Fig. 1

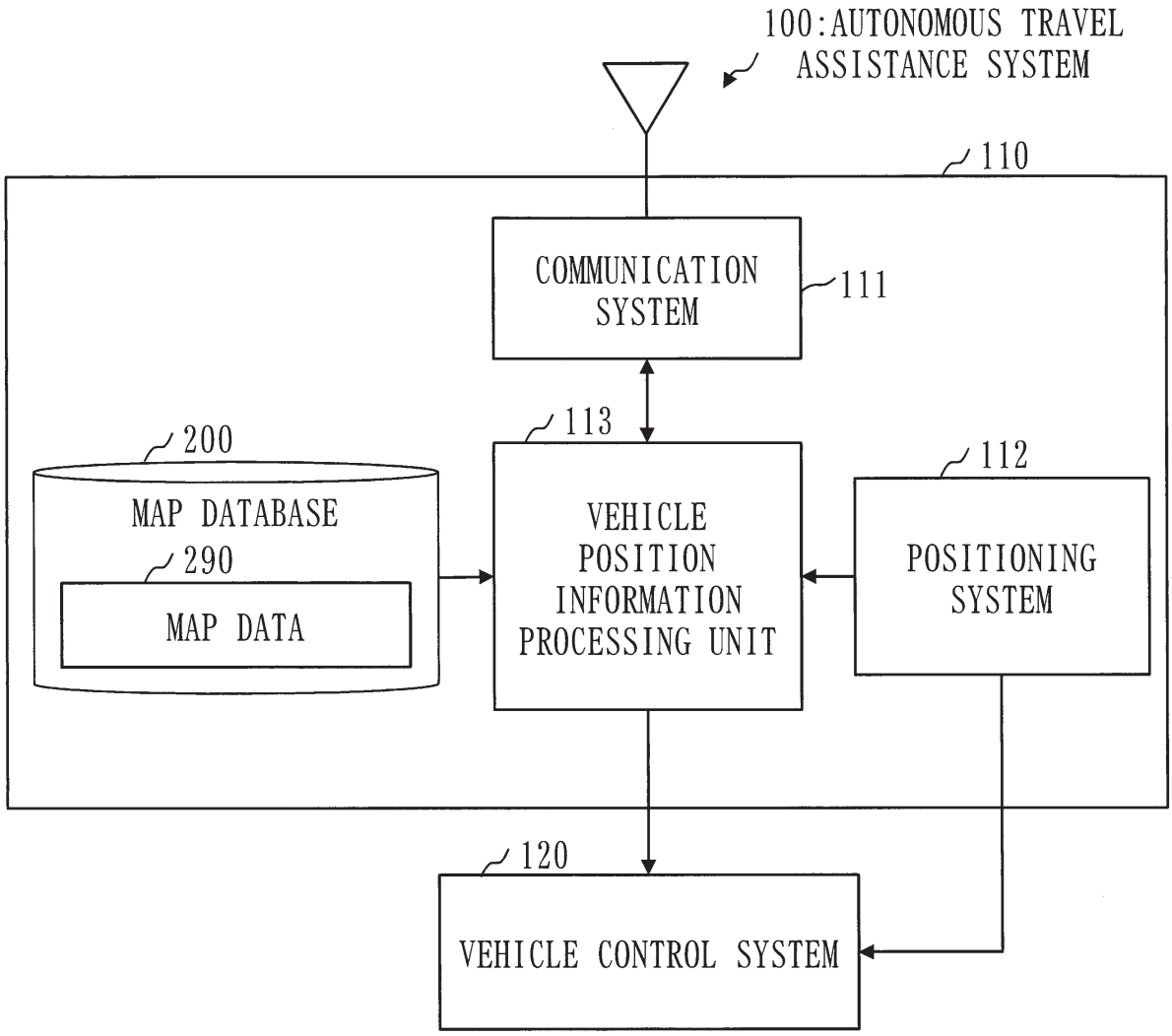

100:AUTONOMOUS TRAVEL ASSISTANCE SYSTEM
110
COMMUNICATION SYSTEM
111
113
200
MAP DATABASE
290
MAP DATA
VEHICLE POSITION INFORMATION PROCESSING UNIT
112
POSITIONING SYSTEM
120
VEHICLE CONTROL SYSTEM

Fig. 2

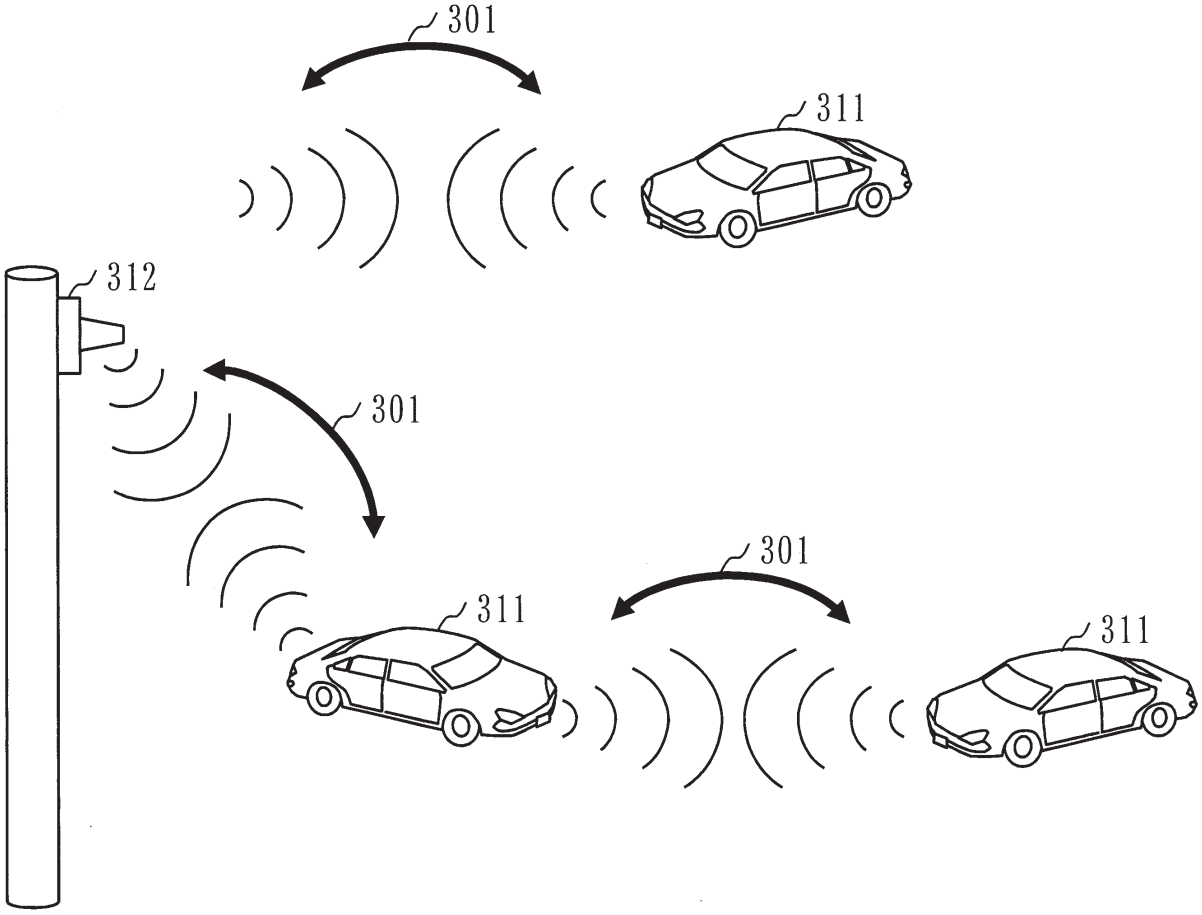


Fig. 3

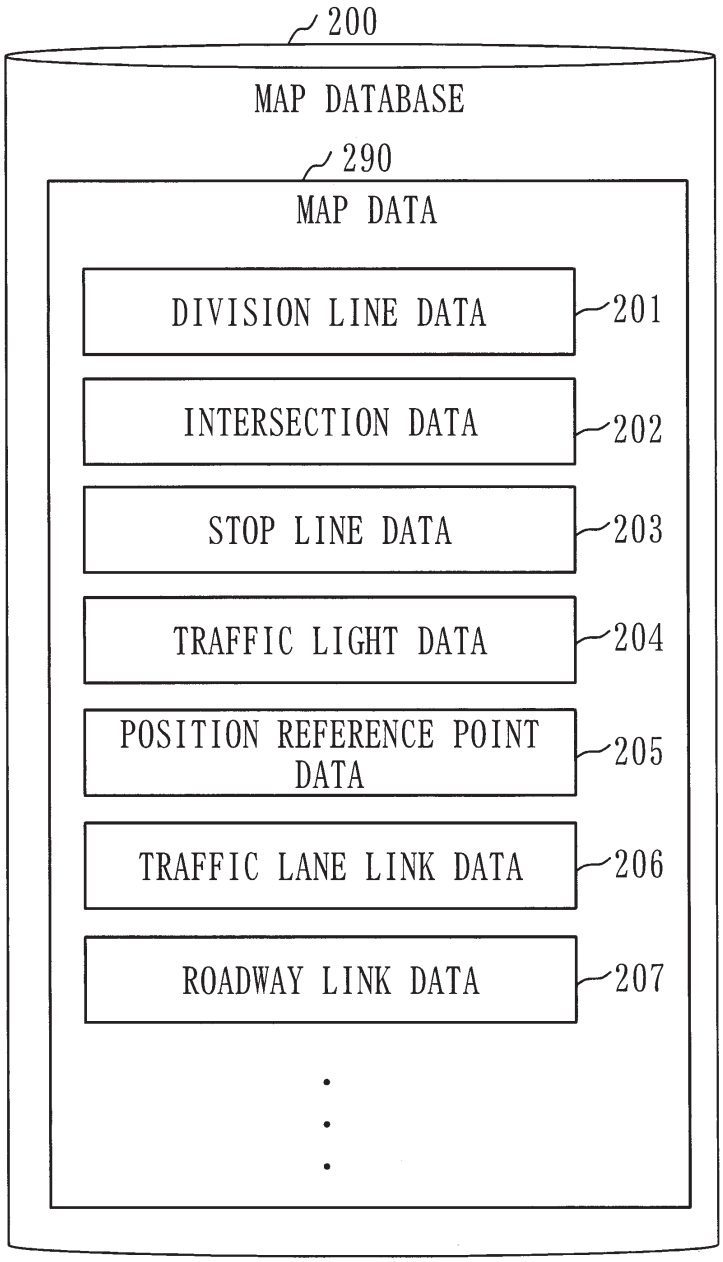
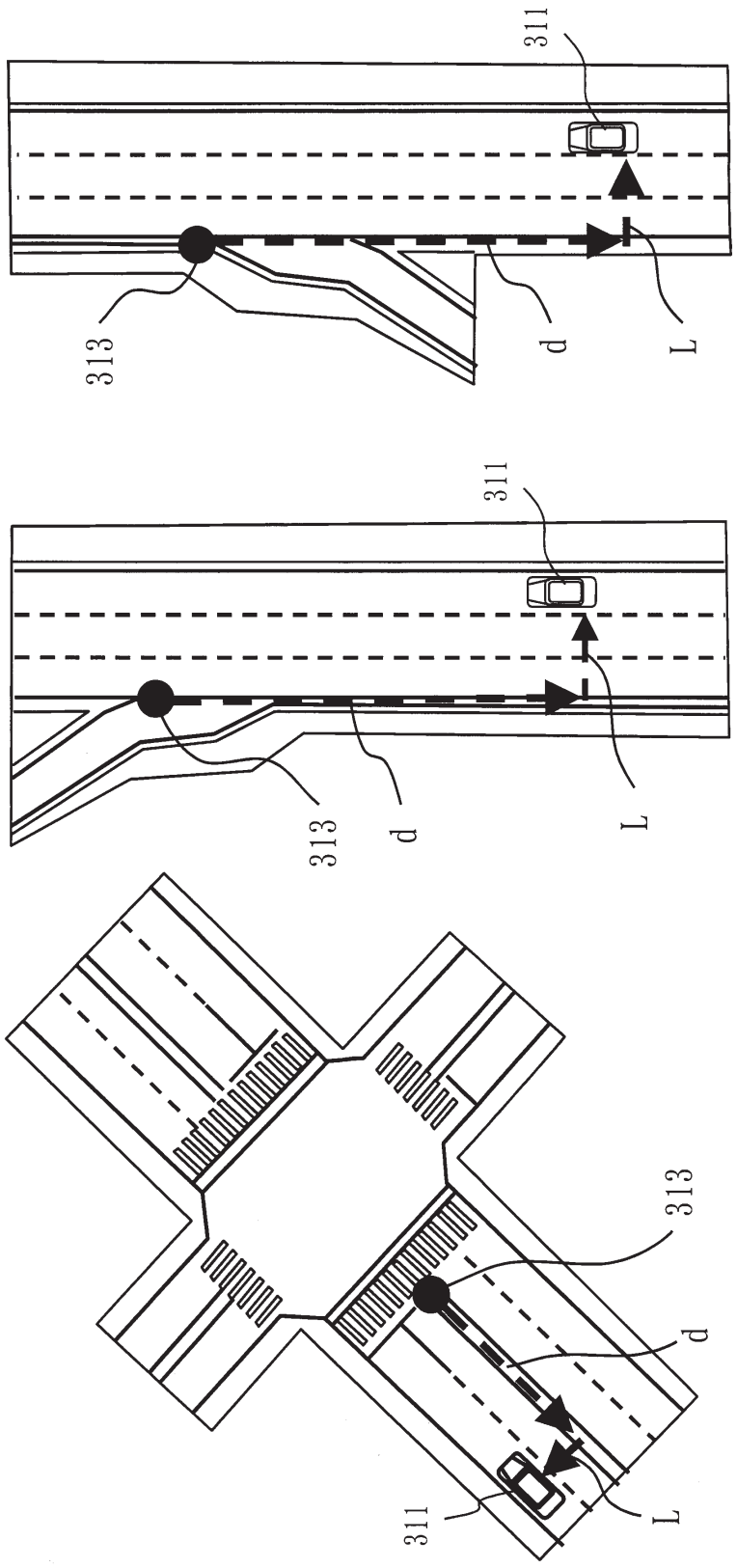

200
MAP DATABASE
290
MAP DATA
DIVISION LINE DATA
201
INTERSECTION DATA
202
STOP LINE DATA
203
TRAFFIC LIGHT DATA
204
POSITION REFERENCE POINT DATA
205
TRAFFIC LANE LINK DATA
206
ROADWAY LINK DATA
207

Fig. 4

205:POSITION REFERENCE POINT DATA

POSITION REFERENCE POINT ID	POSITION INFORMATION (ABSOLUTE POSITION)	ATTRIBUTE INFORMATION
⋮	⋮	⋮
Mr_{10}	NORTH LATITUDE 35° 29′ 13″ EAST LONGITUDE 137° 24′ 8″ ALTITUDE 312.9m	L_x
⋮	⋮	⋮
Mr_{100}	NORTH LATITUDE 35° 48′ 6″ EAST LONGITUDE 138° 25′ 3″ ALTITUDE 1016.7m	L_y
⋮	⋮	⋮
Mr_{1000}	NORTH LATITUDE 40° 6′ 2″ EAST LONGITUDE 140° 40′ 8″ ALTITUDE 499.4m	L_z
⋮	⋮	⋮

Fig. 5



(a) INTERSECTION (b) DIVERGING POINT (c) JUNCTION

Fig. 6

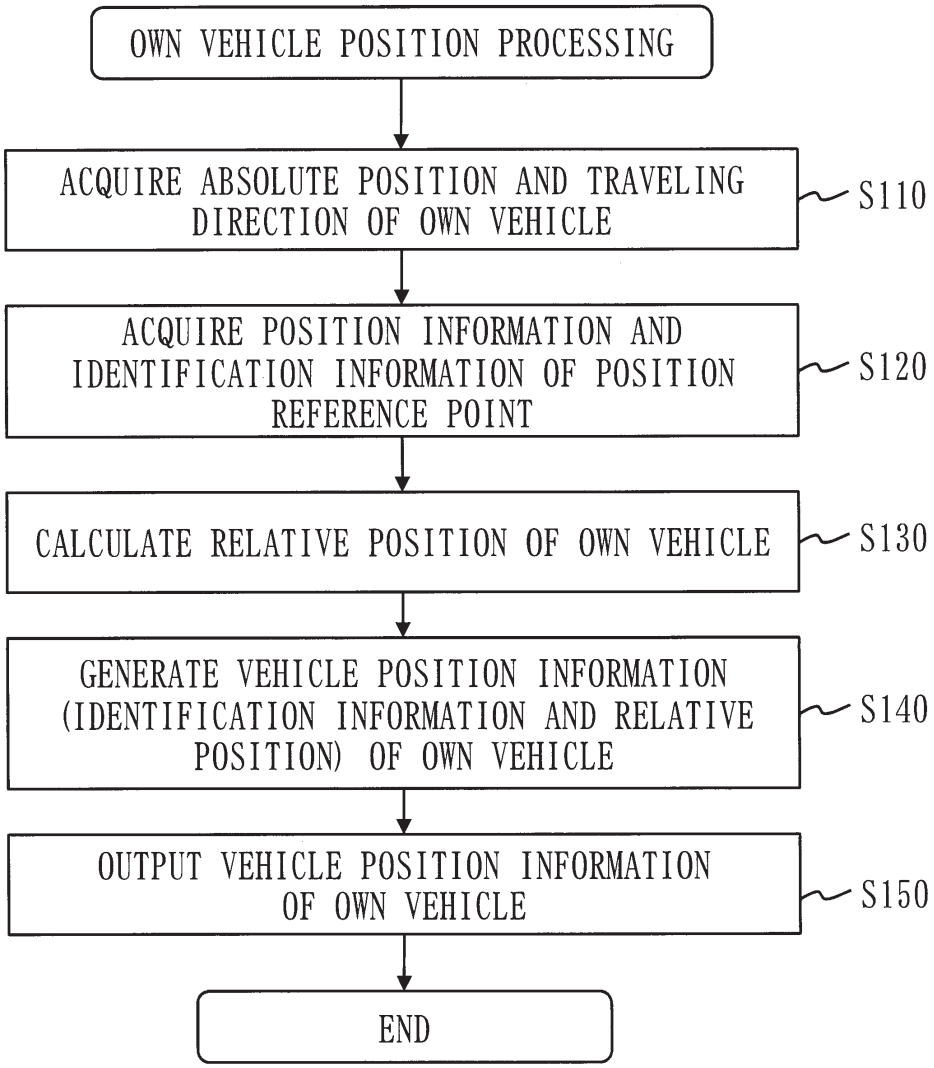

OWN VEHICLE POSITION PROCESSING
ACQUIRE ABSOLUTE POSITION AND TRAVELING DIRECTION OF OWN VEHICLE
S110
ACQUIRE POSITION INFORMATION AND IDENTIFICATION INFORMATION OF POSITION REFERENCE POINT
S120
CALCULATE RELATIVE POSITION OF OWN VEHICLE
S130
GENERATE VEHICLE POSITION INFORMATION (IDENTIFICATION INFORMATION AND RELATIVE POSITION) OF OWN VEHICLE
S140
OUTPUT VEHICLE POSITION INFORMATION OF OWN VEHICLE
S150
END

Fig. 7

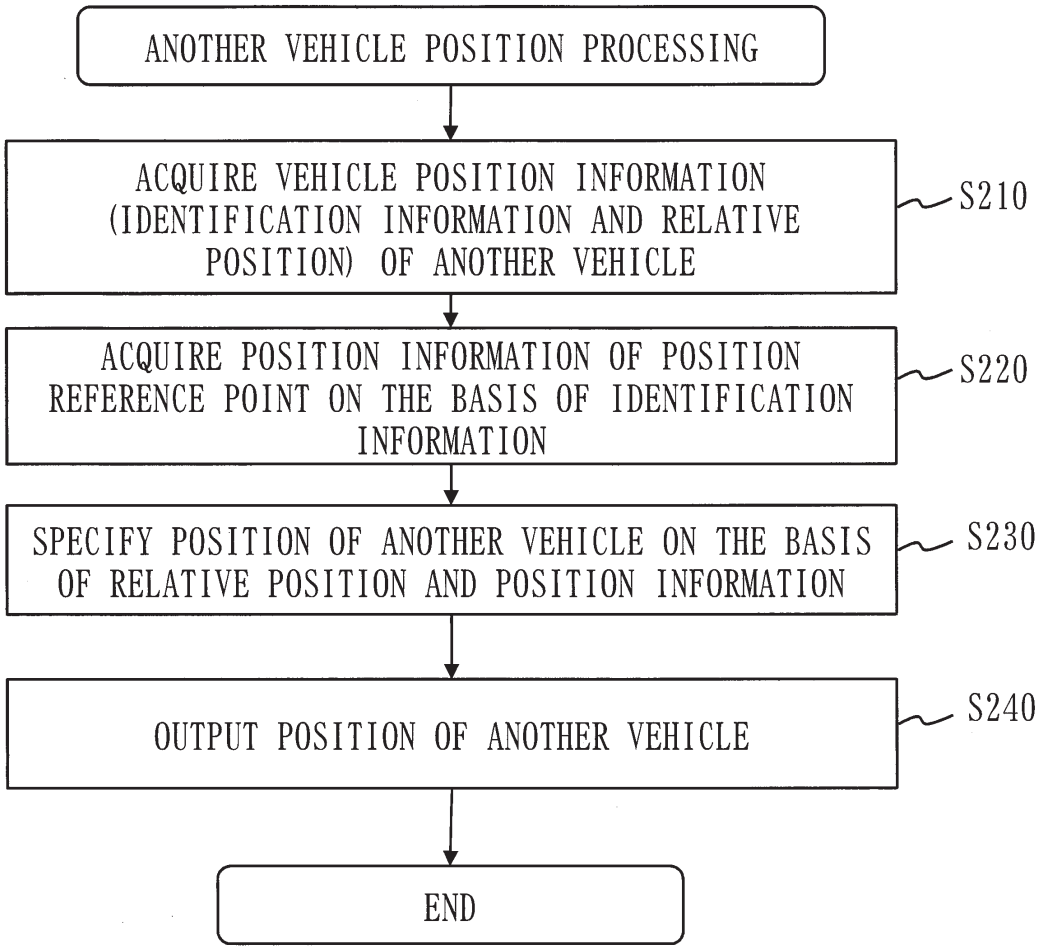

ANOTHER VEHICLE POSITION PROCESSING
ACQUIRE VEHICLE POSITION INFORMATION (IDENTIFICATION INFORMATION AND RELATIVE POSITION) OF ANOTHER VEHICLE
S210
ACQUIRE POSITION INFORMATION OF POSITION REFERENCE POINT ON THE BASIS OF IDENTIFICATION INFORMATION
S220
SPECIFY POSITION OF ANOTHER VEHICLE ON THE BASIS OF RELATIVE POSITION AND POSITION INFORMATION
S230
OUTPUT POSITION OF ANOTHER VEHICLE
S240
END

Fig. 8

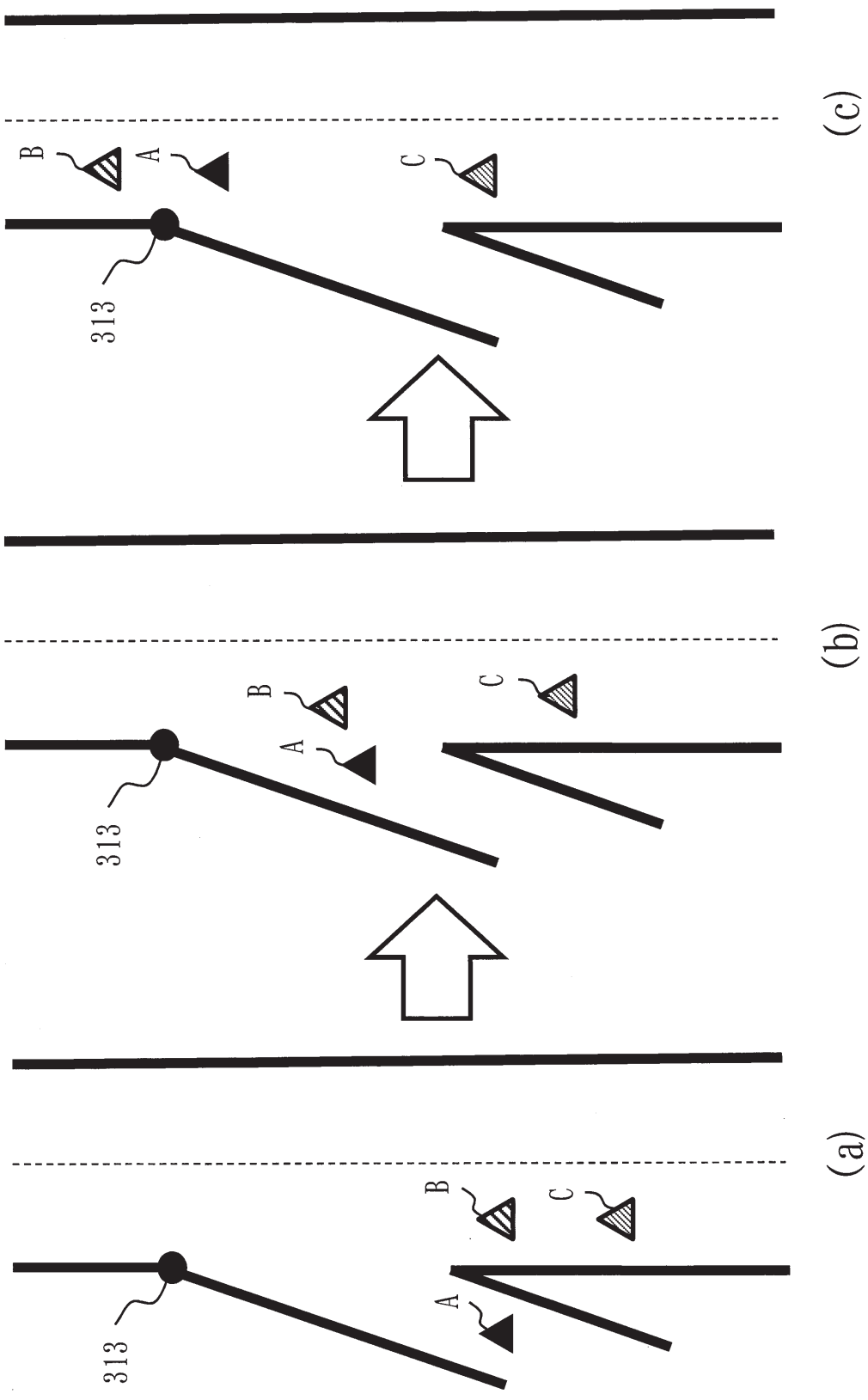


Fig. 9

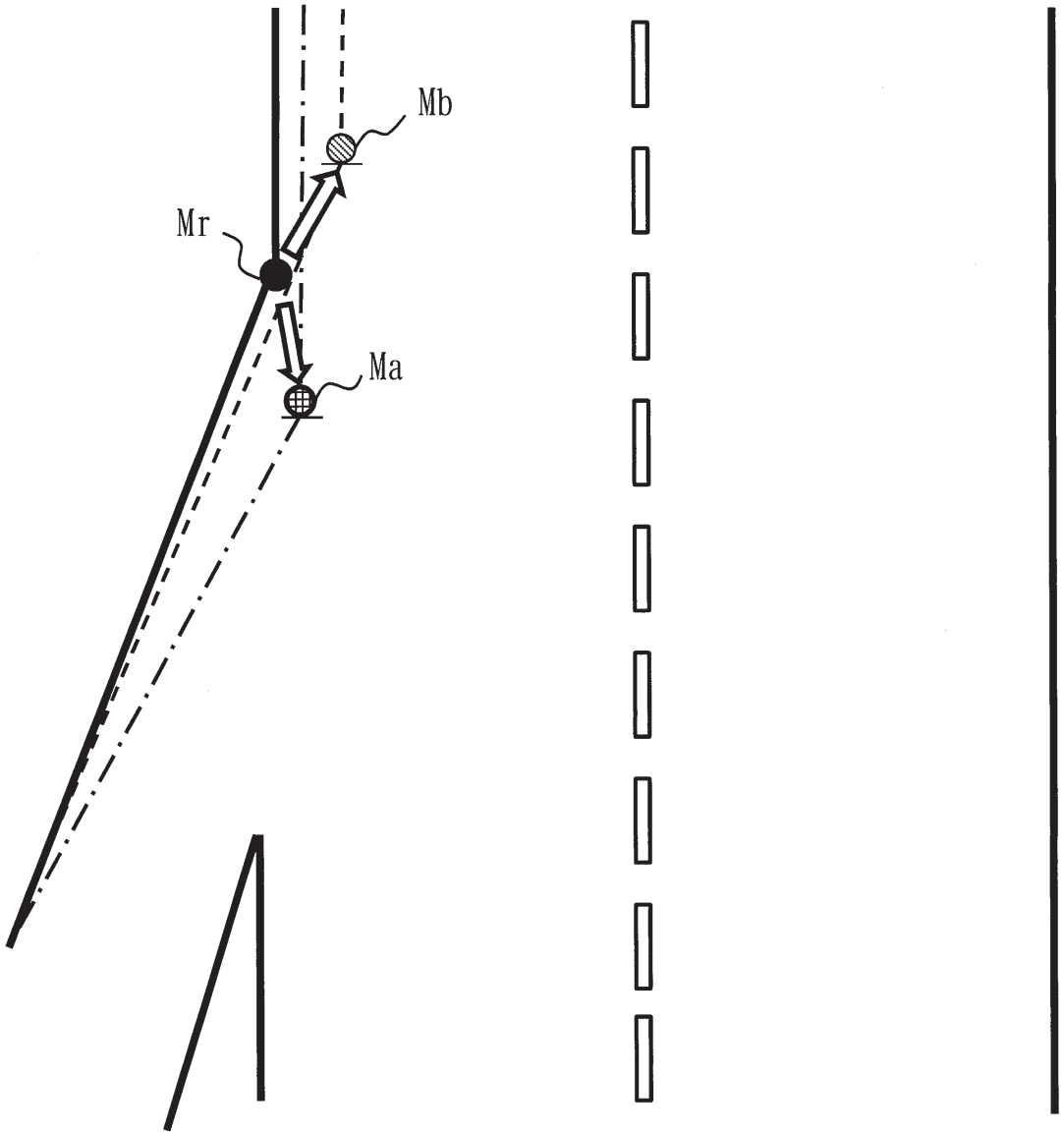


Fig. 10

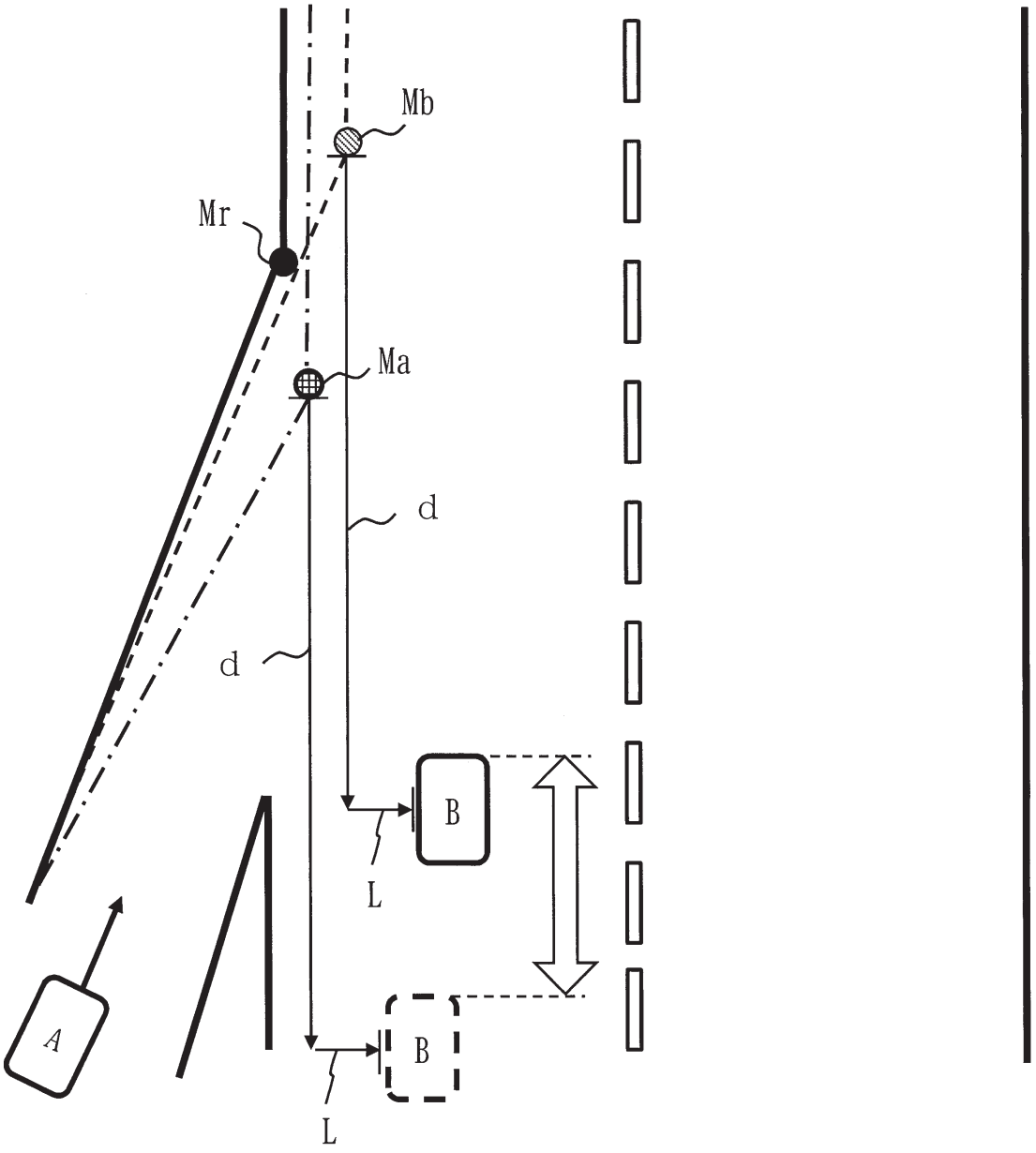


Fig. 11

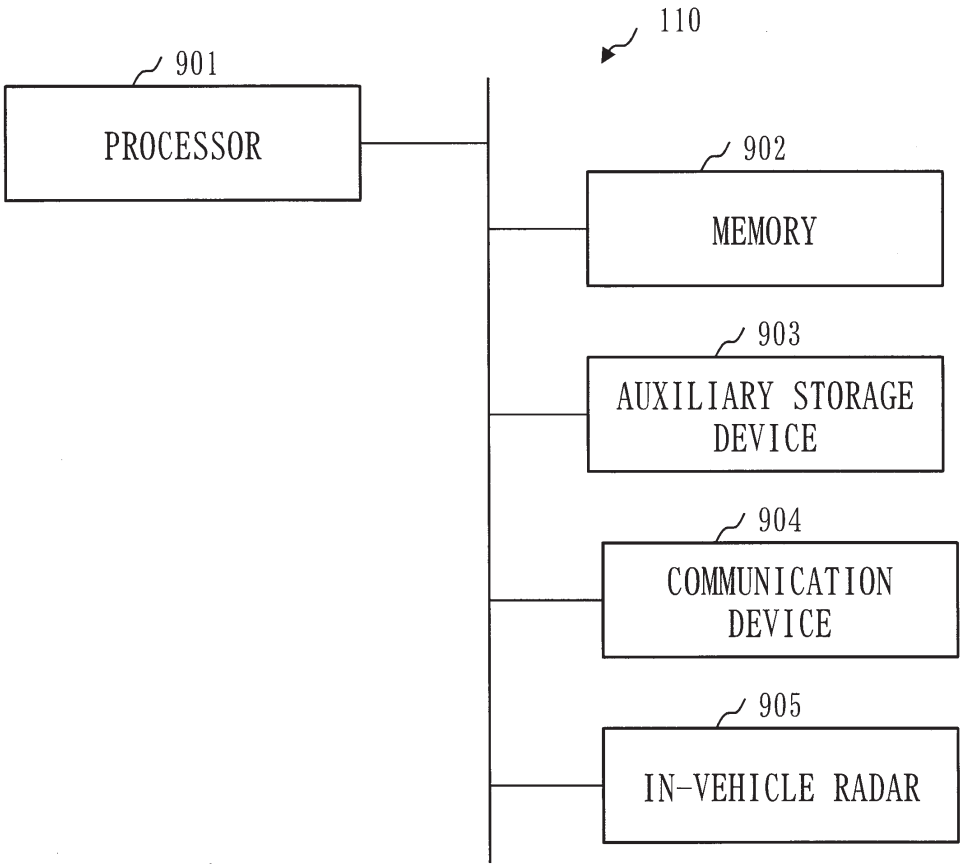
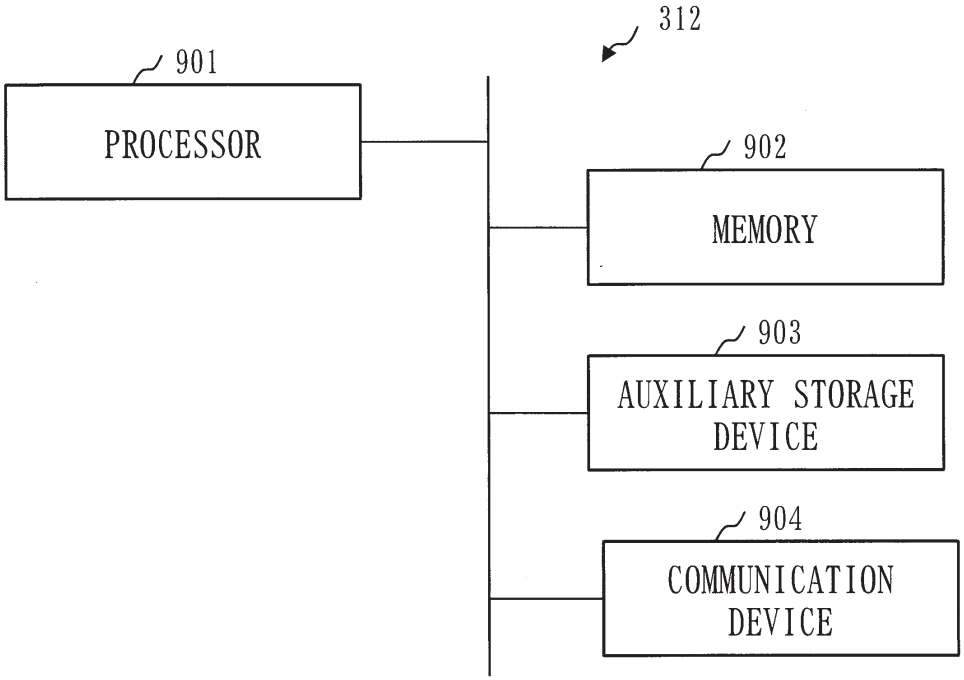

110
901
PROCESSOR
902
MEMORY
903
AUXILIARY STORAGE DEVICE
904
COMMUNICATION DEVICE
905
IN-VEHICLE RADAR

Fig. 12


312
901
PROCESSOR
902
MEMORY
903
AUXILIARY STORAGE DEVICE
904
COMMUNICATION DEVICE