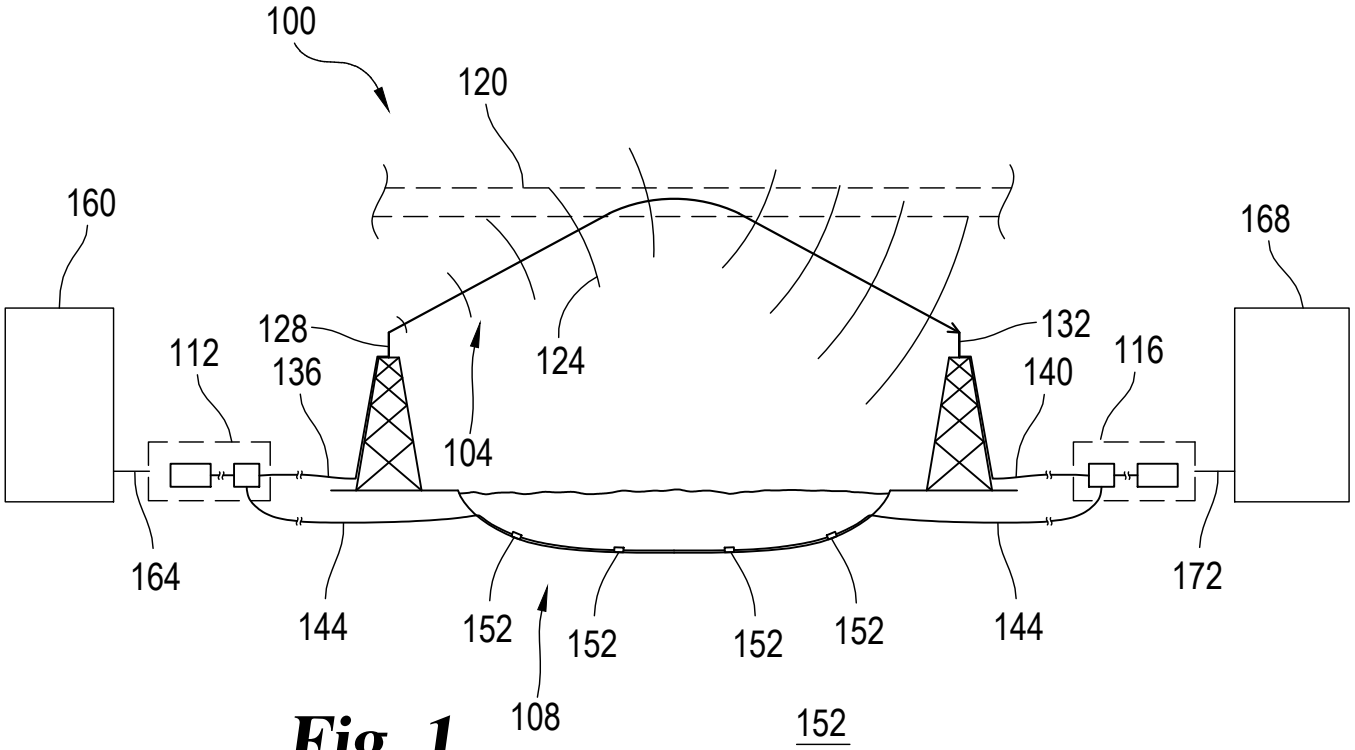
100
120
160
168
128
132
112
136
124
140
116
104
164
172
144
152
152
152
152
144
108
152

Fig. 1

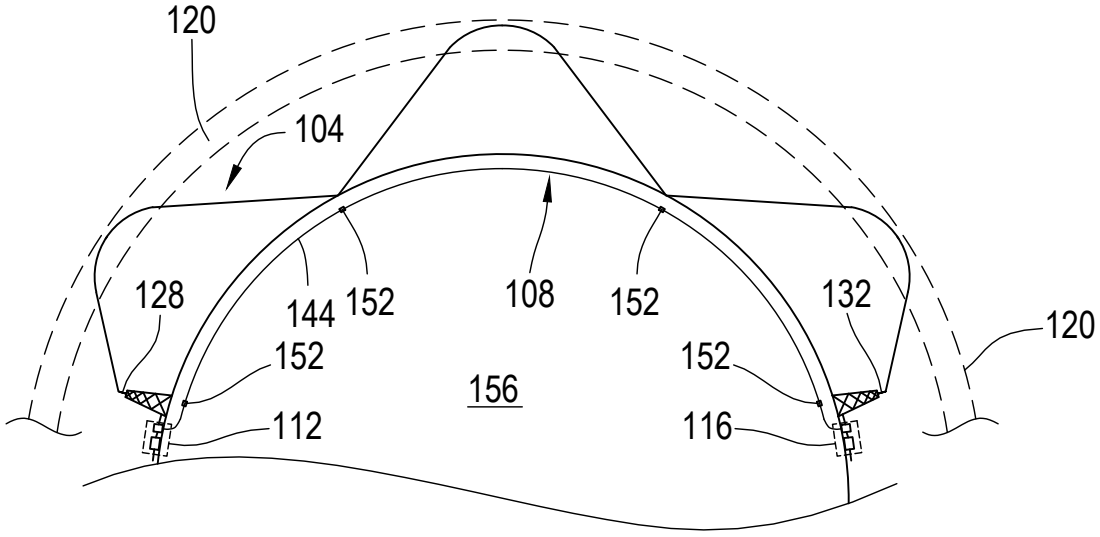
120
104
128
144
152
108
152
132
120
152
152
156
112
116

Fig. 2

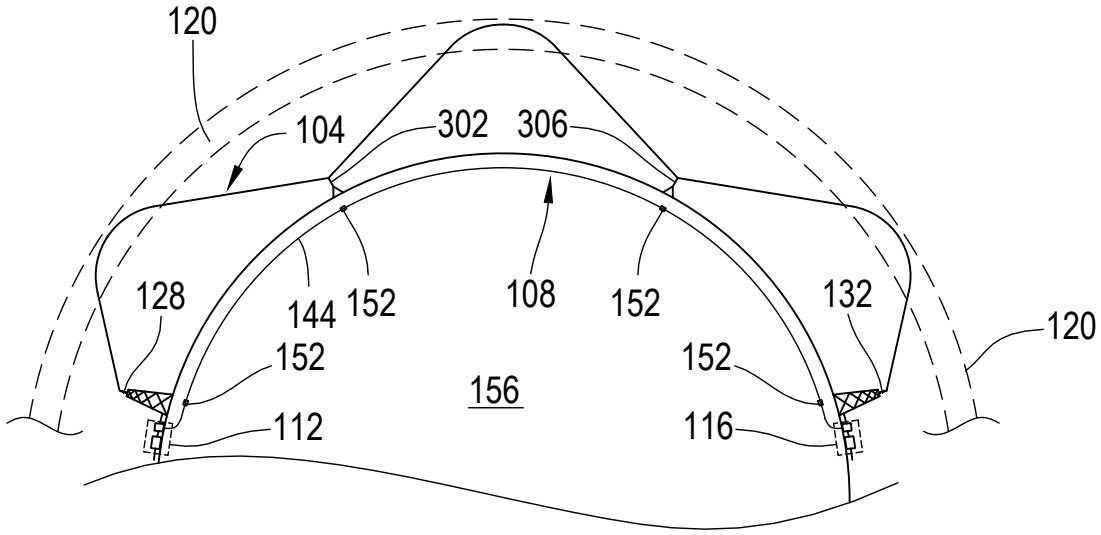
120
104
302
306
128
144
152
108
152
132
120
152
152
156
112
116

Fig. 3

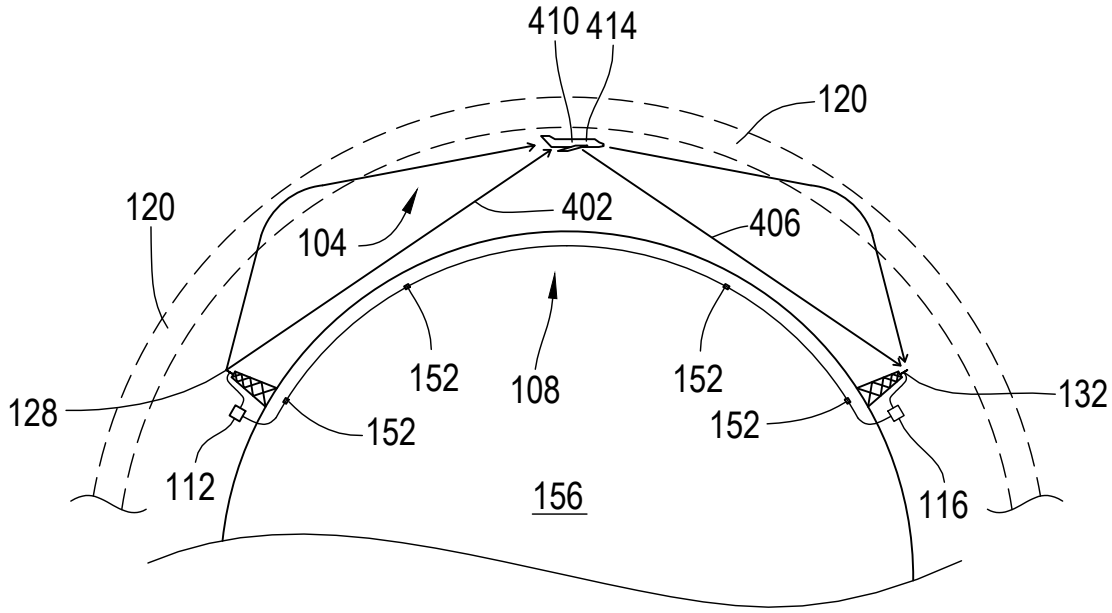
410
414
120
120
104
402
406
152
108
152
128
132
152
152
112
156
116

Fig. 4

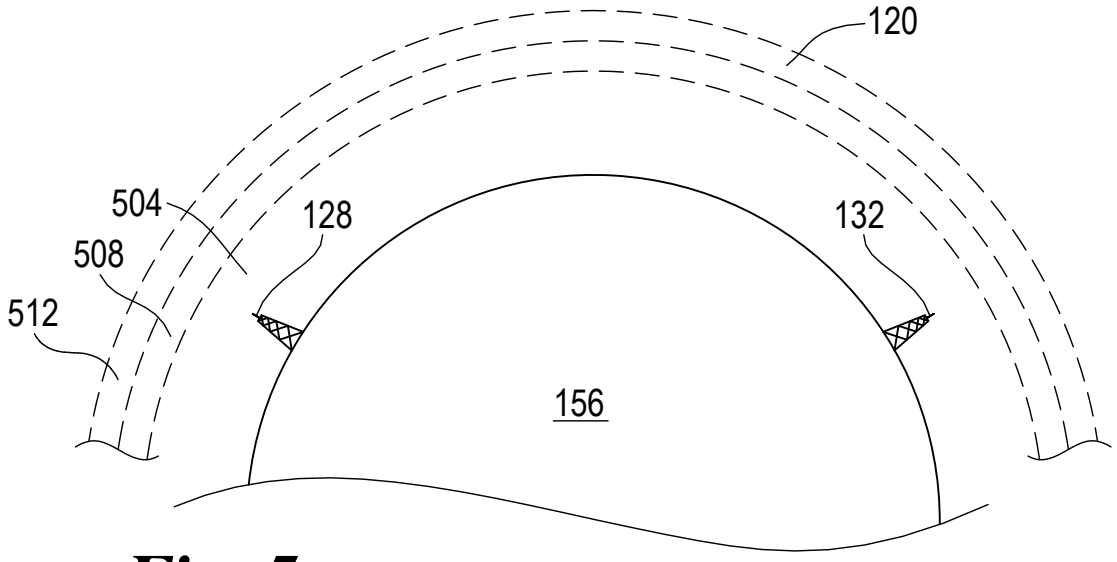
120
504
128
132
508
512
156

Fig. 5

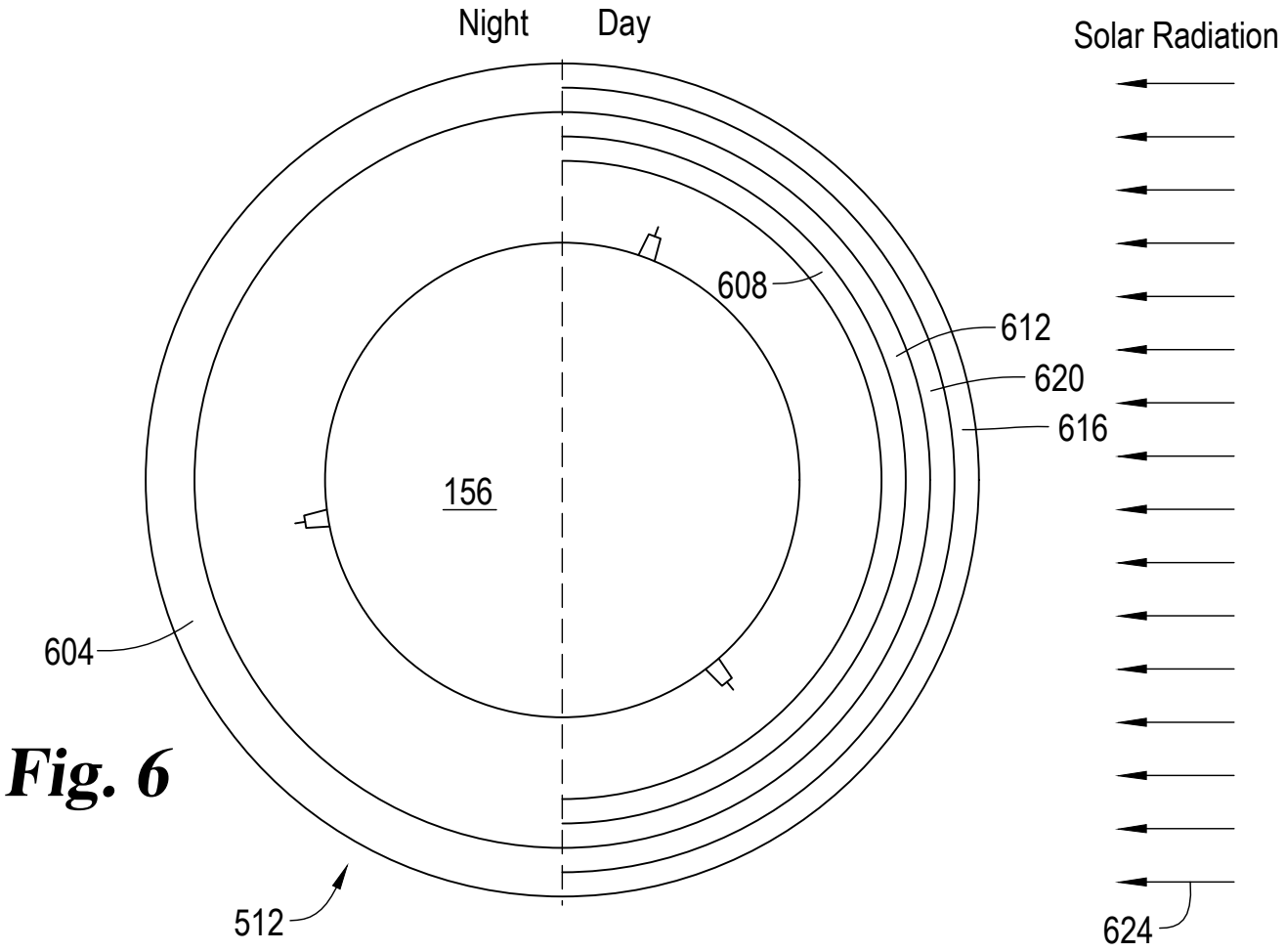
Night
Day
Solar Radiation
608
612
620
616
156
604
512
624

Fig. 6

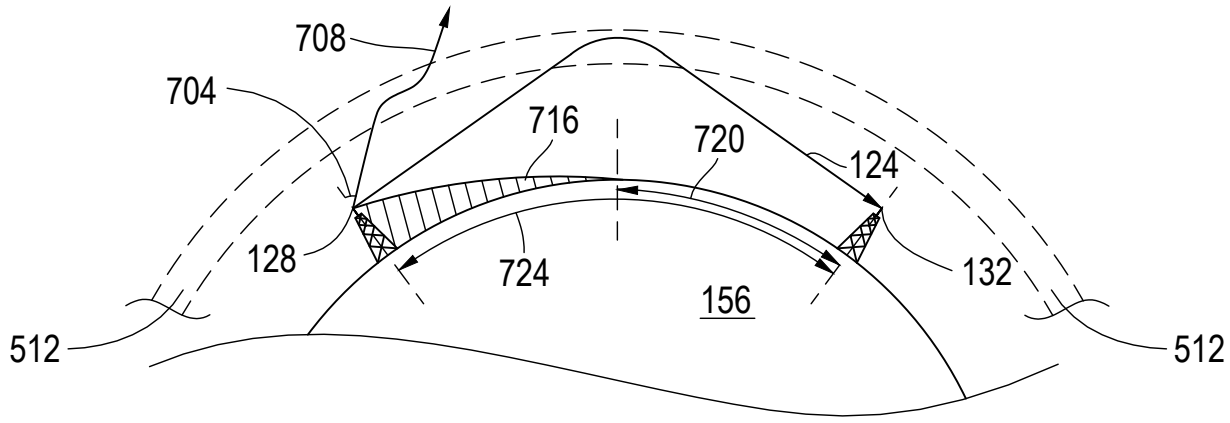

Fig. 7

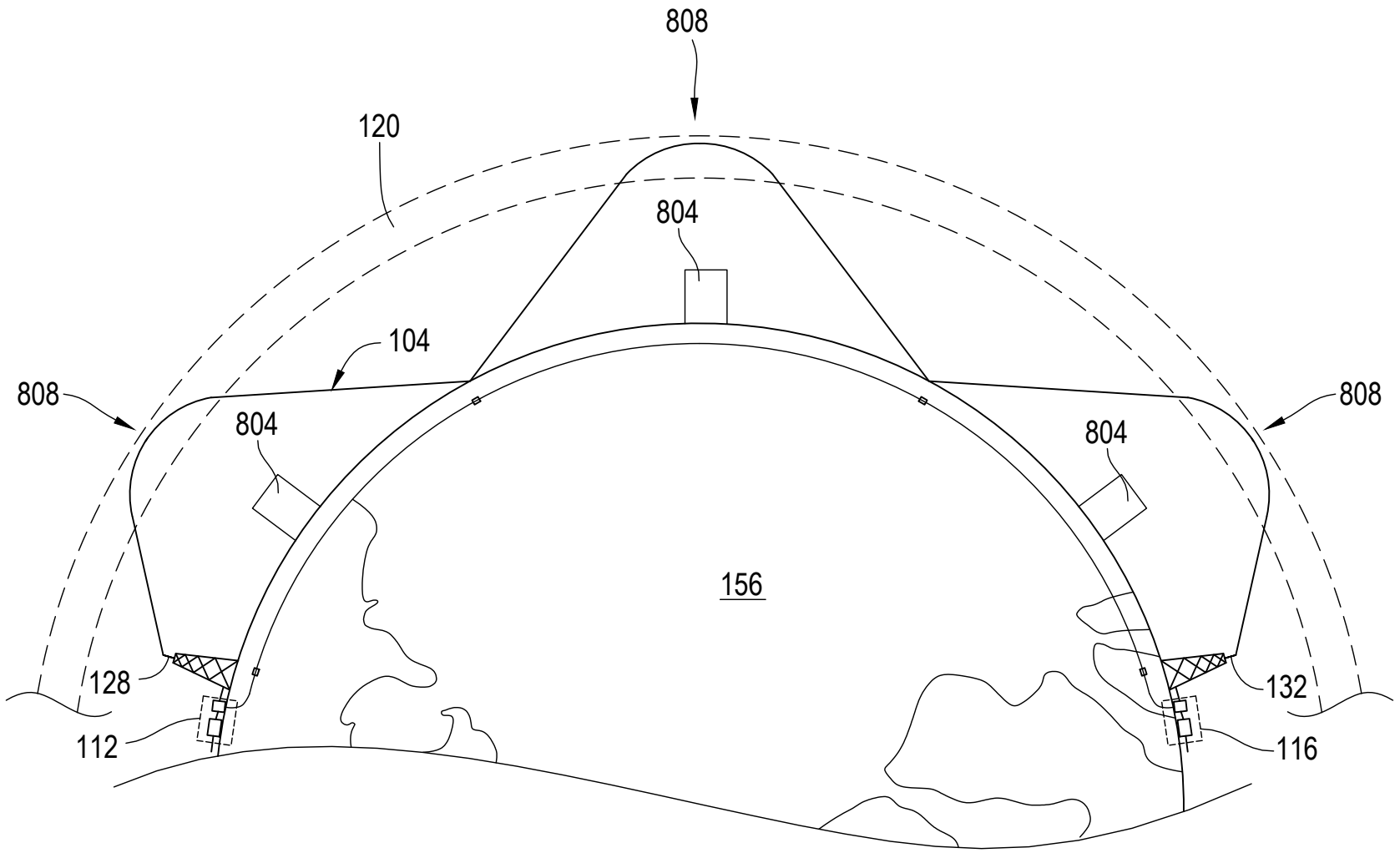

Fig. 8

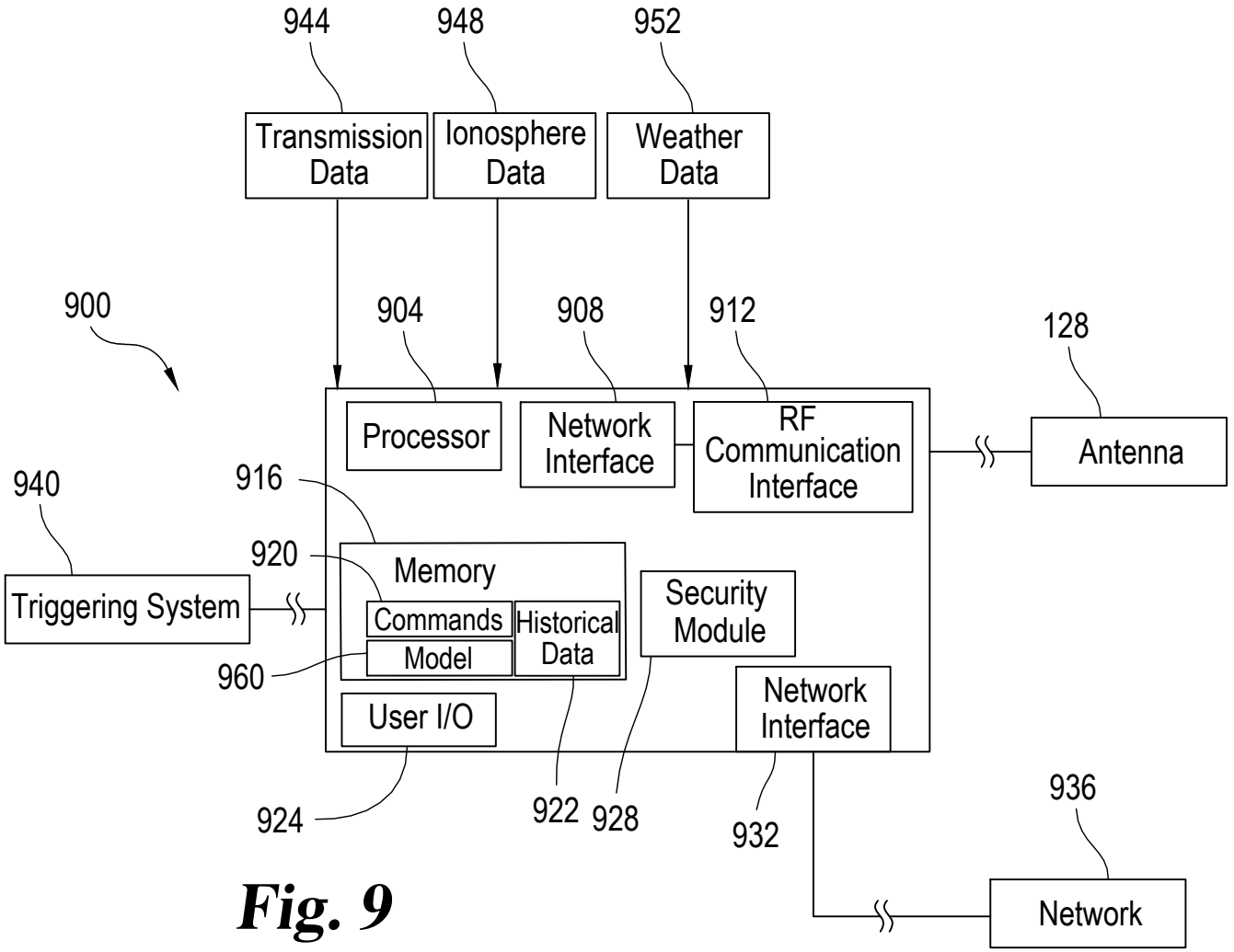
944
948
952
Transmission Data
Ionosphere Data
Weather Data
900
904
908
912
128
Processor
Network Interface
RF Communication Interface
Antenna
940
916
920
Memory
Triggering System
Commands
Historical Data
Model
960
Security Module
User I/O
Network Interface
924
922
928
932
936
Network

Fig. 9

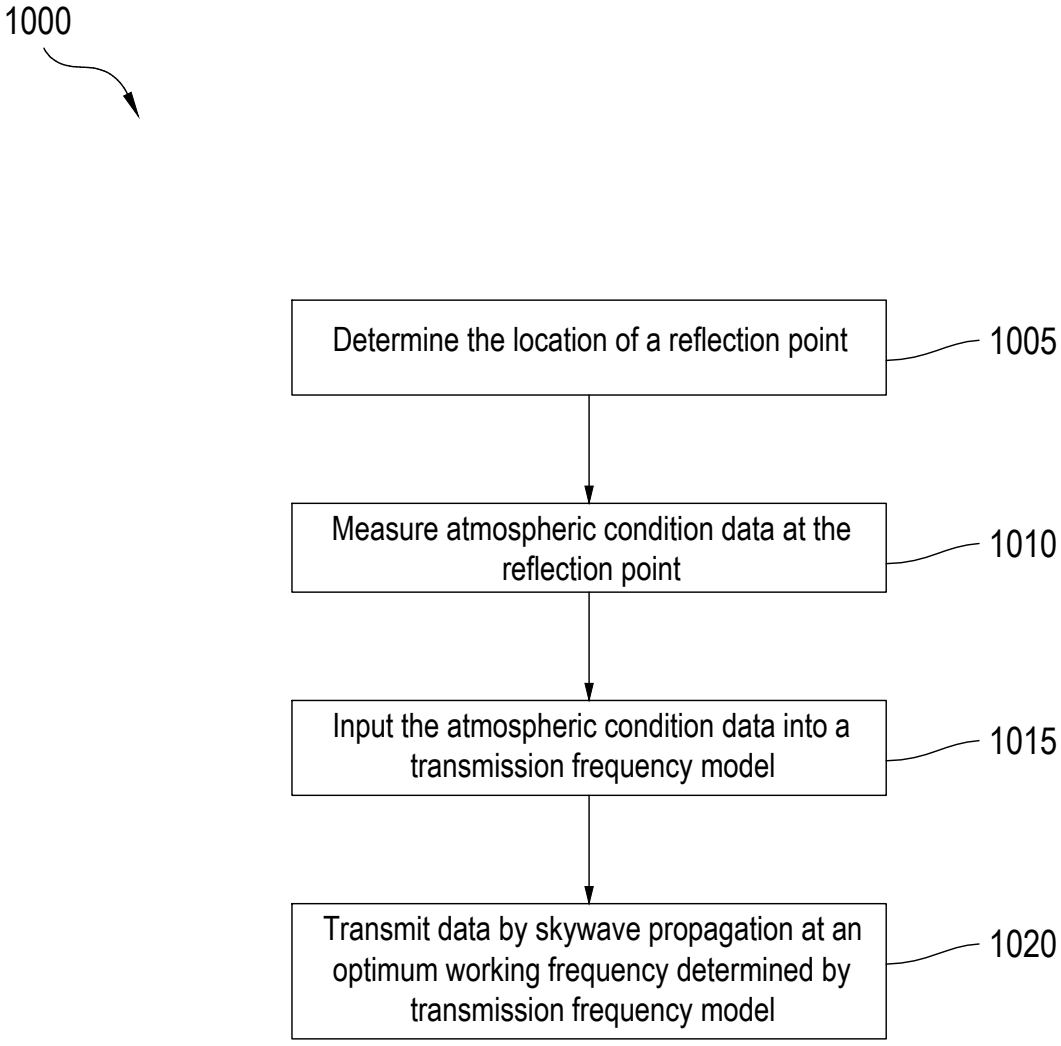
1000
Determine the location of a reflection point
1005
Measure atmospheric condition data at the reflection point
1010
Input the atmospheric condition data into a transmission frequency model
1015
Transmit data by skywave propagation at an optimum working frequency determined by transmission frequency model
1020

Fig. 10