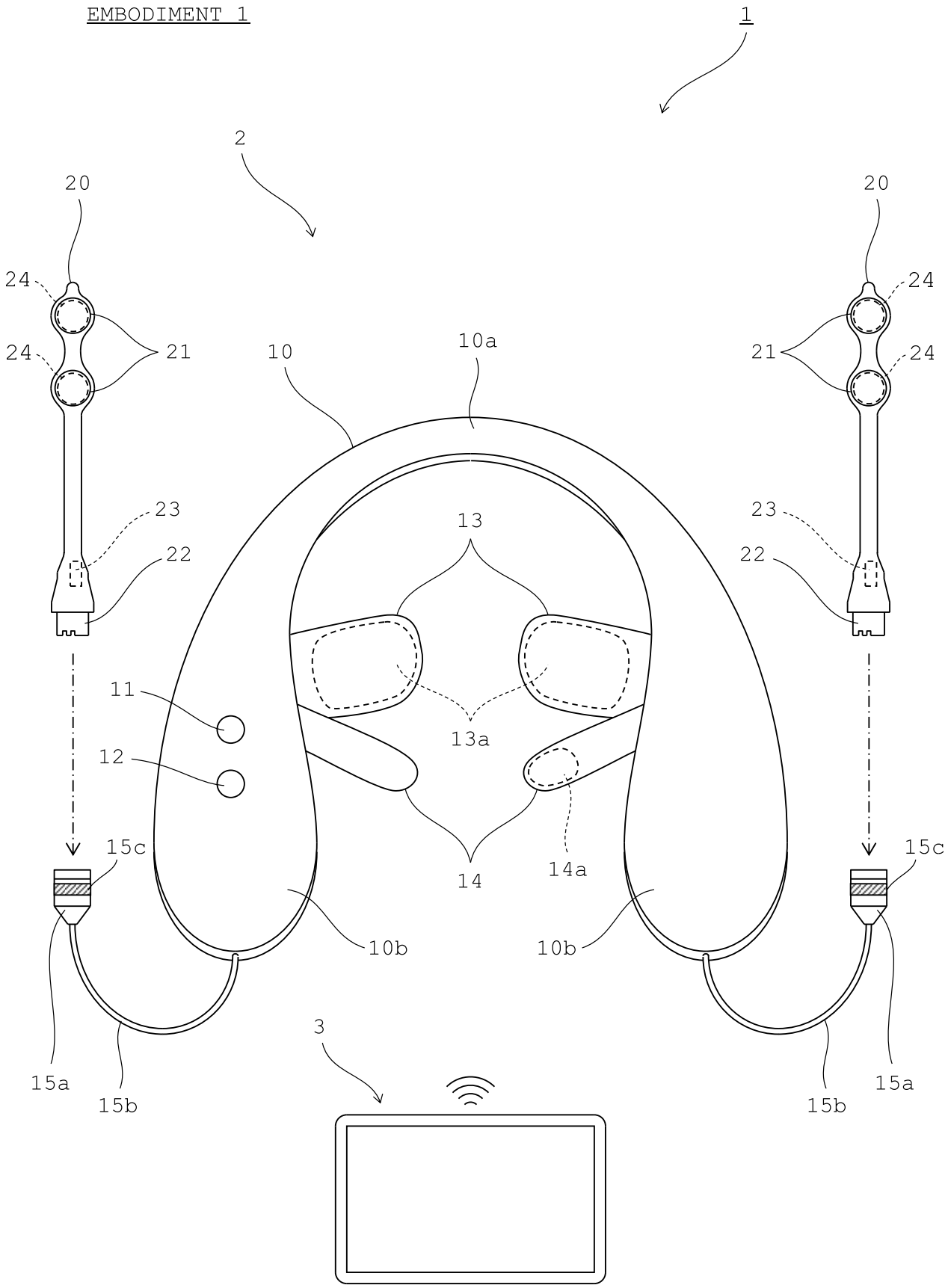
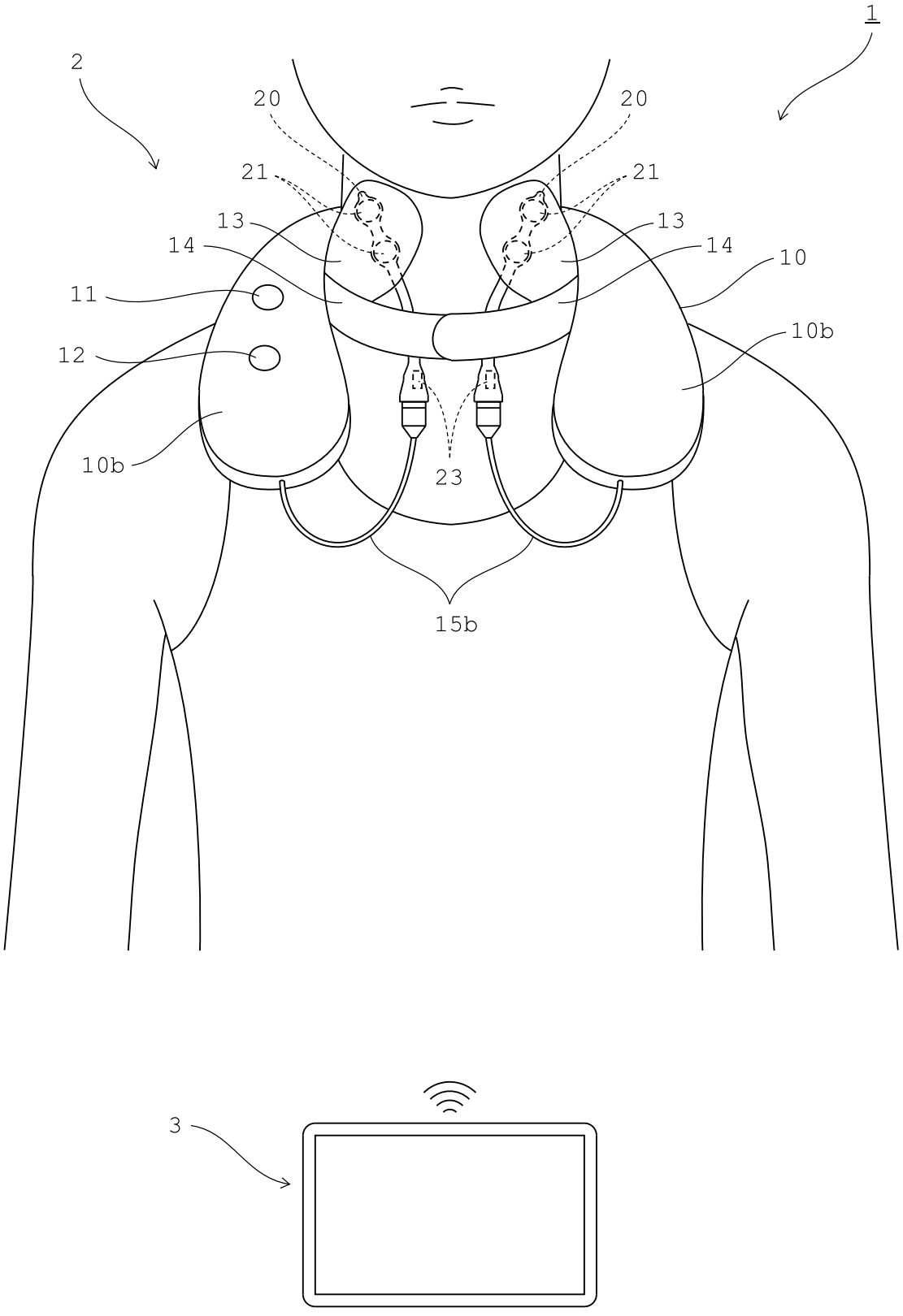
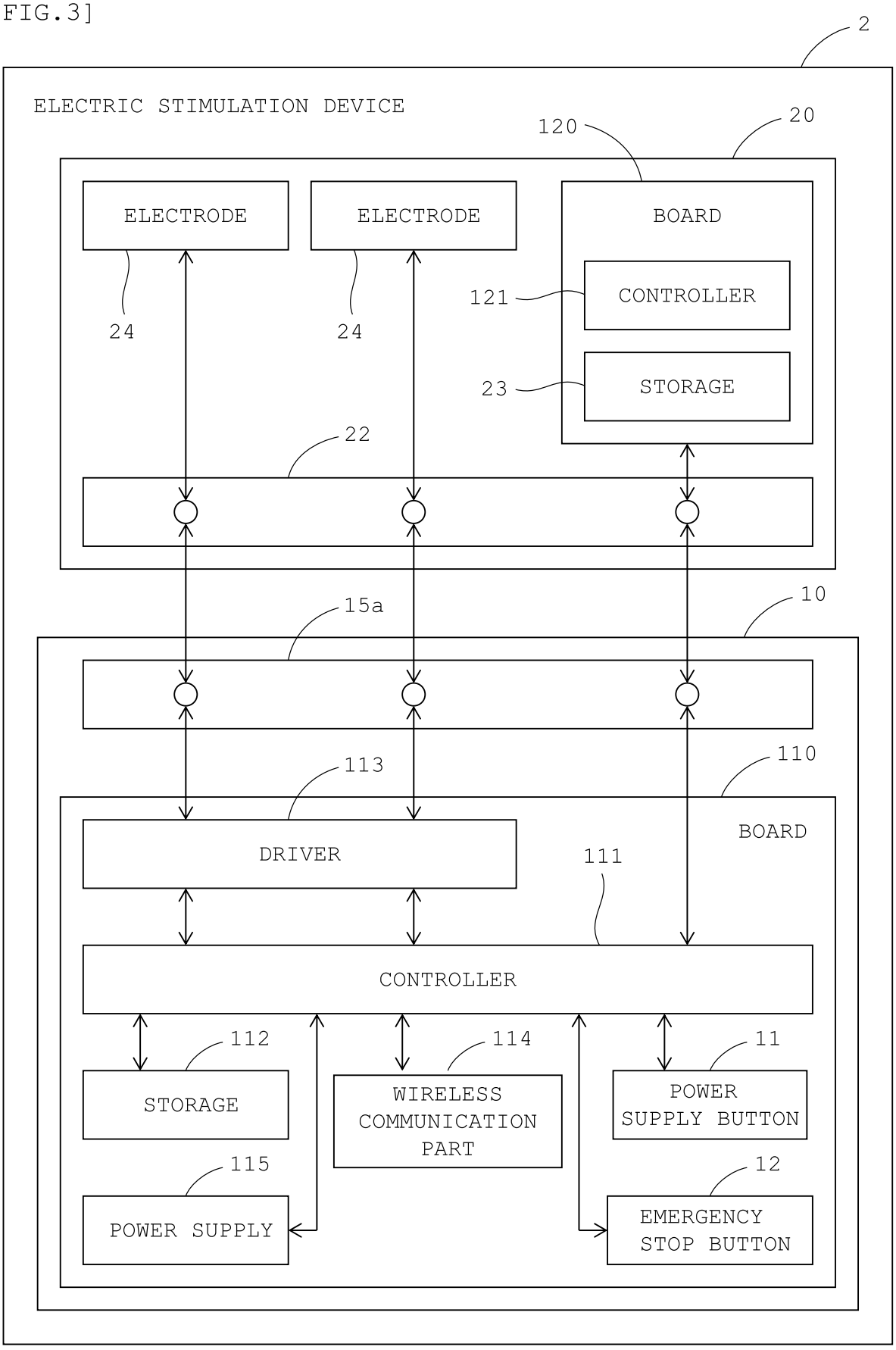
[FIG.1]


EMBODIMENT 1
1
2
20
20
24
24
24
24
21
21
10
10a
23
23
22
22
13
11
12
13a
14
14a
15c
15c
10b
10b
3
15a
15b
15b
15a

[FIG.2]



[FIG.3]


2
ELECTRIC STIMULATION DEVICE
120
20
ELECTRODE
ELECTRODE
BOARD
121
CONTROLLER
24
24
23
STORAGE
22
15a
10
113
110
BOARD
DRIVER
111
CONTROLLER
112
114
11
STORAGE
WIRELESS COMMUNICATION PART
POWER SUPPLY BUTTON
115
12
POWER SUPPLY
EMERGENCY STOP BUTTON

[FIG.4]

(a)

<USE INFORMATION>

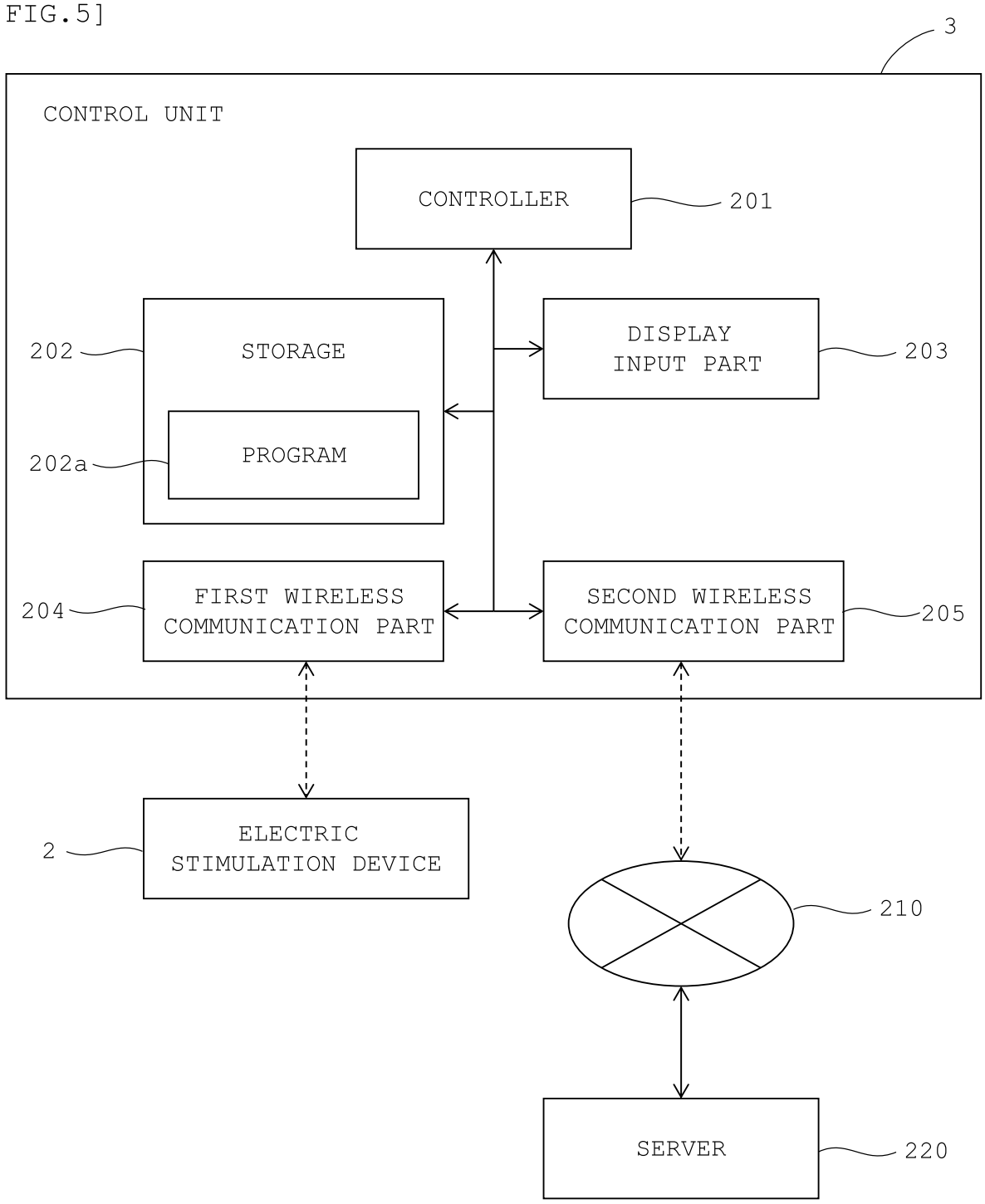
NUMBER OF TIMES	START DAY AND TIME	END DAY AND TIME	USE TIME PERIOD	CUMULATIVE USE TIME PERIOD
1	2019.05.08 11:05	2019.05.08 11:35	0:30	0:30
2	2019.05.09 10:25	2019.05.09 11:00	0:35	1:05
3	2019.05.09 15:40	2019.05.09 16:12	0:32	1:37
⋮	⋮	⋮	⋮	⋮

(b)

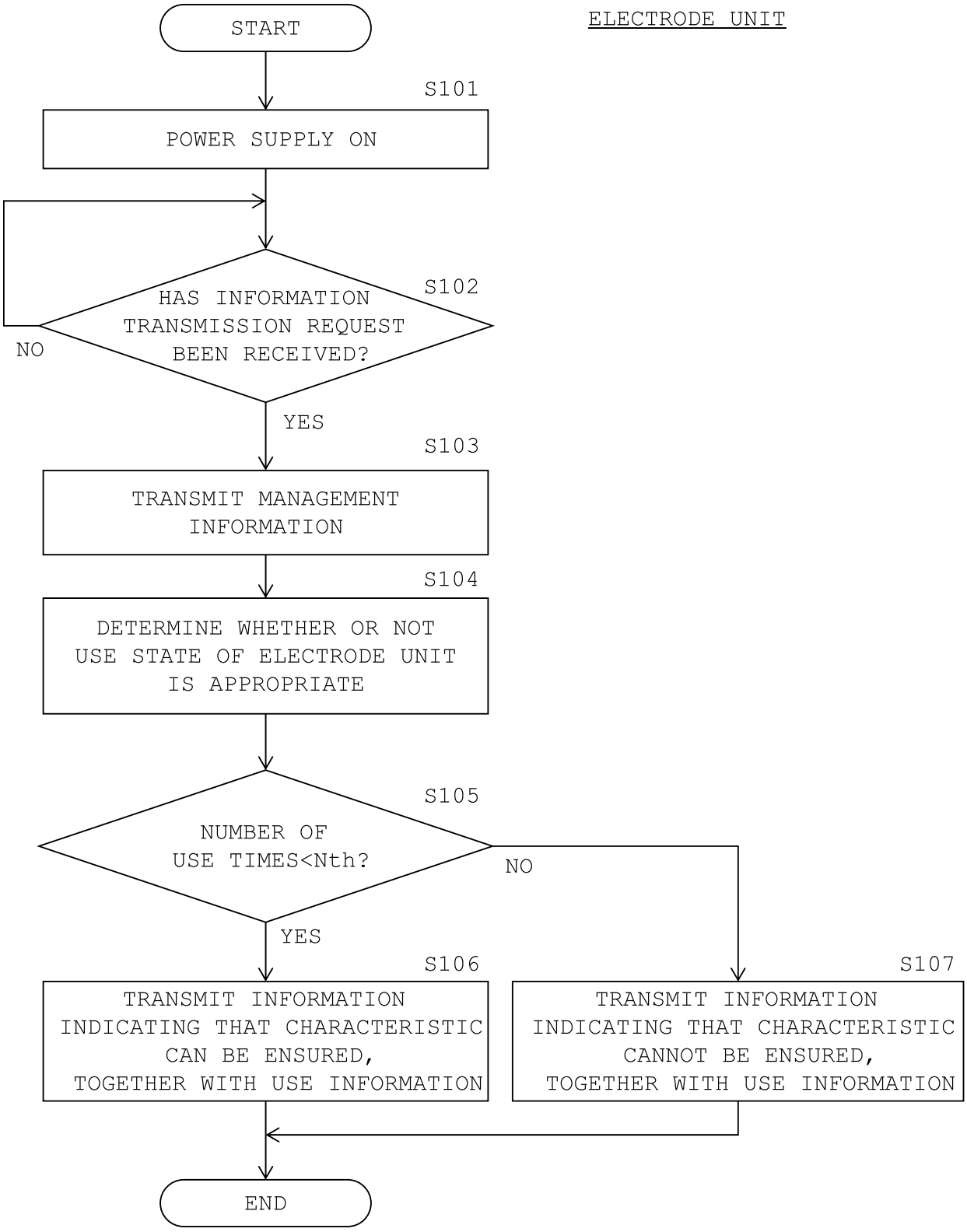
<CONFIRMATION INFORMATION>

SERIAL NUMBER	ENCRYPTION KEY
**********	AAAAAAA

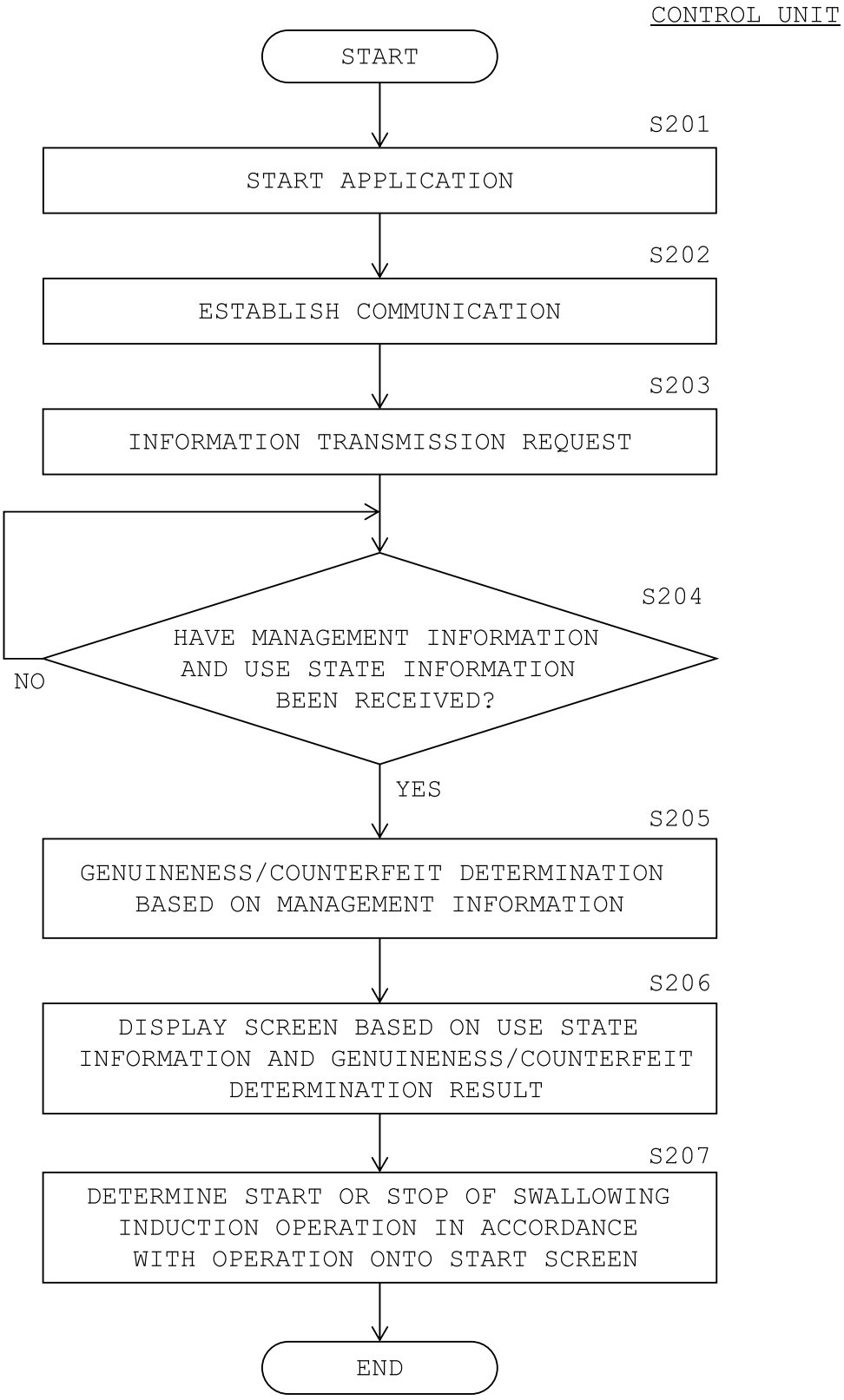
[FIG.5]


3
CONTROL UNIT
CONTROLLER
201
202
STORAGE
202a
PROGRAM
DISPLAY
INPUT PART
203
204
FIRST WIRELESS
COMMUNICATION PART
SECOND WIRELESS
COMMUNICATION PART
205
2
ELECTRIC
STIMULATION DEVICE
210
SERVER
220

[FIG.6]

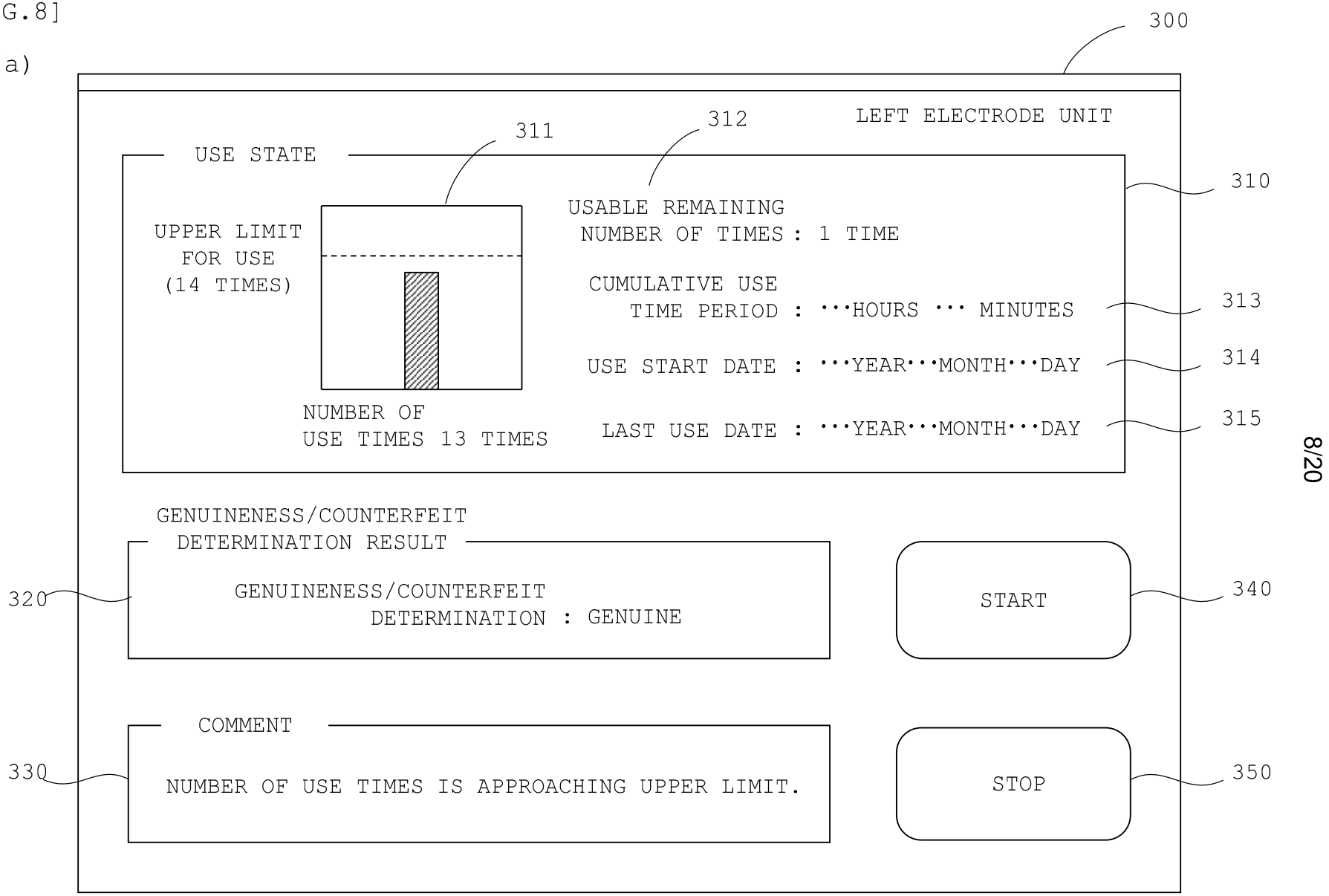

ELECTRODE UNIT
START
S101
POWER SUPPLY ON
S102
HAS INFORMATION TRANSMISSION REQUEST BEEN RECEIVED?
NO
YES
S103
TRANSMIT MANAGEMENT INFORMATION
S104
DETERMINE WHETHER OR NOT USE STATE OF ELECTRODE UNIT IS APPROPRIATE
S105
NUMBER OF USE TIMES<Nth?
NO
YES
S106
TRANSMIT INFORMATION INDICATING THAT CHARACTERISTIC CAN BE ENSURED, TOGETHER WITH USE INFORMATION
S107
TRANSMIT INFORMATION INDICATING THAT CHARACTERISTIC CANNOT BE ENSURED, TOGETHER WITH USE INFORMATION
END

[FIG.7]


CONTROL UNIT
START
S201
START APPLICATION
S202
ESTABLISH COMMUNICATION
S203
INFORMATION TRANSMISSION REQUEST
S204
HAVE MANAGEMENT INFORMATION AND USE STATE INFORMATION BEEN RECEIVED?
NO
YES
S205
GENUINENESS/COUNTERFEIT DETERMINATION BASED ON MANAGEMENT INFORMATION
S206
DISPLAY SCREEN BASED ON USE STATE INFORMATION AND GENUINENESS/COUNTERFEIT DETERMINATION RESULT
S207
DETERMINE START OR STOP OF SWALLOWING INDUCTION OPERATION IN ACCORDANCE WITH OPERATION ONTO START SCREEN
END

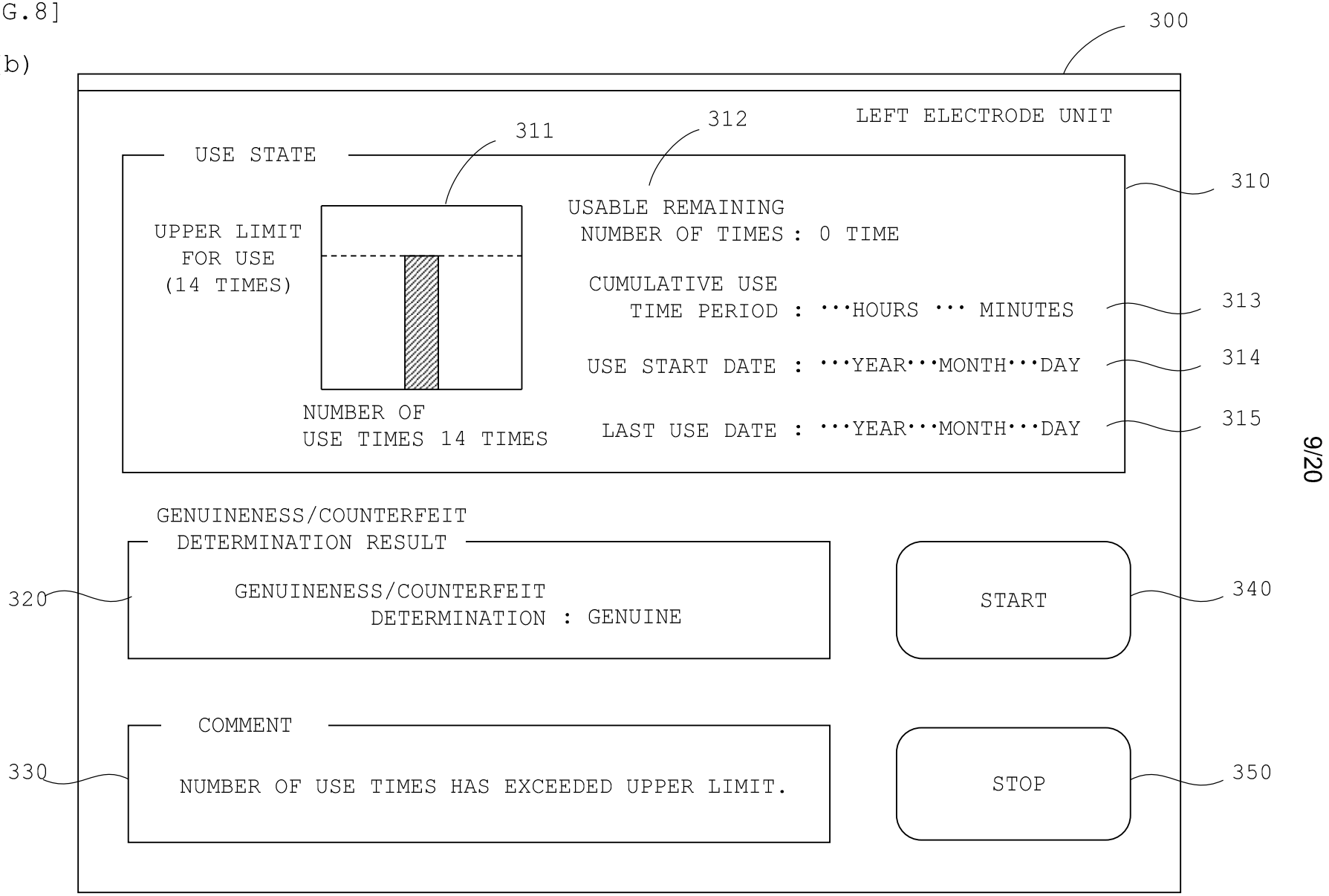
[FIG.8]

(a)


300
LEFT ELECTRODE UNIT
311
312
USE STATE
310
UPPER LIMIT
FOR USE
(14 TIMES)
USABLE REMAINING
NUMBER OF TIMES : 1 TIME
CUMULATIVE USE
TIME PERIOD : ···HOURS ··· MINUTES
313
USE START DATE : ···YEAR···MONTH···DAY
314
LAST USE DATE : ···YEAR···MONTH···DAY
315
NUMBER OF
USE TIMES 13 TIMES
GENUINENESS/COUNTERFEIT
DETERMINATION RESULT
320
GENUINENESS/COUNTERFEIT
DETERMINATION : GENUINE
START
340
COMMENT
330
NUMBER OF USE TIMES IS APPROACHING UPPER LIMIT.
STOP
350

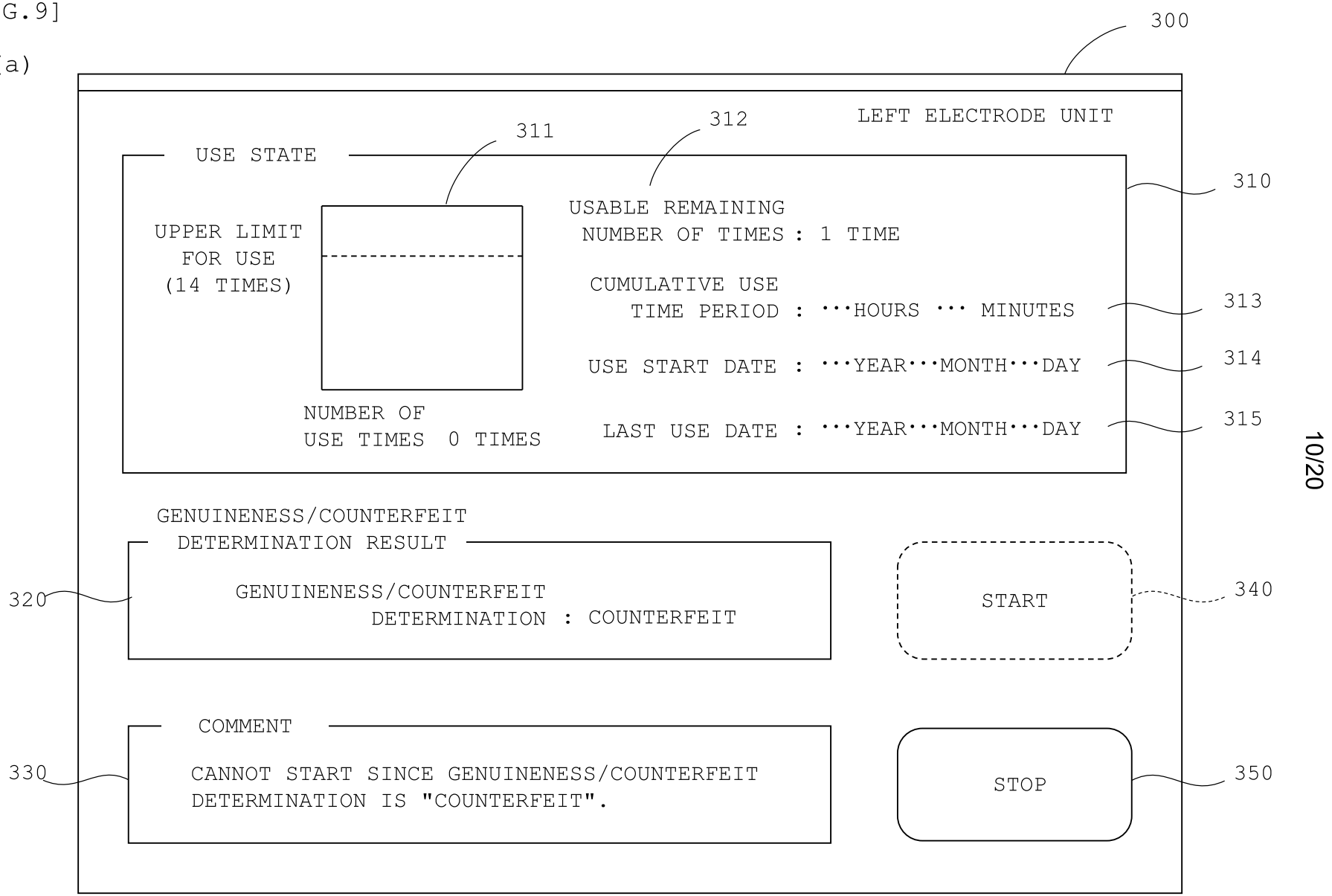
[FIG.8]

(b)


300
LEFT ELECTRODE UNIT
311
312
USE STATE
310
UPPER LIMIT
FOR USE
(14 TIMES)
USABLE REMAINING
NUMBER OF TIMES : 0 TIME
CUMULATIVE USE
TIME PERIOD : ···HOURS ··· MINUTES
313
USE START DATE : ···YEAR···MONTH···DAY
314
LAST USE DATE : ···YEAR···MONTH···DAY
315
NUMBER OF
USE TIMES 14 TIMES
GENUINENESS/COUNTERFEIT
DETERMINATION RESULT
320
GENUINENESS/COUNTERFEIT
DETERMINATION : GENUINE
START
340
COMMENT
330
NUMBER OF USE TIMES HAS EXCEEDED UPPER LIMIT.
STOP
350

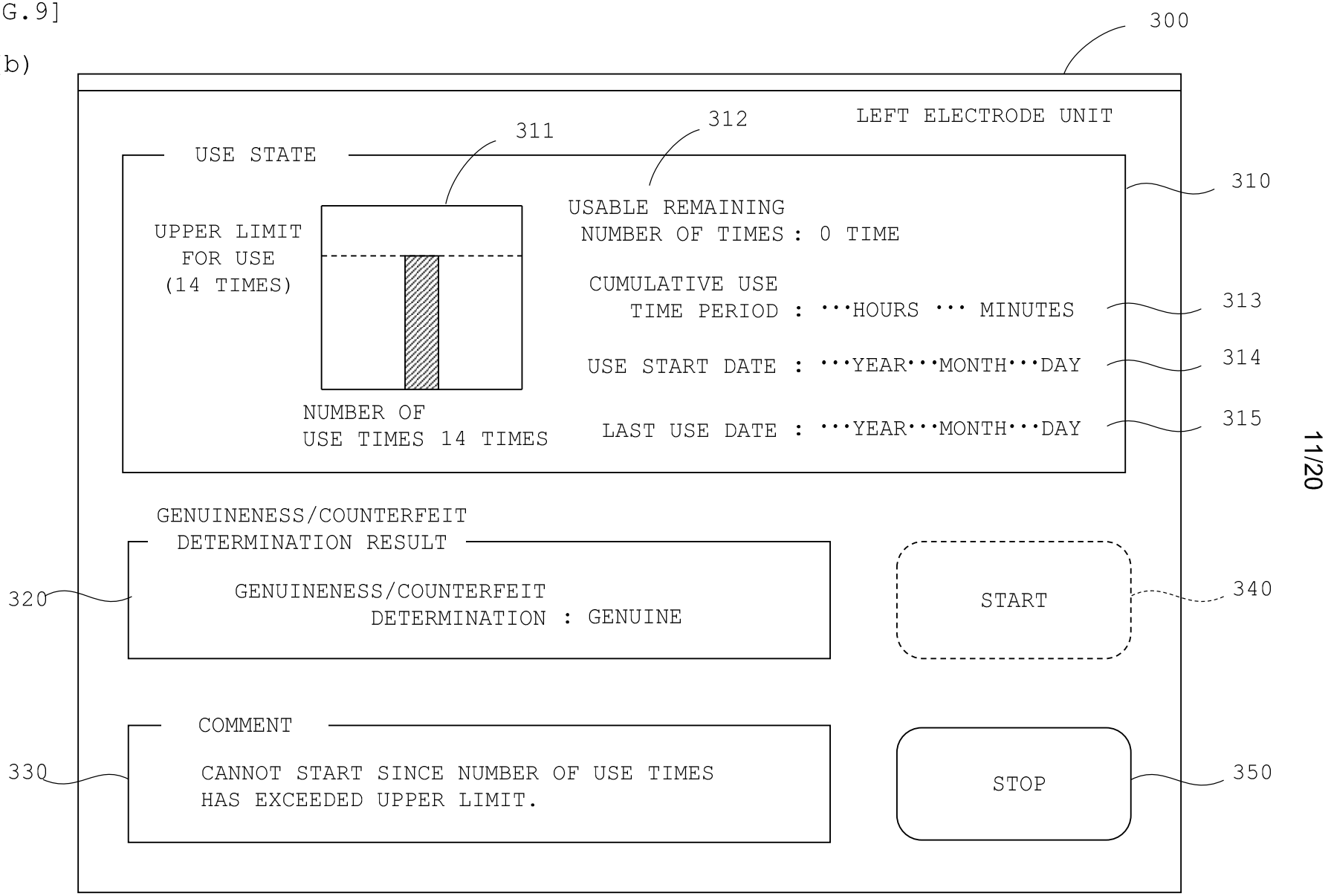
[FIG.9]

(a)

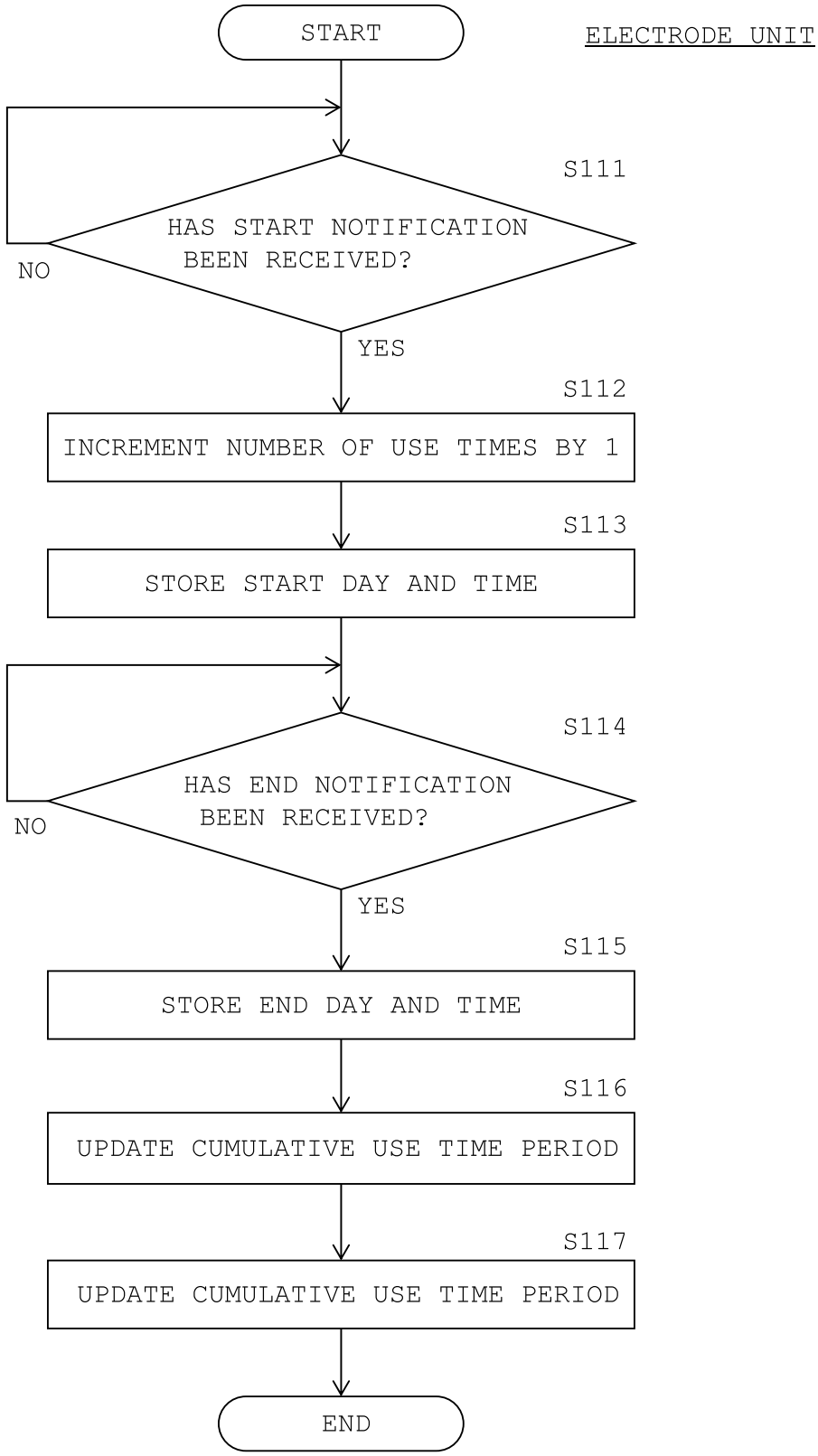

300
LEFT ELECTRODE UNIT
311
312
USE STATE
310
UPPER LIMIT
FOR USE
(14 TIMES)
USABLE REMAINING
NUMBER OF TIMES : 1 TIME
CUMULATIVE USE
TIME PERIOD : ···HOURS ··· MINUTES
313
USE START DATE : ···YEAR···MONTH···DAY
314
NUMBER OF
USE TIMES 0 TIMES
LAST USE DATE : ···YEAR···MONTH···DAY
315
GENUINENESS/COUNTERFEIT
DETERMINATION RESULT
320
GENUINENESS/COUNTERFEIT
DETERMINATION : COUNTERFEIT
START
340
COMMENT
330
CANNOT START SINCE GENUINENESS/COUNTERFEIT
DETERMINATION IS "COUNTERFEIT".
STOP
350

[FIG.9]

(b)

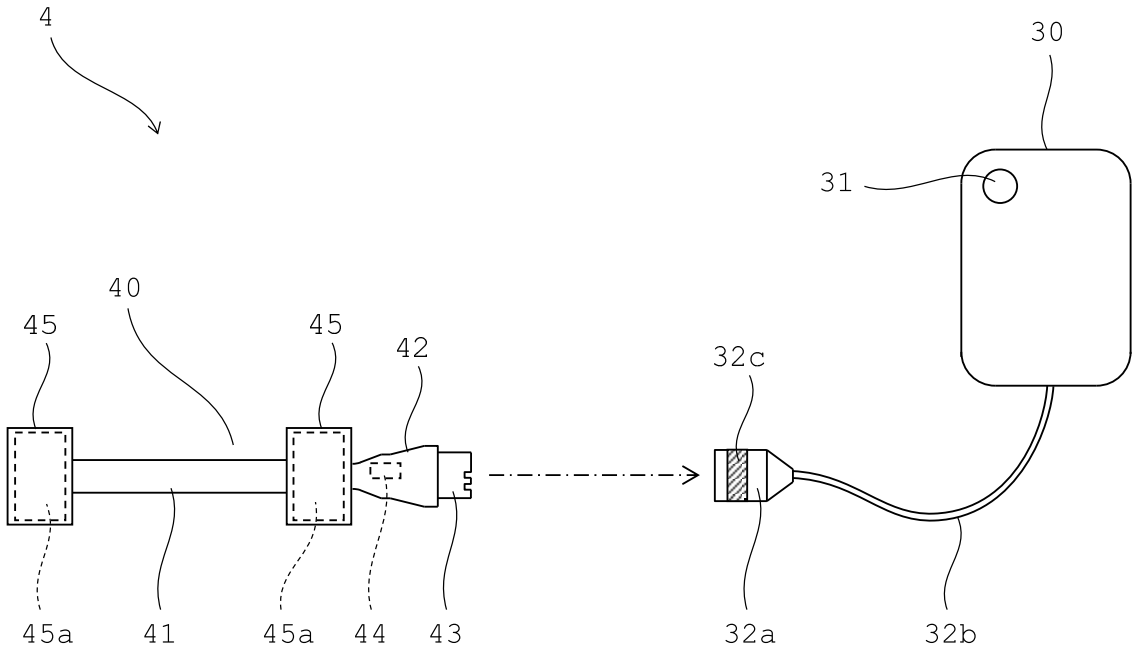

300
LEFT ELECTRODE UNIT
311
312
USE STATE
310
UPPER LIMIT
FOR USE
(14 TIMES)
USABLE REMAINING
NUMBER OF TIMES : 0 TIME
CUMULATIVE USE
TIME PERIOD : ···HOURS ··· MINUTES
313
USE START DATE : ···YEAR···MONTH···DAY
314
LAST USE DATE : ···YEAR···MONTH···DAY
315
NUMBER OF
USE TIMES 14 TIMES
GENUINENESS/COUNTERFEIT
DETERMINATION RESULT
320
GENUINENESS/COUNTERFEIT
DETERMINATION : GENUINE
START
340
COMMENT
330
CANNOT START SINCE NUMBER OF USE TIMES
HAS EXCEEDED UPPER LIMIT.
STOP
350

[FIG.10]

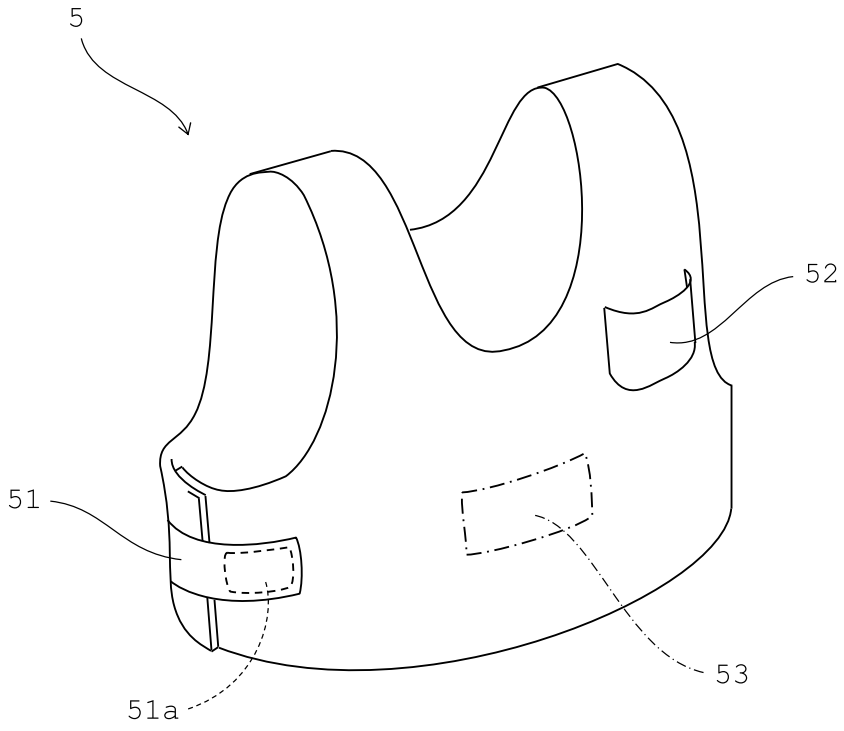

START
ELECTRODE UNIT
S111
HAS START NOTIFICATION BEEN RECEIVED?
NO
YES
S112
INCREMENT NUMBER OF USE TIMES BY 1
S113
STORE START DAY AND TIME
S114
HAS END NOTIFICATION BEEN RECEIVED?
NO
YES
S115
STORE END DAY AND TIME
S116
UPDATE CUMULATIVE USE TIME PERIOD
S117
UPDATE CUMULATIVE USE TIME PERIOD
END

[FIG.11]

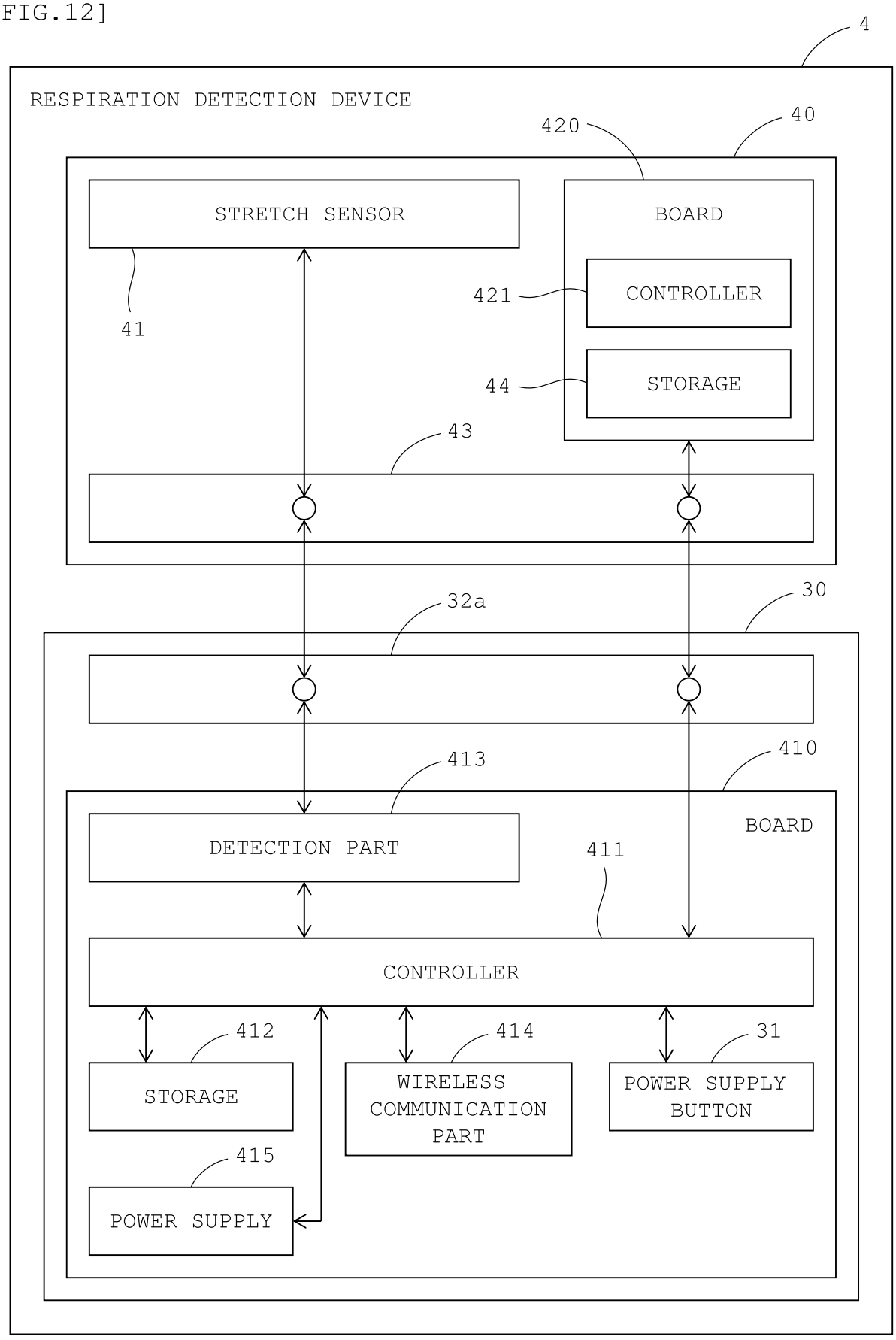
(a) EMBODIMENT 2



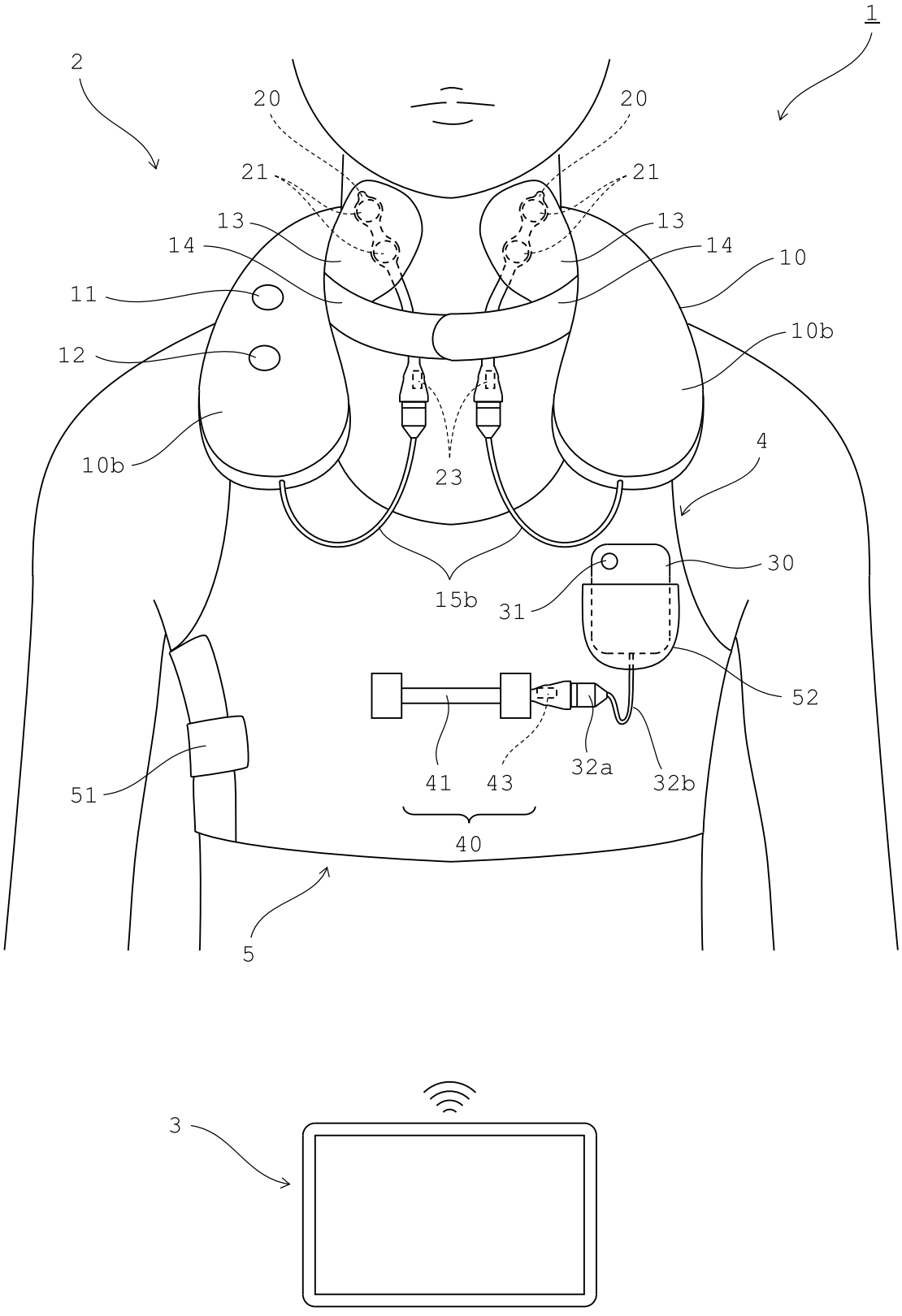
(b)



[FIG.12]

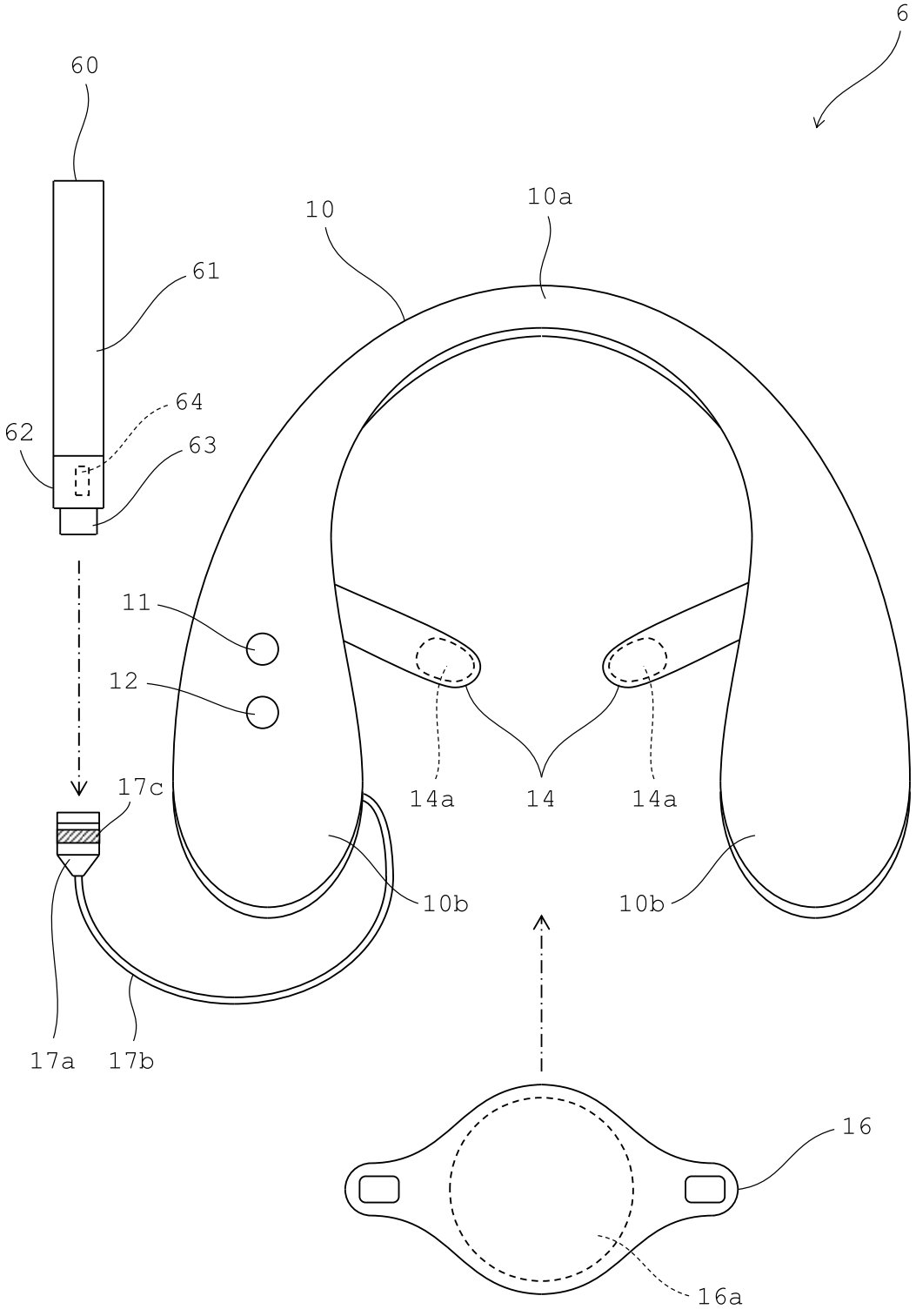

4
RESPIRATION DETECTION DEVICE
420
40
STRETCH SENSOR
BOARD
41
421
CONTROLLER
44
STORAGE
43
32a
30
413
410
BOARD
DETECTION PART
411
CONTROLLER
412
414
31
STORAGE
WIRELESS COMMUNICATION PART
POWER SUPPLY BUTTON
415
POWER SUPPLY

[FIG.13]

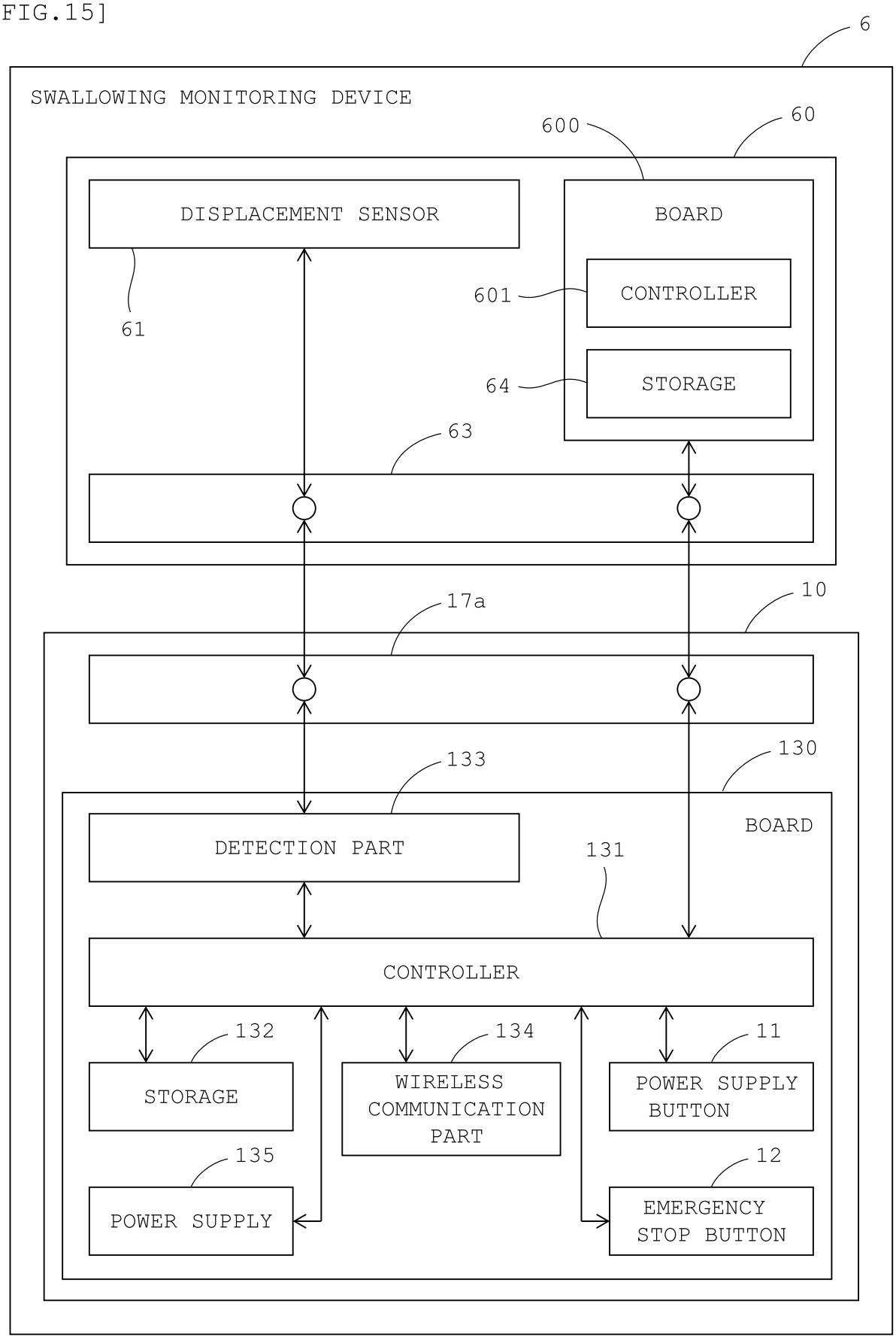

1
2
20
20
21
21
13
13
14
14
10
11
12
10b
10b
23
4
30
15b
31
52
51
41
43
32a
32b
40
5
3

[FIG.14]

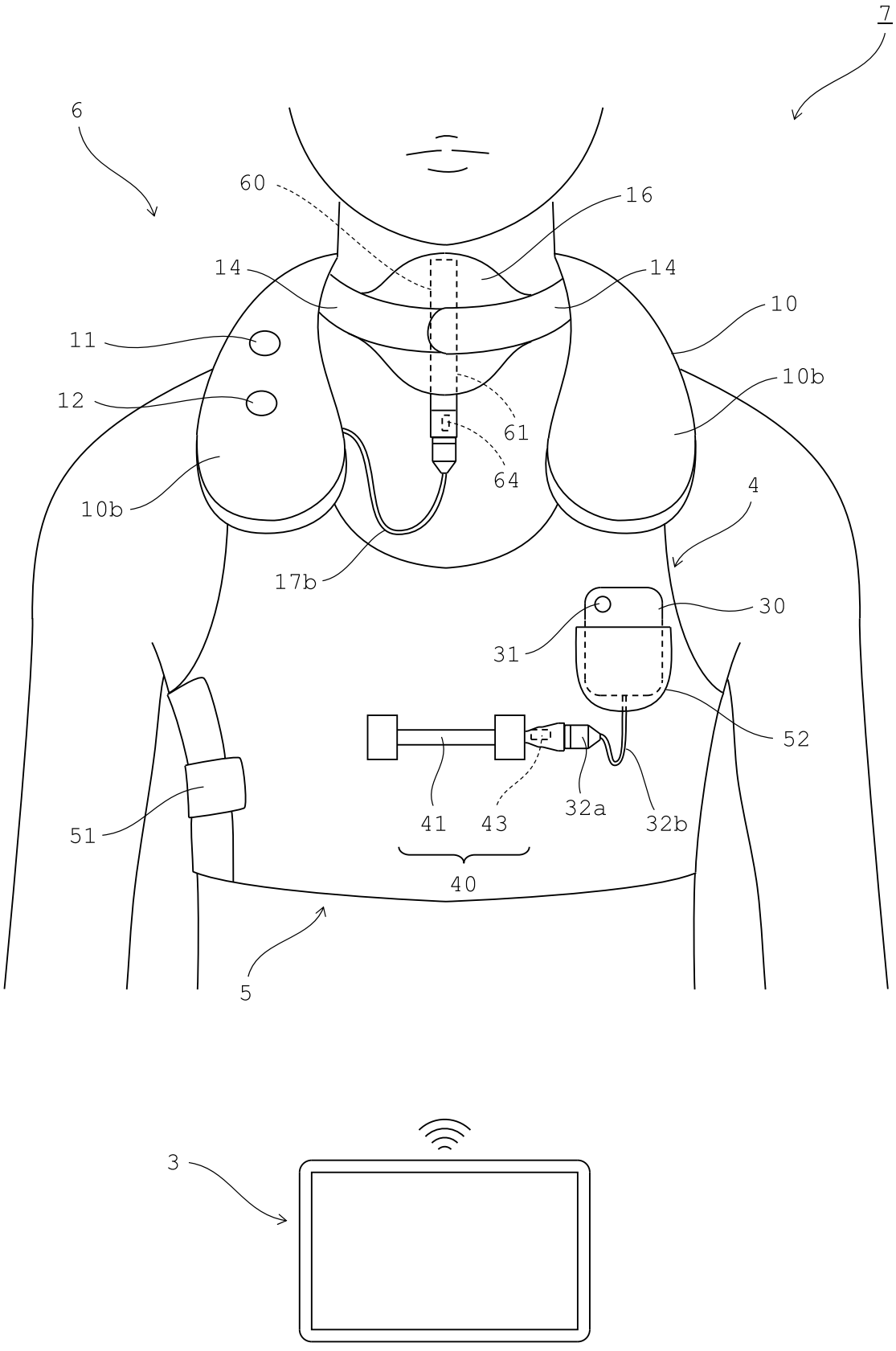
EMBODIMENT 3



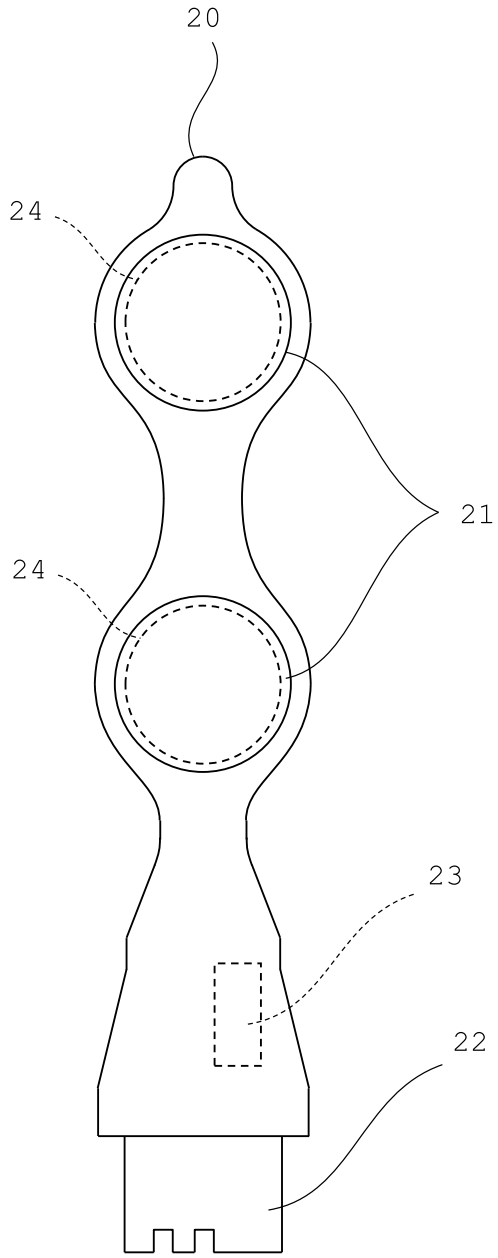
[FIG.15]


6
SWALLOWING MONITORING DEVICE
600
60
DISPLACEMENT SENSOR
BOARD
61
601
CONTROLLER
64
STORAGE
63
17a
10
133
130
BOARD
DETECTION PART
131
CONTROLLER
132
134
11
STORAGE
WIRELESS COMMUNICATION PART
POWER SUPPLY BUTTON
135
12
POWER SUPPLY
EMERGENCY STOP BUTTON

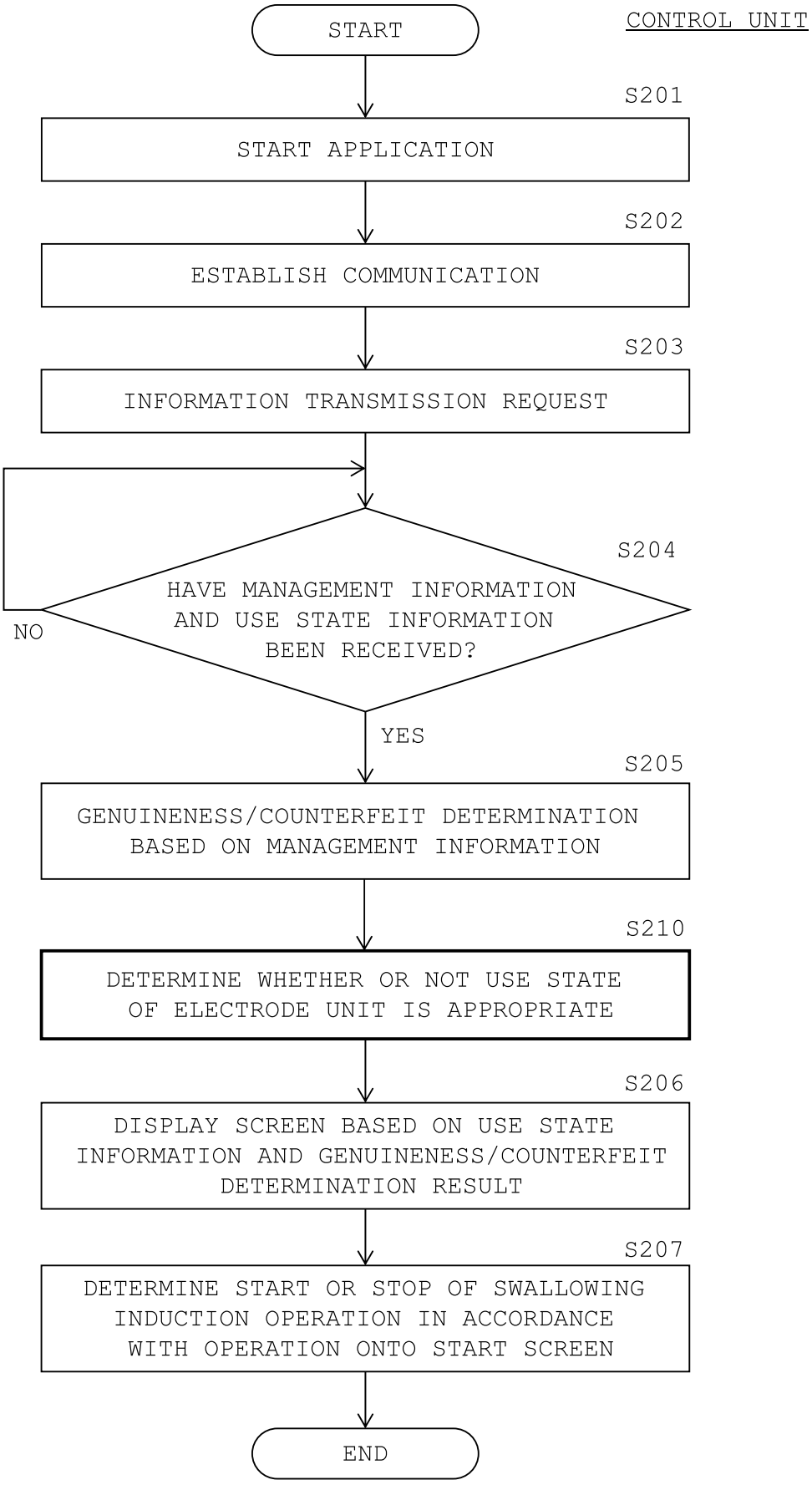
[FIG.16]


7
6
60
16
14
14
10
11
10b
12
61
64
10b
4
17b
30
31
52
51
41
43
32a
32b
40
5
3

[FIG.17]



[FIG.18]


CONTROL UNIT
START
S201
START APPLICATION
S202
ESTABLISH COMMUNICATION
S203
INFORMATION TRANSMISSION REQUEST
S204
HAVE MANAGEMENT INFORMATION AND USE STATE INFORMATION BEEN RECEIVED?
NO
YES
S205
GENUINENESS/COUNTERFEIT DETERMINATION BASED ON MANAGEMENT INFORMATION
S210
DETERMINE WHETHER OR NOT USE STATE OF ELECTRODE UNIT IS APPROPRIATE
S206
DISPLAY SCREEN BASED ON USE STATE INFORMATION AND GENUINENESS/COUNTERFEIT DETERMINATION RESULT
S207
DETERMINE START OR STOP OF SWALLOWING INDUCTION OPERATION IN ACCORDANCE WITH OPERATION ONTO START SCREEN
END