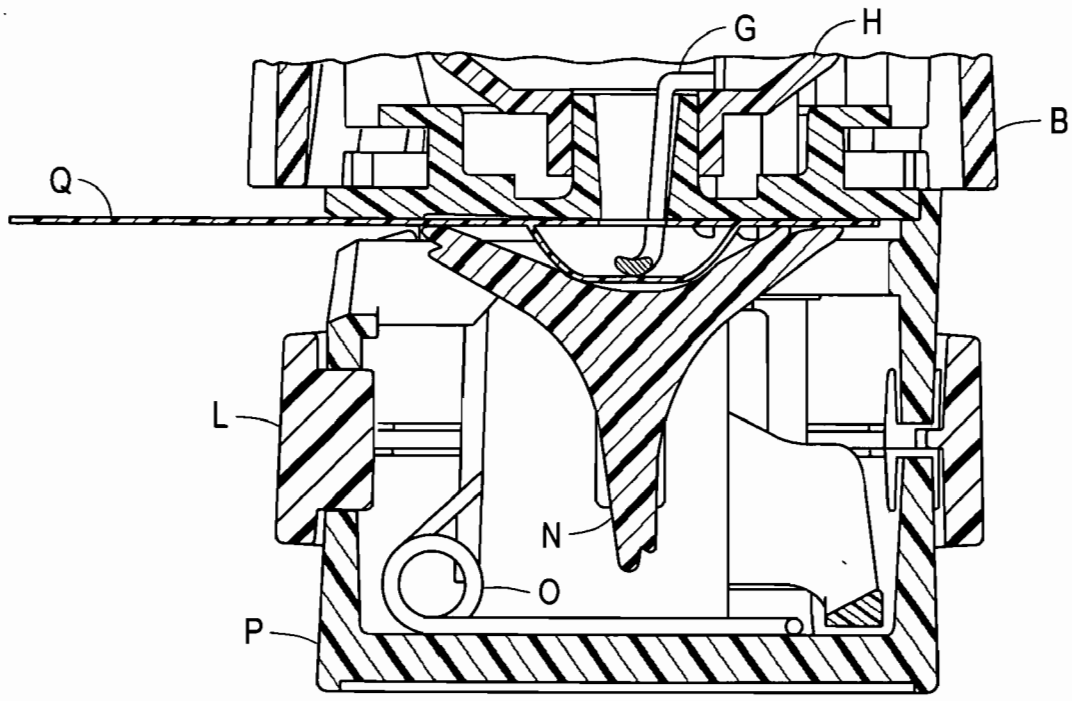


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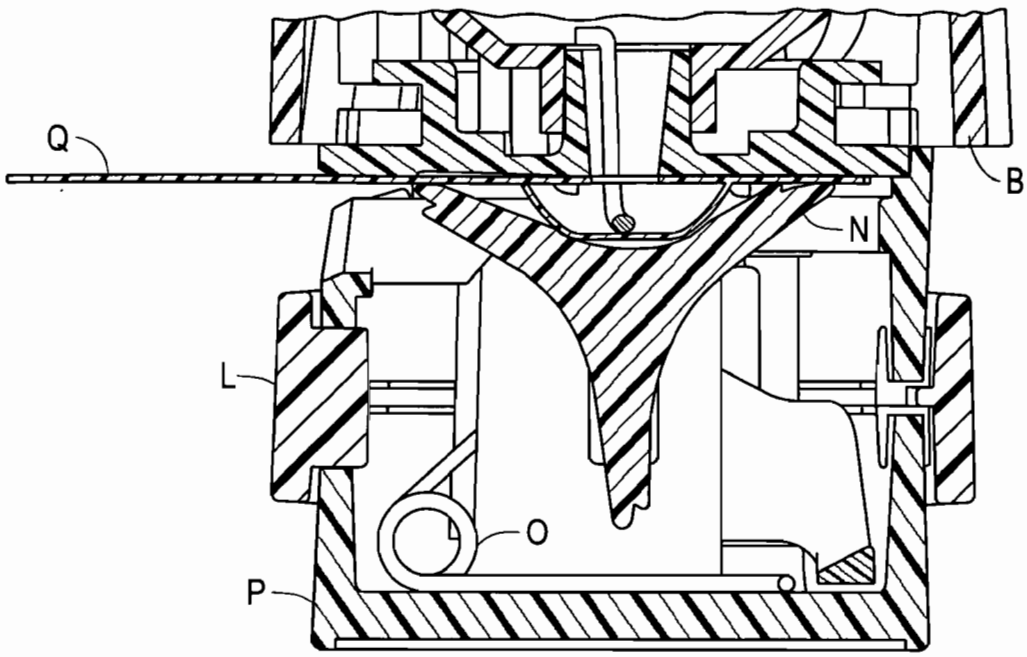


FIG. 122

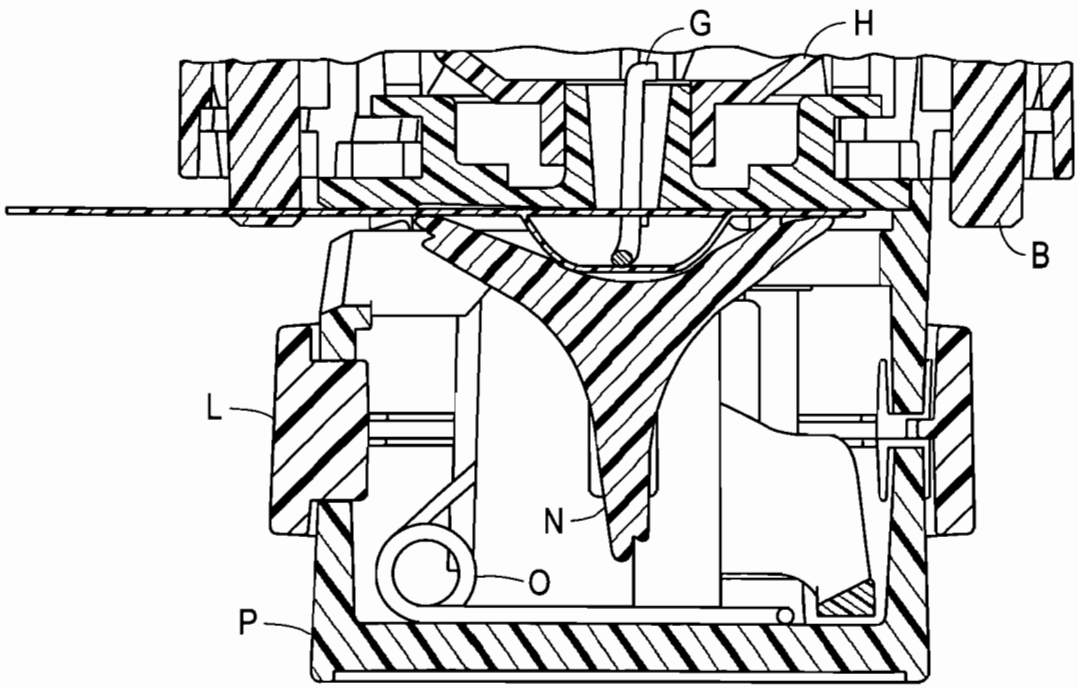


FIG. 123

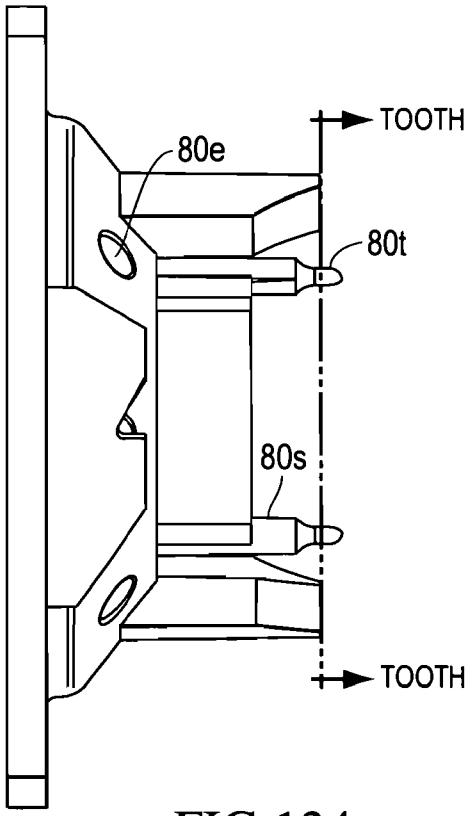


FIG 124

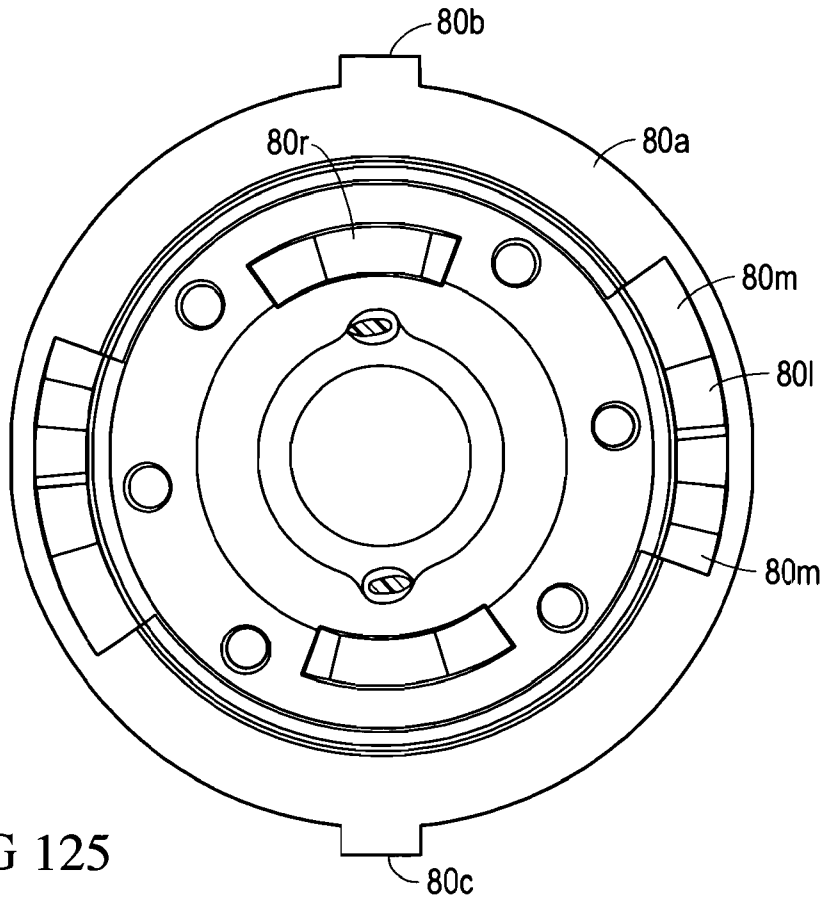
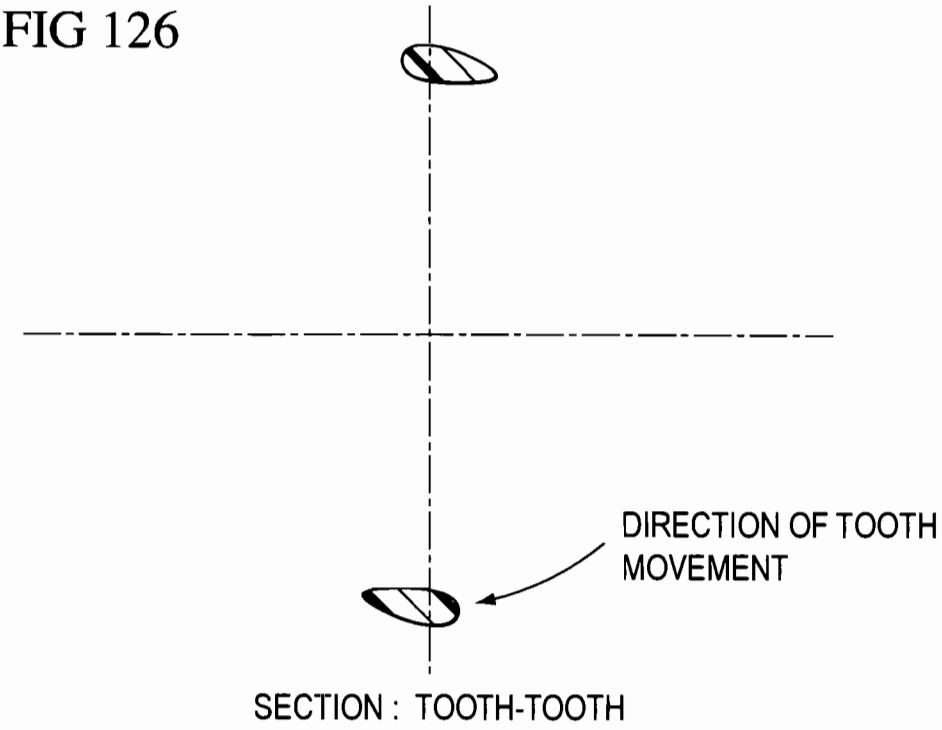


FIG 125

FIG 126



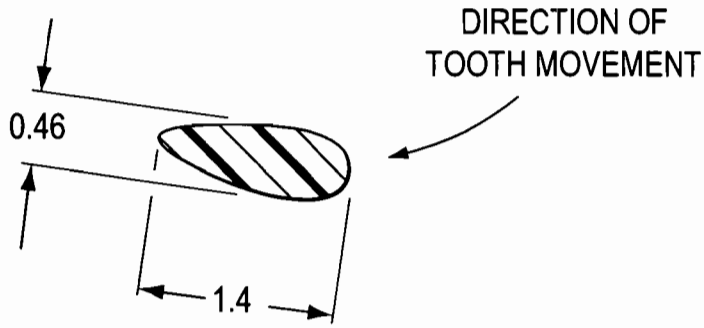


FIG 127

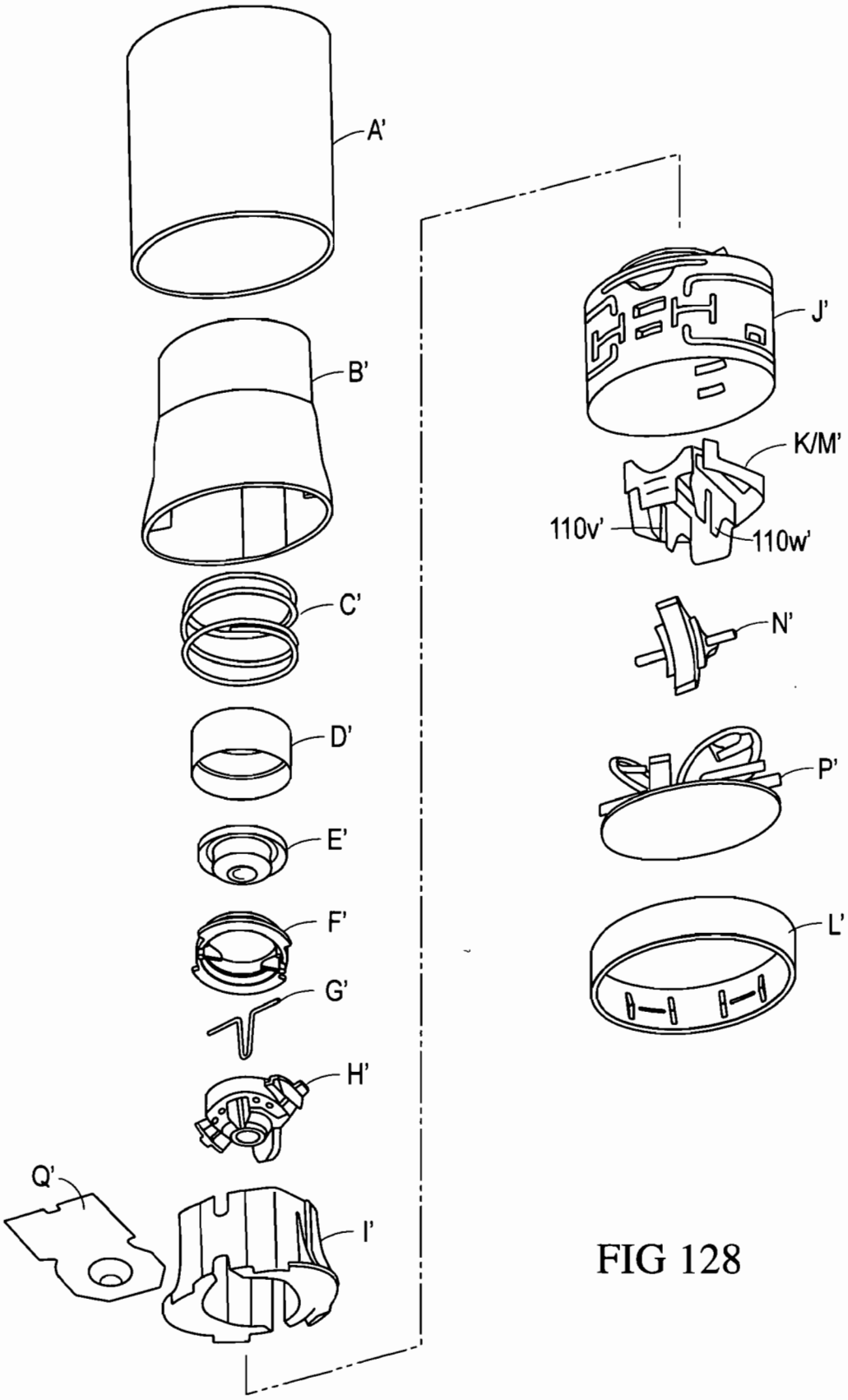


FIG 128

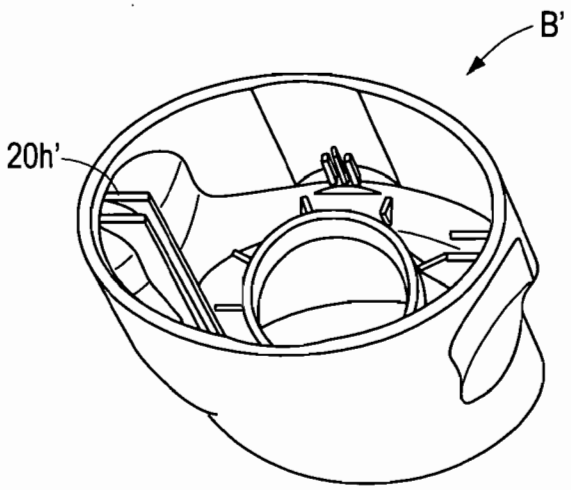


FIG 129

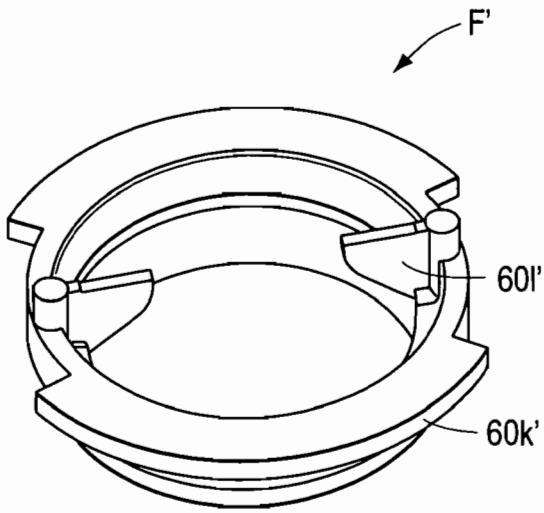


FIG 130

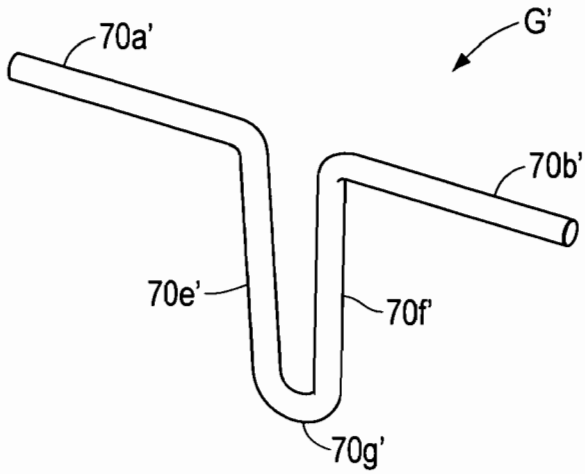


FIG 131

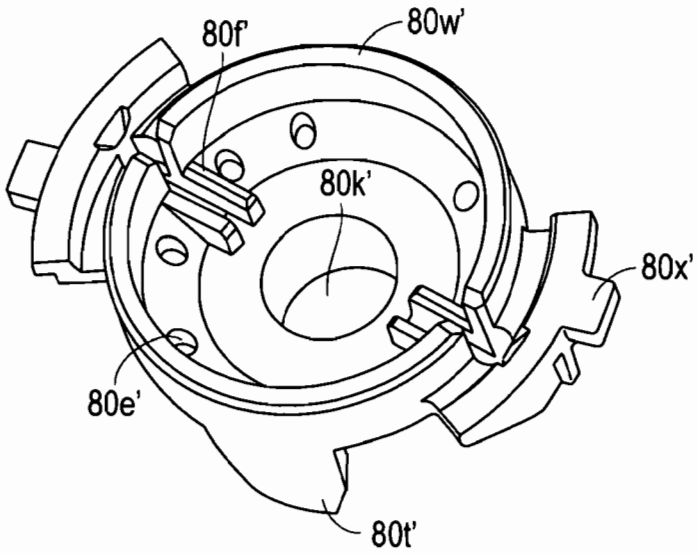


FIG 132

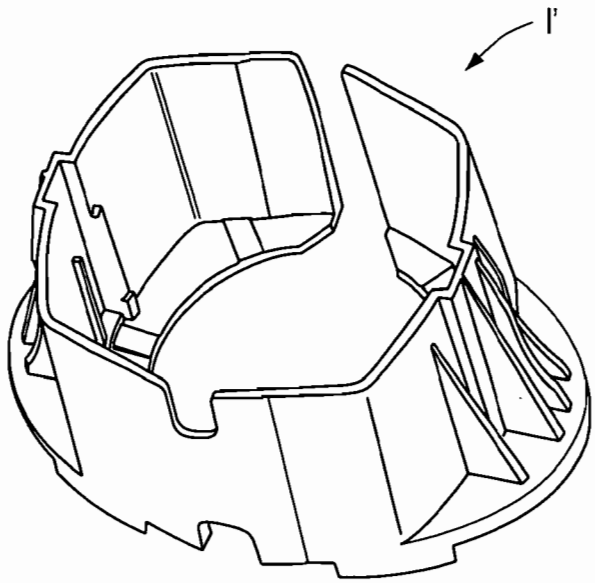


FIG 133

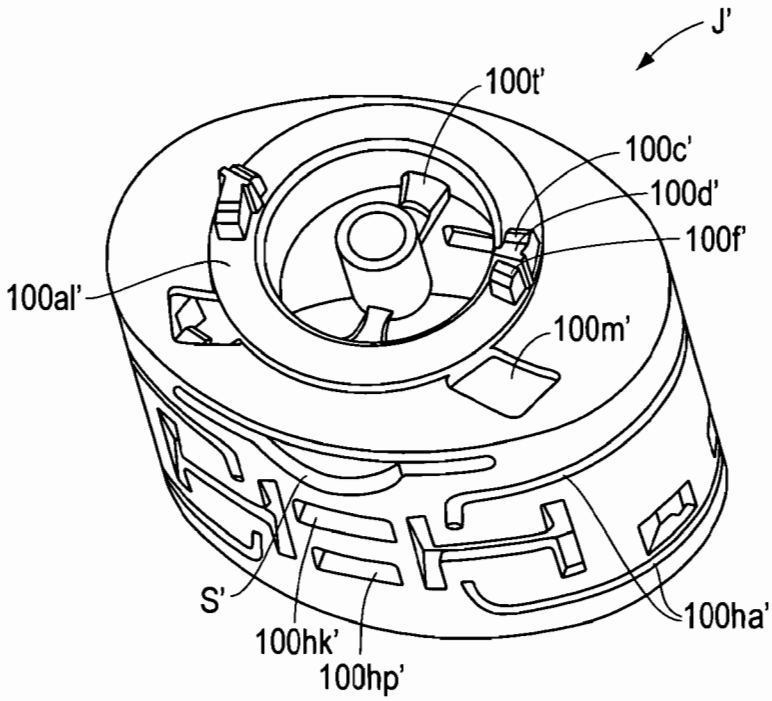


FIG 134

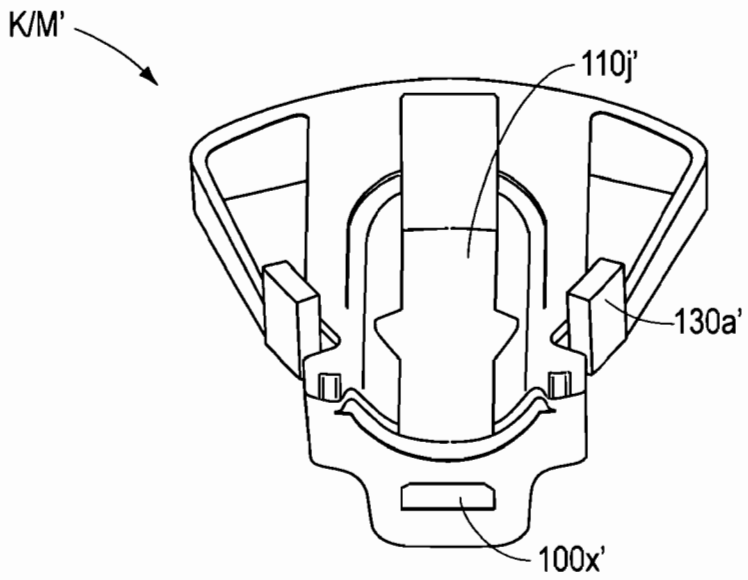


FIG 135

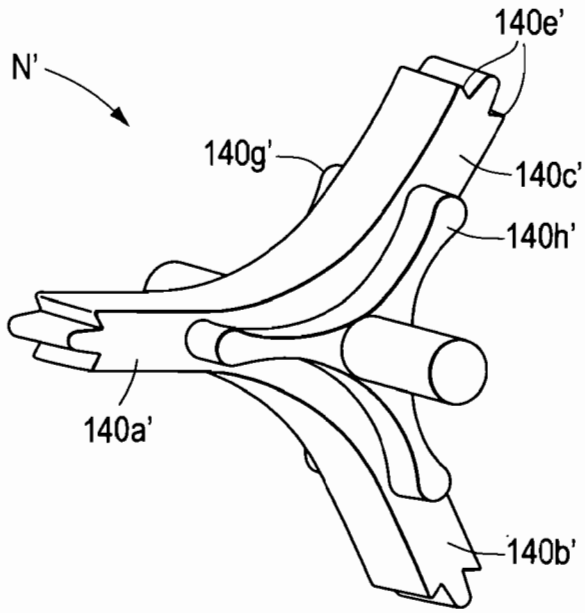


FIG 136

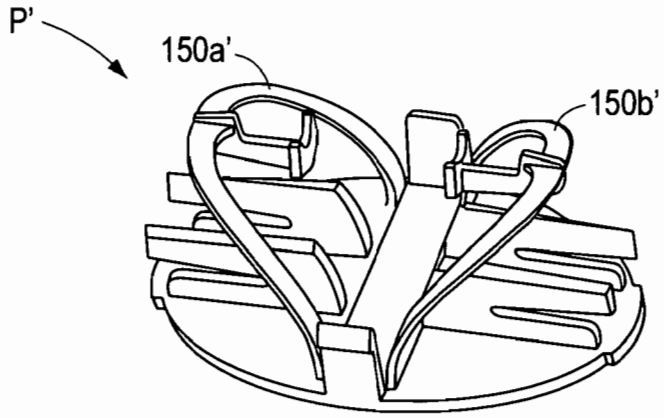


FIG 137

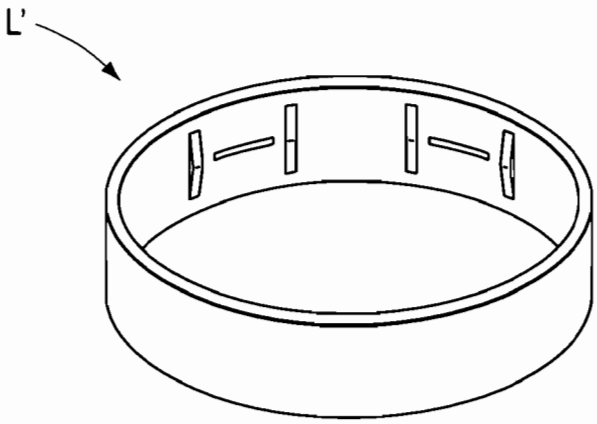


FIG 138

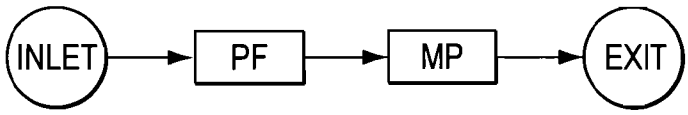


FIG 139

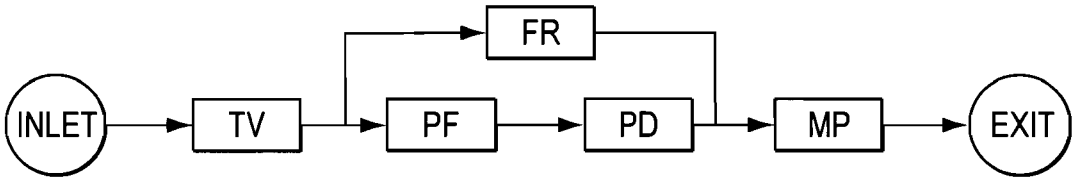


FIG 140

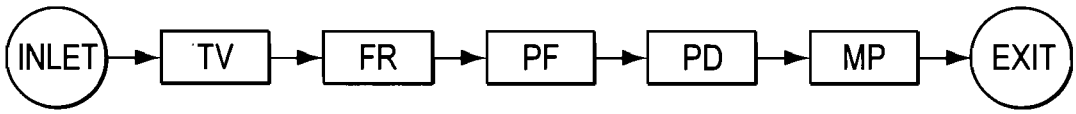


FIG 141

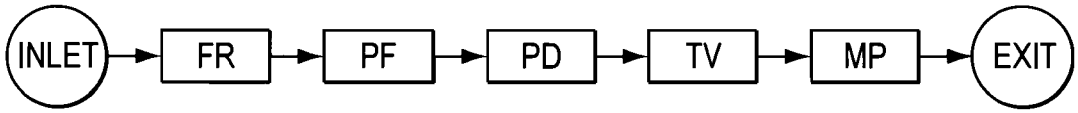


FIG 142

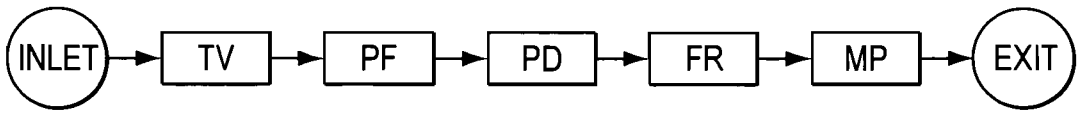


FIG 143

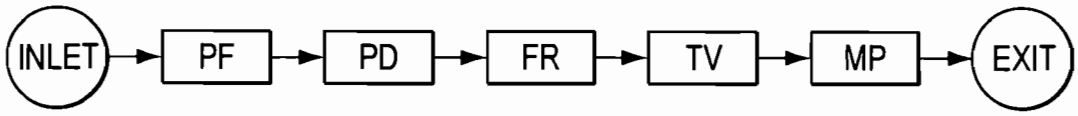


FIG 144

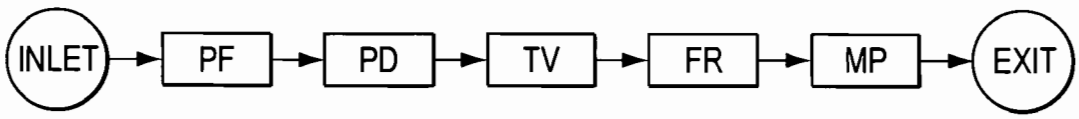


FIG 145

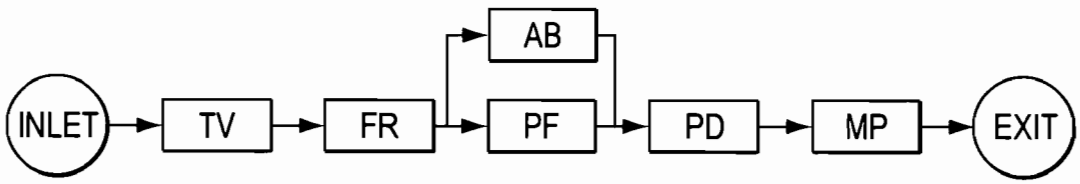


FIG 146

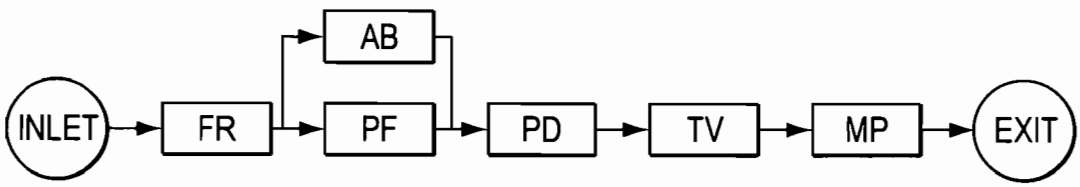


FIG 147

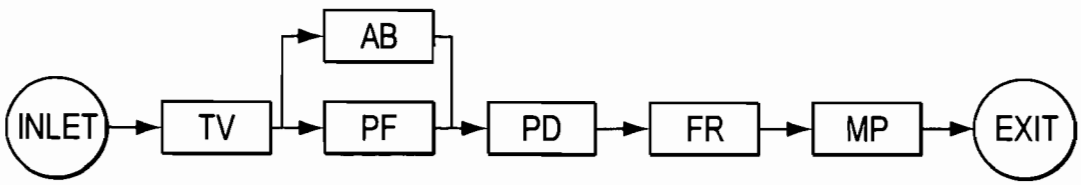


FIG 148

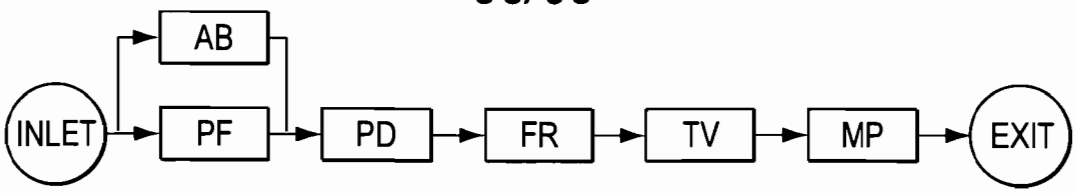


FIG 149

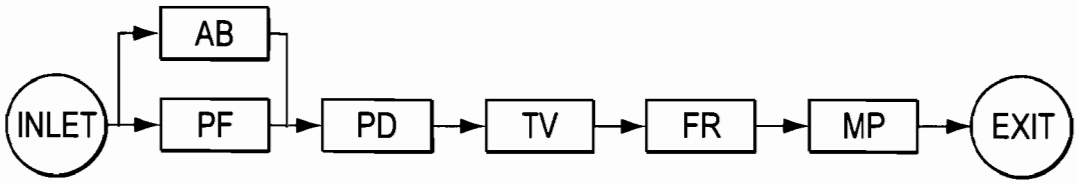


FIG 150

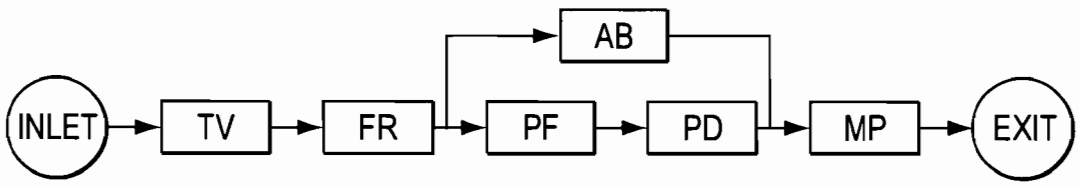


FIG 151

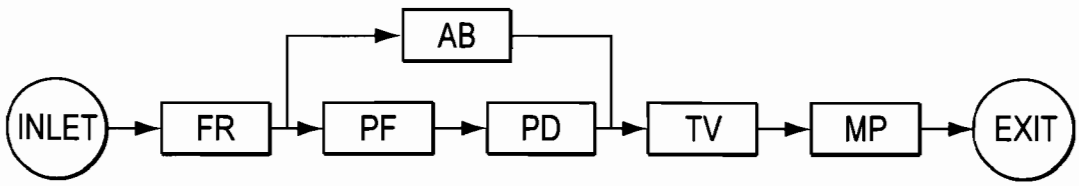


FIG 152

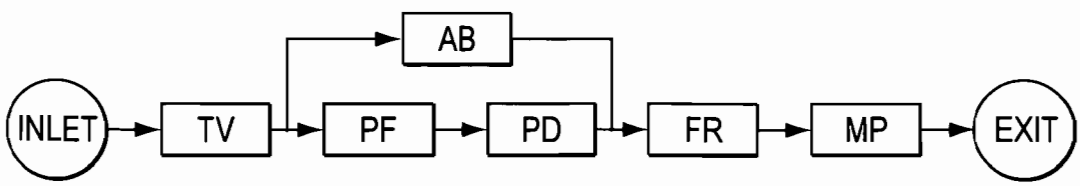


FIG 153

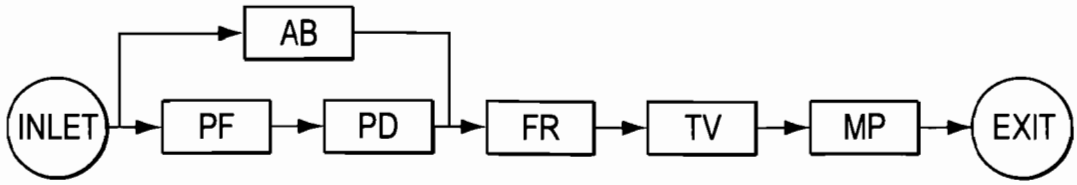


FIG 154

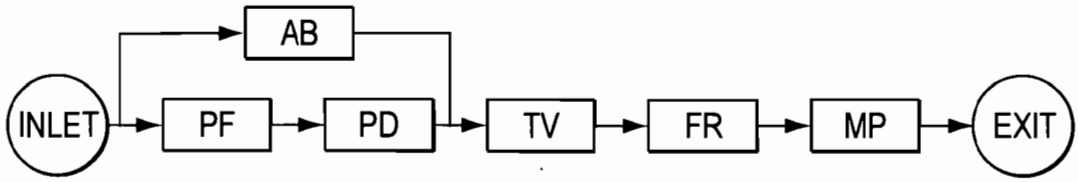


FIG 155

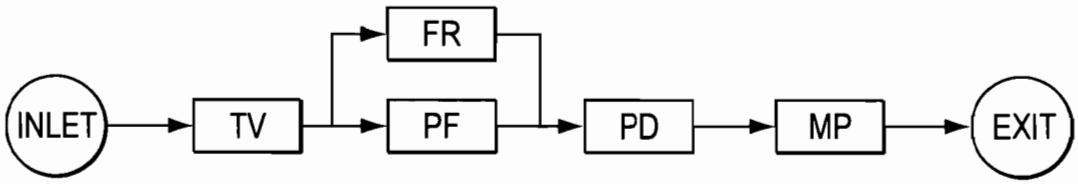


FIG 156

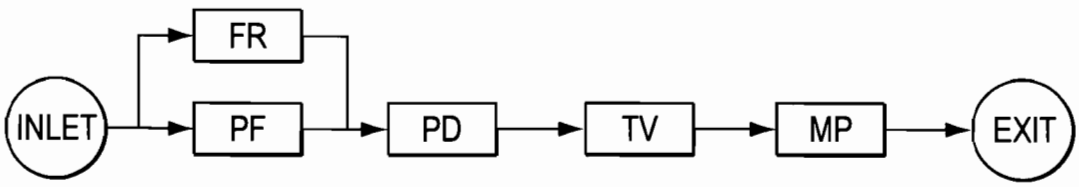


FIG 157

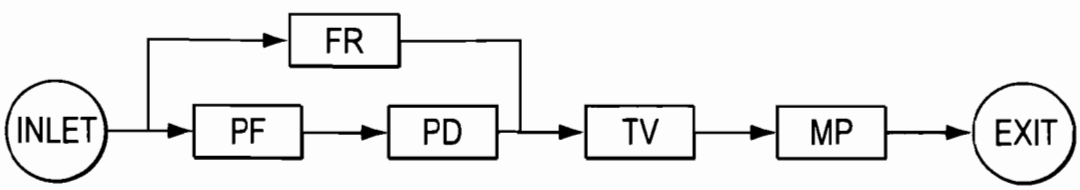


FIG 158

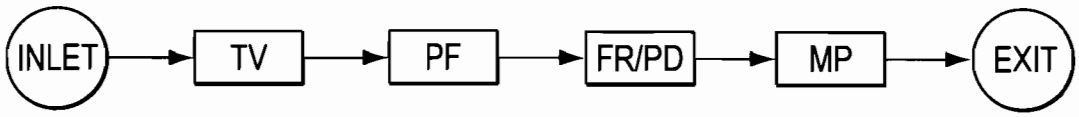


FIG 159

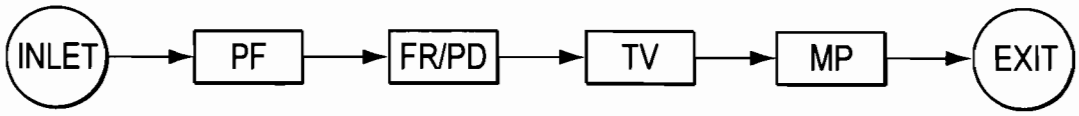


FIG 160

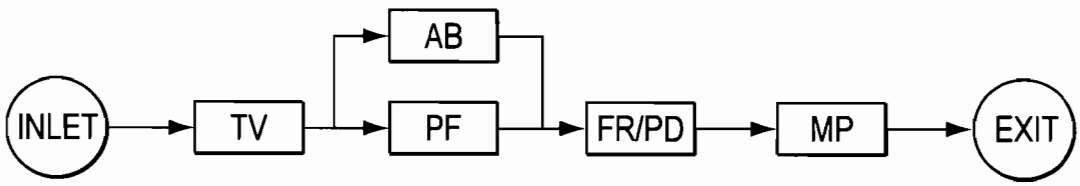


FIG 161

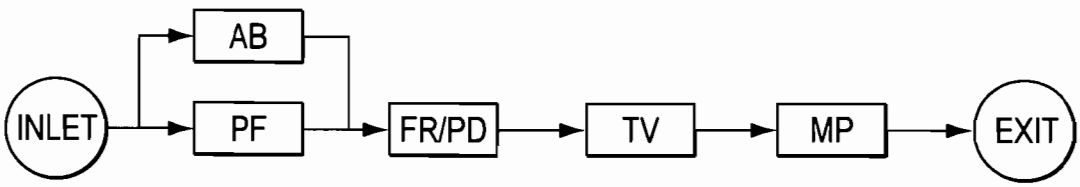


FIG 162

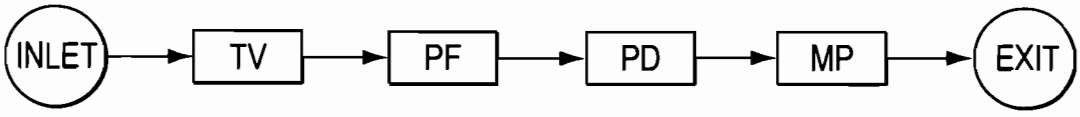


FIG 163

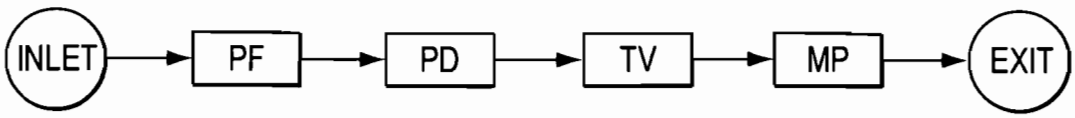


FIG 164

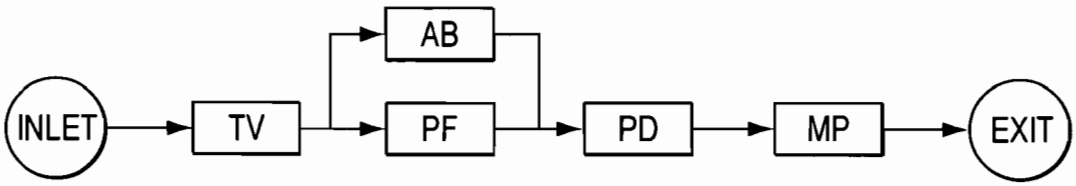


FIG 165

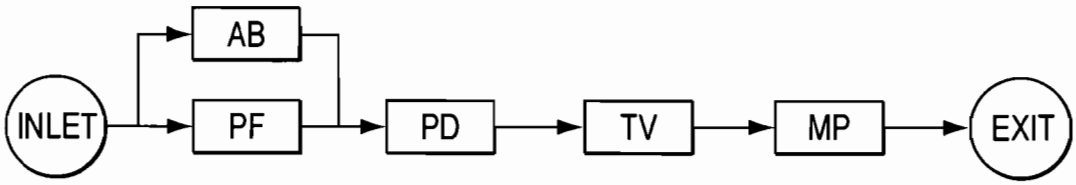


FIG 166

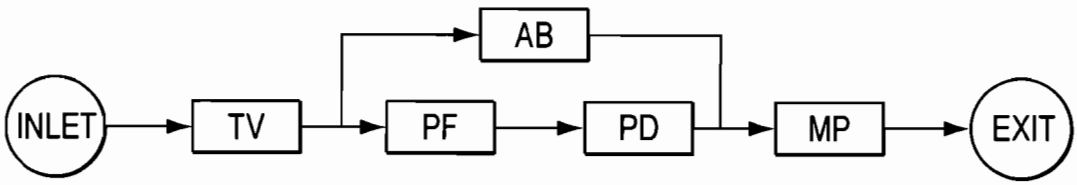


FIG 167

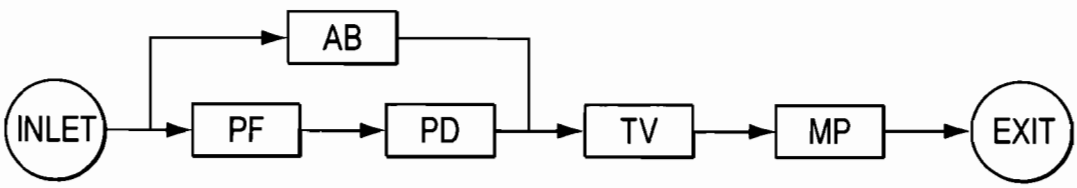


FIG 168

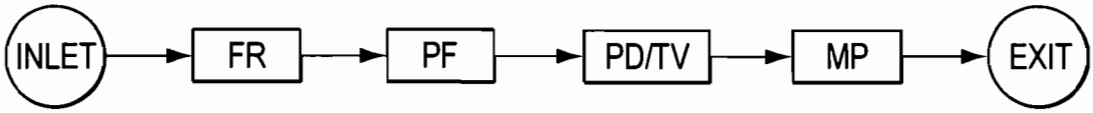


FIG 169

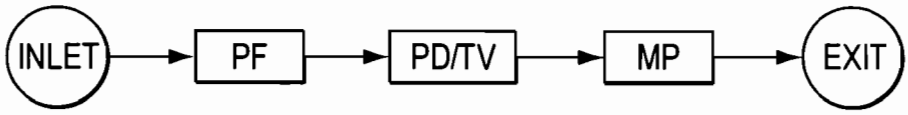


FIG 170

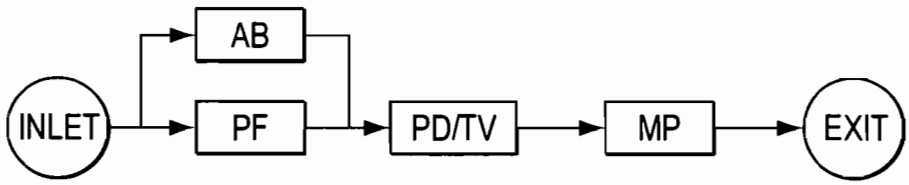


FIG 171

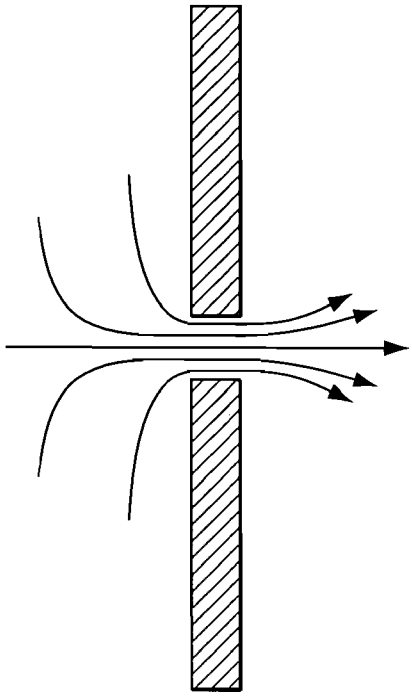


FIG 172

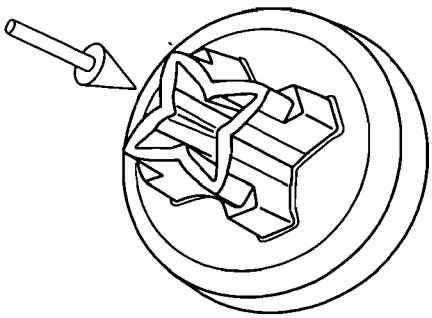


FIG 173

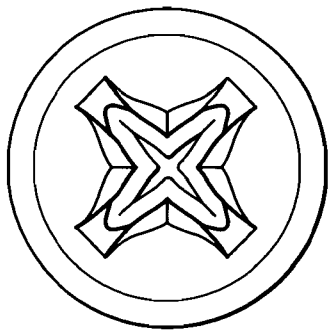


FIG 174

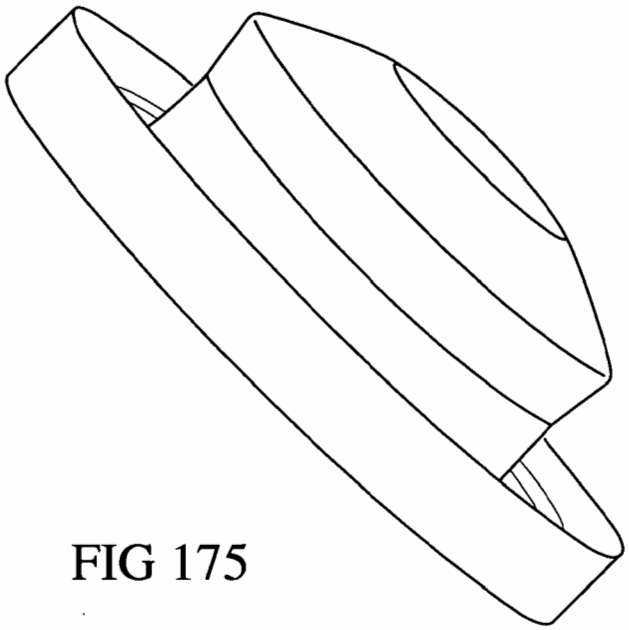


FIG 175

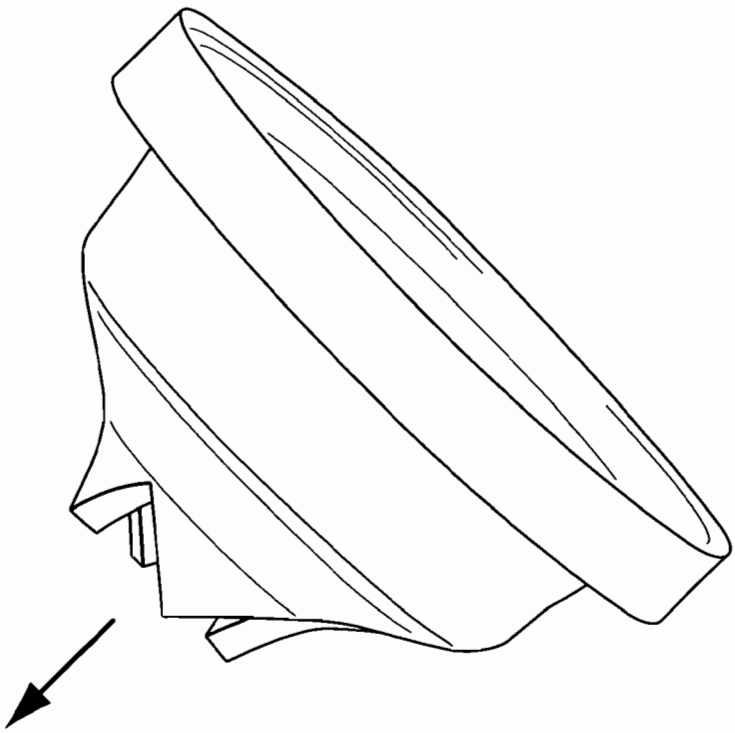


FIG 176

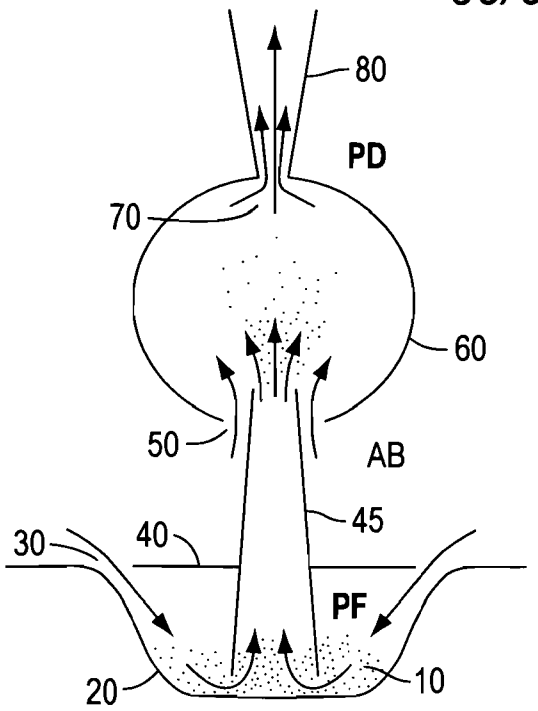


FIG. 177

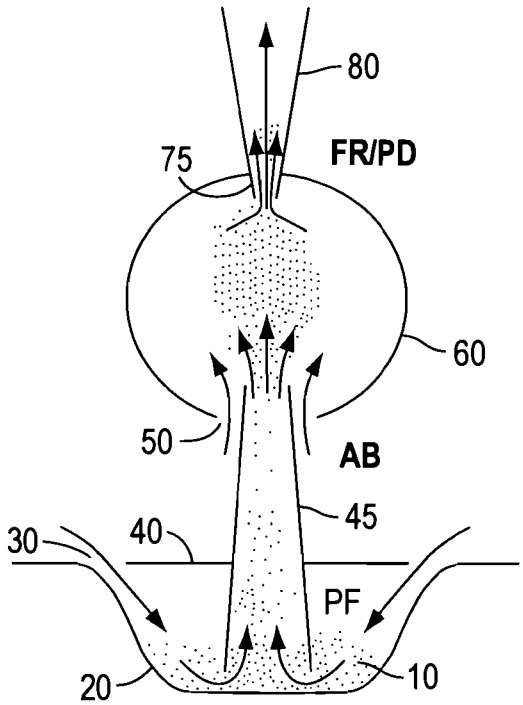


FIG. 178

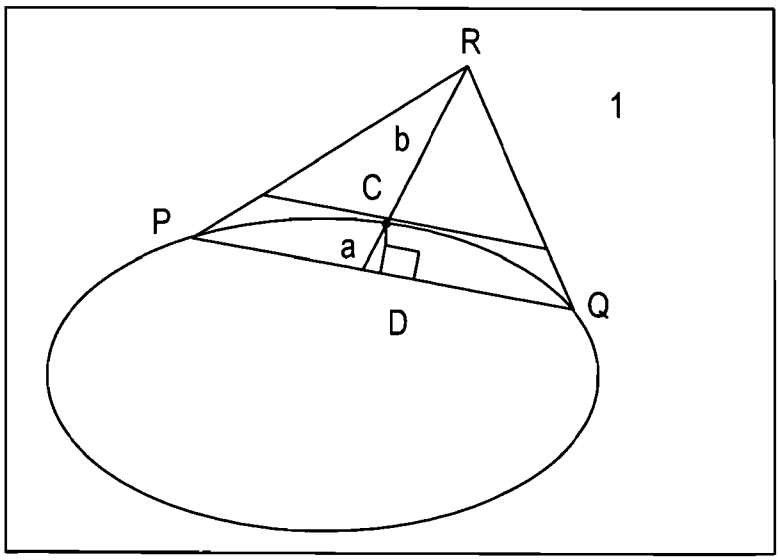


FIG. 179