

FIG. 1

	EMBODIMENT 1	EMBODIMENT 2	EMBODIMENT 3	EMBODIMENT 4
IMPLEMENTATION SHOP	CONVENIENCE STORE	BOOKSTORE	SUPERMARKET	SUPERMARKET
CHECKOUT LOCATION	CASH REGISTER TERMINAL	CASH REGISTER TERMINAL	CASH REGISTER COUNTER	CHECKOUT GATE
OVERVIEW	•AUTOMATIC CHECKOUT FOR PRODUCT ON CASH REGISTER TERMINA	•AUTOMATIC CHECKOUT FOR BOOK ON CASH REGISTER TERMINAL •PILING COUNTERMEASURE	•AUTOMATIC CHECKOUT FOR PRODUCT IN BASKET OR CART	•AUTOMATIC CHECKOUT FOR HAND-HELD PRODUCT, BASKET OR CART PRODUCT, MY BAG, PRODUCT IN CASH REGISTER BAG, AND THE LIKE
DETAILS	•RECOGNIZE PRODUCT PLACED ON CASH REGISTER TERMINAL BY CAMERA INSTALLED IN CASH REGISTER TERMINAL	•TRACK BOOK RECOGNIZED IN SHELF UNTIL IT IS PLACED ON CASH REGISTER TERMINAL •RECOGNIZE PRODUCTS PLACED OVERLAPPED ON CASH REGISTER TERMINAL BY CAMERA INSTALLED IN CASH REGISTER TERMINAL	•TRACK BASKETS AND RECOGNIZE PRODUCT IN BASKETS BY BASKET REGION DETECTION FUNCTION •AUTOMATIC CHECKOUT FOR PRODUCTS IN BASKETS PLACED ON CASH REGISTER COUNTER	•AUTOMATIC CHECKOUT FOR ALL PRODUCTS INCLUDED IN MOVING OBJECT REGION AT GATE WITHOUT BEING PLACED ON CASH REGISTER COUNTER.
REFERENCE DRAWING	FIGS. 2 TO 11	FIGS. 3, 5, AND 6 FIGS. 12 TO 21	FIGS. 5 AND 15 FIGS. 22 TO 30	FIGS. 5 AND 24 FIGS. 31 TO 37

FIG. 2

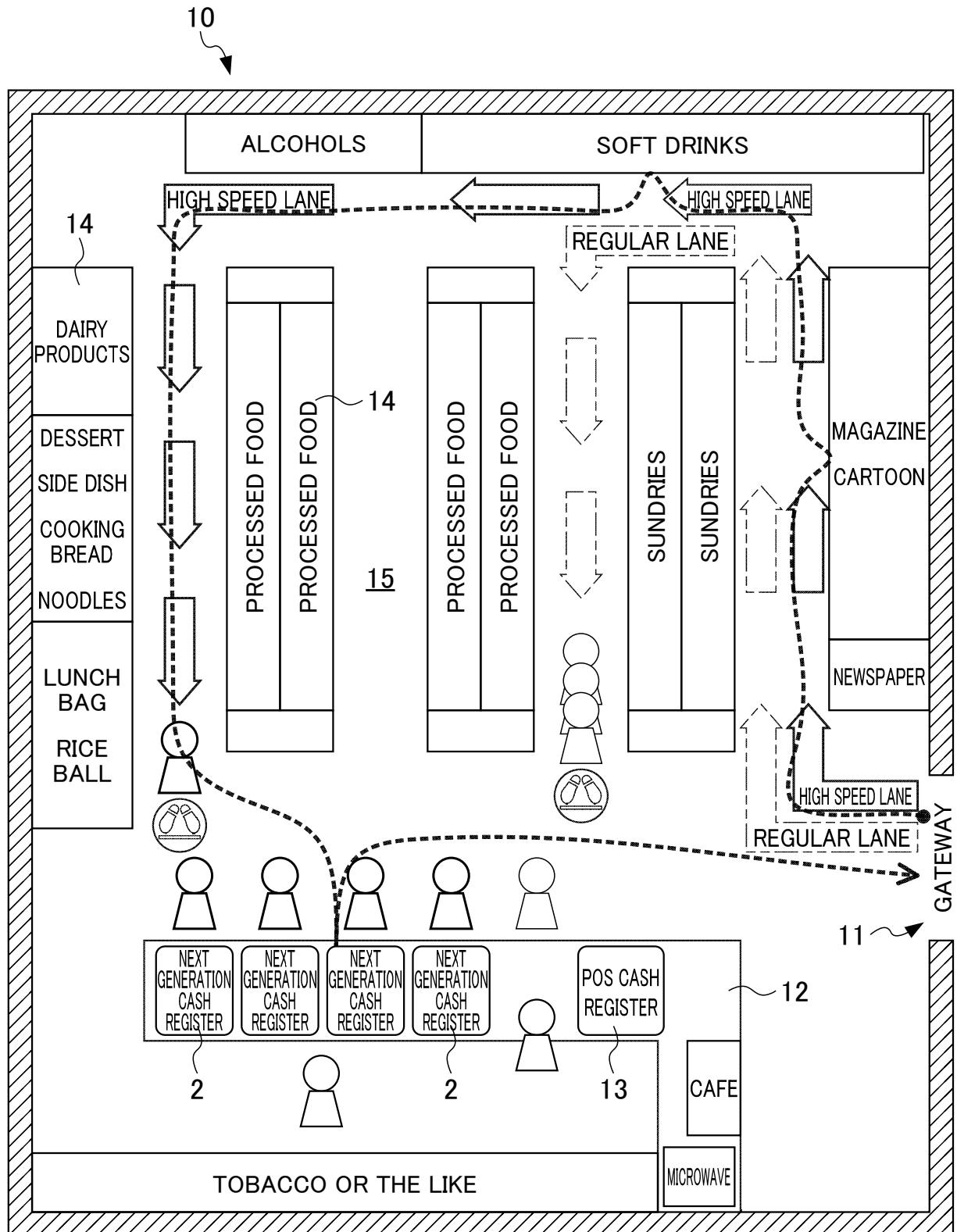


FIG. 3

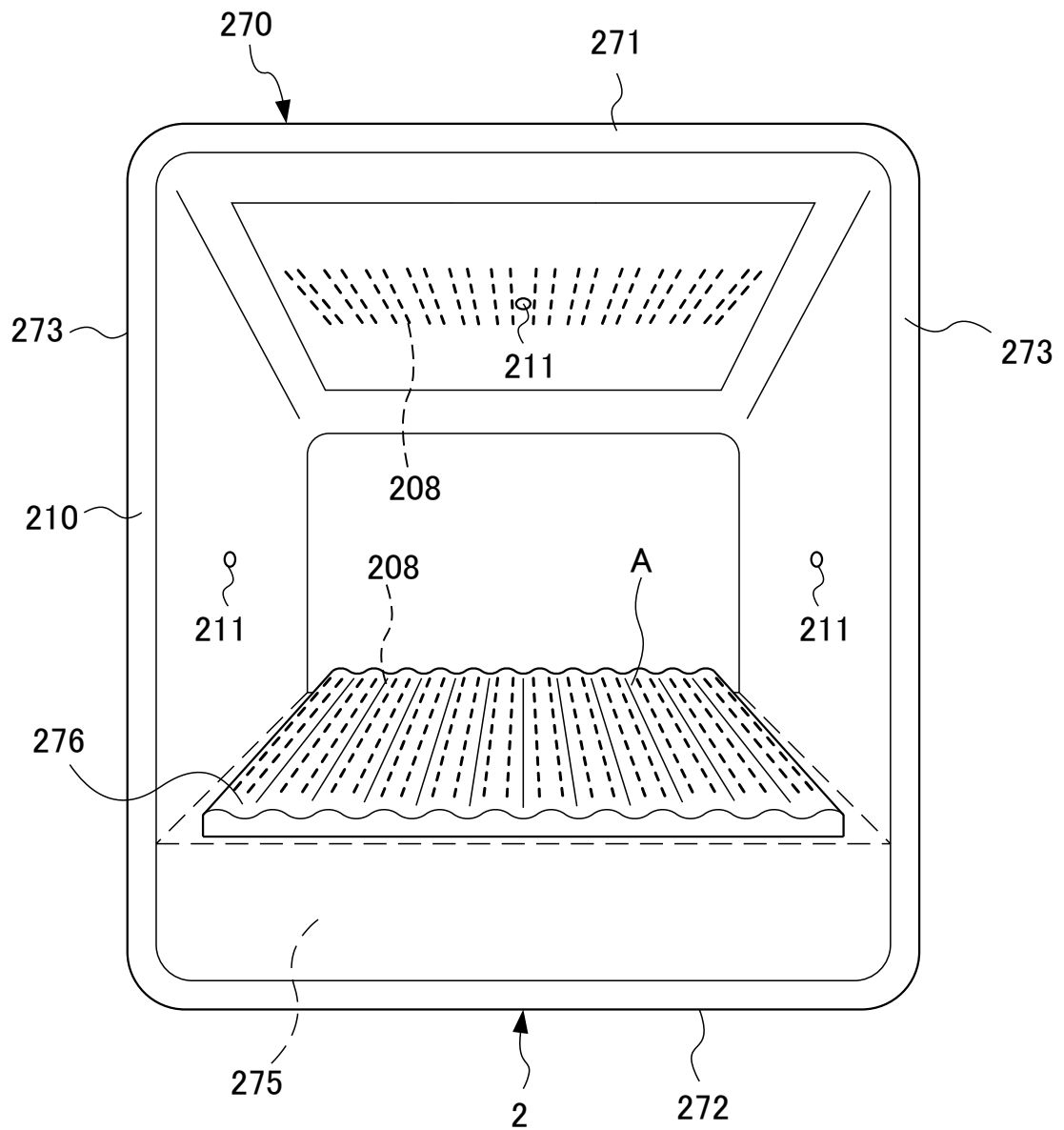


FIG. 4

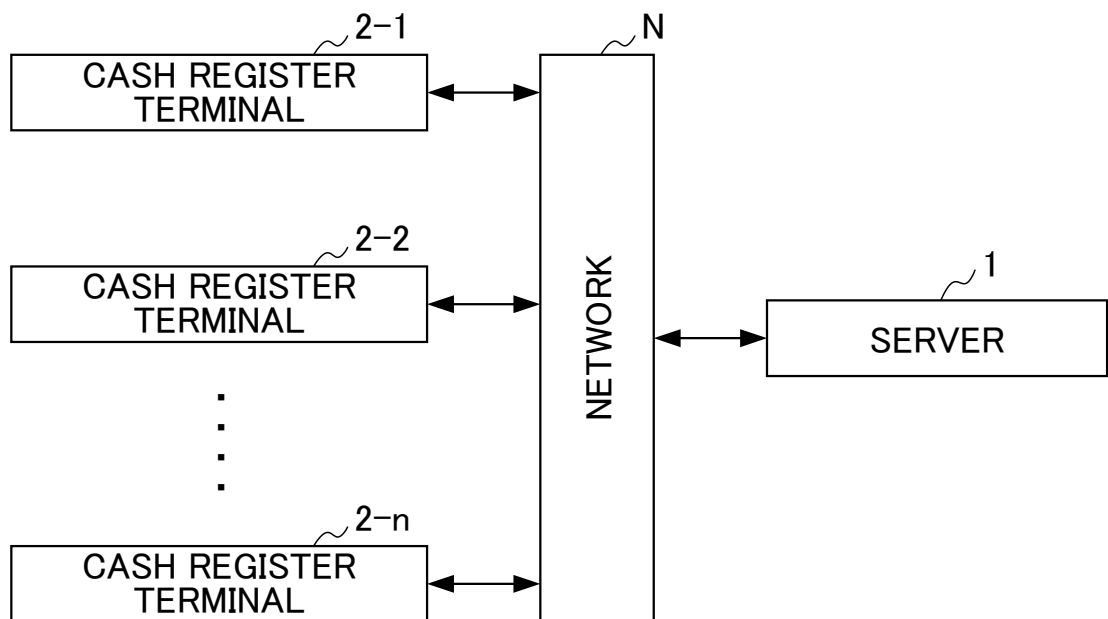


FIG. 5

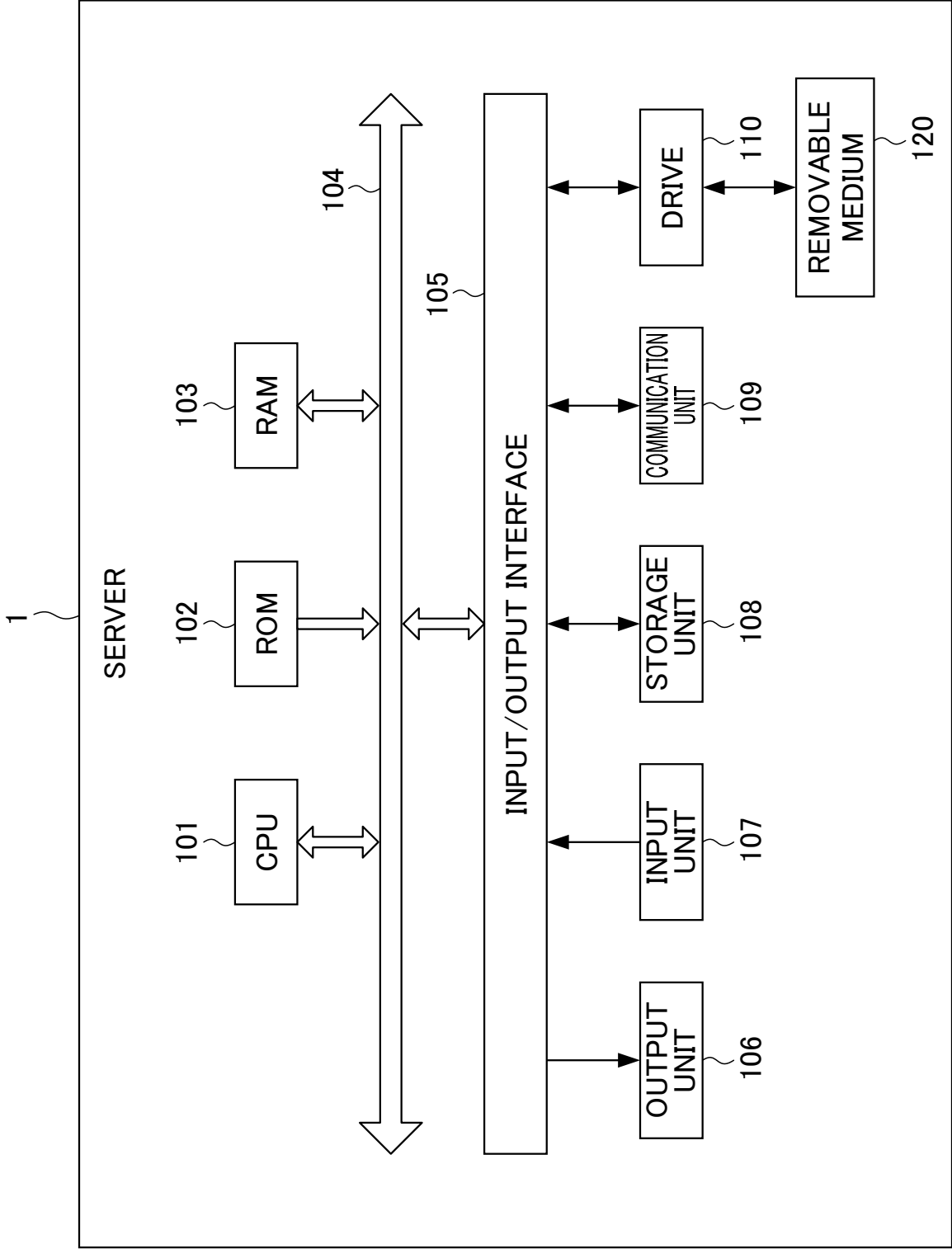


FIG. 6

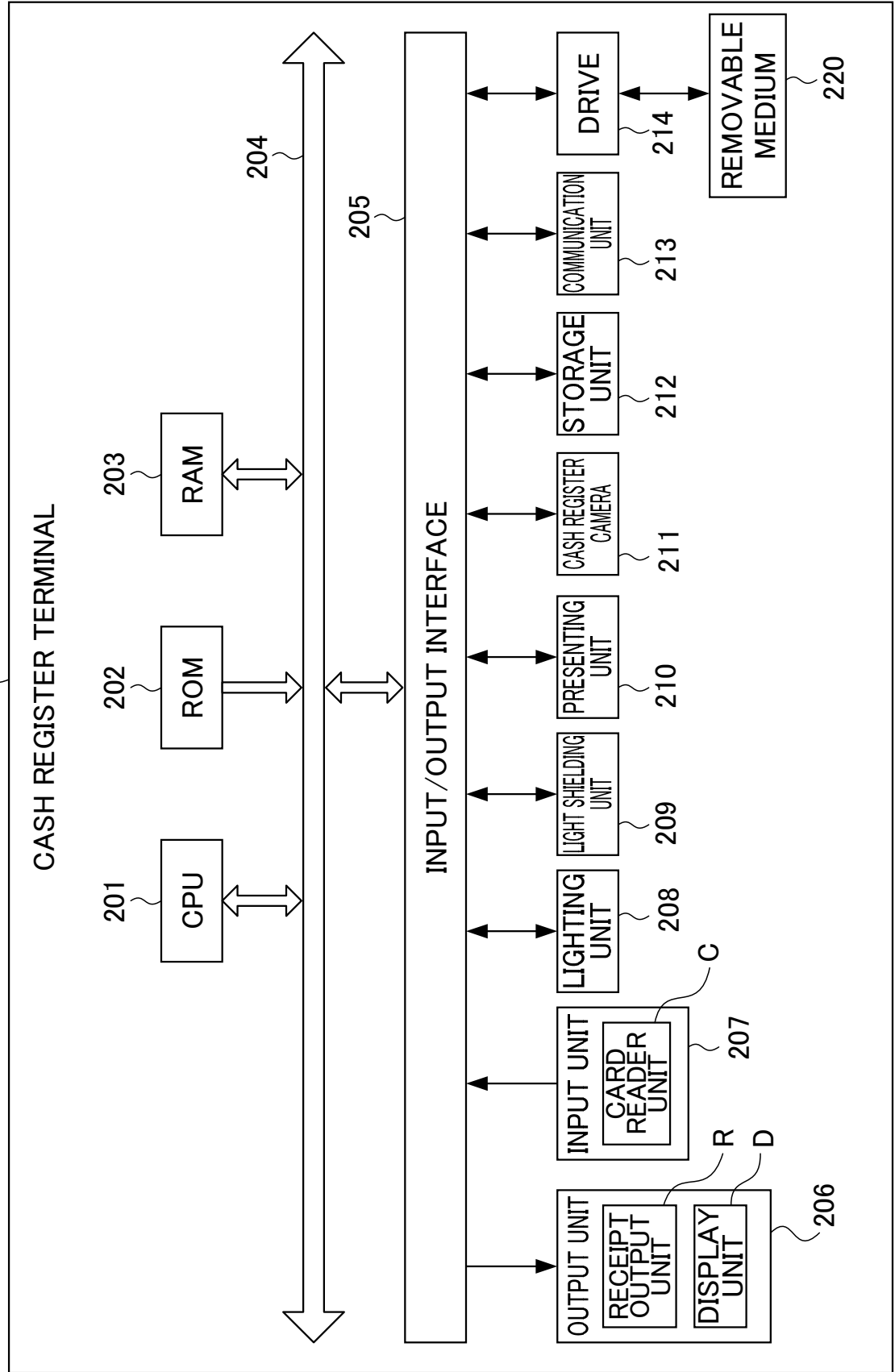


FIG. 7

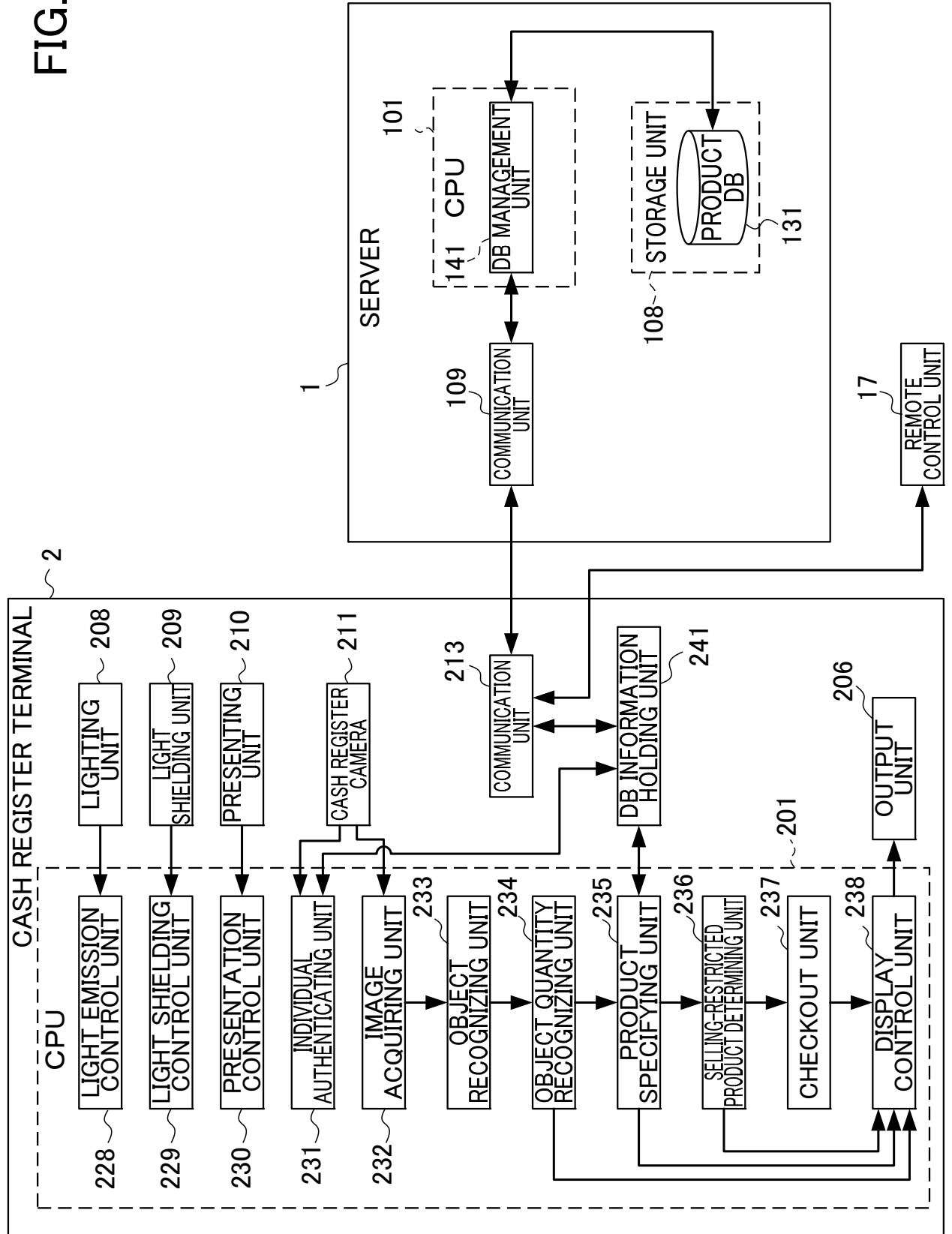


FIG. 8A

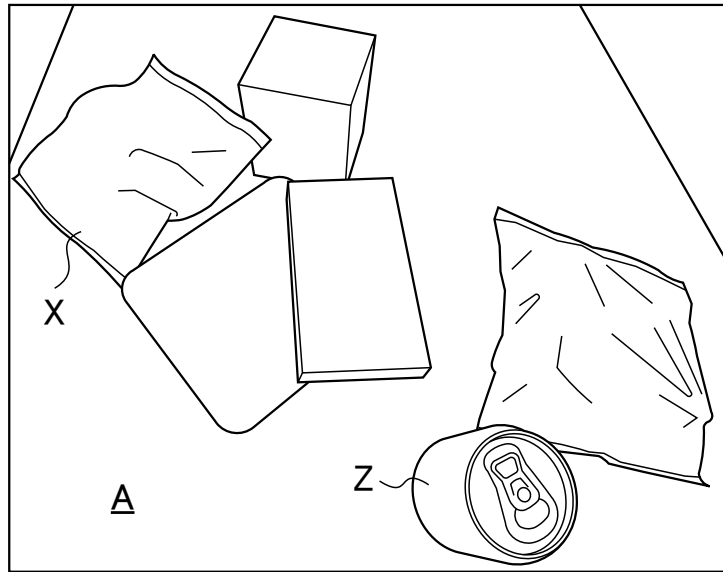


FIG. 8B

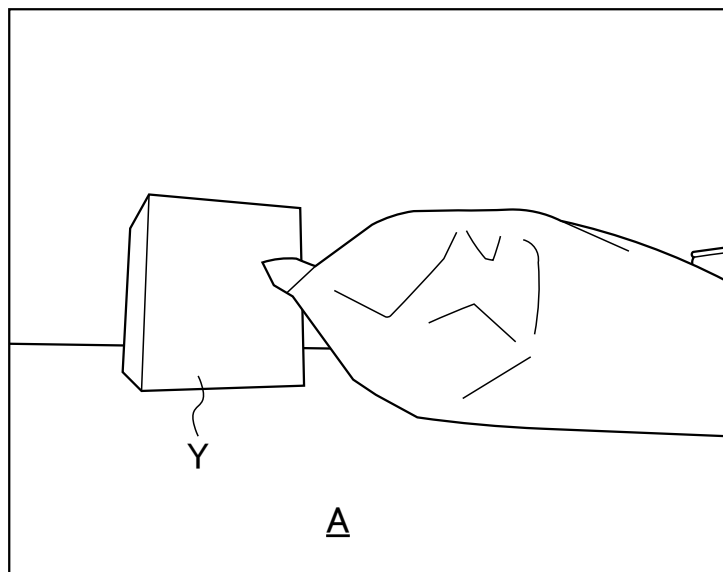


FIG. 8C

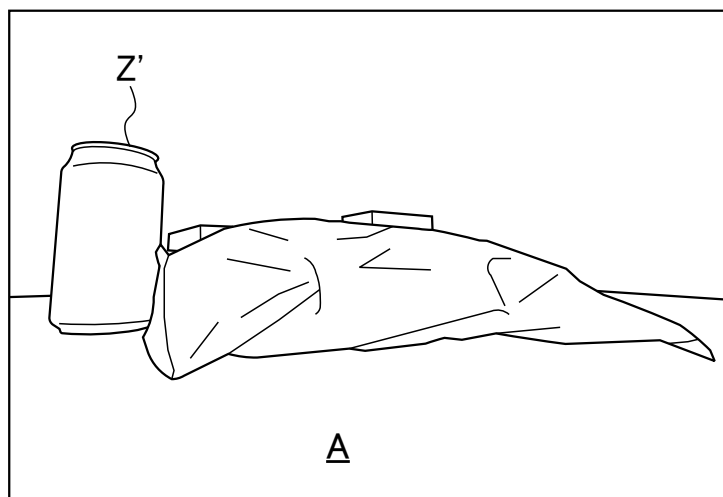


FIG. 9

PRODUCT	CASH REGISTER COUNTER CAMERA					RECOGNITION RESULT (LOGICAL SUM)
	1	2	3	4	5	
X	1	0	0	1	1	1
Y	0	1	0	1	1	1
Z	0	1	1	0	1	1
Z'	1	0	1	0	0	1

※Z AND Z' ARE SAME PRODUCT

FIG. 10

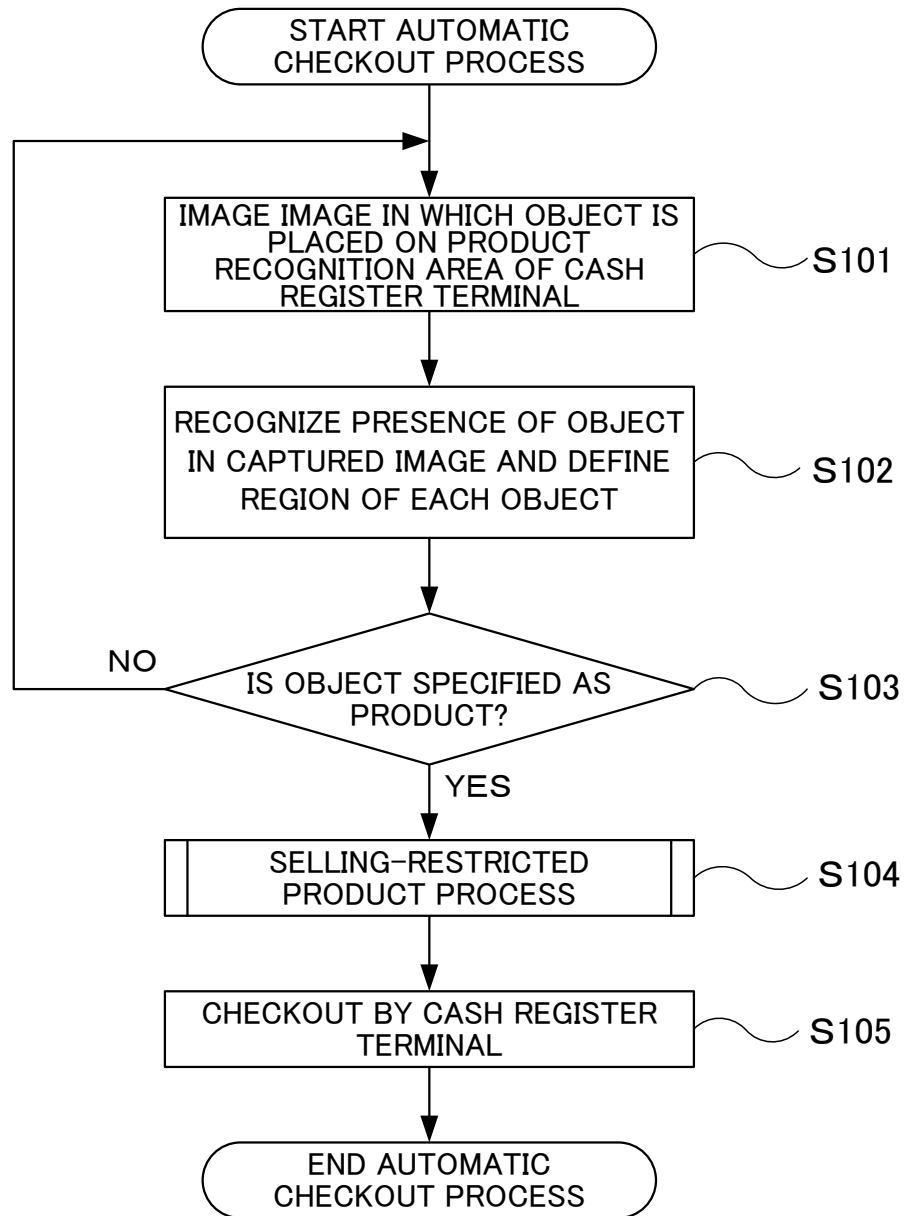


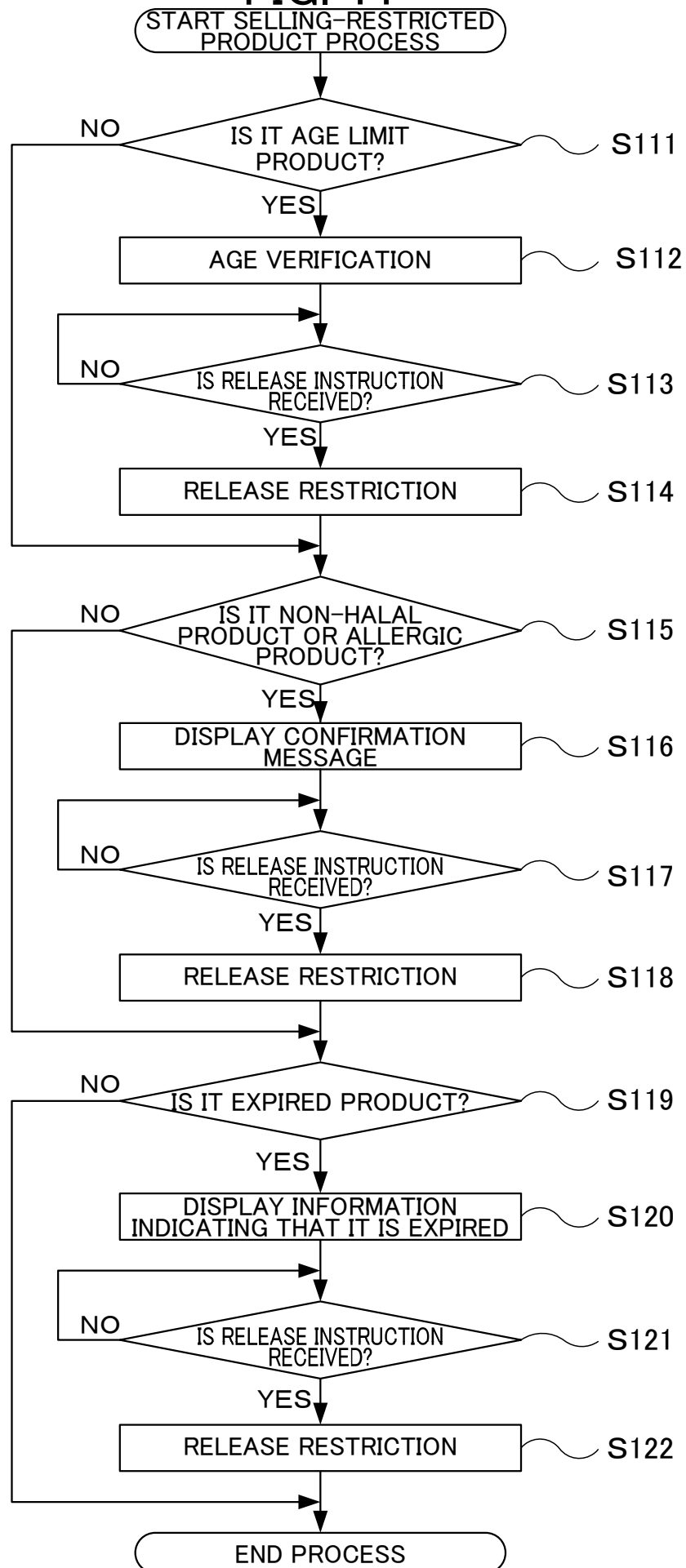
FIG. 11

FIG. 12

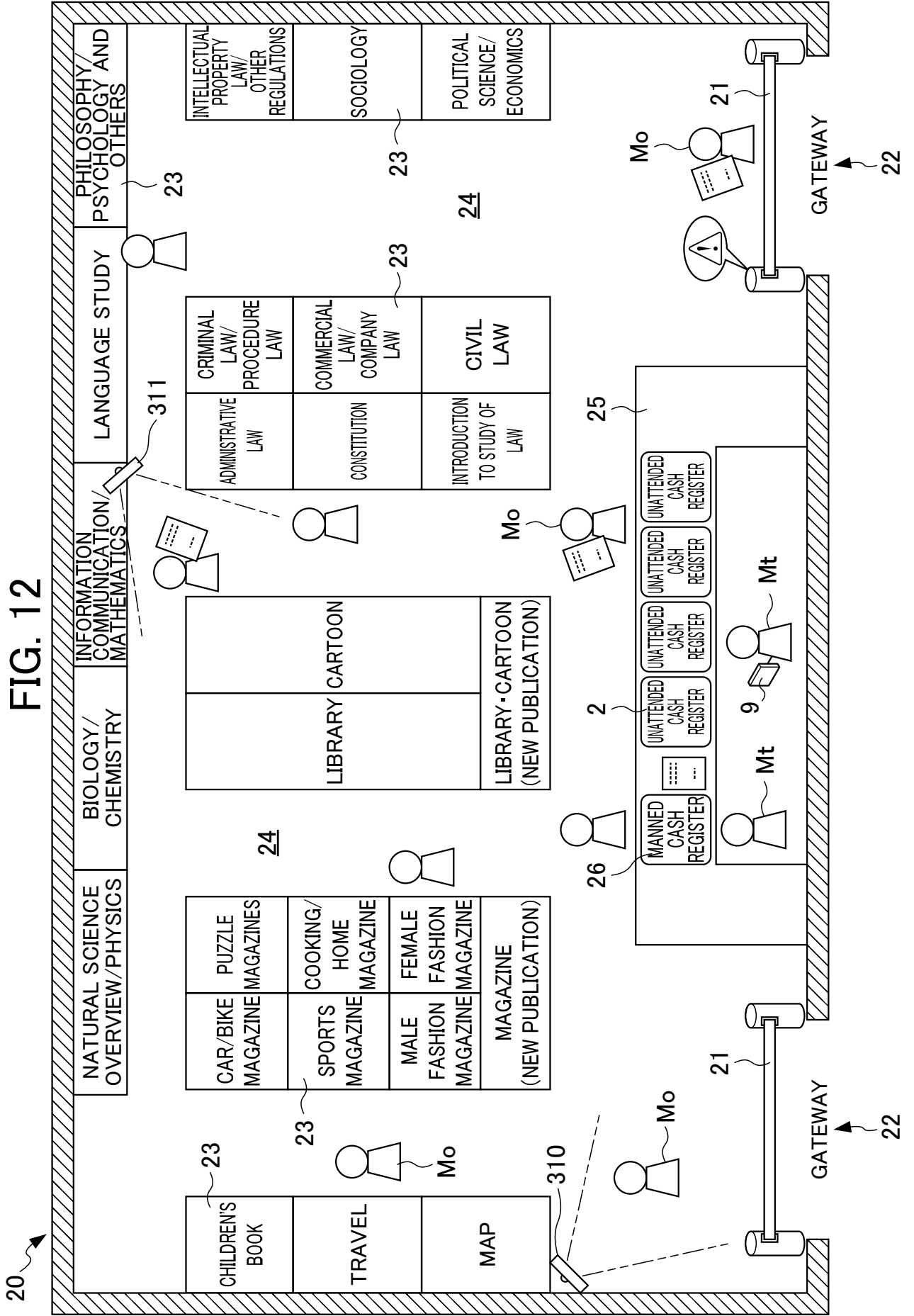


FIG. 13

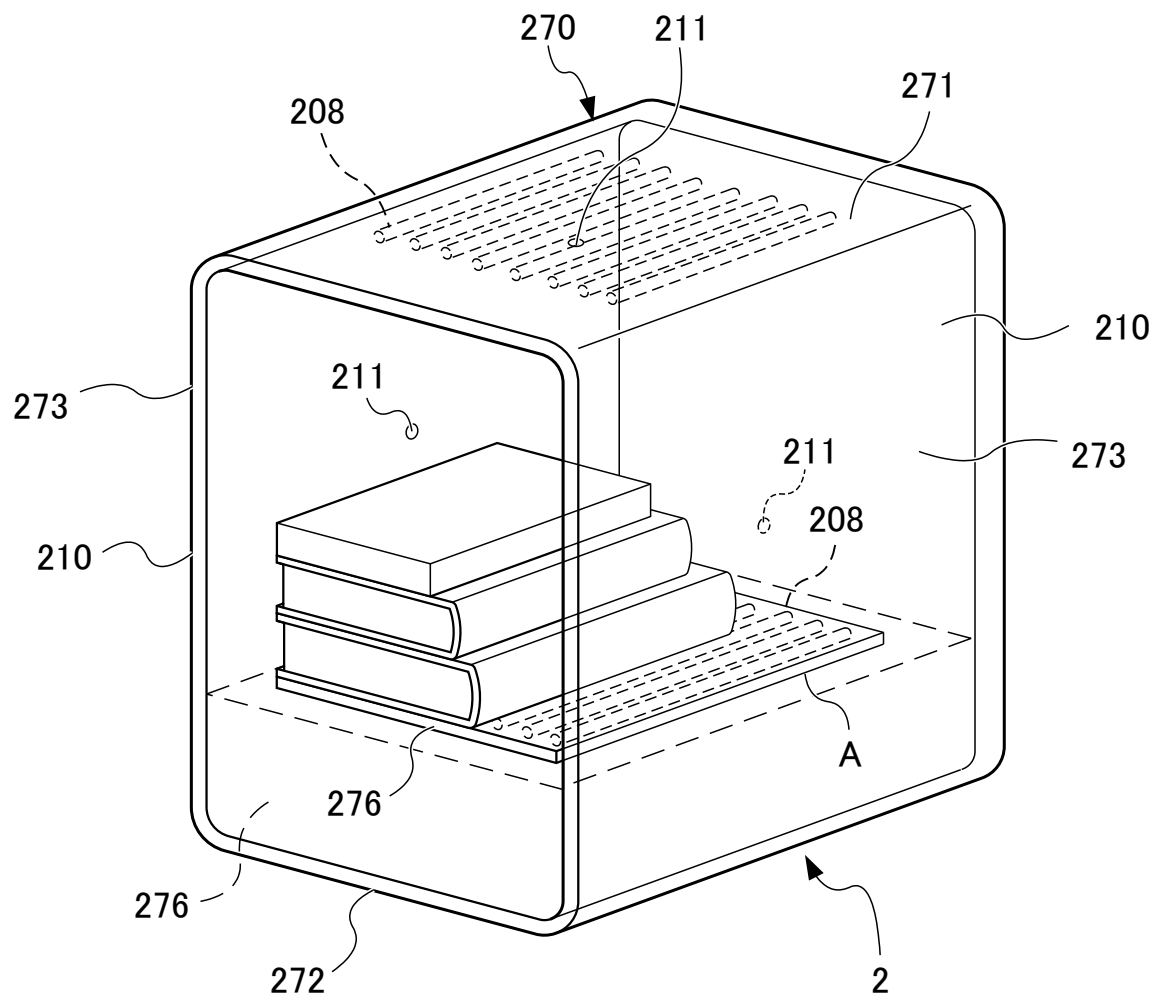


FIG. 14

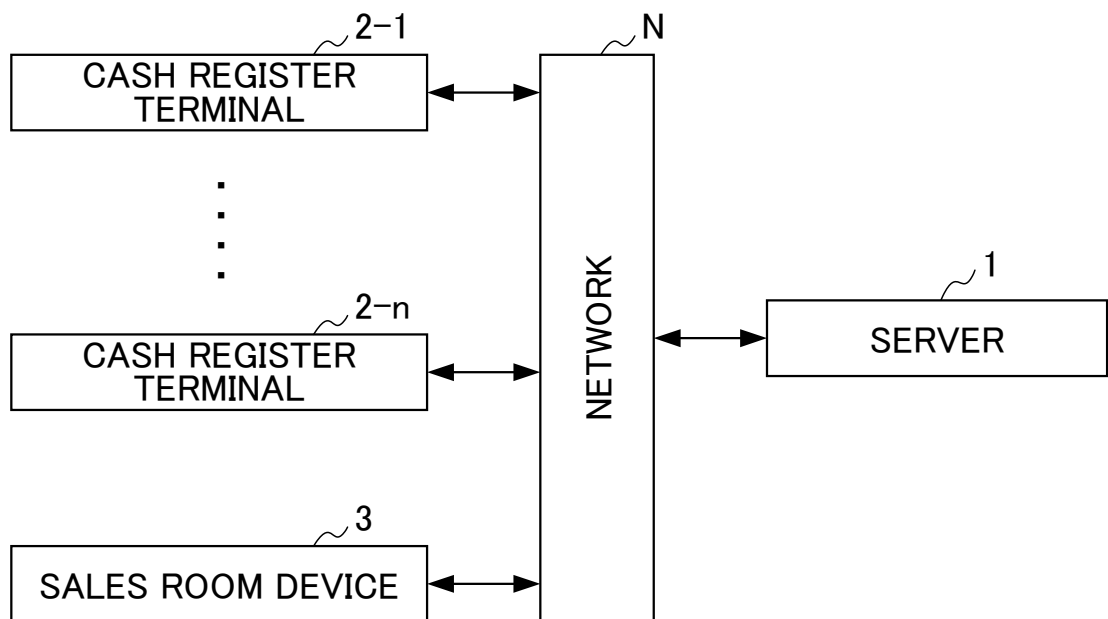
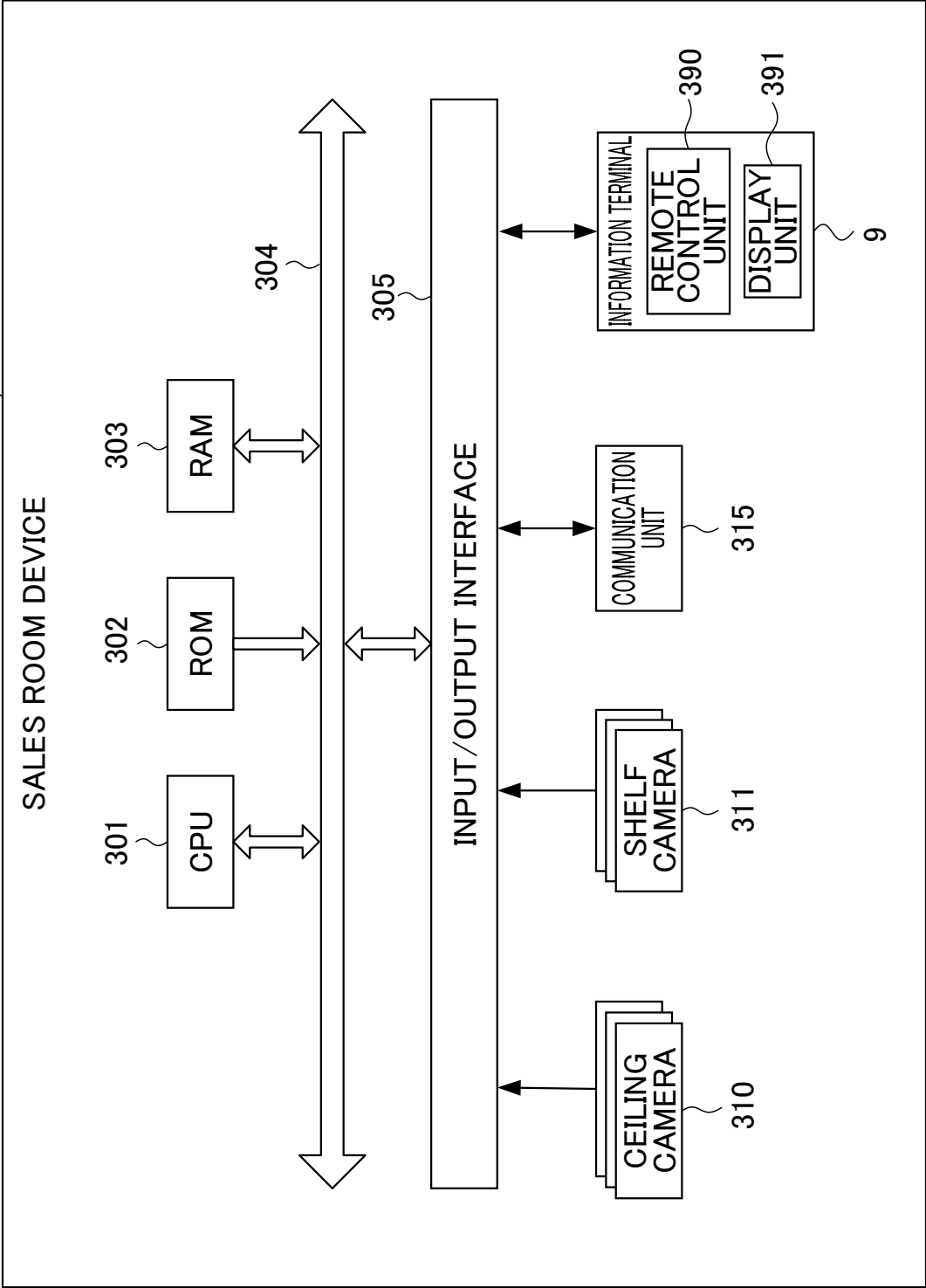


FIG. 15



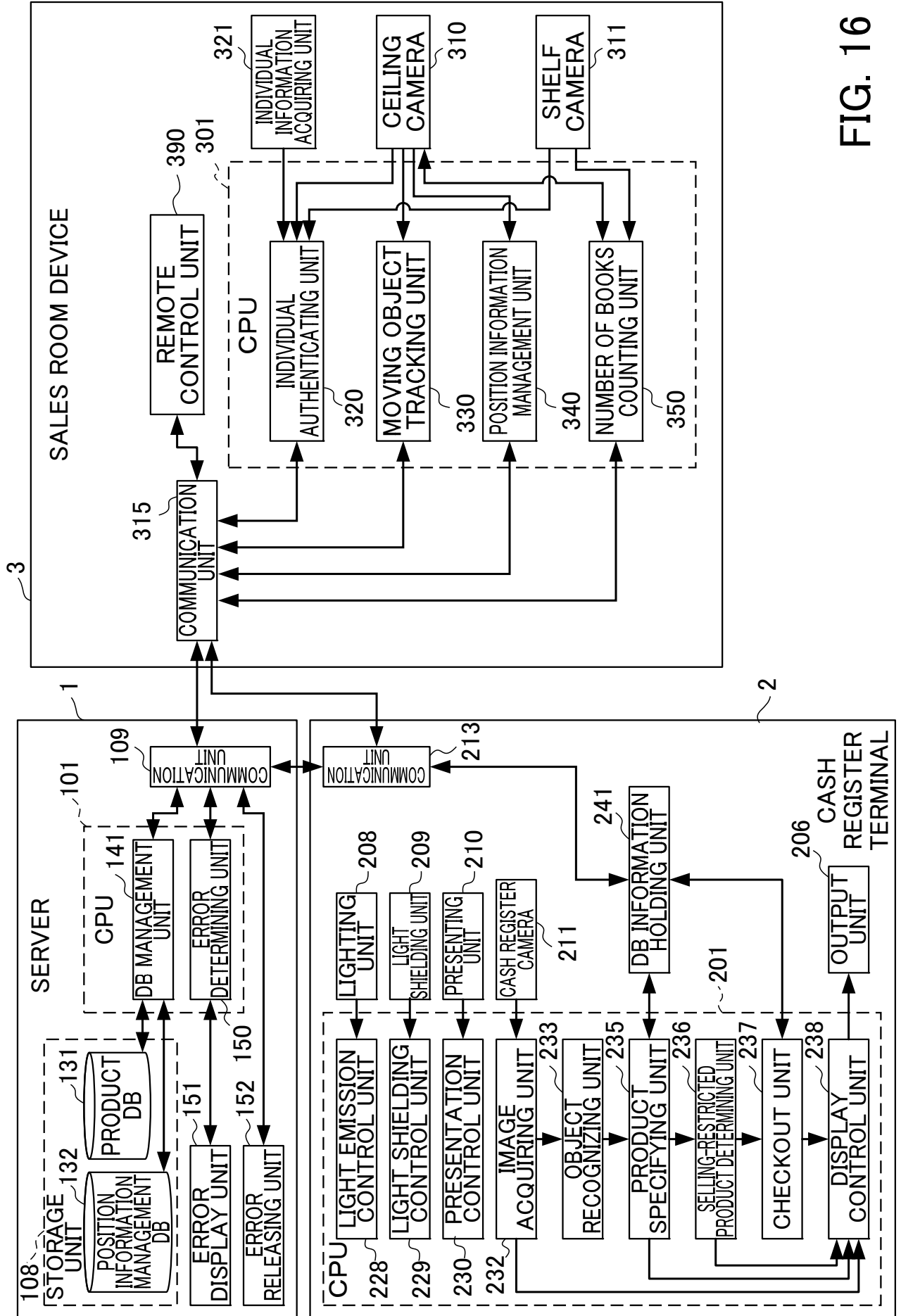


FIG. 16

FIG. 17

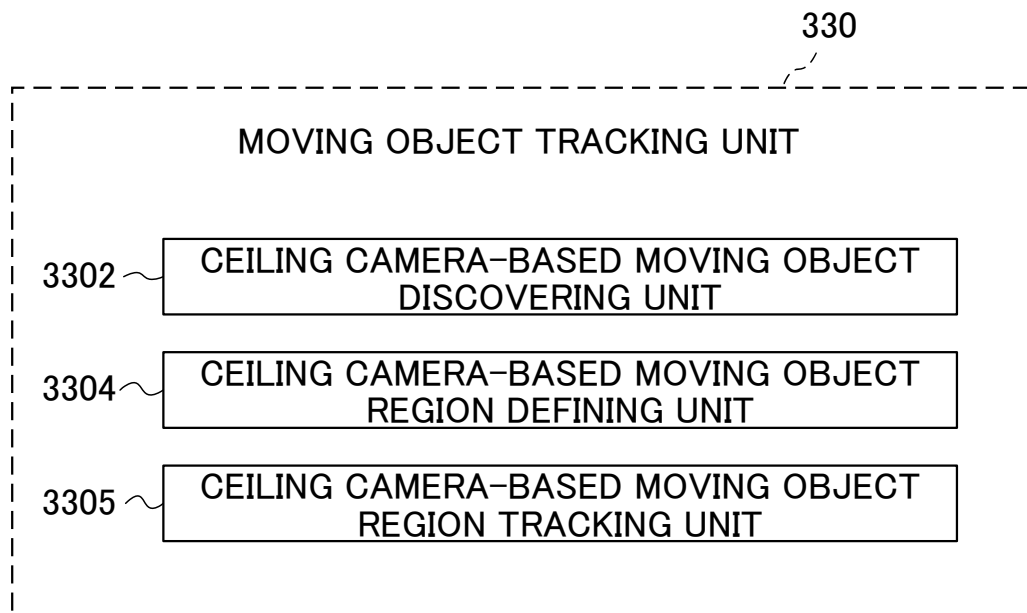


FIG. 18

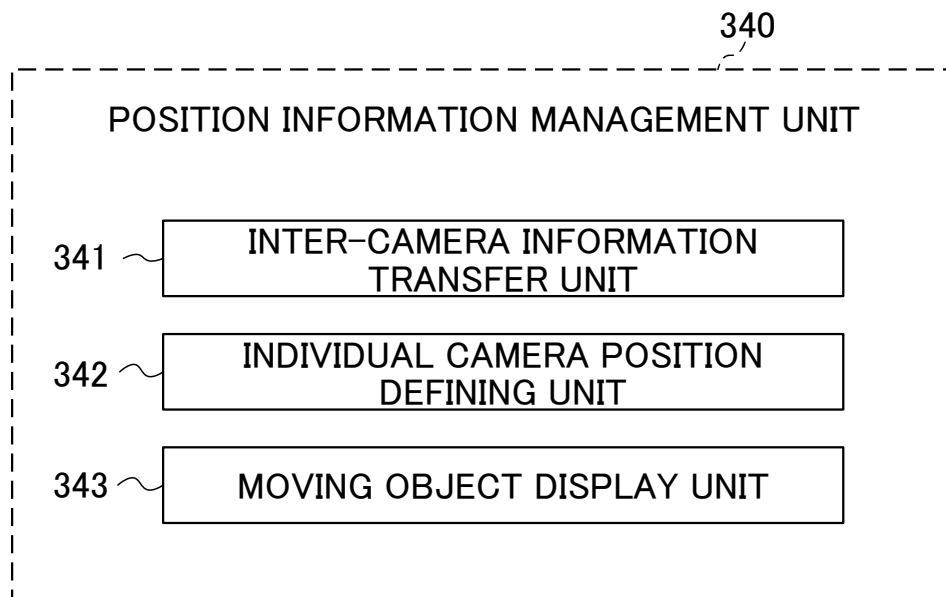


FIG. 19

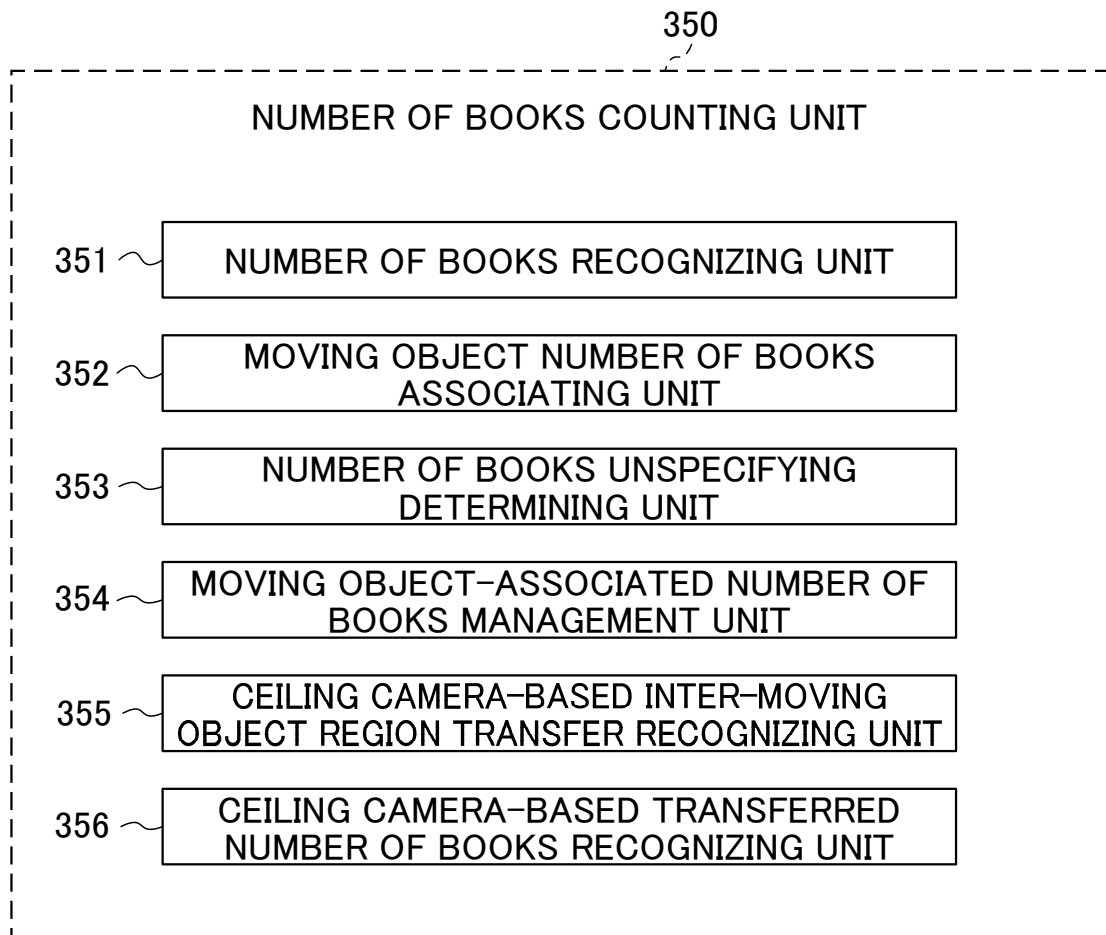


FIG. 20

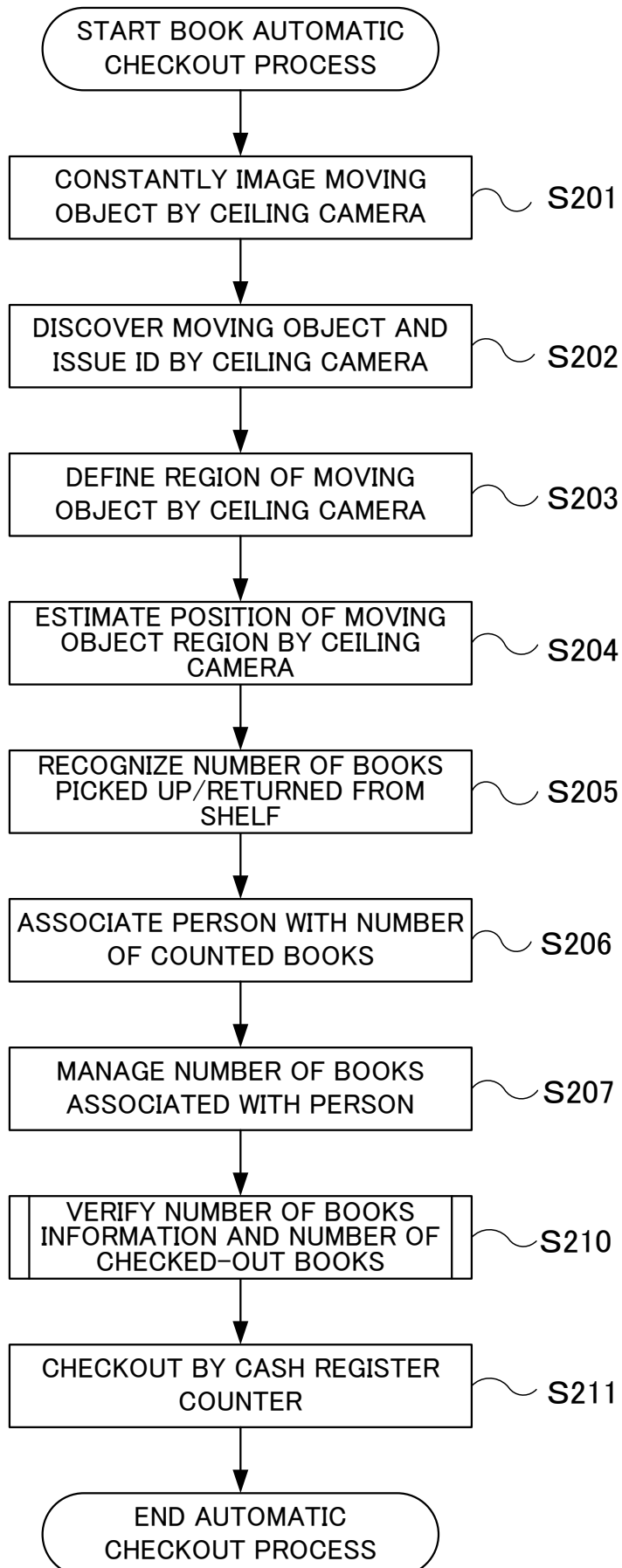


FIG. 21

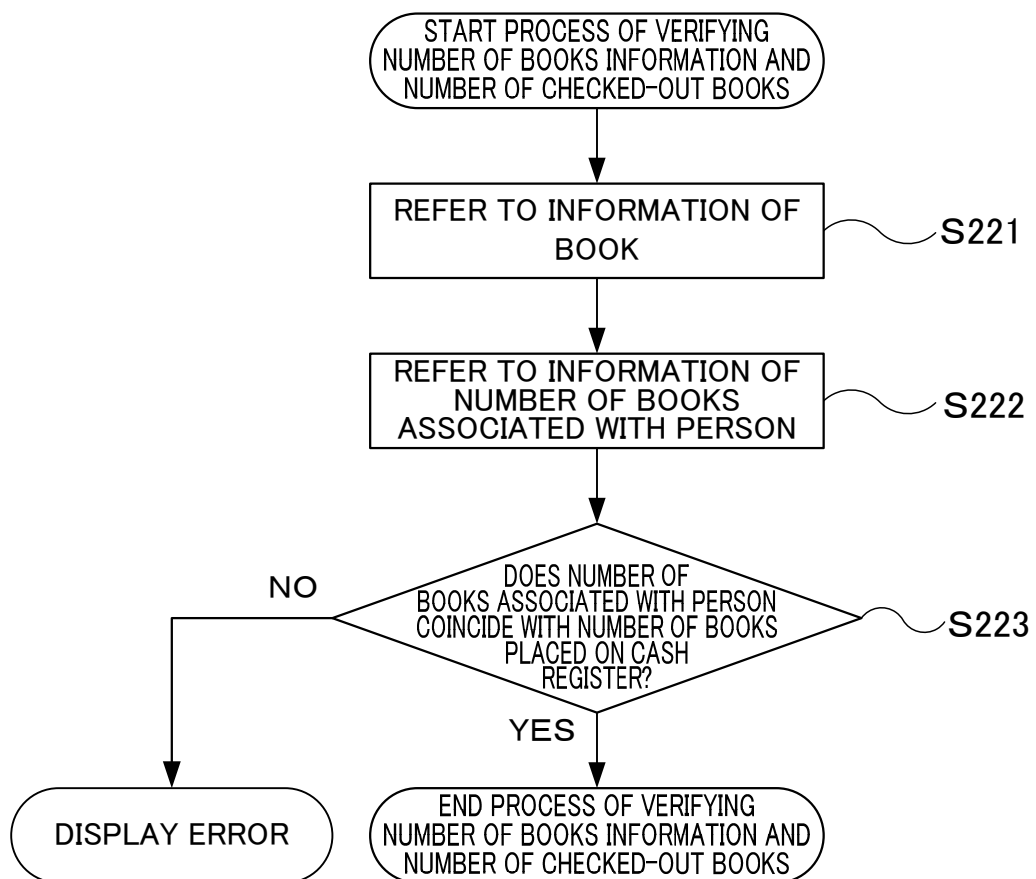


FIG. 22

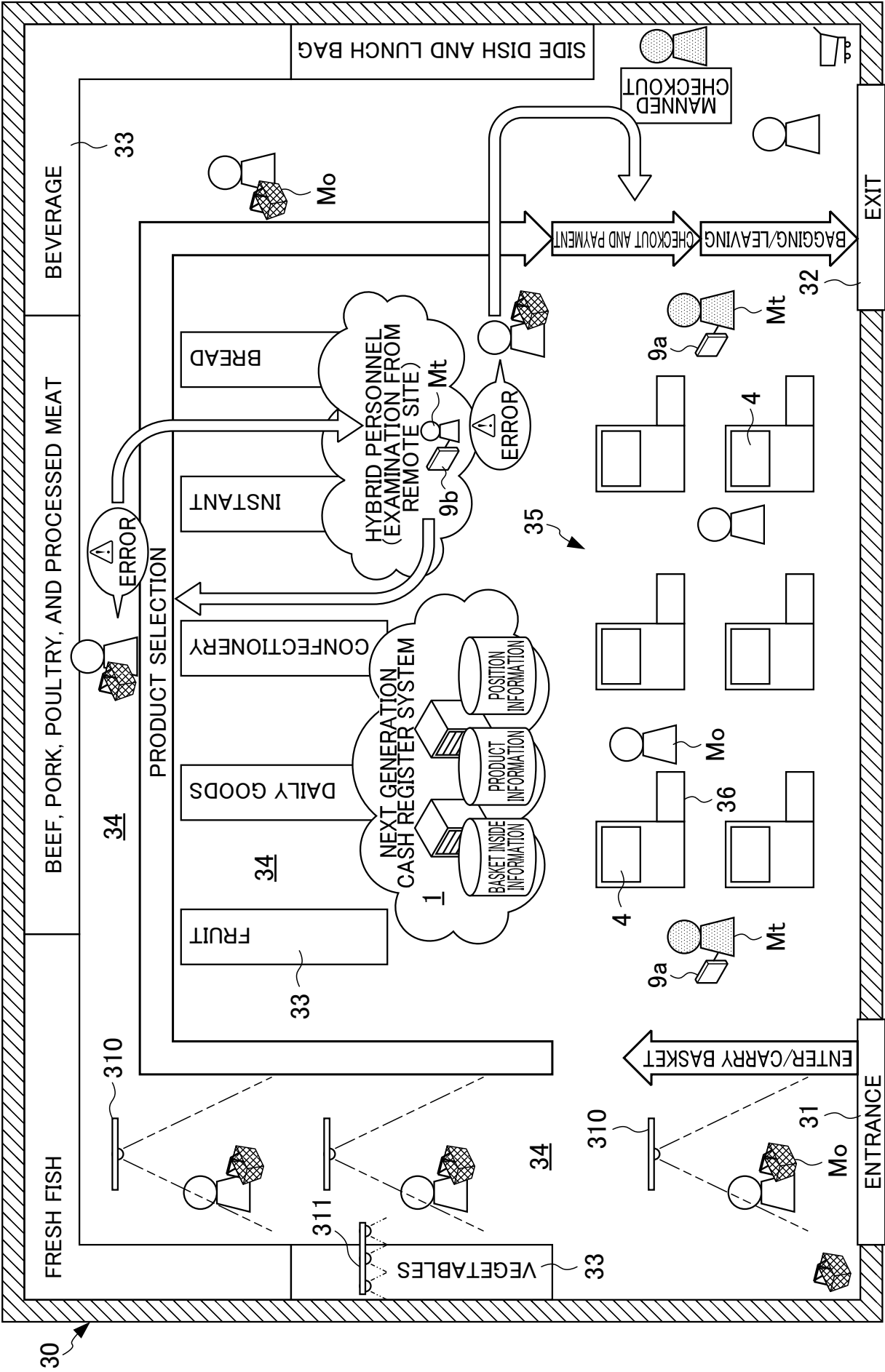


FIG. 23

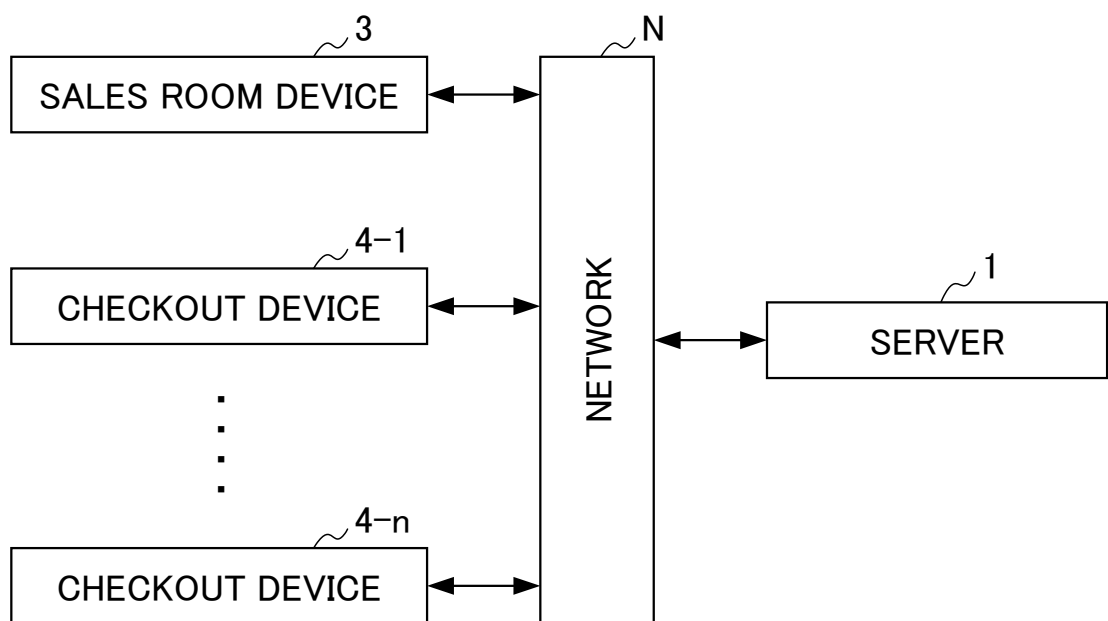
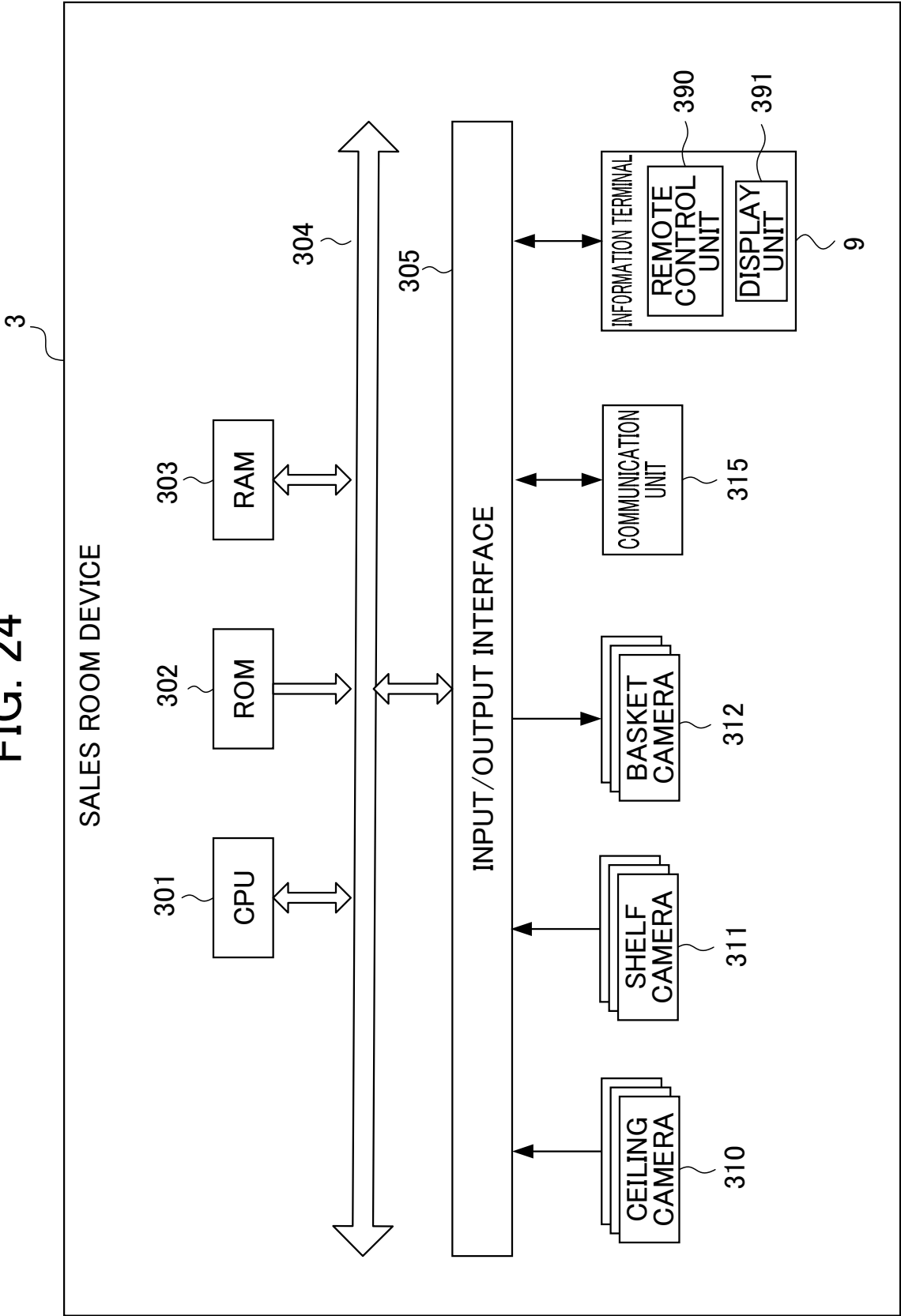


FIG. 24



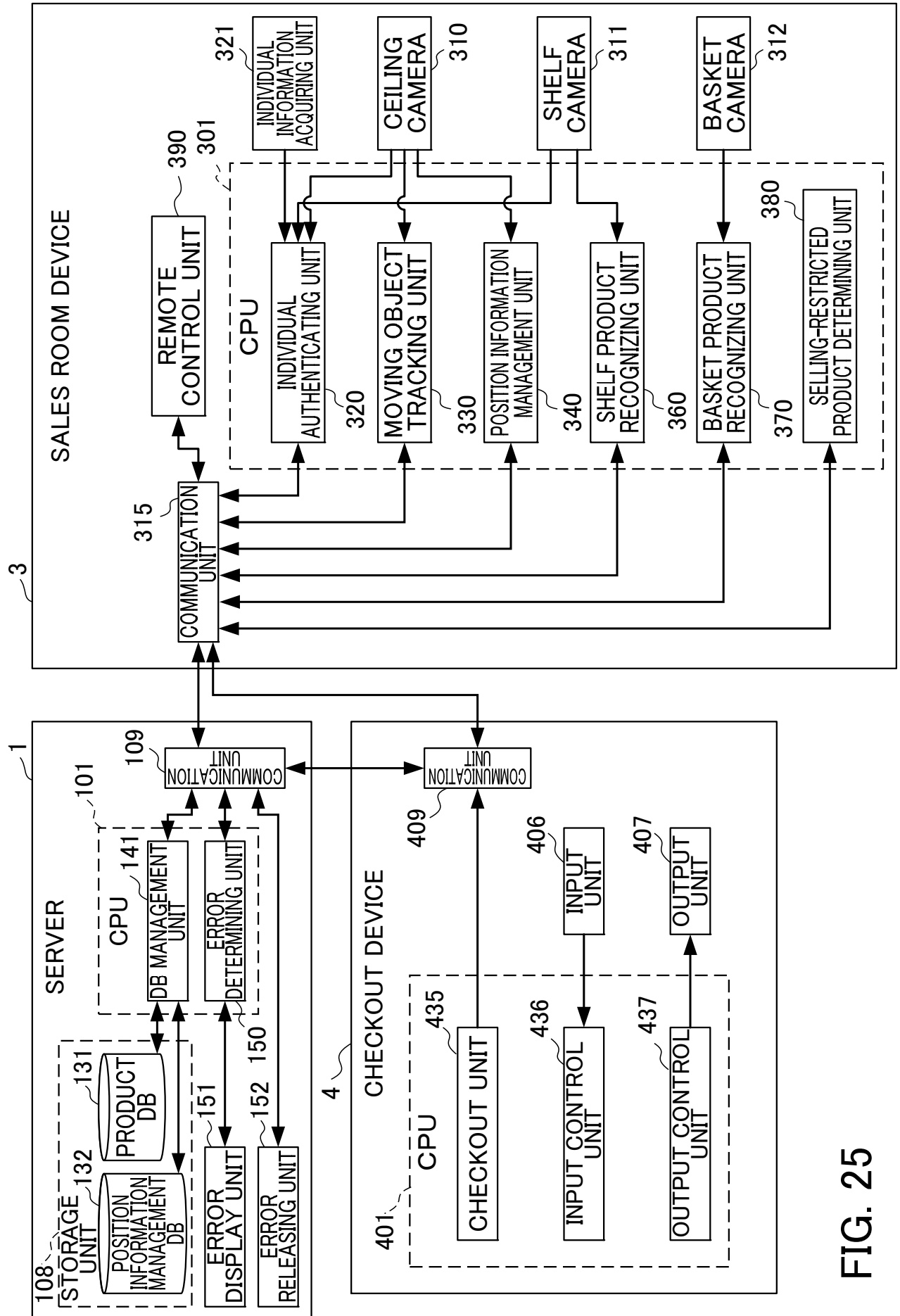


FIG. 25

FIG. 26

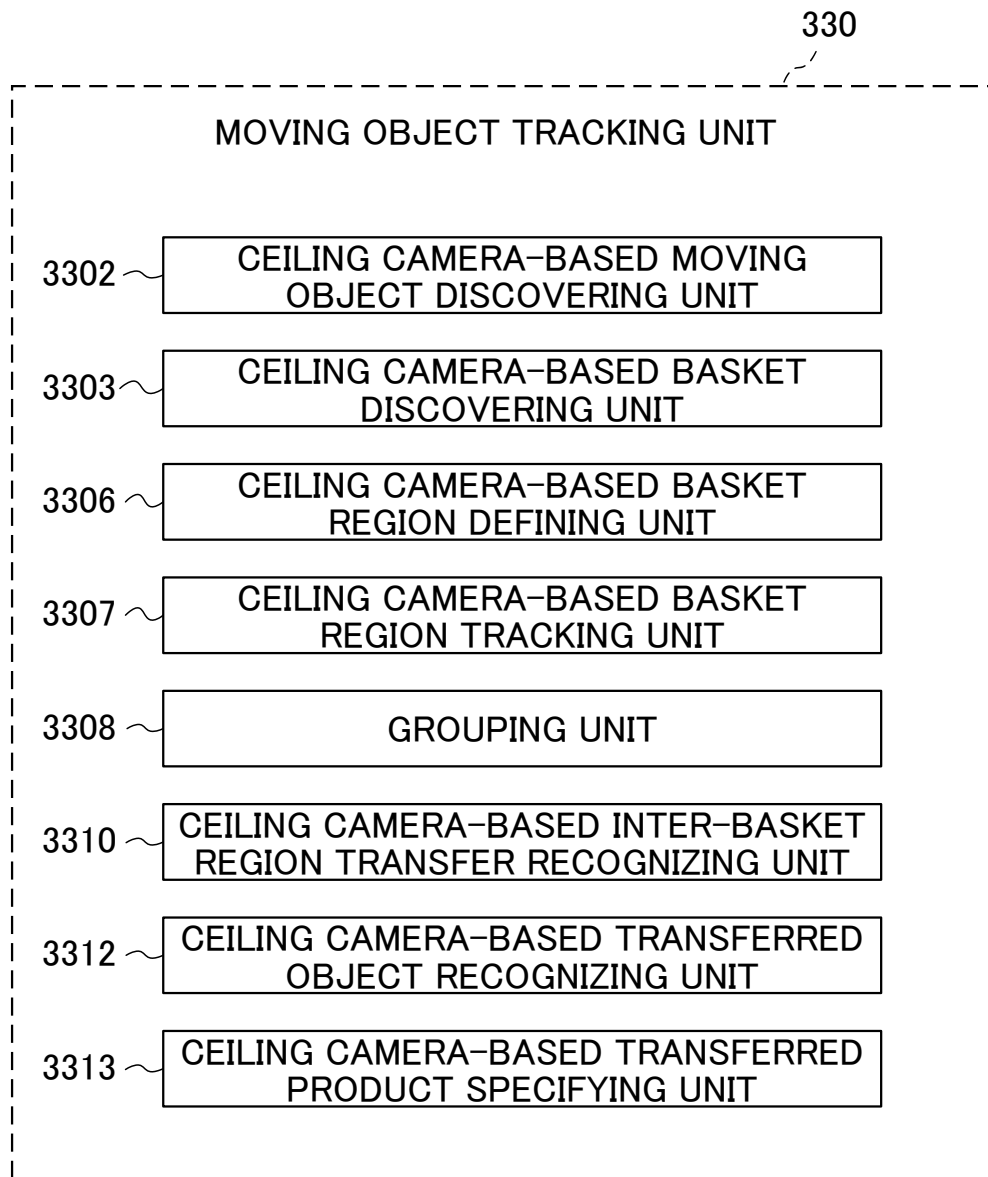


FIG. 27

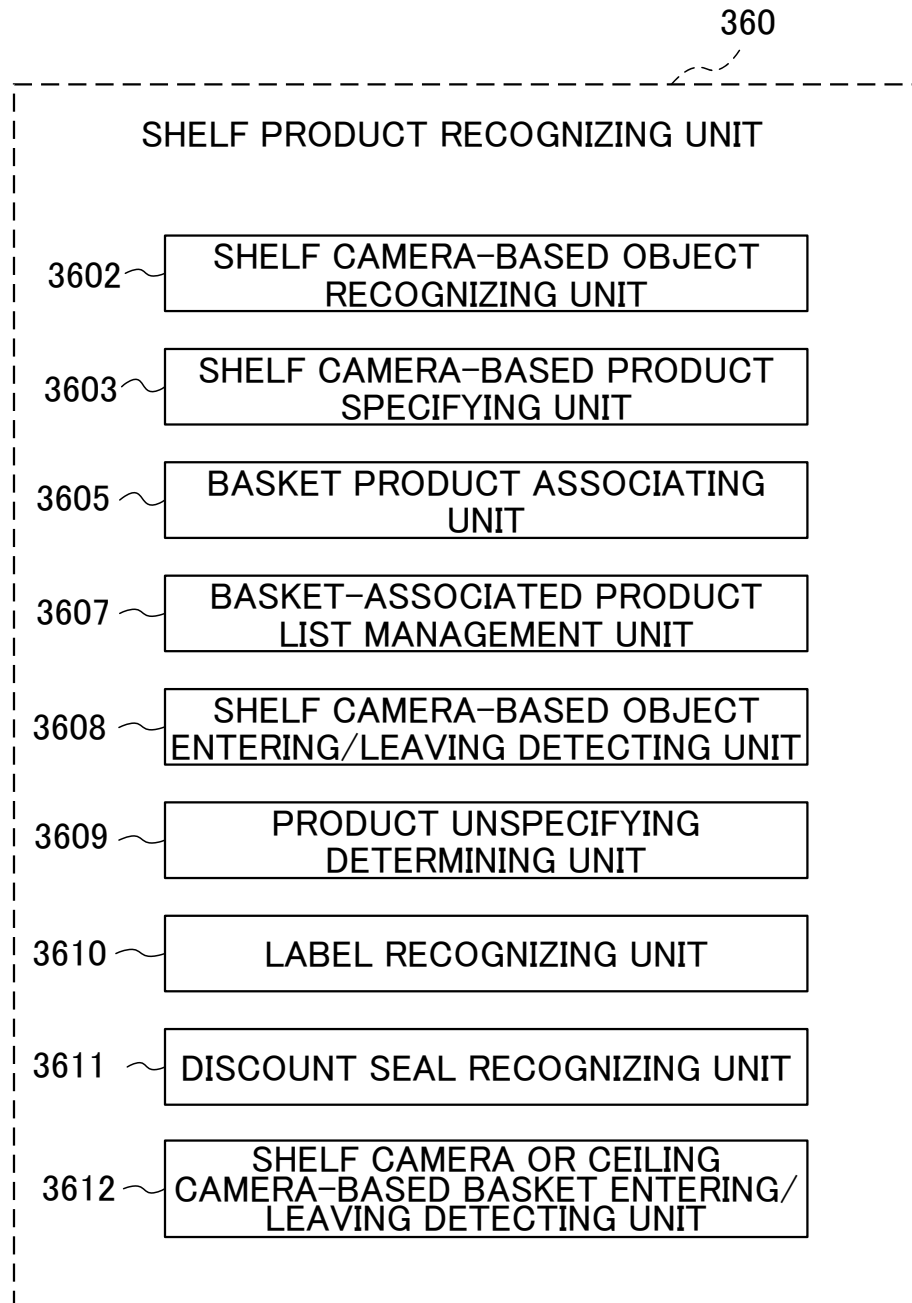


FIG. 28

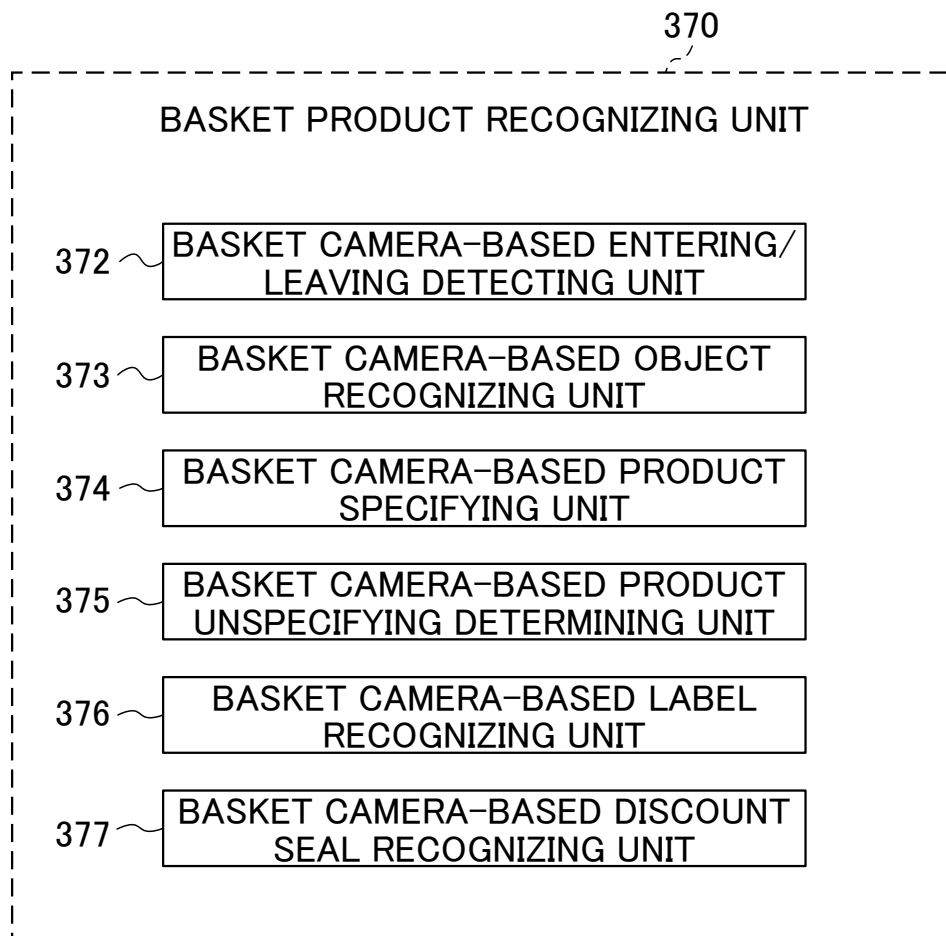


FIG. 29

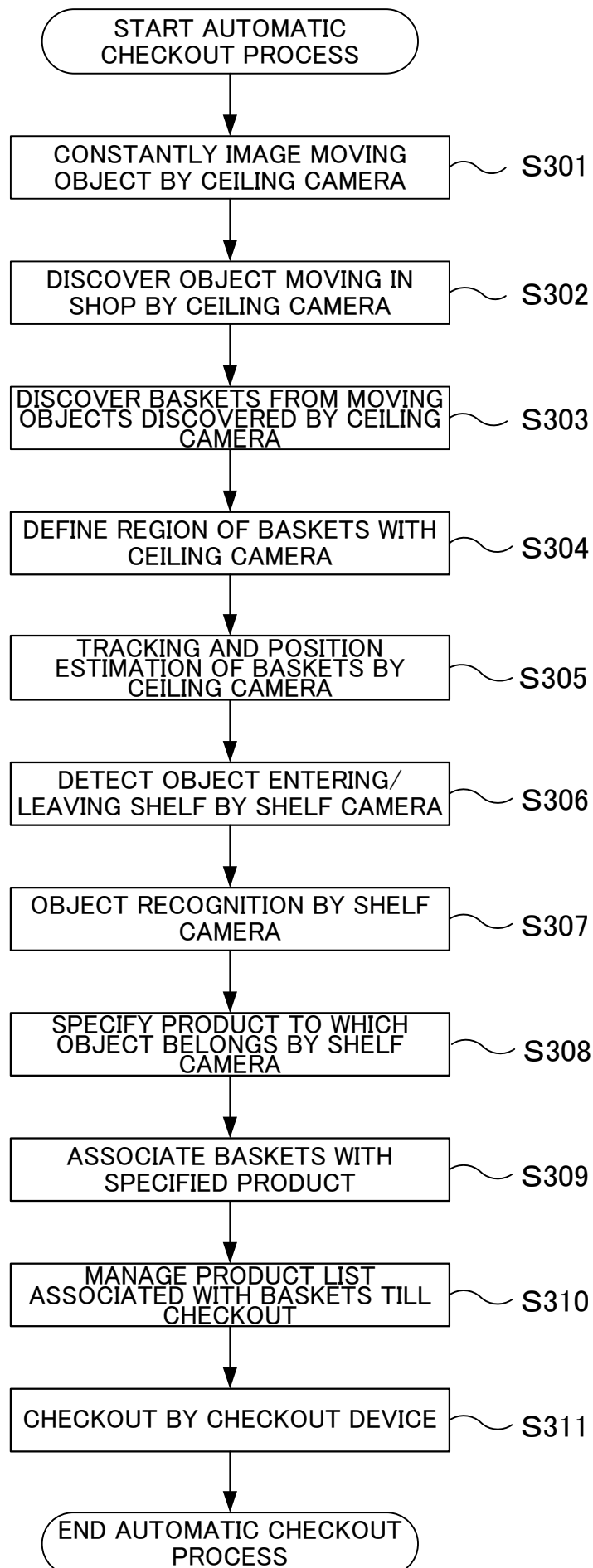


FIG. 30

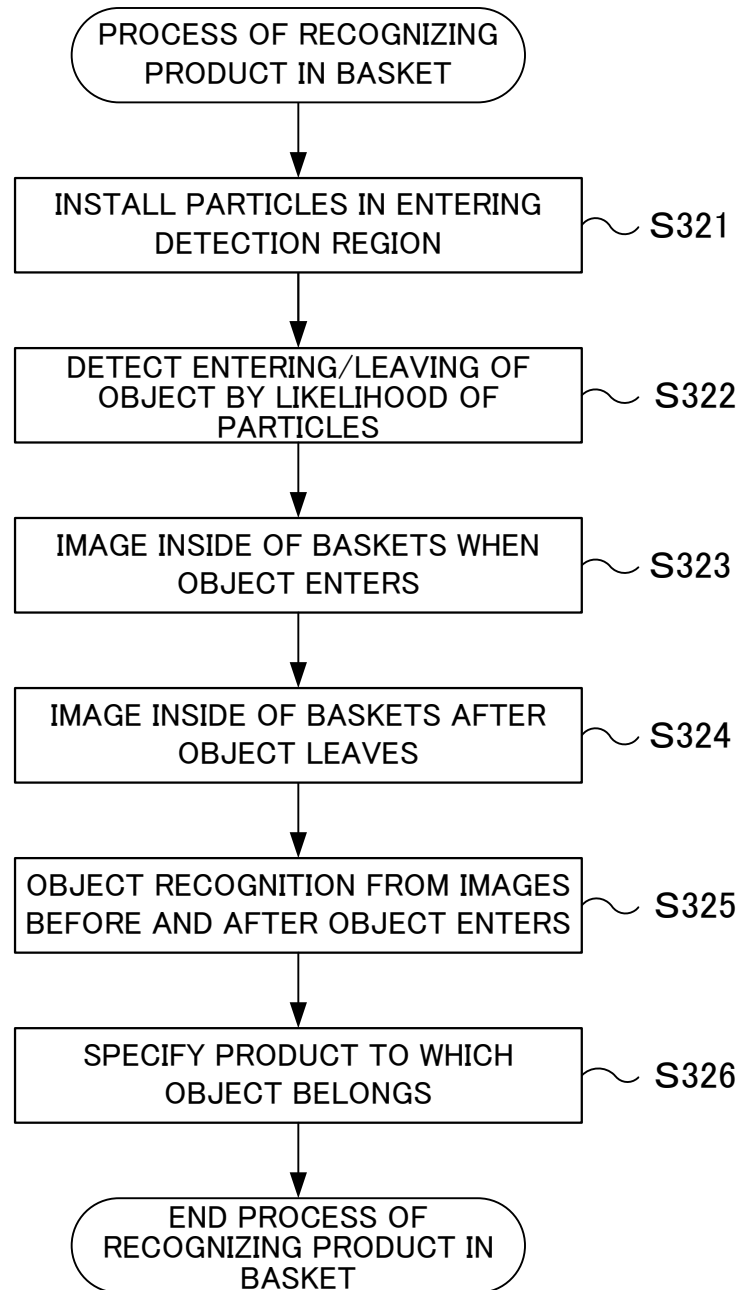


FIG. 32

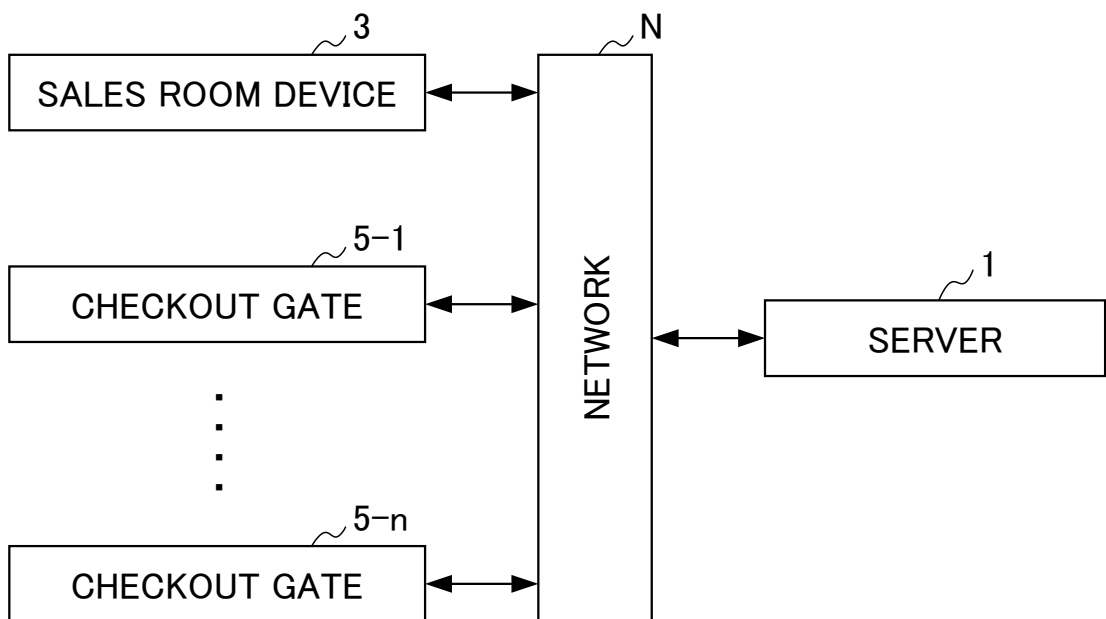


FIG. 33

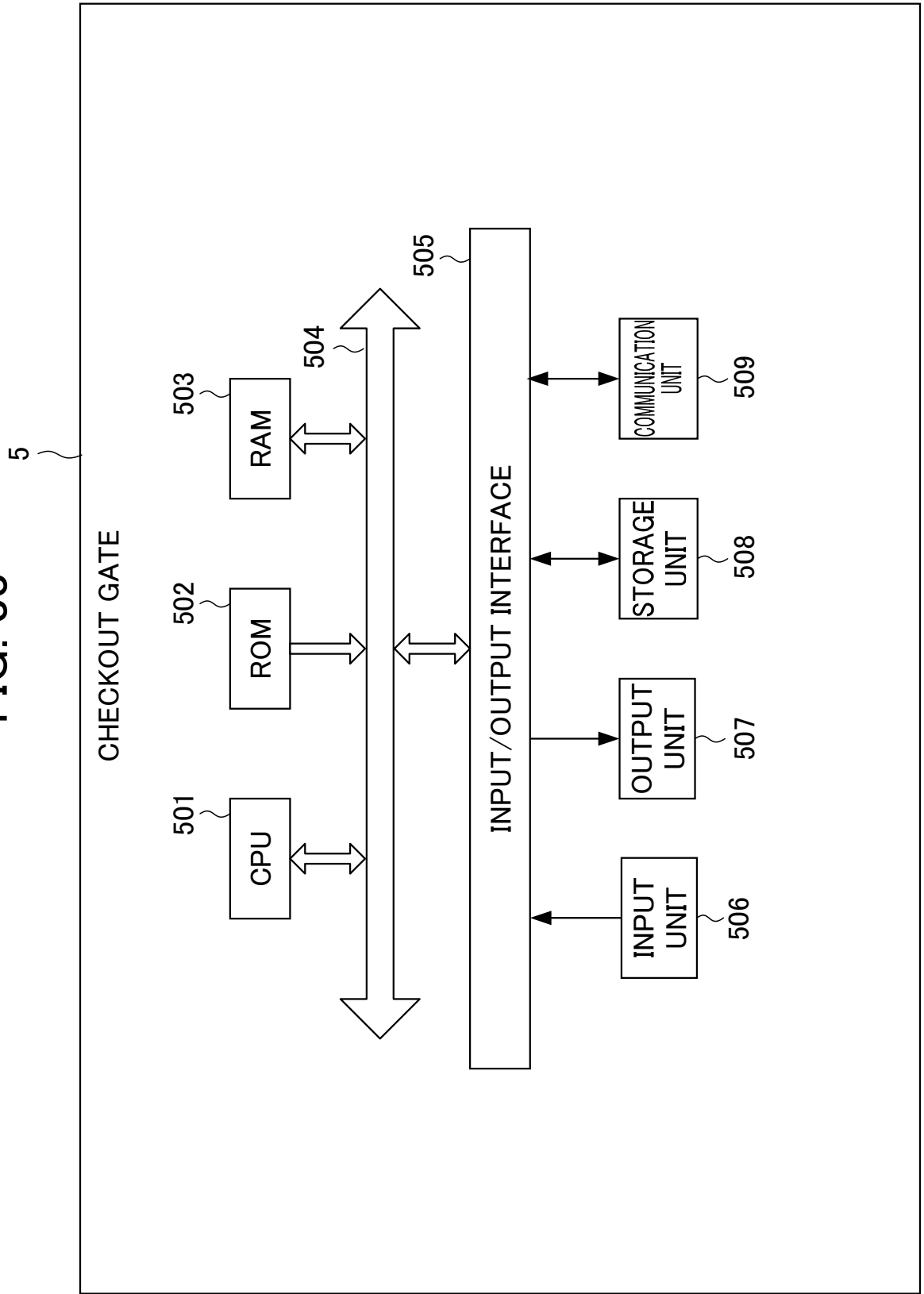


FIG. 34

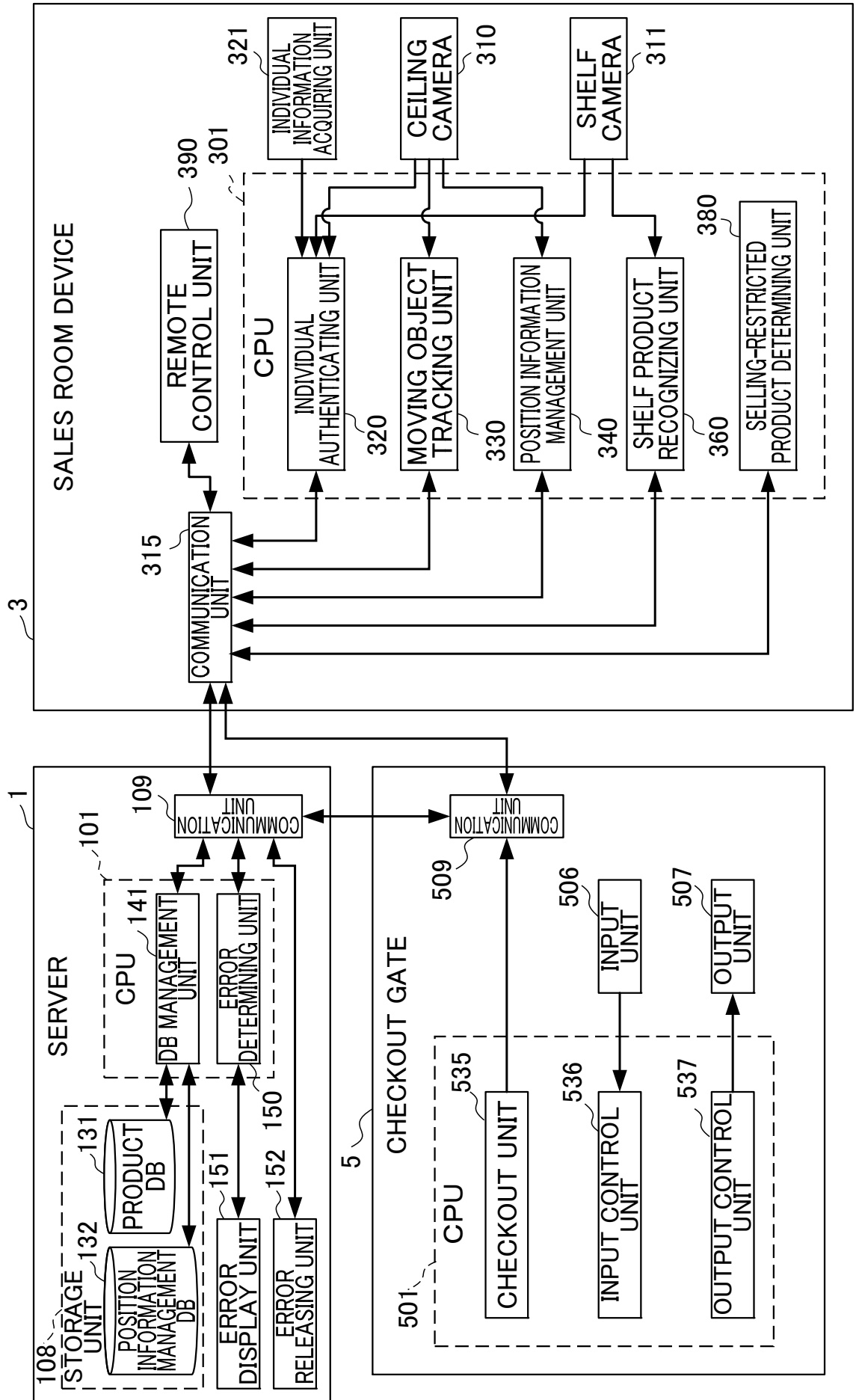


FIG. 35

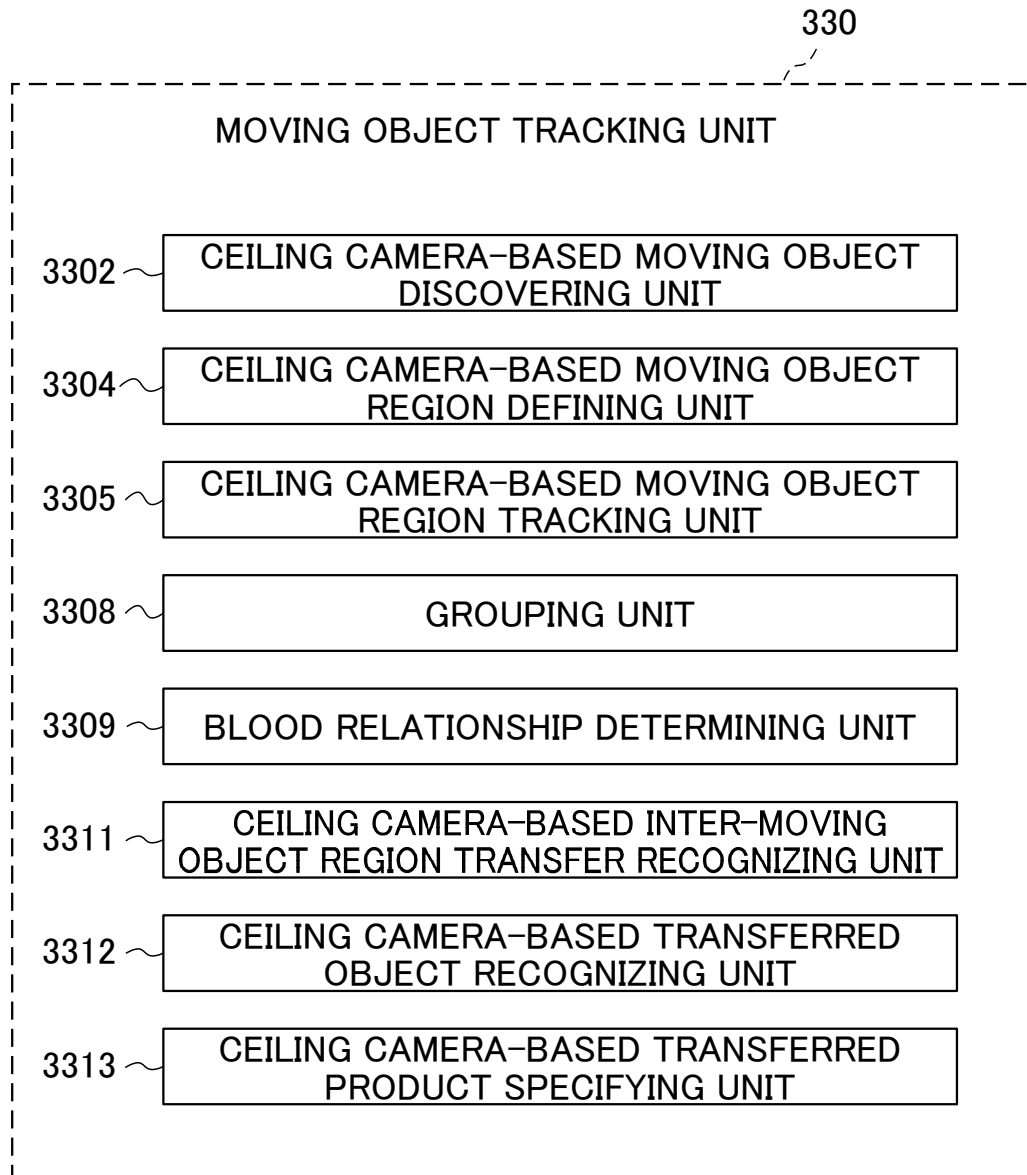


FIG. 36

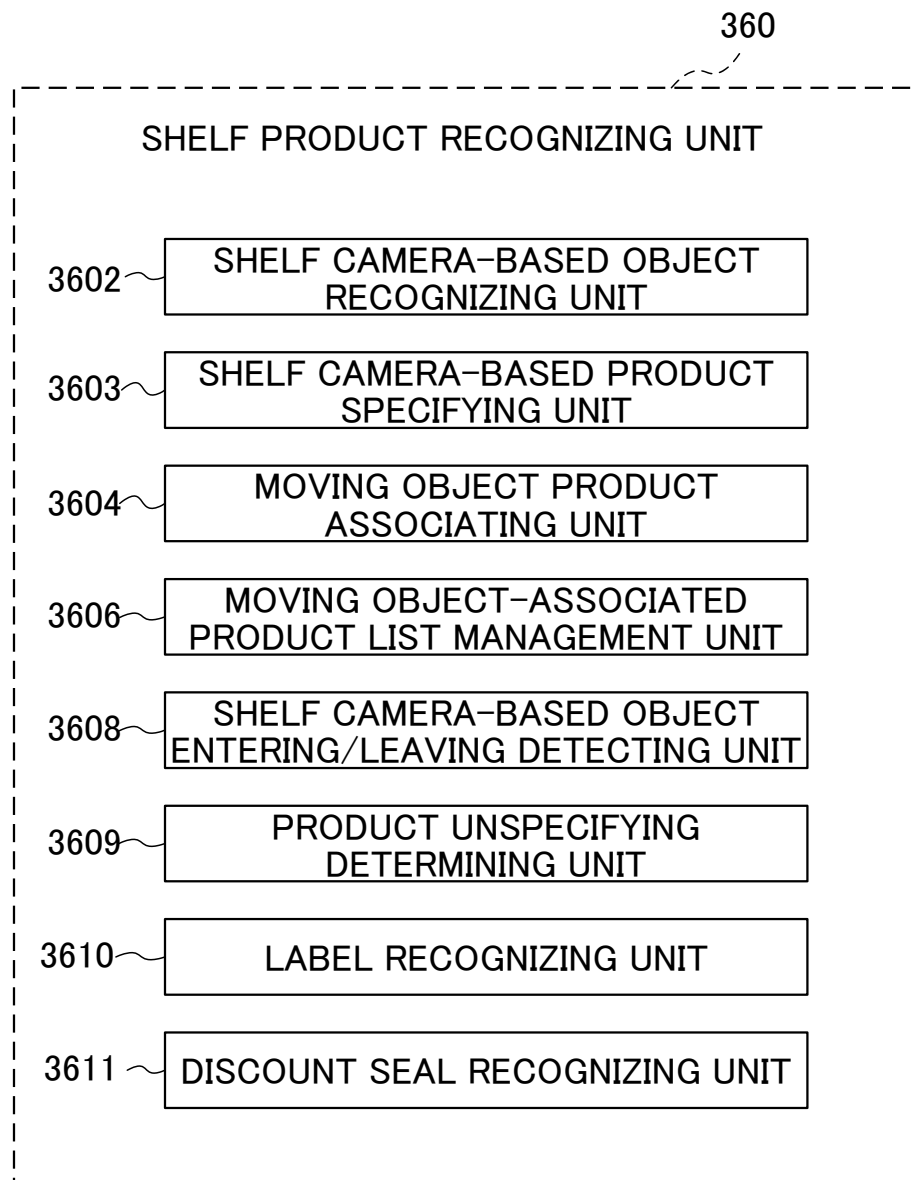


FIG. 37

