

FIG. 1

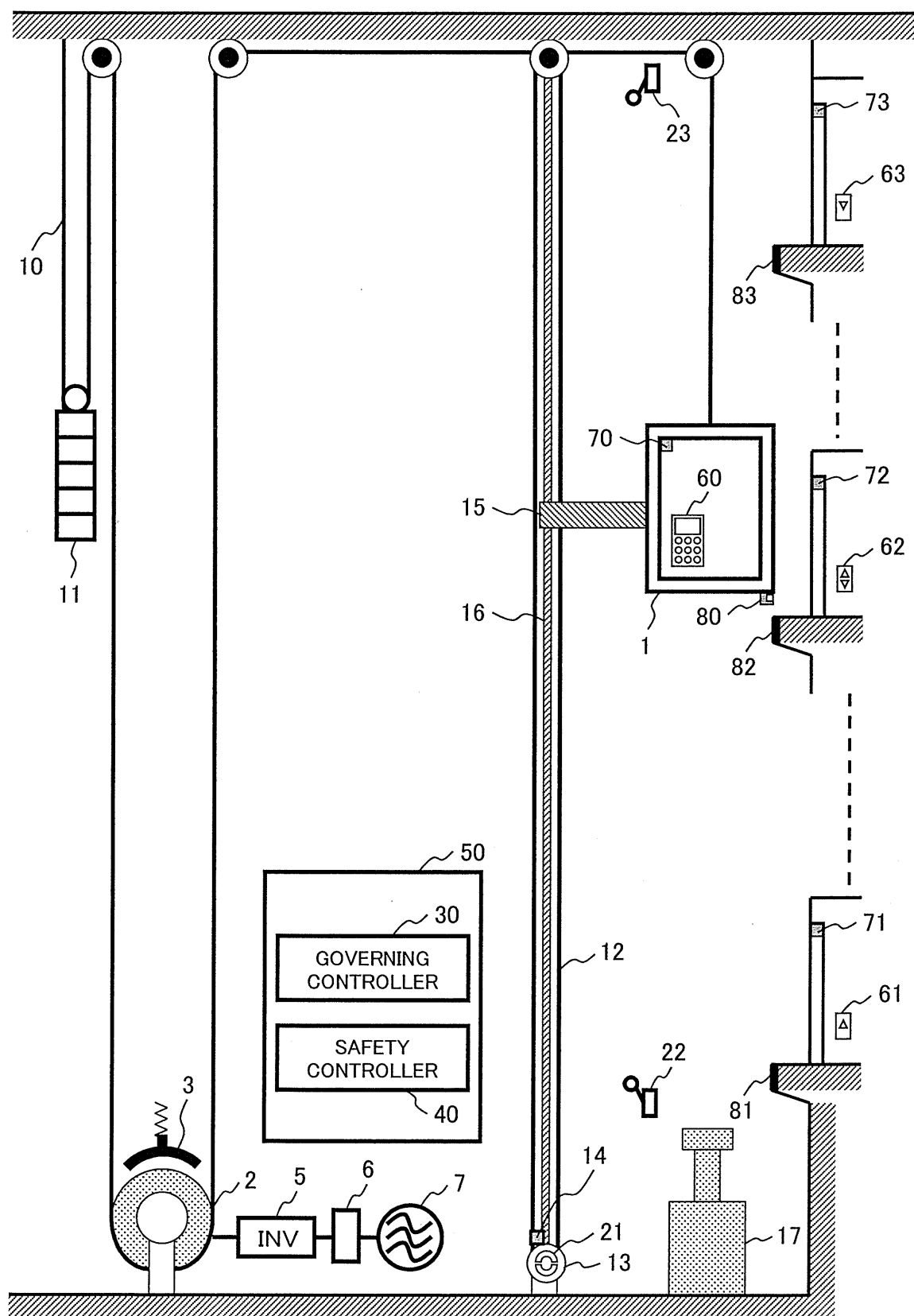


FIG. 2A

POSITION DETECTION SENSOR

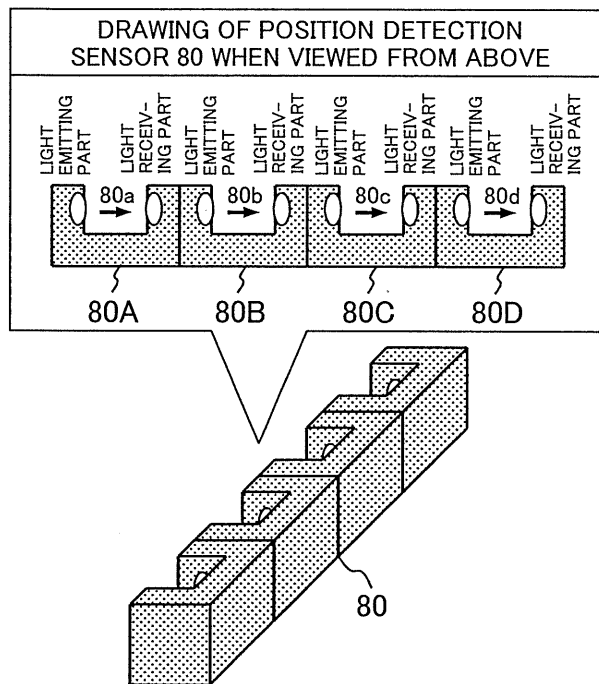


FIG. 2B

TO-BE-DETECTED OBJECT 81

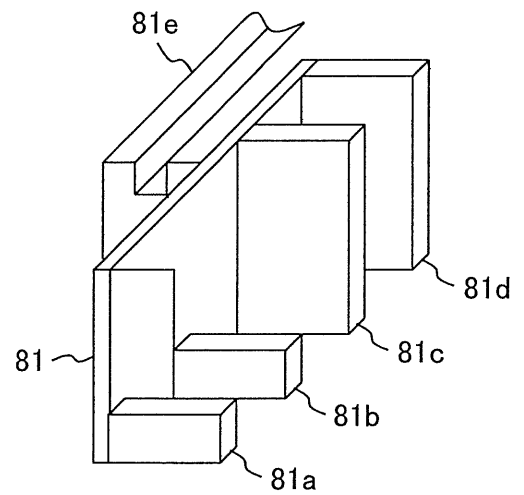


FIG. 2C

TO-BE-DETECTED OBJECT 82

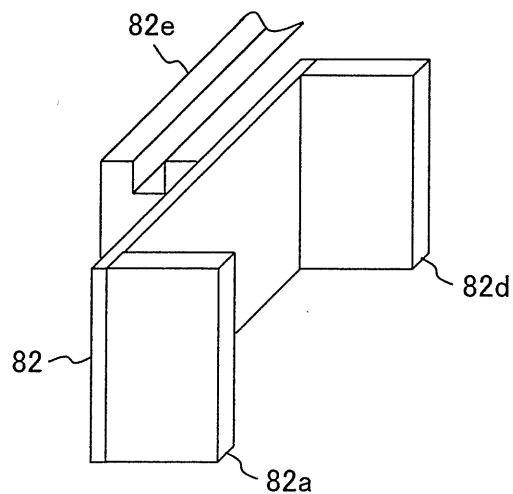


FIG. 2D

TO-BE-DETECTED OBJECT 83

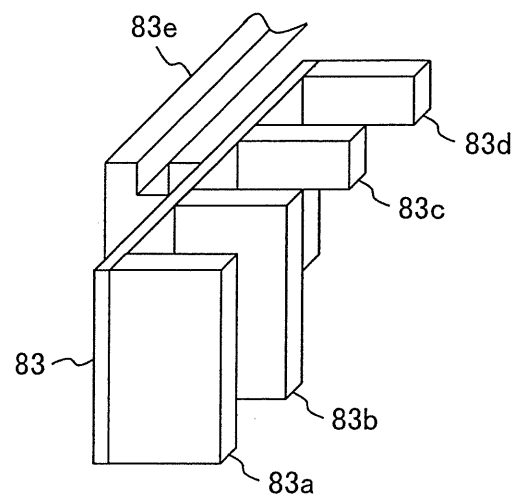


FIG. 3

POSITION OF TO-BE-DETECTED OBJECT	RELATIONSHIP BETWEEN SENSOR UNITS IN POSITION DETECTION SENSOR AND TO-BE-DETECTED UNITS IN TO-BE-DETECTED OBJECT				OUTPUT OF POSITION DETECTION SENSOR (PARTICULAR COMBINATION PATTERN FOR EACH FLOOR)			
	80A 	80B 	80C 	80D 	80A	80B	80C	80D
UPPER END FLOOR					1	1	1	1
FIFTH FLOOR					1	1	0	0
FOURTH FLOOR					1	0	1	0
THIRD FLOOR					1	0	0	1
SECOND FLOOR					0	1	0	1
FIRST FLOOR					0	0	1	1
LOWER END FLOOR					1	1	1	1

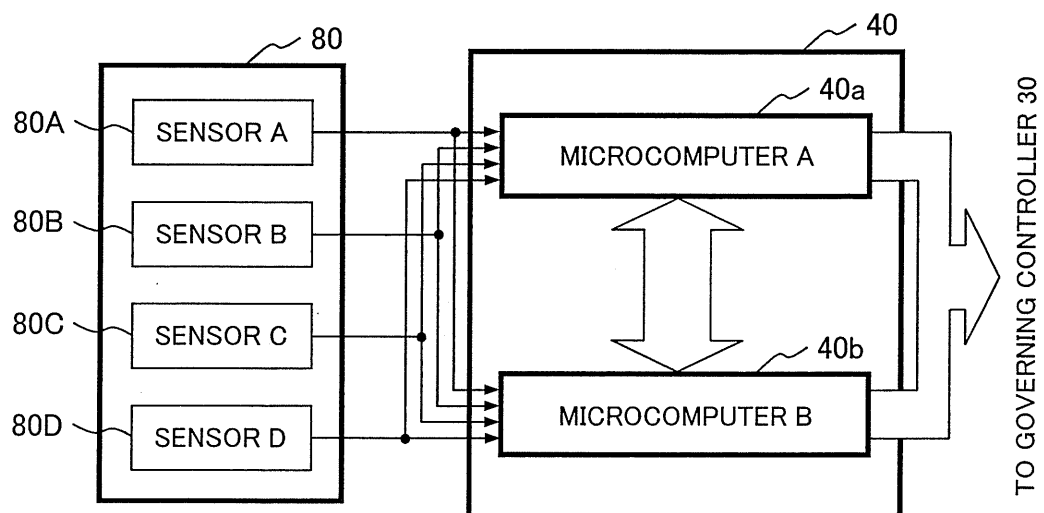
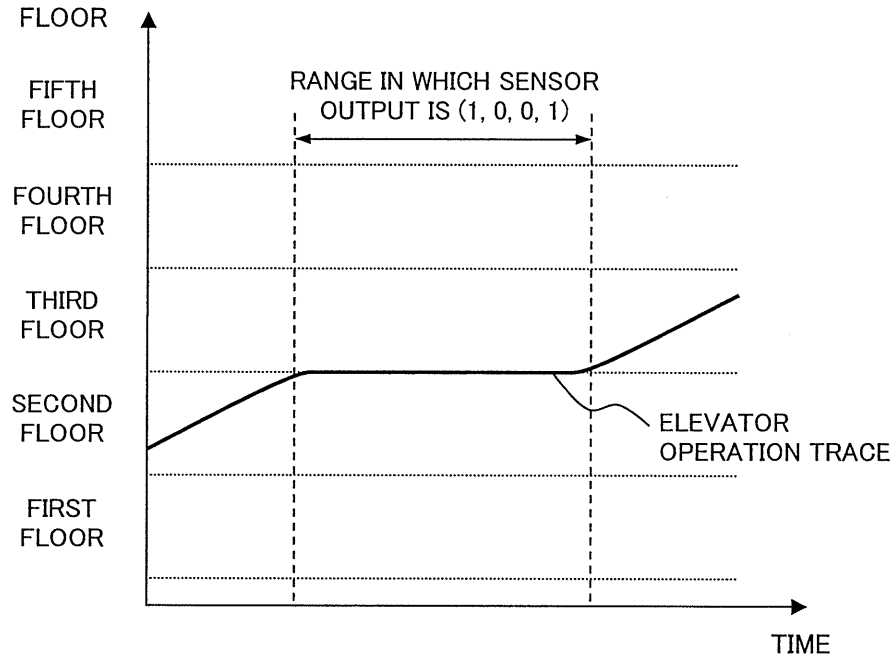
FIG. 4

FIG. 5**FIG. 6**

No.	CASE NAME	CHANGES IN POSITION DETECTION SENSOR OUTPUTS (COMBINATION PATTERNS) IN RANGE
1	SENSOR OUTPUT WITHOUT ATTACHMENT POSITION ERROR	$(0,0,0,0) \rightarrow (1,0,0,1) \rightarrow (1,0,0,1) \rightarrow (1,0,0,1) \dots (1,0,0,1) \rightarrow$ $(1,0,0,1) \rightarrow (1,0,0,1) \rightarrow (1,0,0,1) \rightarrow (0,0,0,0) \rightarrow (0,0,0,0) \rightarrow (0,0,0,0)$
2	SENSOR OUTPUT WITHIN ALLOWABLE ERROR RANGE	$(0,0,0,0) \rightarrow (0,0,0,1) \rightarrow (1,0,0,1) \rightarrow (1,0,0,1) \dots (1,0,0,1) \rightarrow$ $(1,0,0,1) \rightarrow (1,0,0,1) \rightarrow (1,0,0,0) \rightarrow (0,0,0,0) \rightarrow (0,0,0,0) \rightarrow (0,0,0,0)$
3	SENSOR OUTPUT OUTSIDE ALLOWABLE ERROR RANGE	$(0,0,0,0) \rightarrow (0,0,0,1) \rightarrow (0,0,0,1) \rightarrow (1,0,0,1) \dots (1,0,0,1) \rightarrow$ $(1,0,0,1) \rightarrow (1,0,0,0) \rightarrow (1,0,0,0) \rightarrow (0,0,0,0) \rightarrow (0,0,0,0) \rightarrow (0,0,0,0)$

FIG. 7

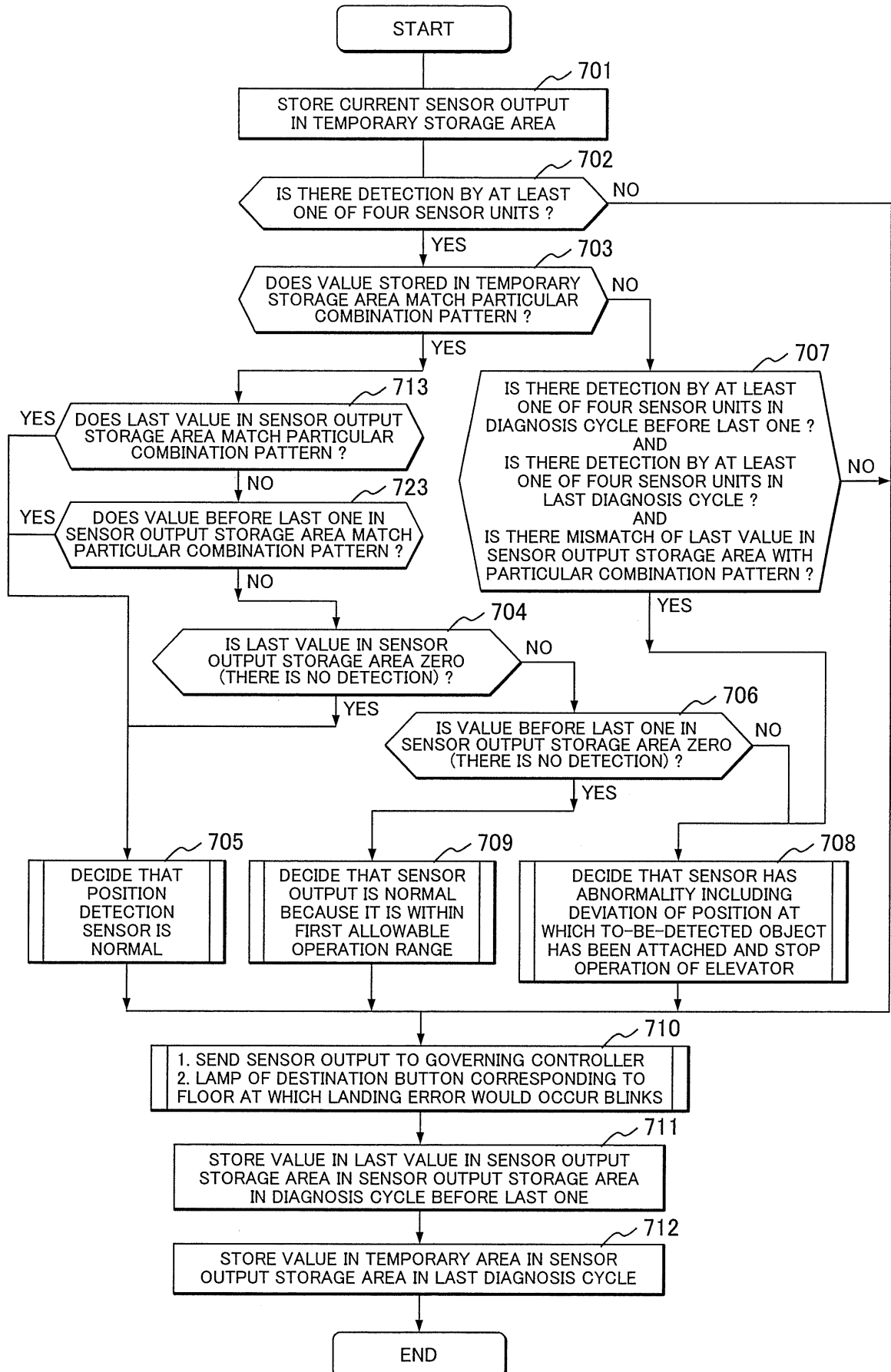


FIG. 8

