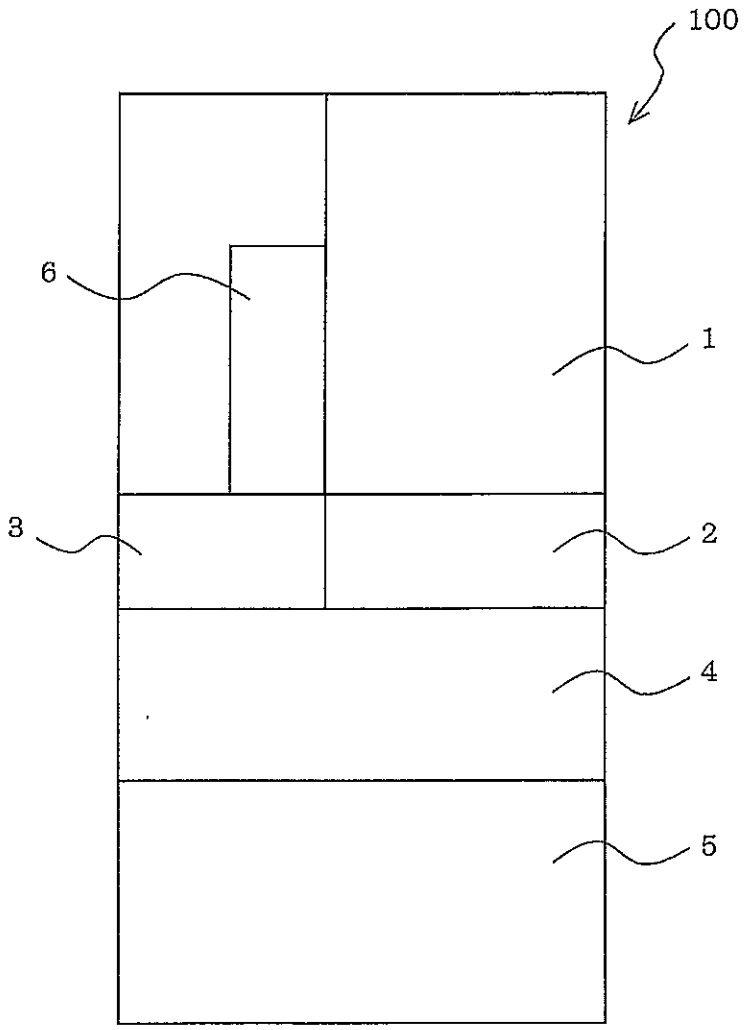
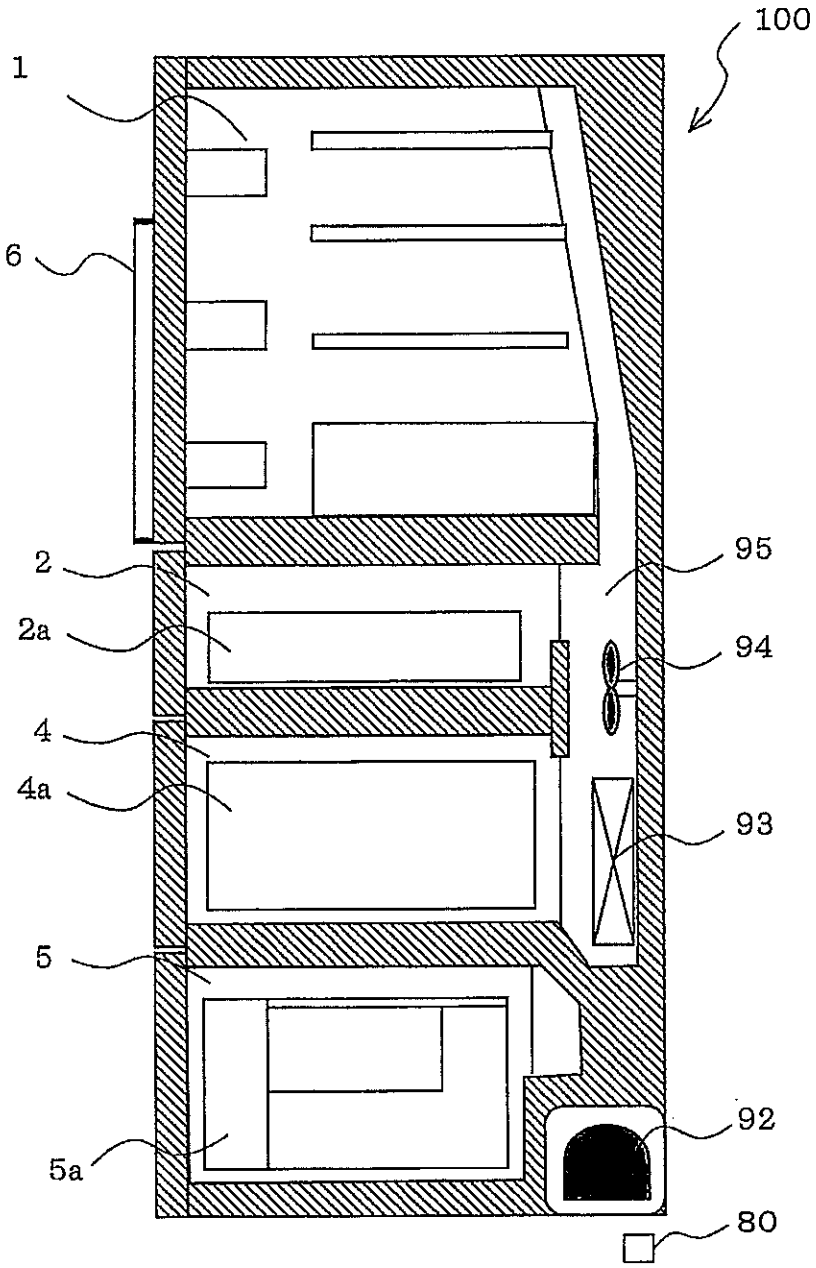
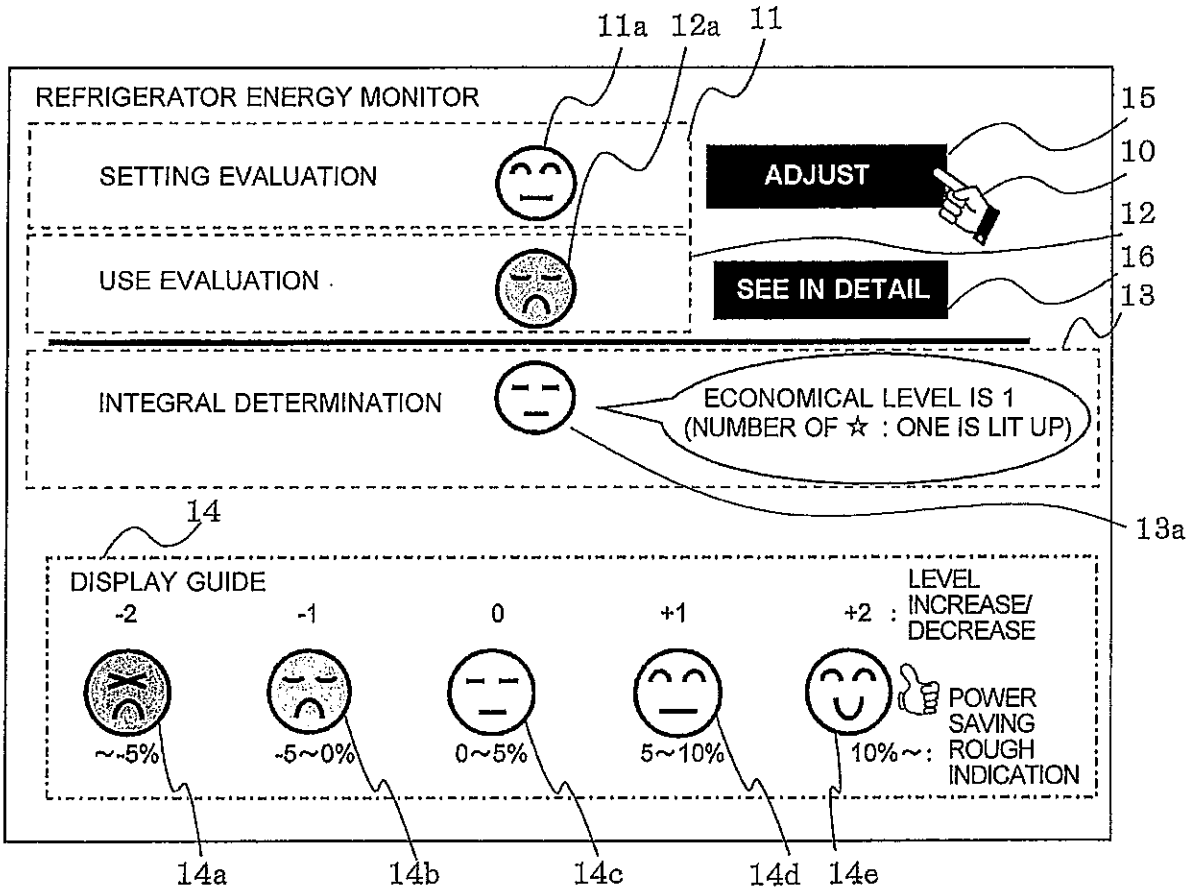
FIG. 1



F I G. 2



F I G. 3


11a
12a
11
REFRIGERATOR ENERGY MONITOR
15
SETTING EVALUATION
ADJUST
10
12
USE EVALUATION
16
SEE IN DETAIL
13
INTEGRAL DETERMINATION
ECONOMICAL LEVEL IS 1
(NUMBER OF ☆ : ONE IS LIT UP)
13a
14
DISPLAY GUIDE
-2
-1
0
+1
+2 : LEVEL INCREASE/ DECREASE
~-5%
-5~0%
0~5%
5~10%
10%~: POWER SAVING ROUGH INDICATION
14a
14b
14c
14d
14e

F I G. 4

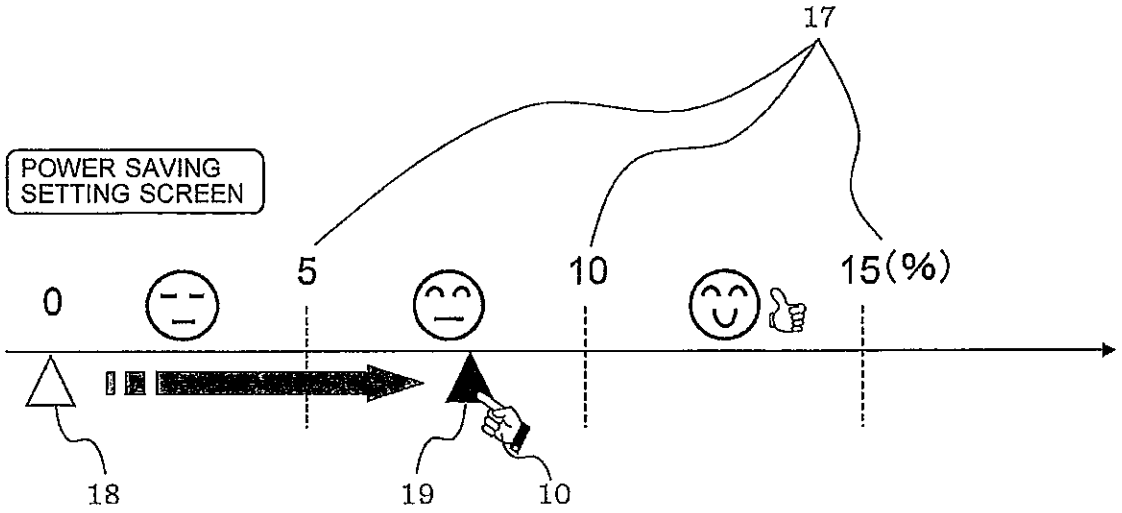

17
POWER SAVING SETTING SCREEN
0
5
10
15(%)
18
19
10

FIG. 5

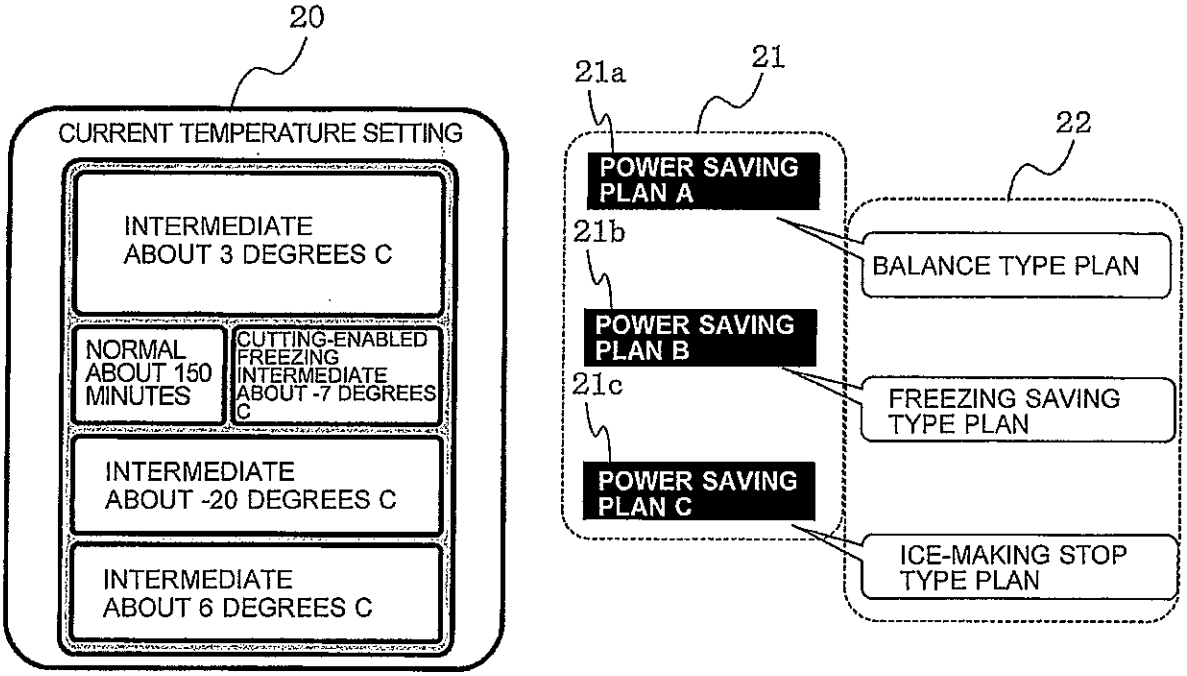
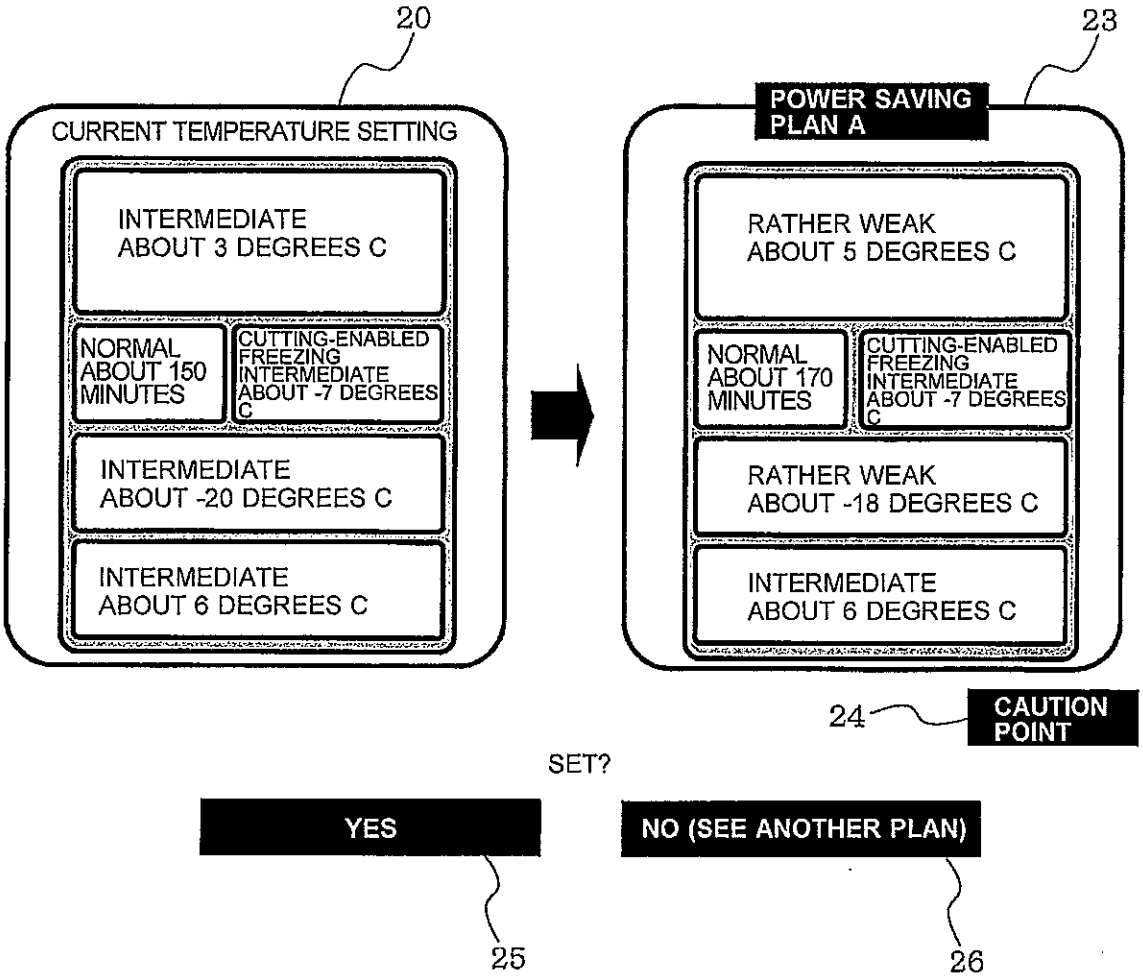
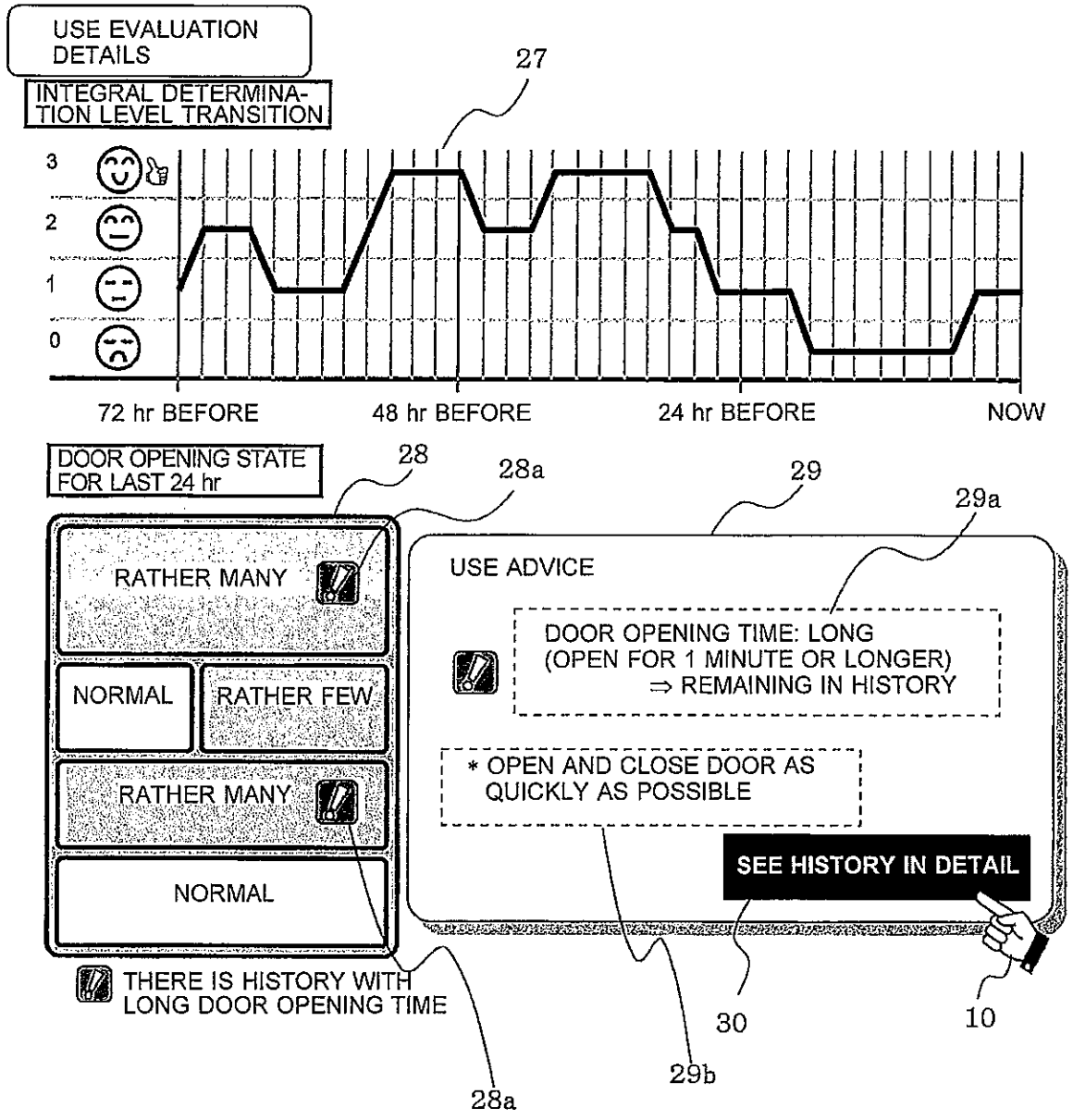

20
CURRENT TEMPERATURE SETTING
INTERMEDIATE
ABOUT 3 DEGREES C
NORMAL
ABOUT 150
MINUTES
CUTTING-ENABLED
FREEZING
INTERMEDIATE
ABOUT -7 DEGREES
C
INTERMEDIATE
ABOUT -20 DEGREES C
INTERMEDIATE
ABOUT 6 DEGREES C
21a
21
22
POWER SAVING
PLAN A
21b
POWER SAVING
PLAN B
21c
POWER SAVING
PLAN C
BALANCE TYPE PLAN
FREEZING SAVING
TYPE PLAN
ICE-MAKING STOP
TYPE PLAN

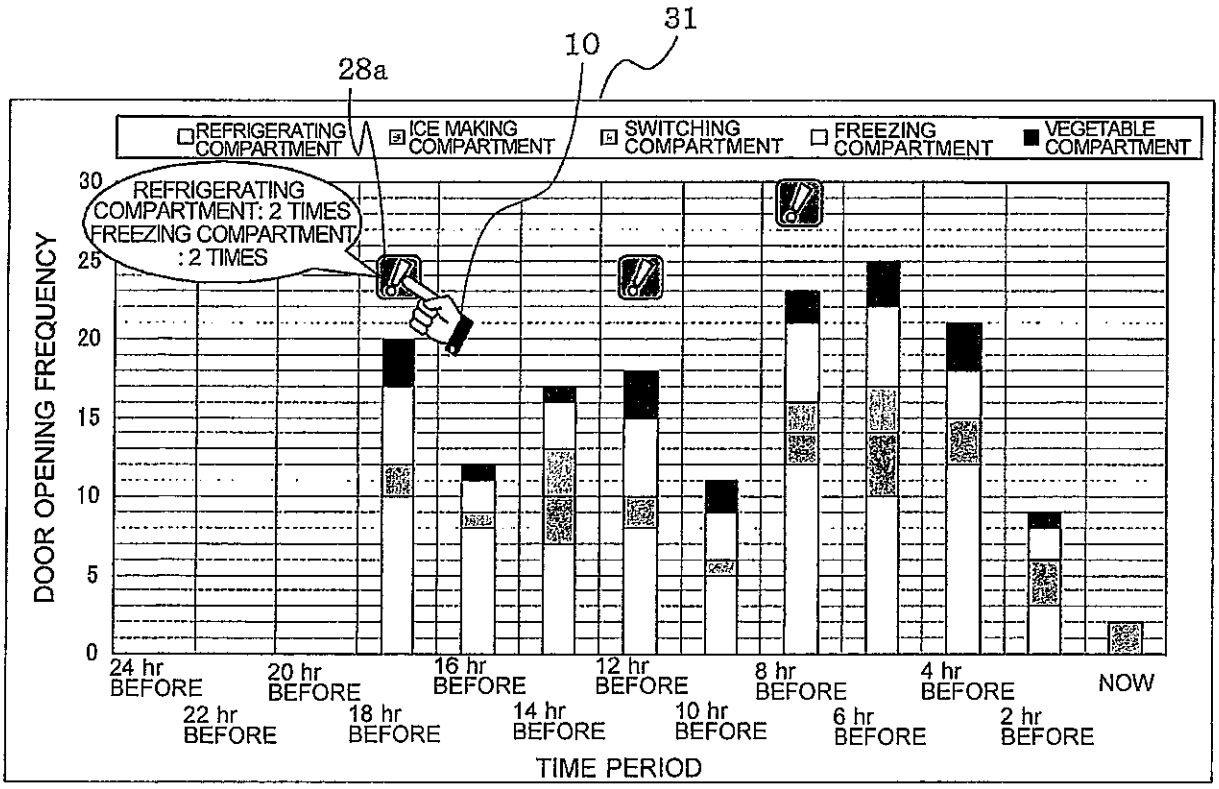
FIG. 6


20
CURRENT TEMPERATURE SETTING
INTERMEDIATE
ABOUT 3 DEGREES C
NORMAL
ABOUT 150
MINUTES
CUTTING-ENABLED
FREEZING
INTERMEDIATE
ABOUT -7 DEGREES
C
INTERMEDIATE
ABOUT -20 DEGREES C
INTERMEDIATE
ABOUT 6 DEGREES C
23
POWER SAVING
PLAN A
RATHER WEAK
ABOUT 5 DEGREES C
NORMAL
ABOUT 170
MINUTES
CUTTING-ENABLED
FREEZING
INTERMEDIATE
ABOUT -7 DEGREES
C
RATHER WEAK
ABOUT -18 DEGREES C
INTERMEDIATE
ABOUT 6 DEGREES C
24
CAUTION
POINT
SET?
YES
NO (SEE ANOTHER PLAN)
25
26

F I G. 7


USE EVALUATION DETAILS
INTEGRAL DETERMINATION LEVEL TRANSITION
27
3
2
1
0
72 hr BEFORE
48 hr BEFORE
24 hr BEFORE
NOW
DOOR OPENING STATE FOR LAST 24 hr
28
28a
29
29a
RATHER MANY
NORMAL
RATHER FEW
RATHER MANY
NORMAL
USE ADVICE
DOOR OPENING TIME: LONG
(OPEN FOR 1 MINUTE OR LONGER)
⇒ REMAINING IN HISTORY
* OPEN AND CLOSE DOOR AS QUICKLY AS POSSIBLE
SEE HISTORY IN DETAIL
THERE IS HISTORY WITH LONG DOOR OPENING TIME
30
10
29b
28a

F I G. 8


31
10
28a
REFRIGERATING COMPARTMENT
ICE MAKING COMPARTMENT
SWITCHING COMPARTMENT
FREEZING COMPARTMENT
VEGETABLE COMPARTMENT
REFRIGERATING COMPARTMENT: 2 TIMES
FREEZING COMPARTMENT: 2 TIMES
DOOR OPENING FREQUENCY
30
25
20
15
10
5
0
24 hr BEFORE
22 hr BEFORE
20 hr BEFORE
18 hr BEFORE
16 hr BEFORE
14 hr BEFORE
12 hr BEFORE
10 hr BEFORE
8 hr BEFORE
6 hr BEFORE
4 hr BEFORE
2 hr BEFORE
NOW
TIME PERIOD

F I G. 9

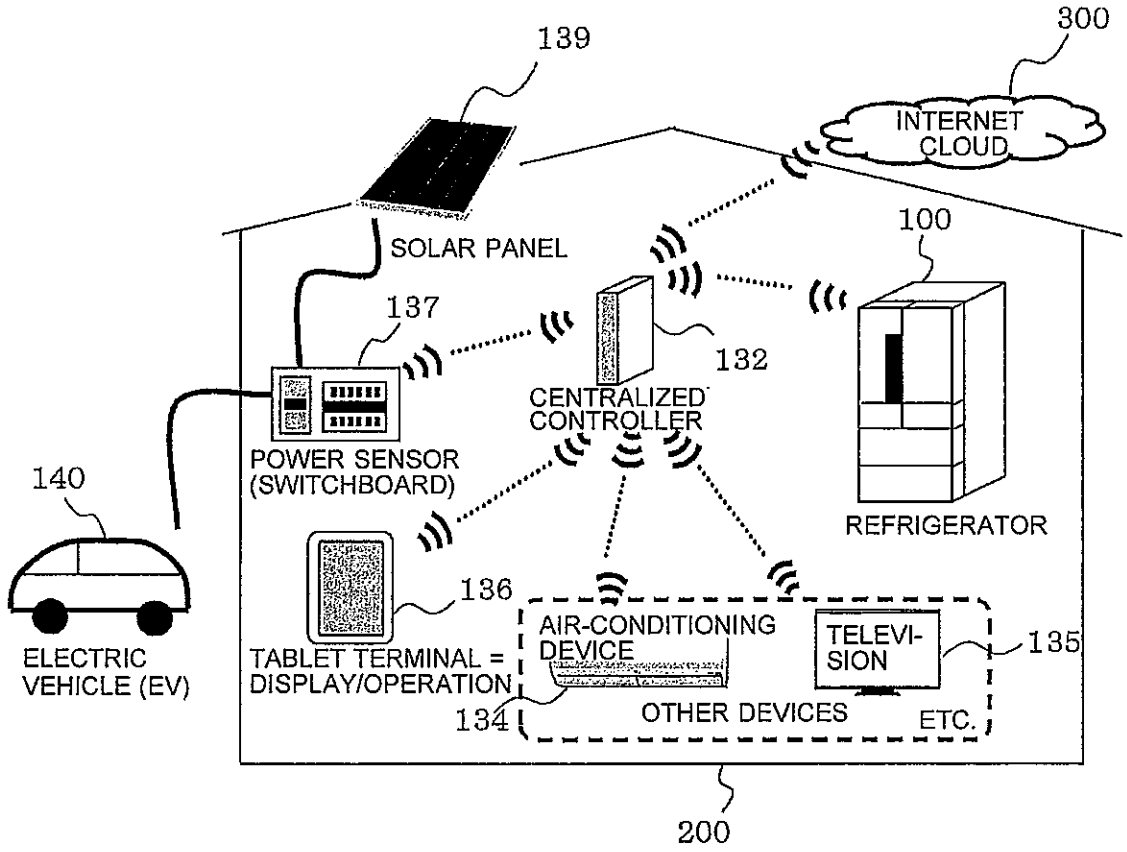

139
300
INTERNET CLOUD
SOLAR PANEL
100
137
132
CENTRALIZED CONTROLLER
POWER SENSOR (SWITCHBOARD)
140
REFRIGERATOR
136
AIR-CONDITIONING DEVICE
TELEVI-SION
135
TABLET TERMINAL = DISPLAY/OPERATION
134
OTHER DEVICES
ETC.
ELECTRIC VEHICLE (EV)
200

FIG. 10

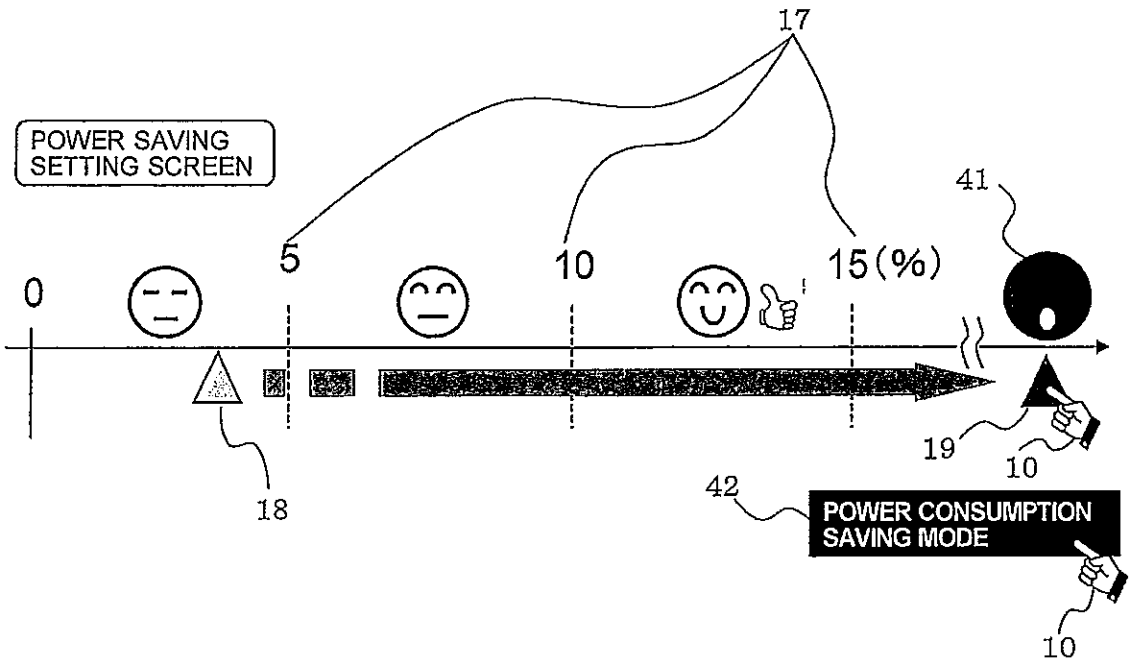

17
POWER SAVING SETTING SCREEN
41
5
10
15(%)
0
19
10
18
42
POWER CONSUMPTION SAVING MODE
10

FIG. 11

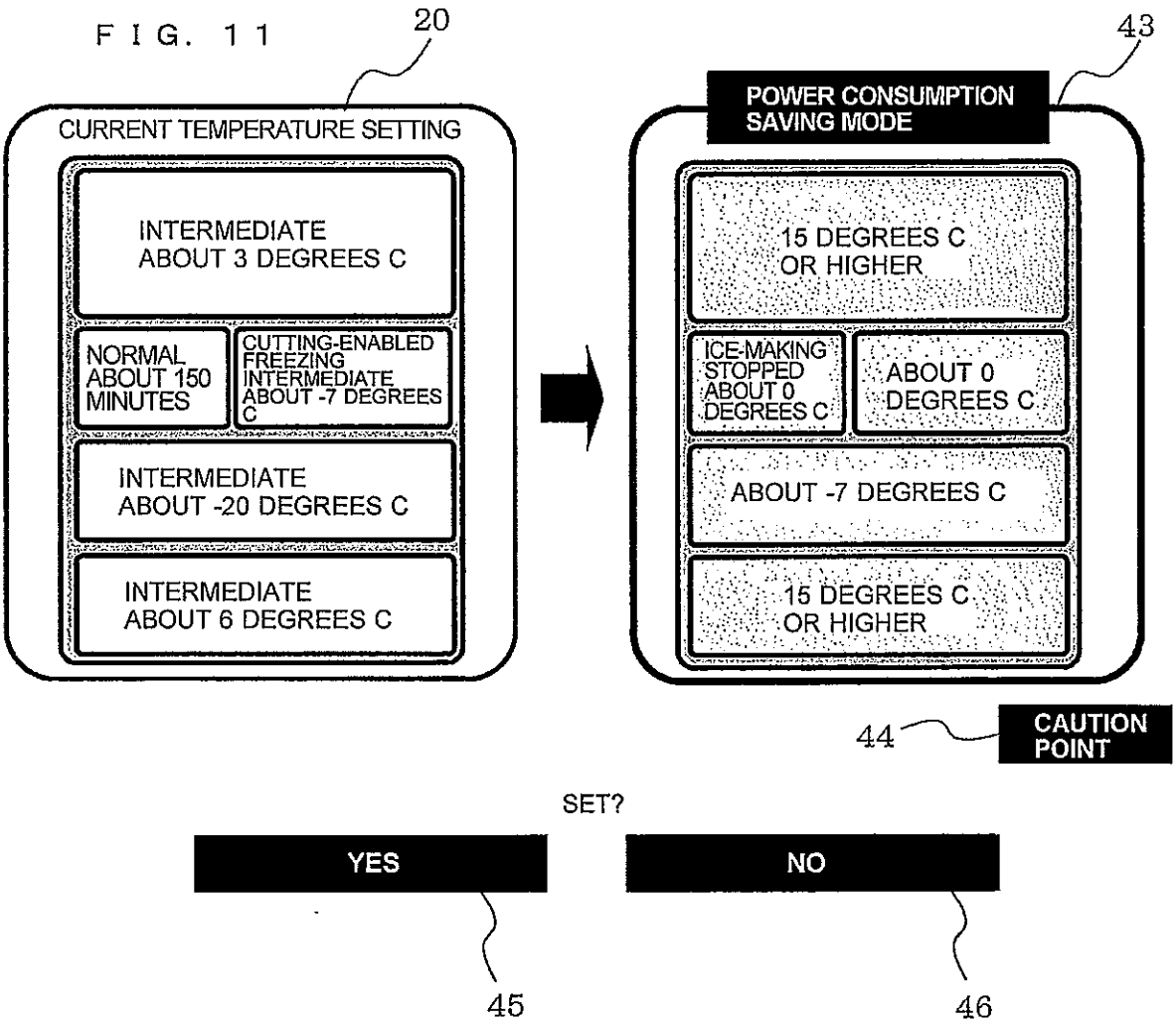

20
CURRENT TEMPERATURE SETTING
INTERMEDIATE ABOUT 3 DEGREES C
NORMAL ABOUT 150 MINUTES
CUTTING-ENABLED FREEZING INTERMEDIATE ABOUT -7 DEGREES C
INTERMEDIATE ABOUT -20 DEGREES C
INTERMEDIATE ABOUT 6 DEGREES C
43
POWER CONSUMPTION SAVING MODE
15 DEGREES C OR HIGHER
ICE-MAKING STOPPED ABOUT 0 DEGREES C
ABOUT 0 DEGREES C
ABOUT -7 DEGREES C
15 DEGREES C OR HIGHER
44
CAUTION POINT
SET?
YES
NO
45
46

FIG. 12

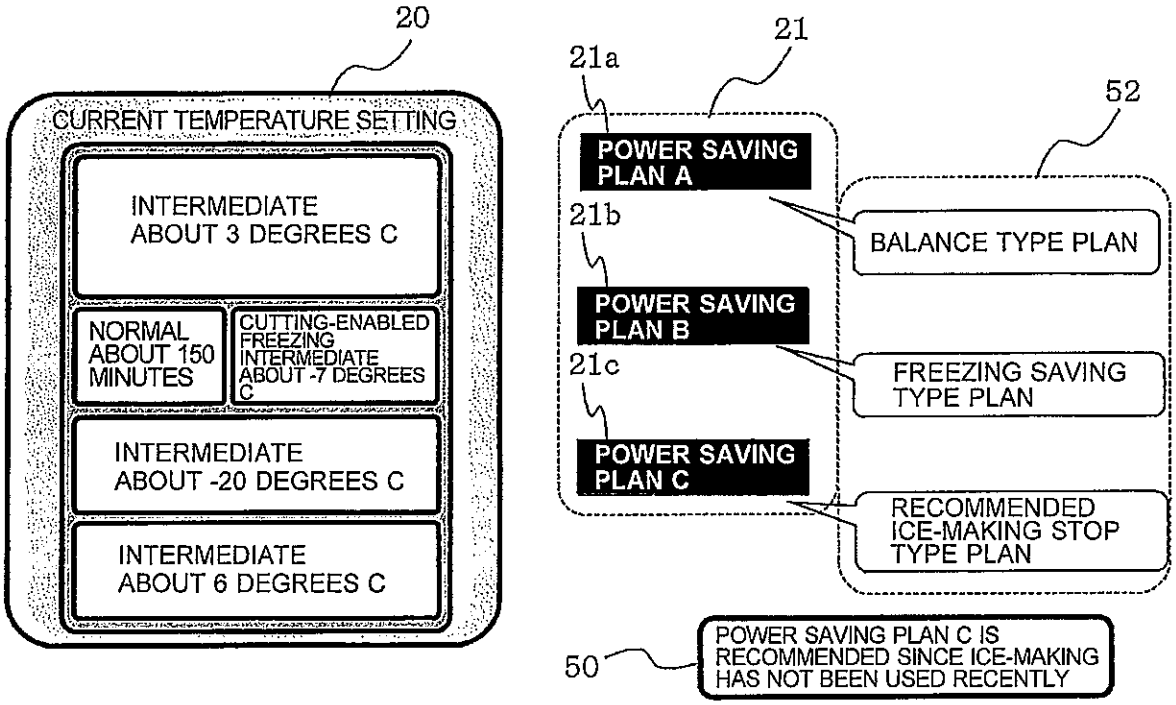
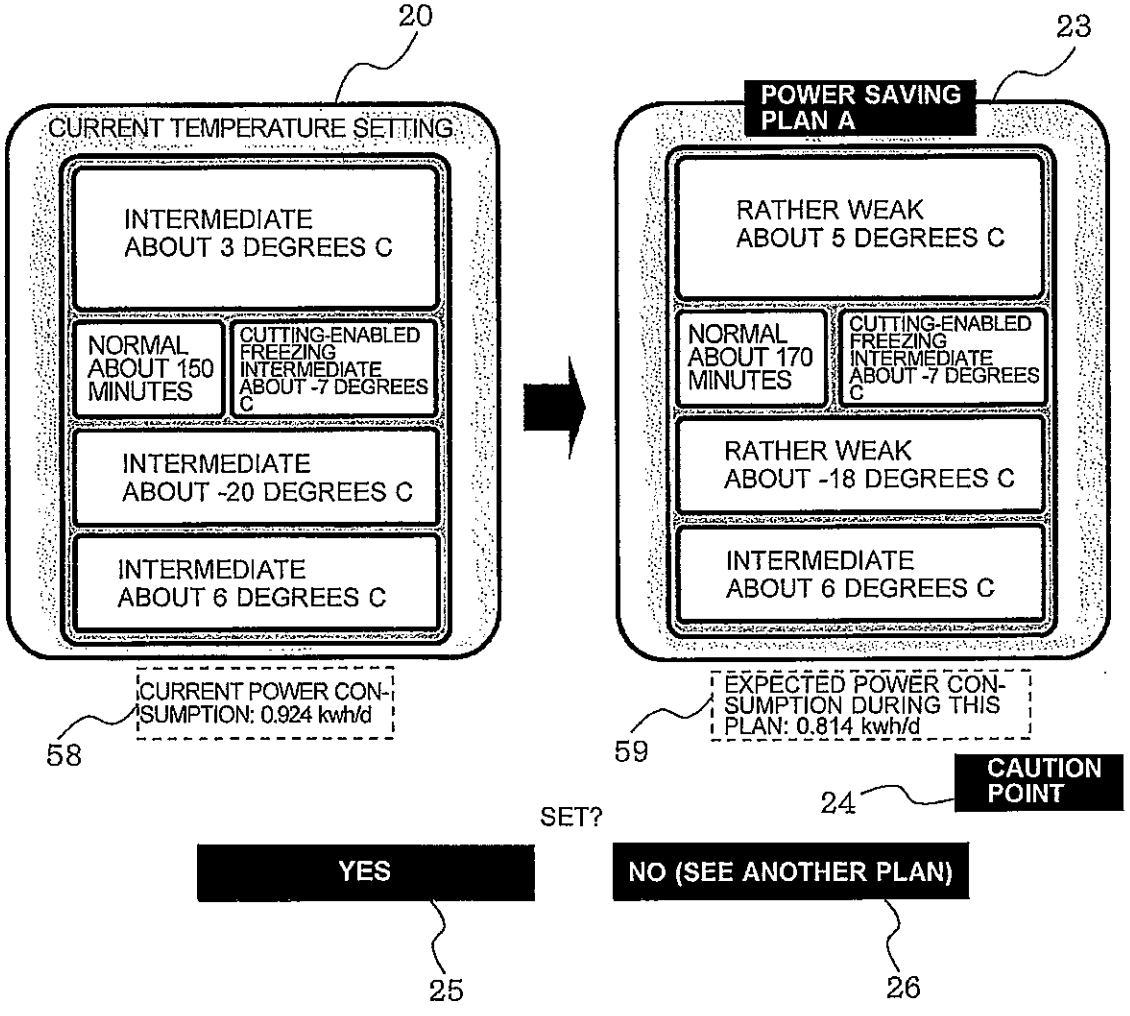

20
CURRENT TEMPERATURE SETTING
INTERMEDIATE
ABOUT 3 DEGREES C
NORMAL
ABOUT 150
MINUTES
CUTTING-ENABLED
FREEZING
INTERMEDIATE
ABOUT -7 DEGREES
C
INTERMEDIATE
ABOUT -20 DEGREES C
INTERMEDIATE
ABOUT 6 DEGREES C
21
21a
21b
21c
52
POWER SAVING
PLAN A
POWER SAVING
PLAN B
POWER SAVING
PLAN C
BALANCE TYPE PLAN
FREEZING SAVING
TYPE PLAN
RECOMMENDED
ICE-MAKING STOP
TYPE PLAN
50
POWER SAVING PLAN C IS
RECOMMENDED SINCE ICE-MAKING
HAS NOT BEEN USED RECENTLY

FIG. 13


20
CURRENT TEMPERATURE SETTING
INTERMEDIATE
ABOUT 3 DEGREES C
NORMAL
ABOUT 150
MINUTES
CUTTING-ENABLED
FREEZING
INTERMEDIATE
ABOUT -7 DEGREES
C
INTERMEDIATE
ABOUT -20 DEGREES C
INTERMEDIATE
ABOUT 6 DEGREES C
CURRENT POWER CON-
SUMPTION: 0.924 kwh/d
58
23
POWER SAVING
PLAN A
RATHER WEAK
ABOUT 5 DEGREES C
NORMAL
ABOUT 170
MINUTES
CUTTING-ENABLED
FREEZING
INTERMEDIATE
ABOUT -7 DEGREES
C
RATHER WEAK
ABOUT -18 DEGREES C
INTERMEDIATE
ABOUT 6 DEGREES C
EXPECTED POWER CON-
SUMPTION DURING THIS
PLAN: 0.814 kwh/d
59
CAUTION
POINT
24
SET?
YES
NO (SEE ANOTHER PLAN)
25
26