FIG. 1

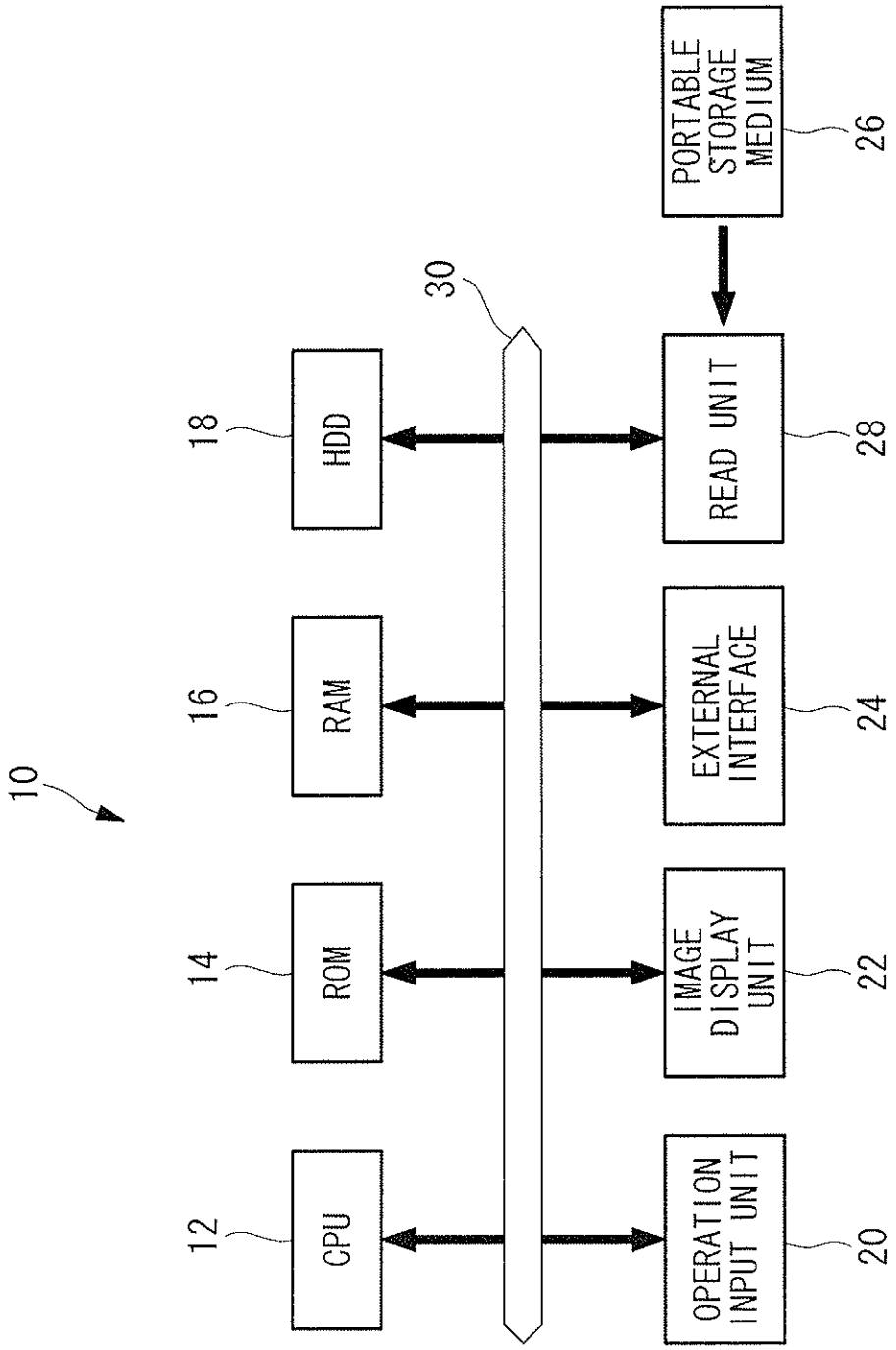

10
12
CPU
14
ROM
16
RAM
18
HDD
30
20
OPERATION INPUT UNIT
22
IMAGE DISPLAY UNIT
24
EXTERNAL INTERFACE
28
READ UNIT
26
PORTABLE STORAGE MEDIUM

FIG. 2

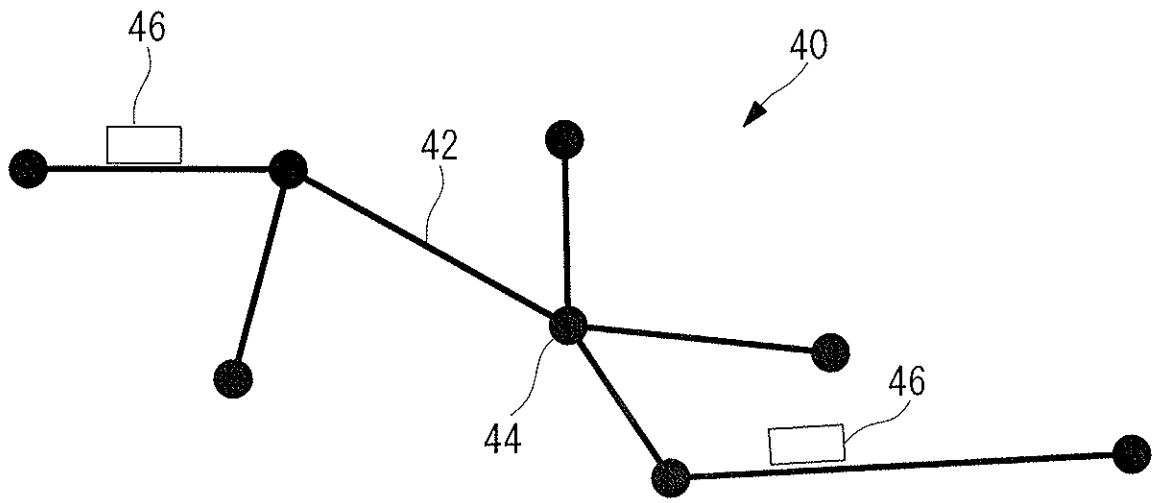


FIG. 3

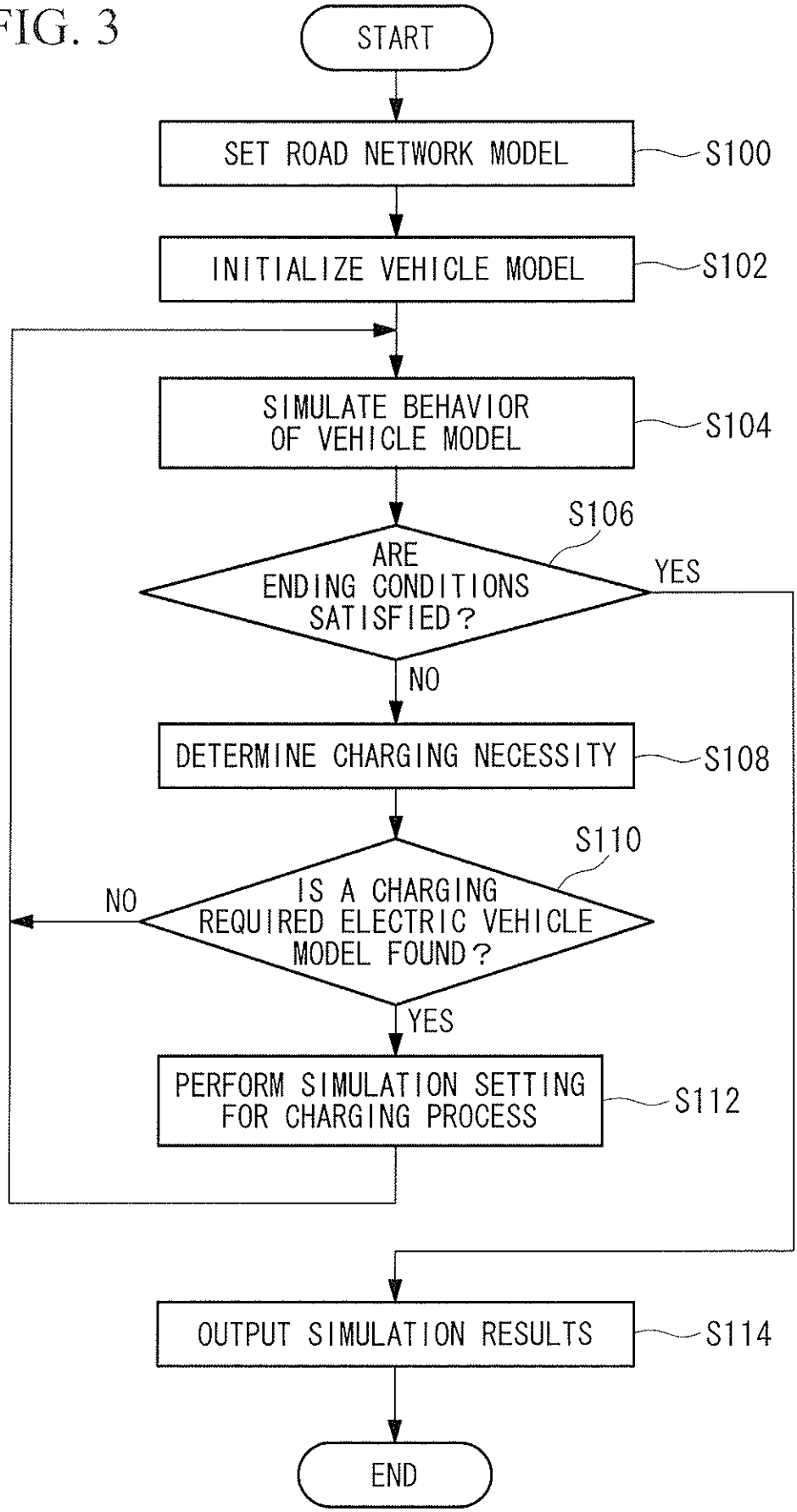

START
SET ROAD NETWORK MODEL
S100
INITIALIZE VEHICLE MODEL
S102
SIMULATE BEHAVIOR OF VEHICLE MODEL
S104
S106
ARE ENDING CONDITIONS SATISFIED?
YES
NO
DETERMINE CHARGING NECESSITY
S108
S110
IS A CHARGING REQUIRED ELECTRIC VEHICLE MODEL FOUND?
NO
YES
PERFORM SIMULATION SETTING FOR CHARGING PROCESS
S112
OUTPUT SIMULATION RESULTS
S114
END

FIG. 4

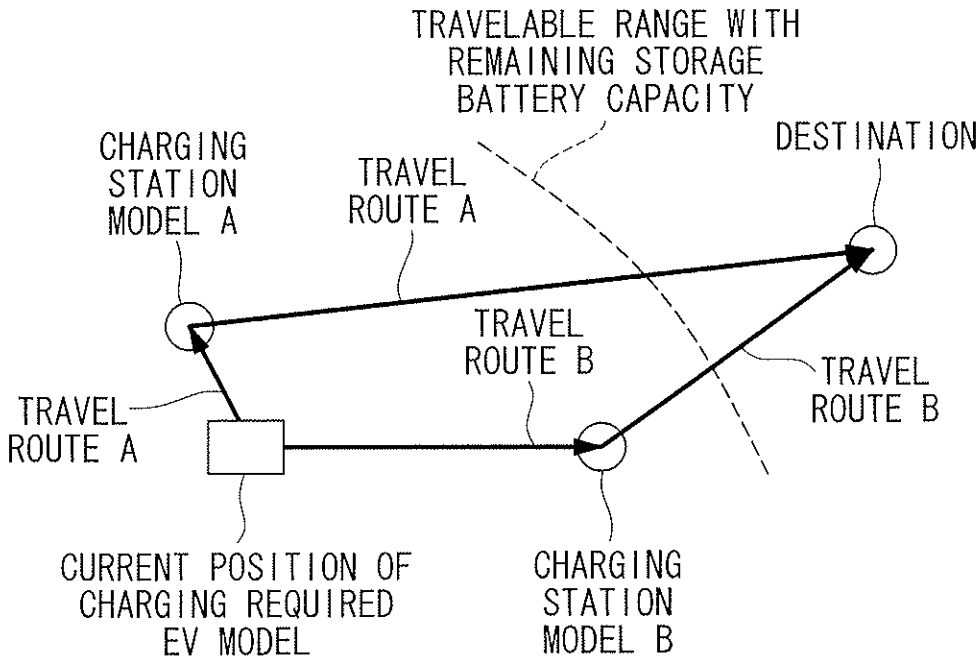

TRAVELABLE RANGE WITH REMAINING STORAGE BATTERY CAPACITY
CHARGING STATION MODEL A
TRAVEL ROUTE A
DESTINATION
TRAVEL ROUTE B
TRAVEL ROUTE A
TRAVEL ROUTE B
CURRENT POSITION OF CHARGING REQUIRED EV MODEL
CHARGING STATION MODEL B

FIG. 5

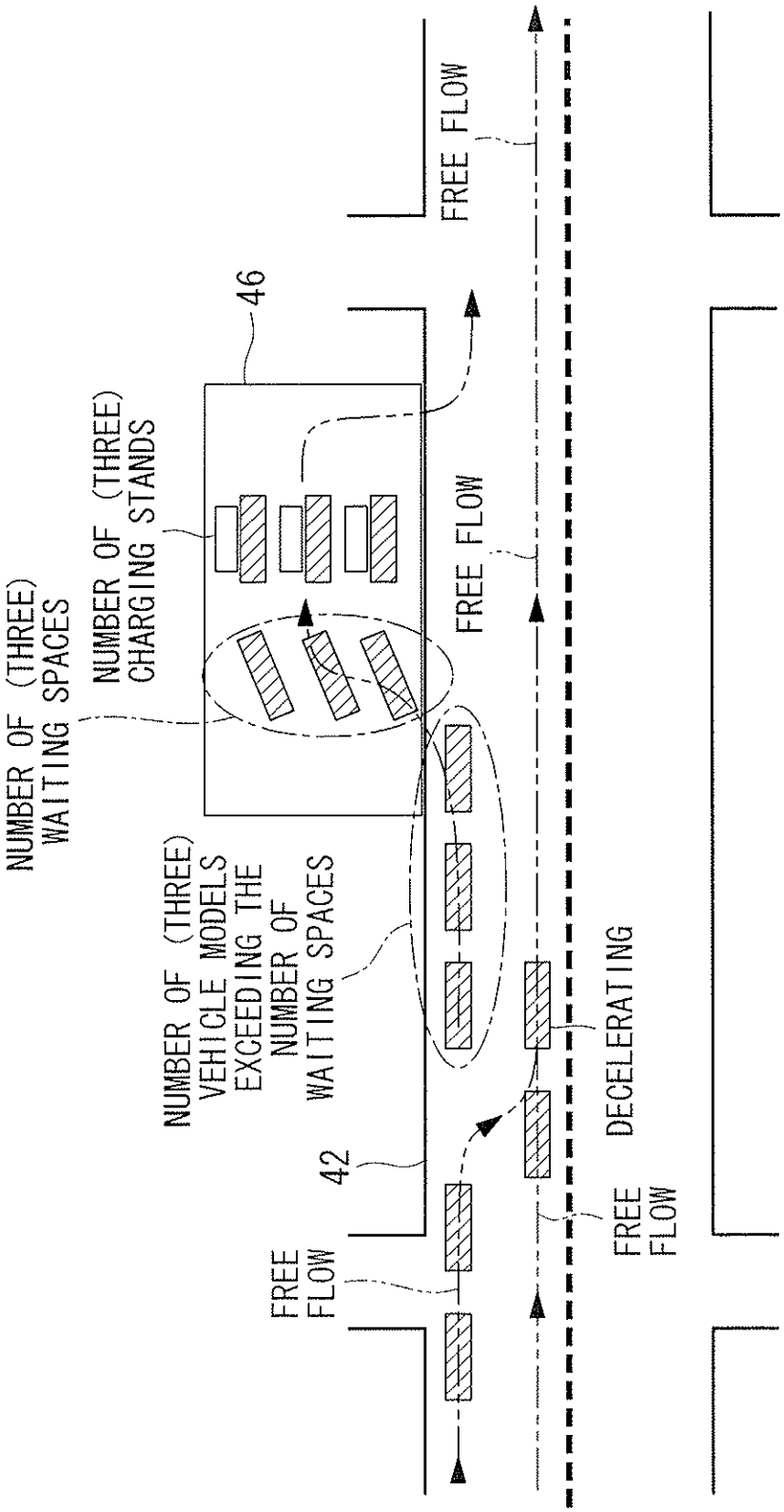

NUMBER OF (THREE) WAITING SPACES
NUMBER OF (THREE) CHARGING STANDS
46
NUMBER OF (THREE) VEHICLE MODELS EXCEEDING THE NUMBER OF WAITING SPACES
42
FREE FLOW
FREE FLOW
FREE FLOW
DECELERATING
FREE FLOW

FIG. 6

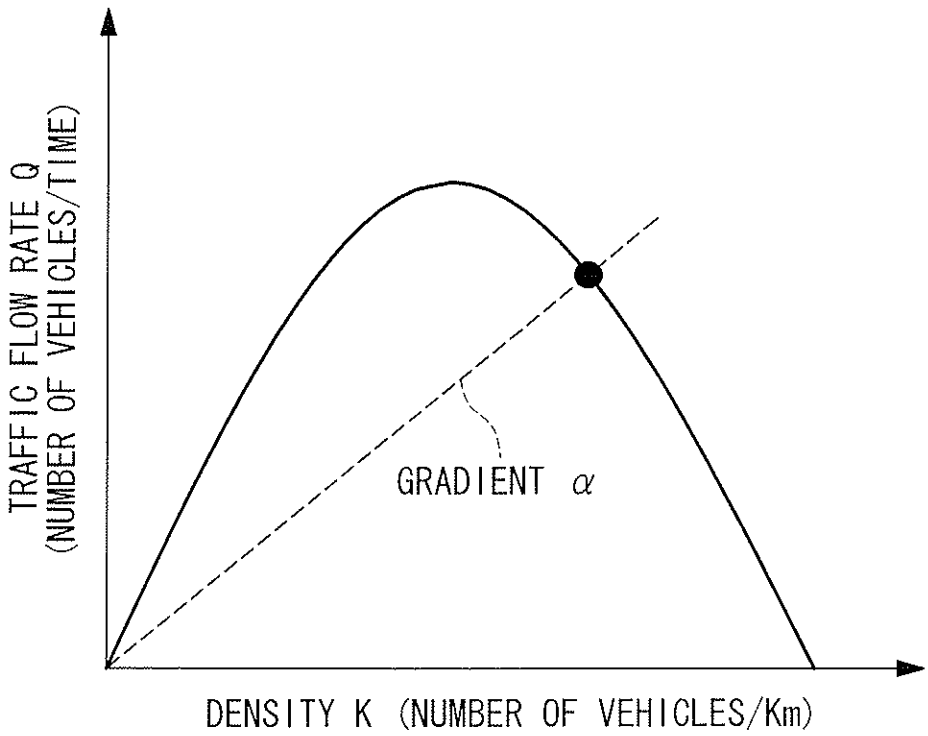

TRAFFIC FLOW RATE Q
(NUMBER OF VEHICLES/TIME)
GRADIENT α
DENSITY K (NUMBER OF VEHICLES/Km)

FIG. 7A

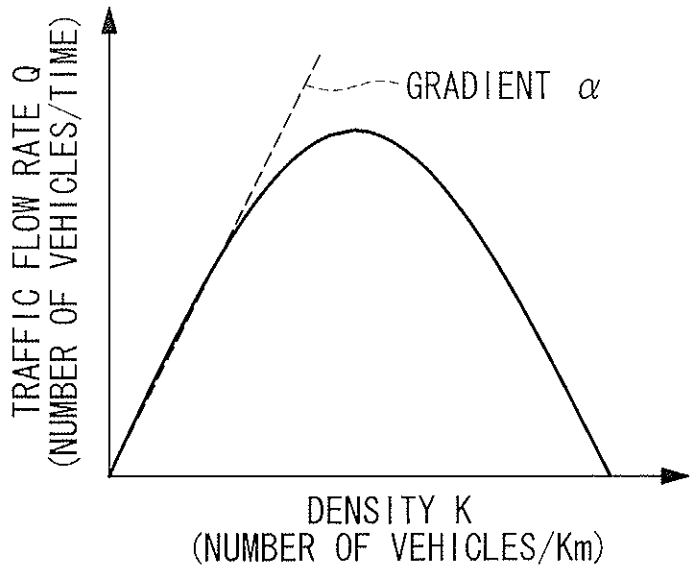


FIG. 7B

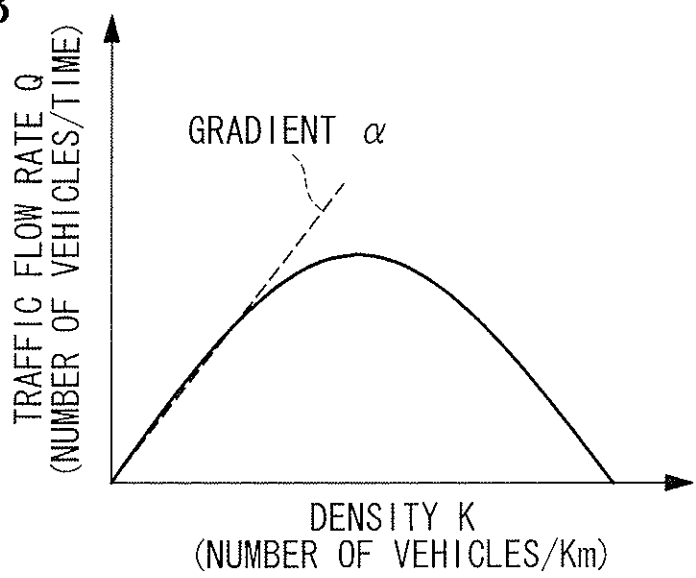


FIG. 7B

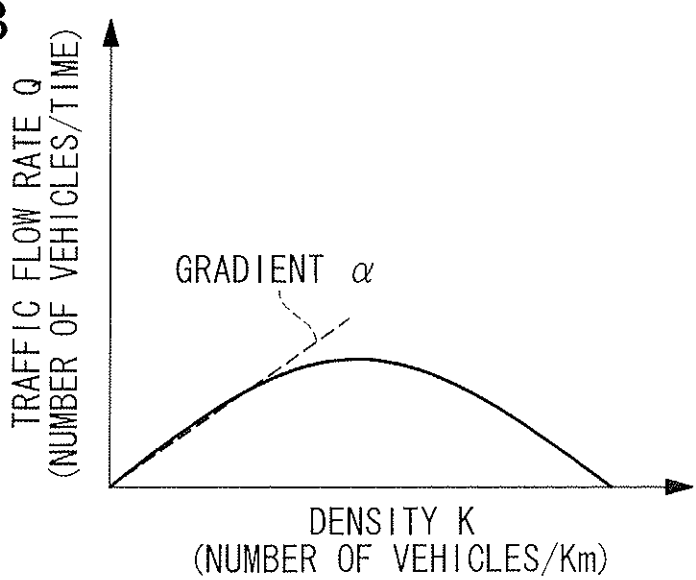


FIG. 8A

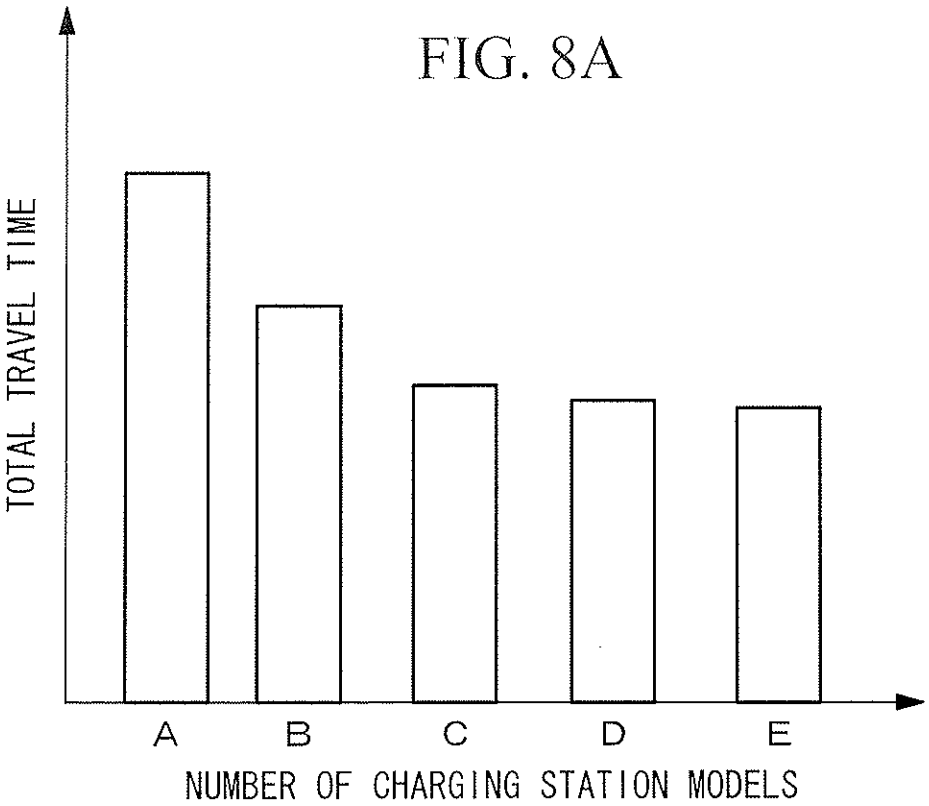

TOTAL TRAVEL TIME
A
B
C
D
E
NUMBER OF CHARGING STATION MODELS

FIG. 8B

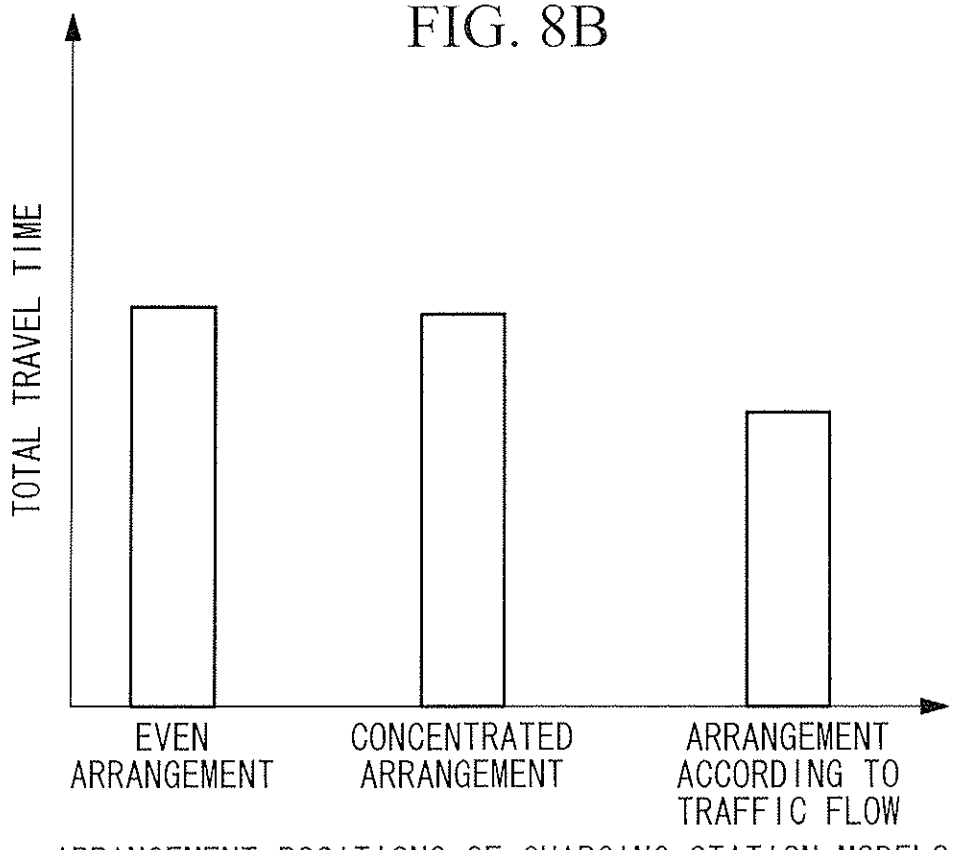

TOTAL TRAVEL TIME
EVEN ARRANGEMENT
CONCENTRATED ARRANGEMENT
ARRANGEMENT ACCORDING TO TRAFFIC FLOW
ARRANGEMENT POSITIONS OF CHARGING STATION MODELS

FIG. 9

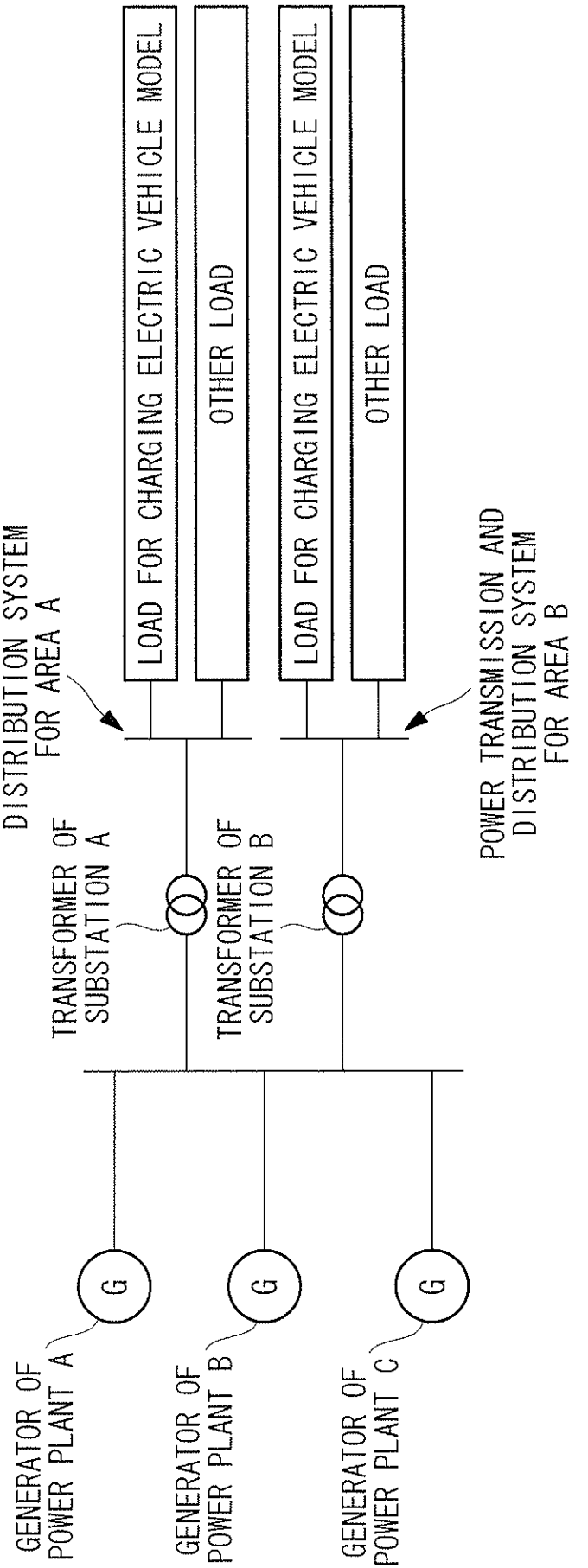

LOAD FOR CHARGING ELECTRIC VEHICLE MODEL
OTHER LOAD
LOAD FOR CHARGING ELECTRIC VEHICLE MODEL
OTHER LOAD
POWER TRANSMISSION AND DISTRIBUTION SYSTEM FOR AREA A
POWER TRANSMISSION AND DISTRIBUTION SYSTEM FOR AREA B
TRANSFORMER OF SUBSTATION A
TRANSFORMER OF SUBSTATION B
G
G
G
GENERATOR OF POWER PLANT A
GENERATOR OF POWER PLANT B
GENERATOR OF POWER PLANT C

FIG. 10

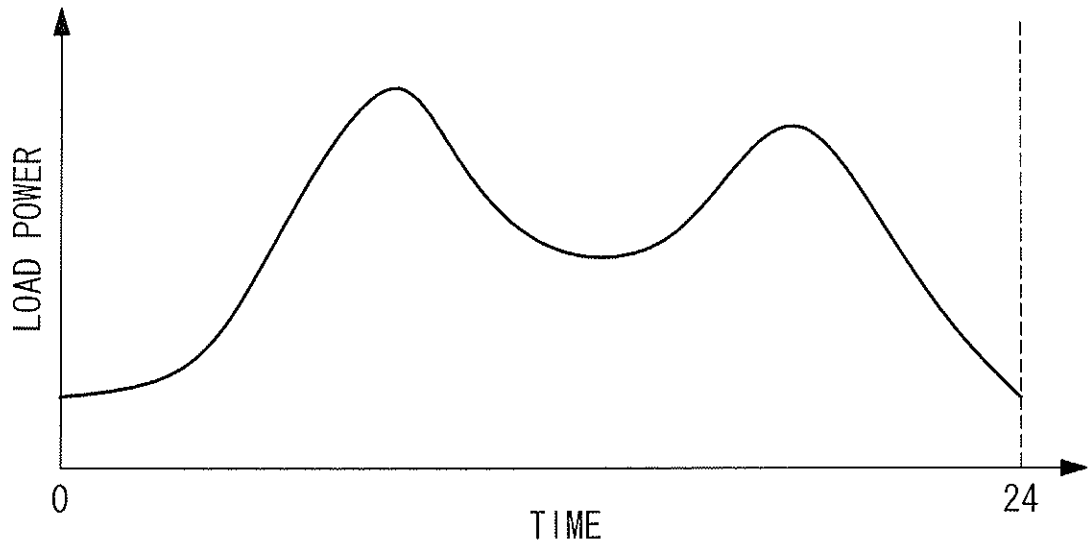

LOAD POWER
0
24
TIME

FIG. 11

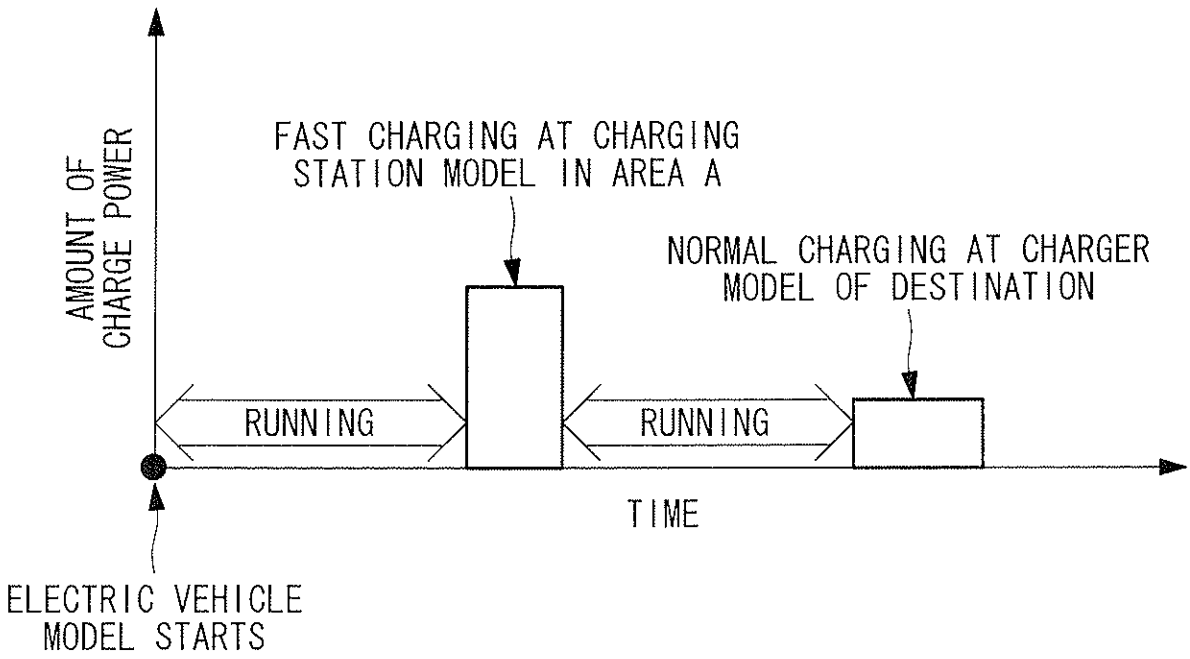

AMOUNT OF CHARGE POWER
FAST CHARGING AT CHARGING STATION MODEL IN AREA A
NORMAL CHARGING AT CHARGER MODEL OF DESTINATION
RUNNING
RUNNING
TIME
ELECTRIC VEHICLE MODEL STARTS

FIG. 12A

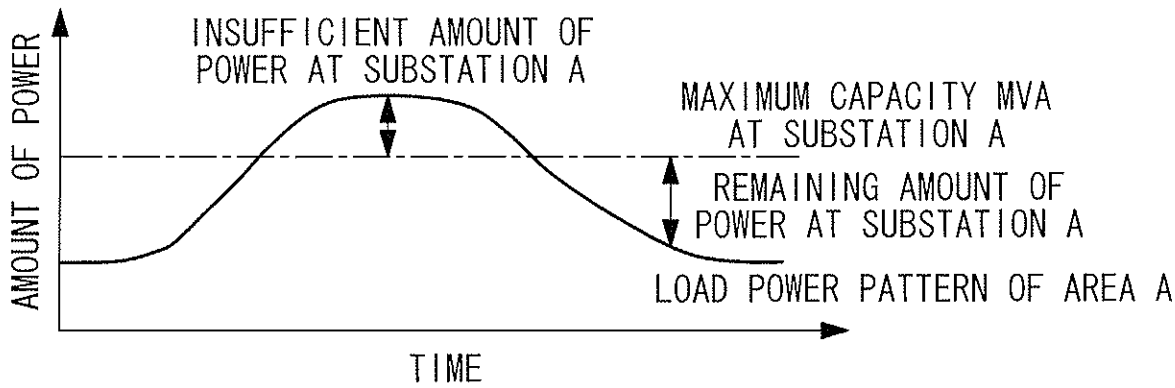


FIG. 12B

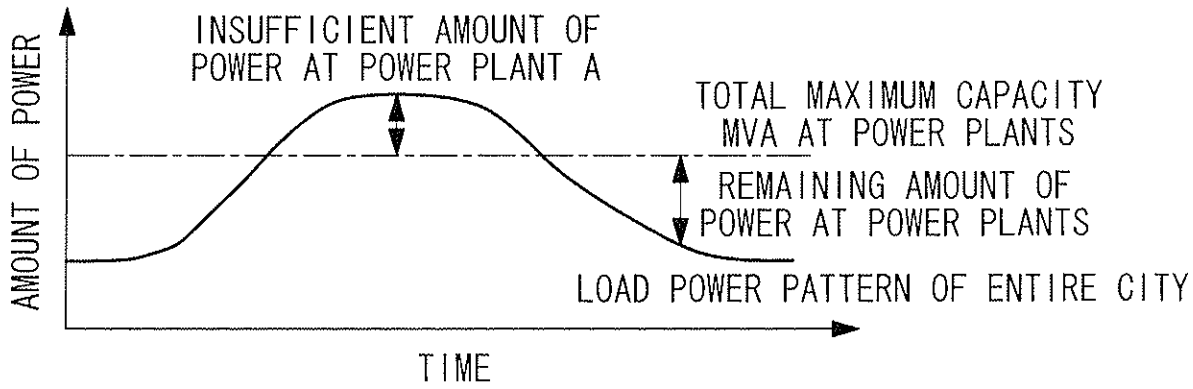


FIG. 13A

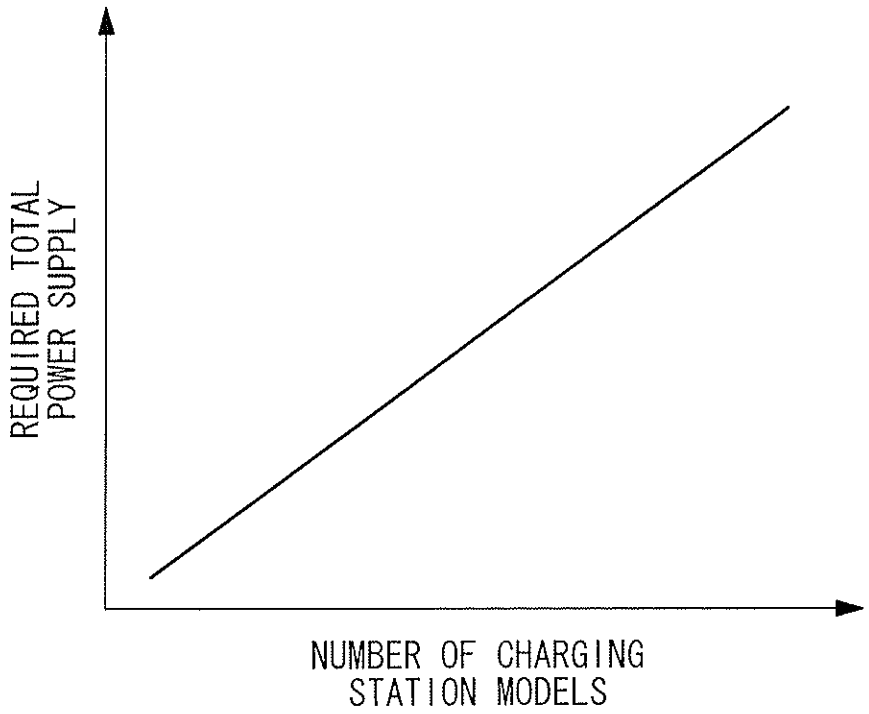


FIG. 13B

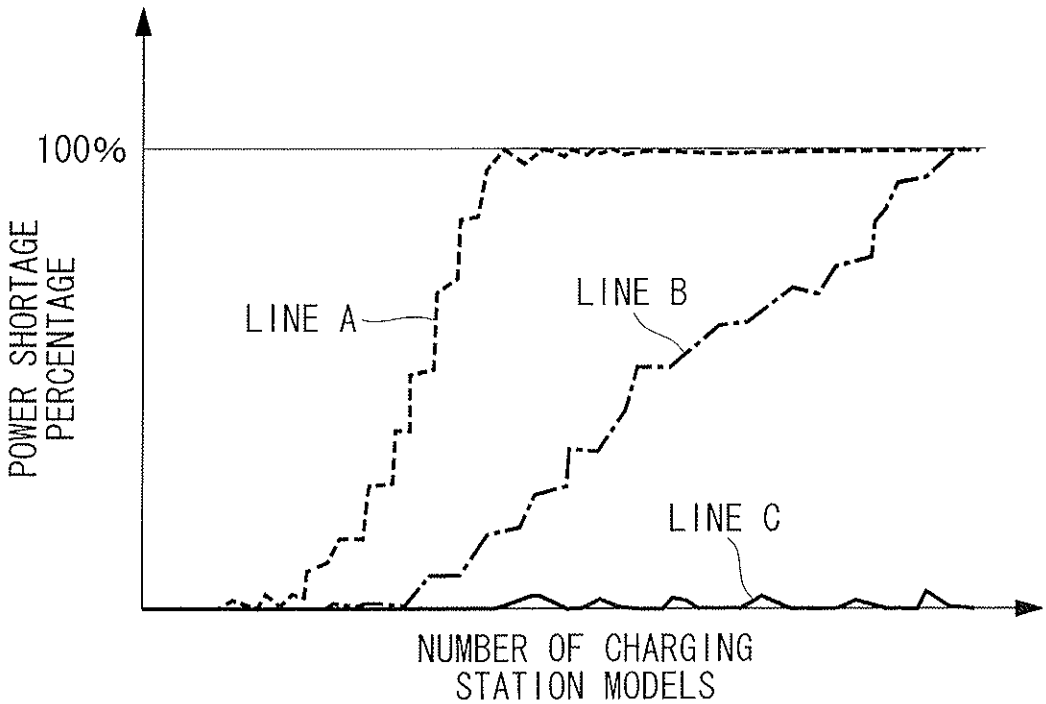


FIG. 14A

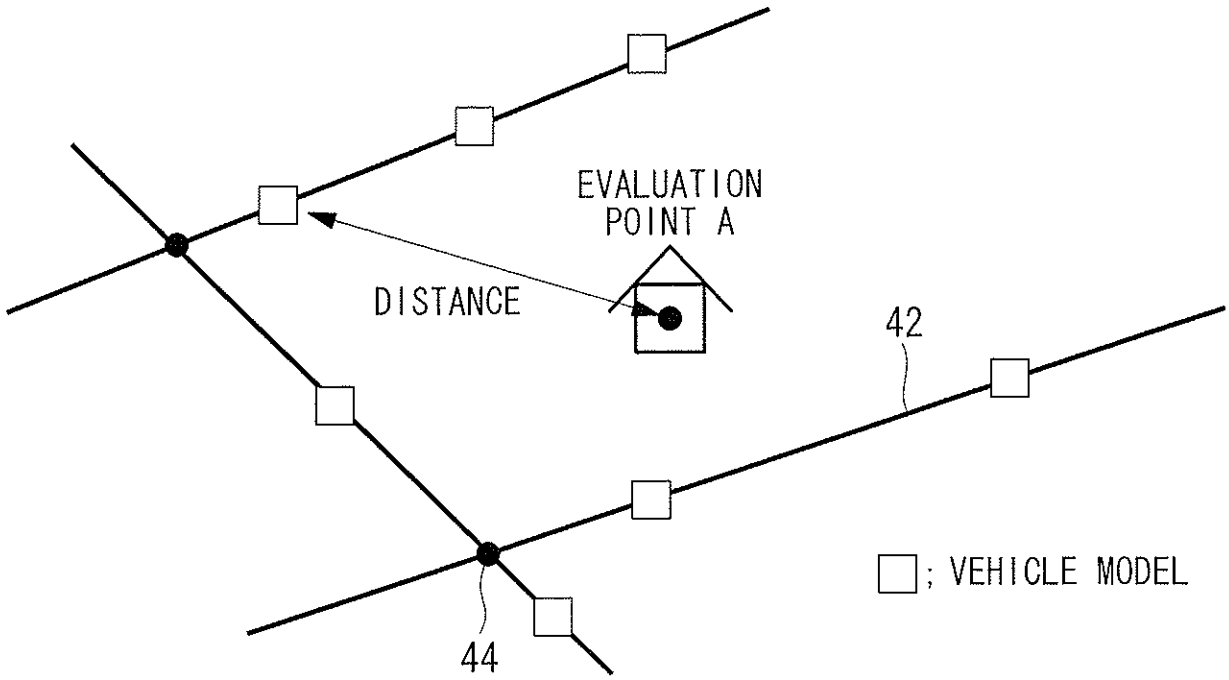


FIG. 14B

