FIG. 1

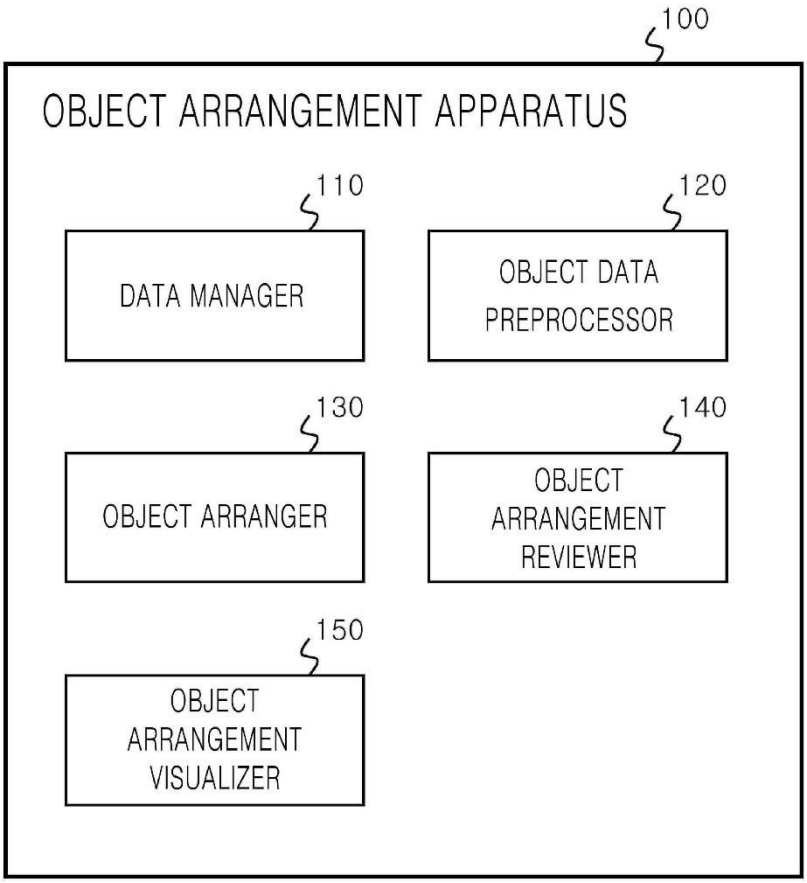

100
OBJECT ARRANGEMENT APPARATUS
110
DATA MANAGER
120
OBJECT DATA PREPROCESSOR
130
OBJECT ARRANGER
140
OBJECT ARRANGEMENT REVIEWER
150
OBJECT ARRANGEMENT VISUALIZER

FIG. 2

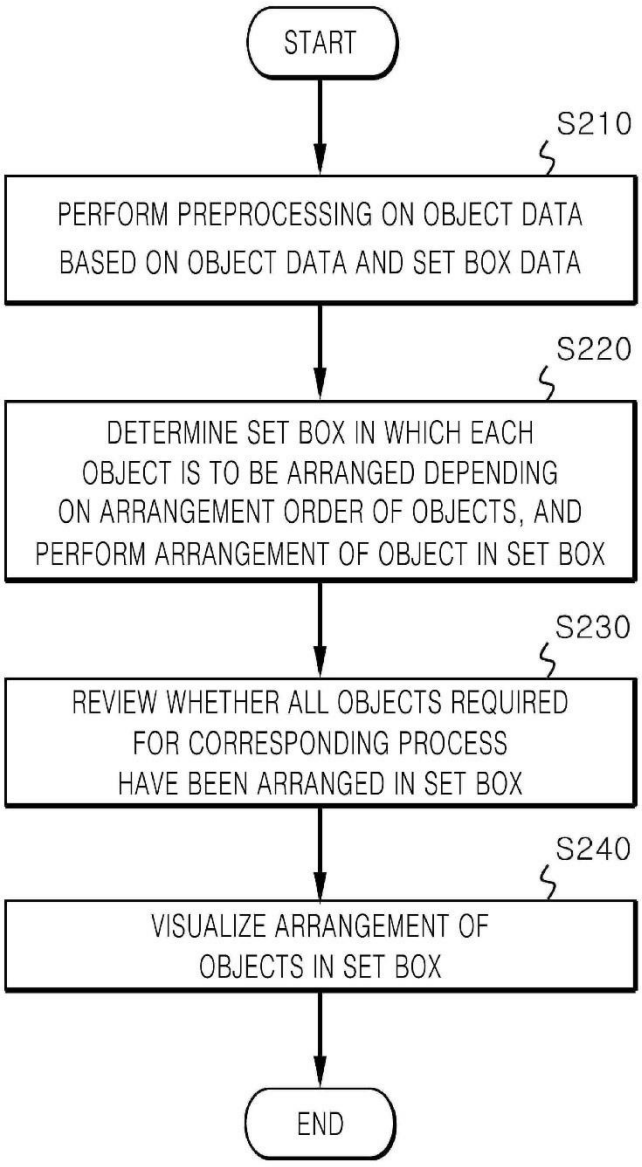
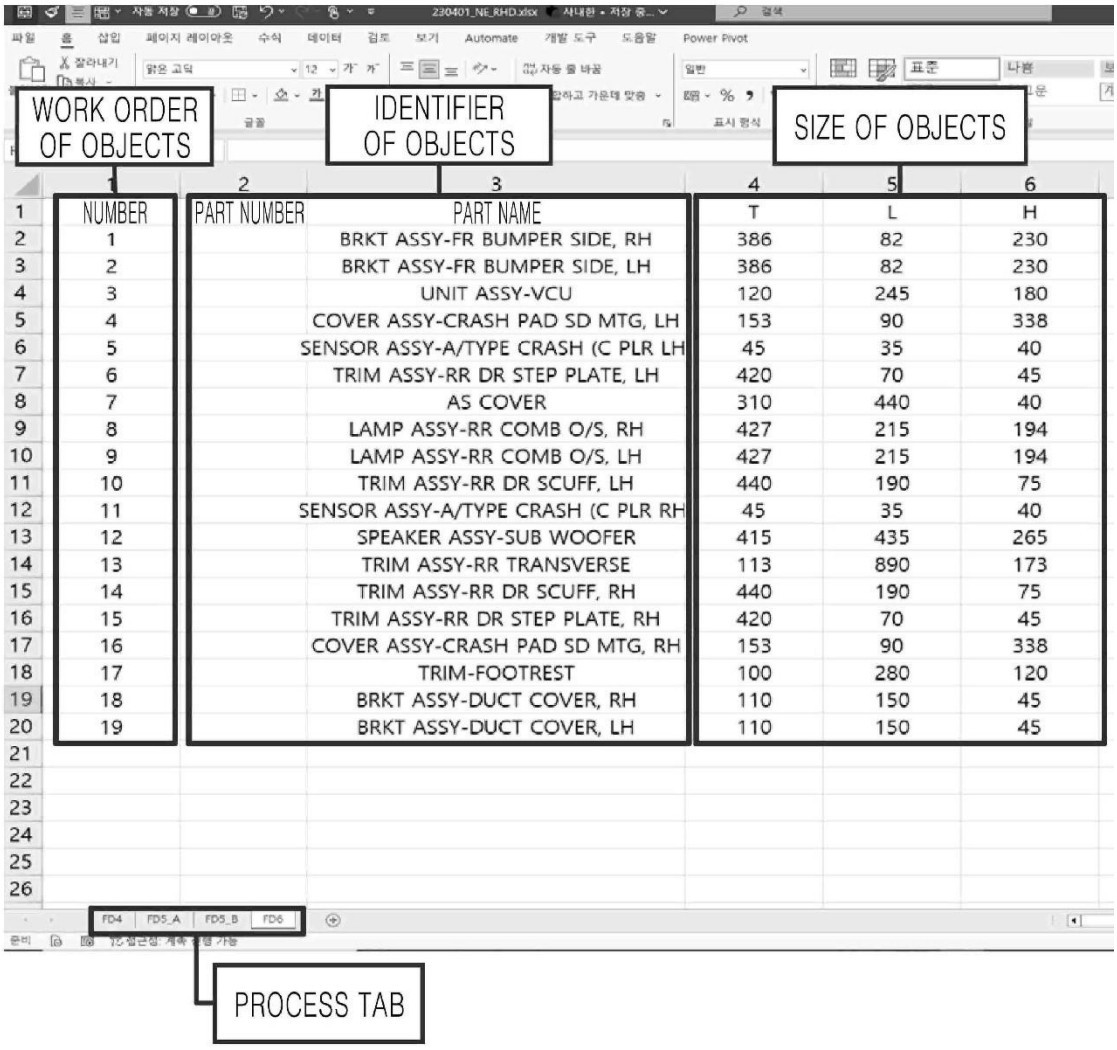

START
S210
PERFORM PREPROCESSING ON OBJECT DATA BASED ON OBJECT DATA AND SET BOX DATA
S220
DETERMINE SET BOX IN WHICH EACH OBJECT IS TO BE ARRANGED DEPENDING ON ARRANGEMENT ORDER OF OBJECTS, AND PERFORM ARRANGEMENT OF OBJECT IN SET BOX
S230
REVIEW WHETHER ALL OBJECTS REQUIRED FOR CORRESPONDING PROCESS HAVE BEEN ARRANGED IN SET BOX
S240
VISUALIZE ARRANGEMENT OF OBJECTS IN SET BOX
END

FIG. 3



	1	2	3	4	5	6
1	NUMBER	PART NUMBER	PART NAME	T	L	H
2	1		BRKT ASSY-FR BUMPER SIDE, RH	386	82	230
3	2		BRKT ASSY-FR BUMPER SIDE, LH	386	82	230
4	3		UNIT ASSY-VCU	120	245	180
5	4		COVER ASSY-CRASH PAD SD MTG, LH	153	90	338
6	5		SENSOR ASSY-A/TYPE CRASH (C PLR LH	45	35	40
7	6		TRIM ASSY-RR DR STEP PLATE, LH	420	70	45
8	7		AS COVER	310	440	40
9	8		LAMP ASSY-RR COMB O/S, RH	427	215	194
10	9		LAMP ASSY-RR COMB O/S, LH	427	215	194
11	10		TRIM ASSY-RR DR SCUFF, LH	440	190	75
12	11		SENSOR ASSY-A/TYPE CRASH (C PLR RH	45	35	40
13	12		SPEAKER ASSY-SUB WOOFER	415	435	265
14	13		TRIM ASSY-RR TRANSVERSE	113	890	173
15	14		TRIM ASSY-RR DR SCUFF, RH	440	190	75
16	15		TRIM ASSY-RR DR STEP PLATE, RH	420	70	45
17	16		COVER ASSY-CRASH PAD SD MTG, RH	153	90	338
18	17		TRIM-FOOTREST	100	280	120
19	18		BRKT ASSY-DUCT COVER, RH	110	150	45
20	19		BRKT ASSY-DUCT COVER, LH	110	150	45
21						
22						
23						
24						
25						
26						

FIG. 4

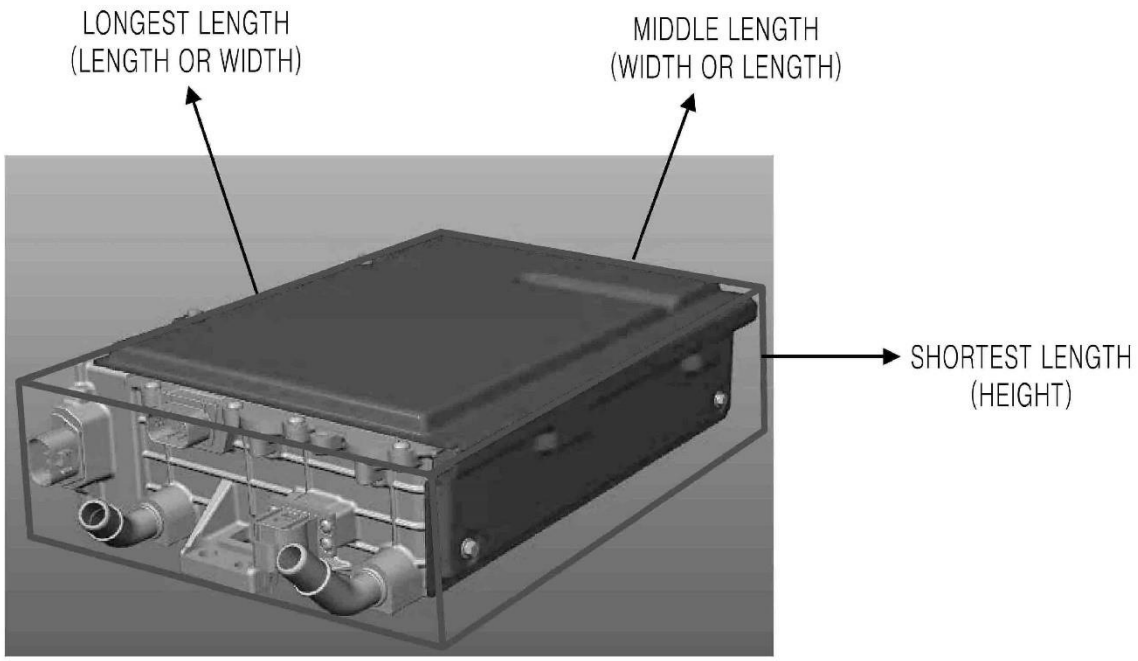
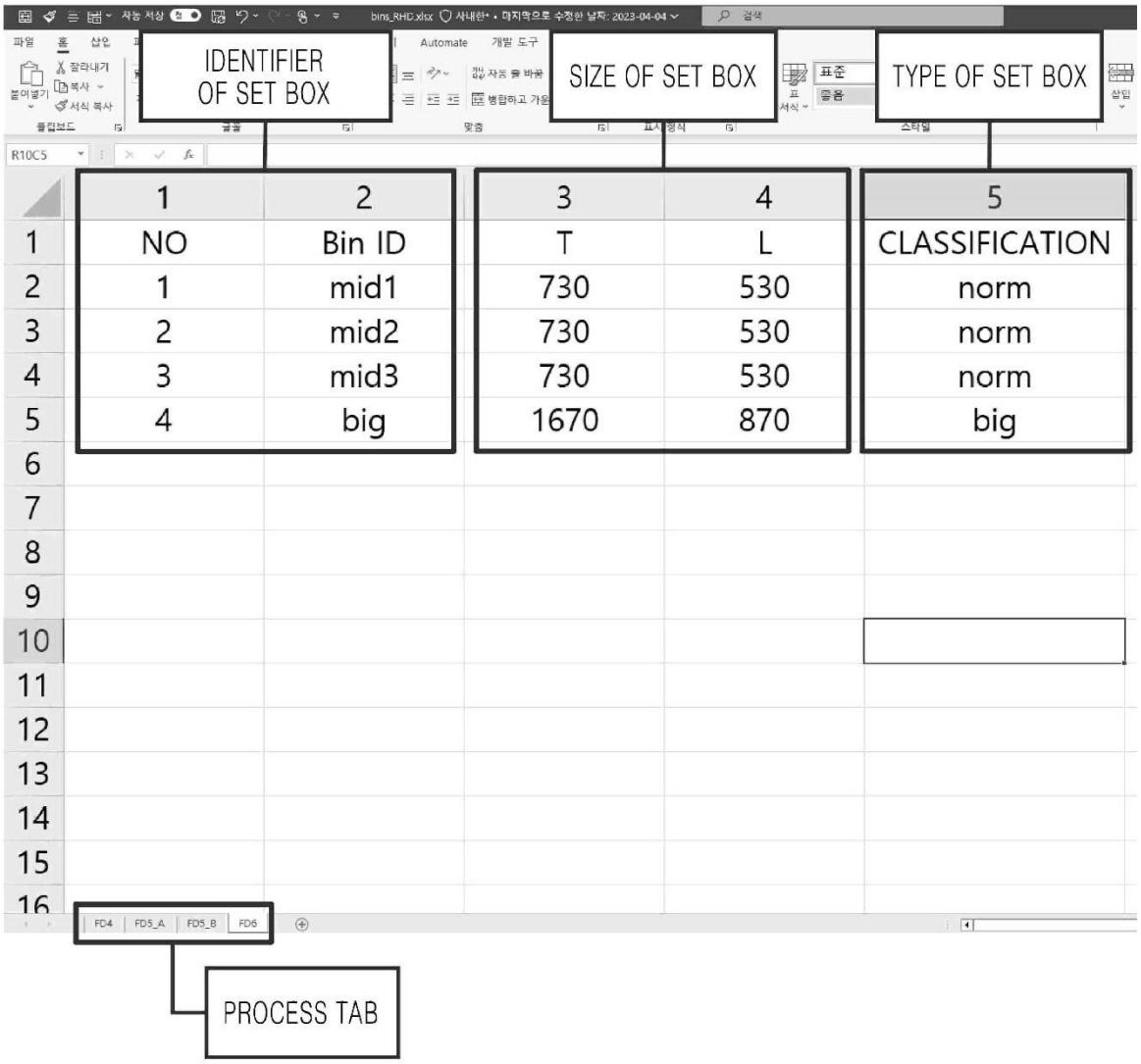

LONGEST LENGTH
(LENGTH OR WIDTH)
MIDDLE LENGTH
(WIDTH OR LENGTH)
SHORTEST LENGTH
(HEIGHT)

FIG. 5



	1	2	3	4	5
1	NO	Bin ID	T	L	CLASSIFICATION
2	1	mid1	730	530	norm
3	2	mid2	730	530	norm
4	3	mid3	730	530	norm
5	4	big	1670	870	big

FIG. 6

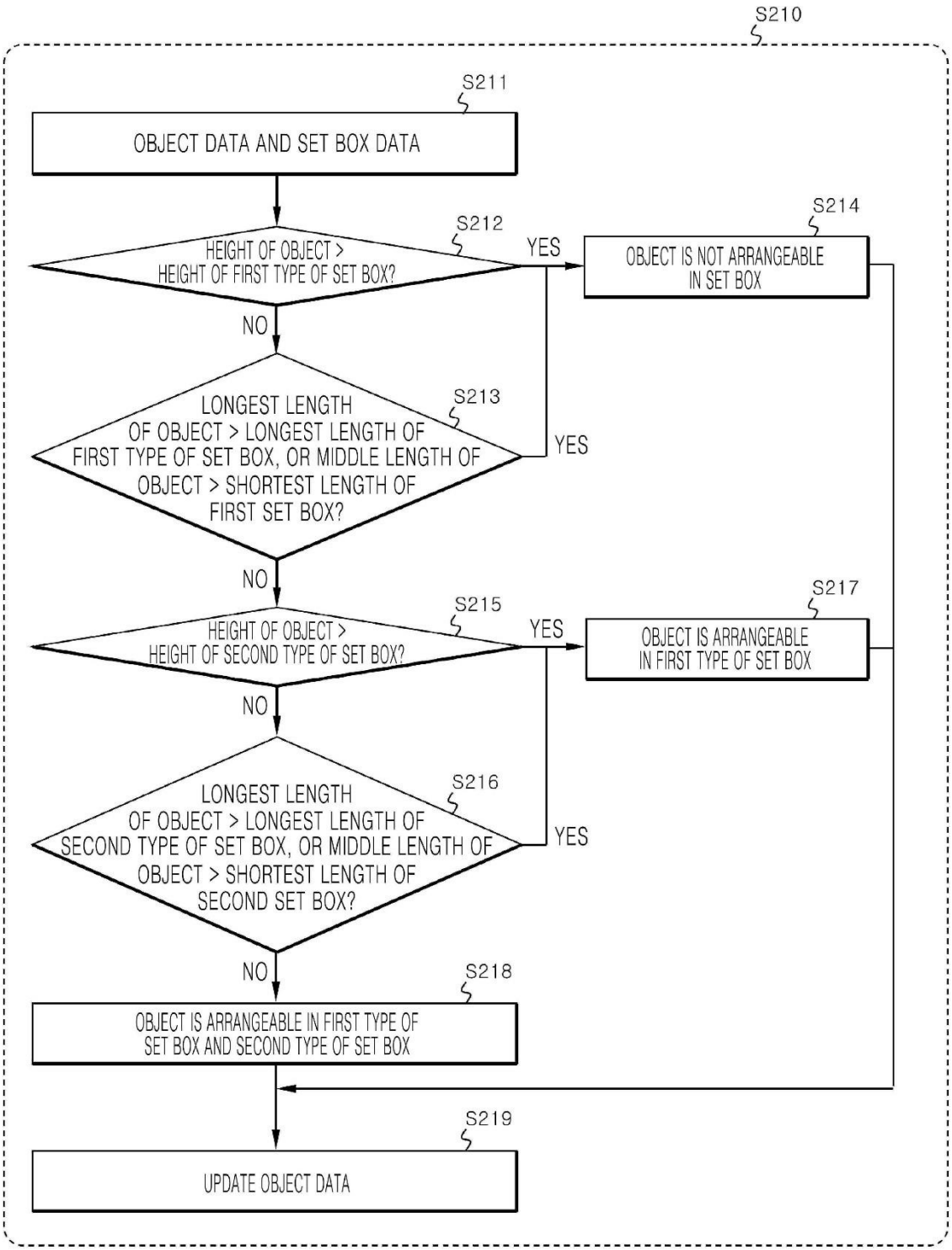

S210
S211
OBJECT DATA AND SET BOX DATA
S212
HEIGHT OF OBJECT > HEIGHT OF FIRST TYPE OF SET BOX?
YES
S214
OBJECT IS NOT ARRANGEABLE IN SET BOX
NO
S213
LONGEST LENGTH OF OBJECT > LONGEST LENGTH OF FIRST TYPE OF SET BOX, OR MIDDLE LENGTH OF OBJECT > SHORTEST LENGTH OF FIRST SET BOX?
YES
NO
S215
HEIGHT OF OBJECT > HEIGHT OF SECOND TYPE OF SET BOX?
YES
S217
OBJECT IS ARRANGEABLE IN FIRST TYPE OF SET BOX
NO
S216
LONGEST LENGTH OF OBJECT > LONGEST LENGTH OF SECOND TYPE OF SET BOX, OR MIDDLE LENGTH OF OBJECT > SHORTEST LENGTH OF SECOND SET BOX?
YES
NO
S218
OBJECT IS ARRANGEABLE IN FIRST TYPE OF SET BOX AND SECOND TYPE OF SET BOX
S219
UPDATE OBJECT DATA

FIG. 7

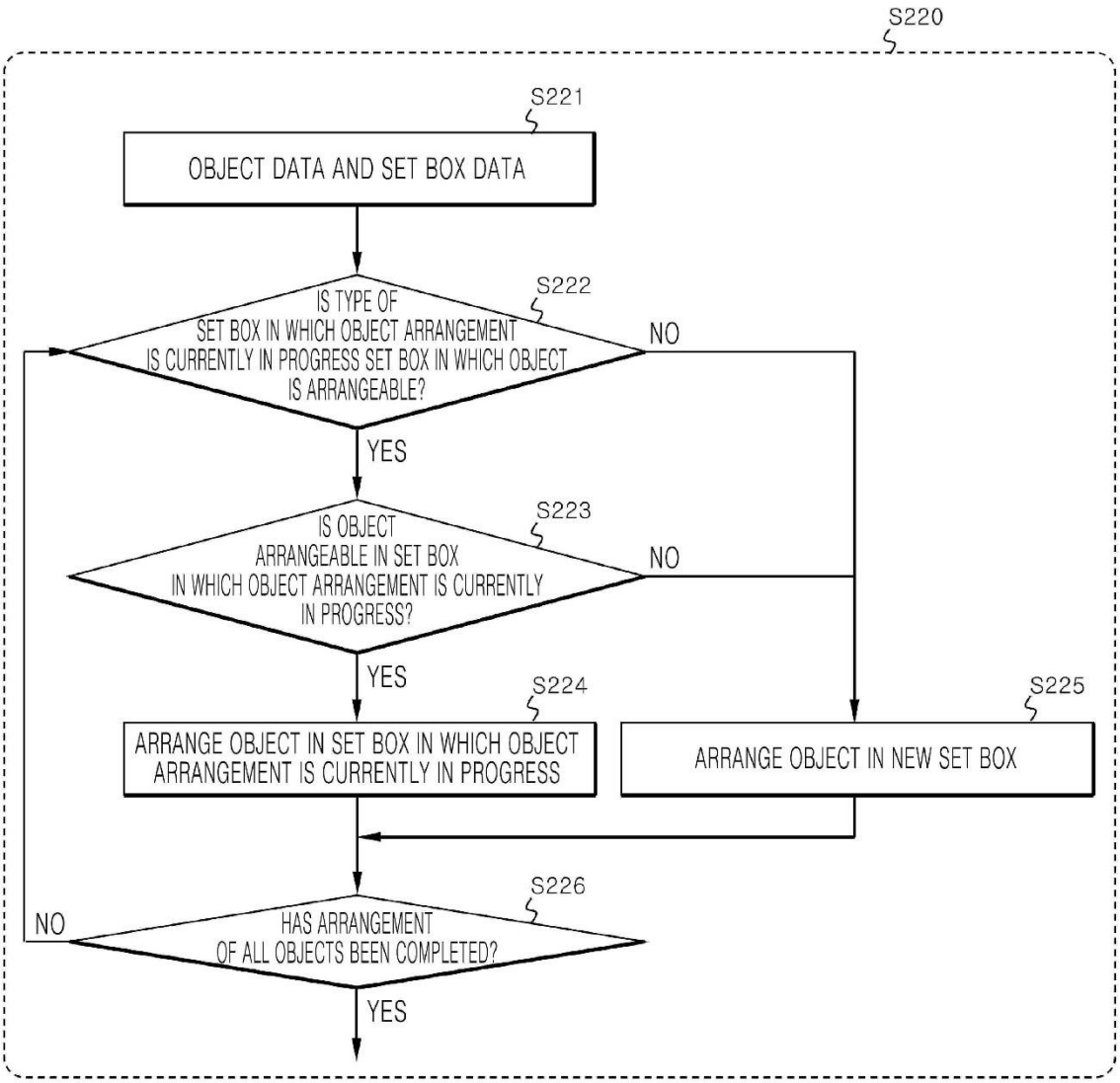

S220
S221
OBJECT DATA AND SET BOX DATA
S222
IS TYPE OF SET BOX IN WHICH OBJECT ARRANGEMENT IS CURRENTLY IN PROGRESS SET BOX IN WHICH OBJECT IS ARRANGEABLE?
NO
YES
S223
IS OBJECT ARRANGEABLE IN SET BOX IN WHICH OBJECT ARRANGEMENT IS CURRENTLY IN PROGRESS?
NO
YES
S224
ARRANGE OBJECT IN SET BOX IN WHICH OBJECT ARRANGEMENT IS CURRENTLY IN PROGRESS
S225
ARRANGE OBJECT IN NEW SET BOX
S226
HAS ARRANGEMENT OF ALL OBJECTS BEEN COMPLETED?
NO
YES

FIG. 8A

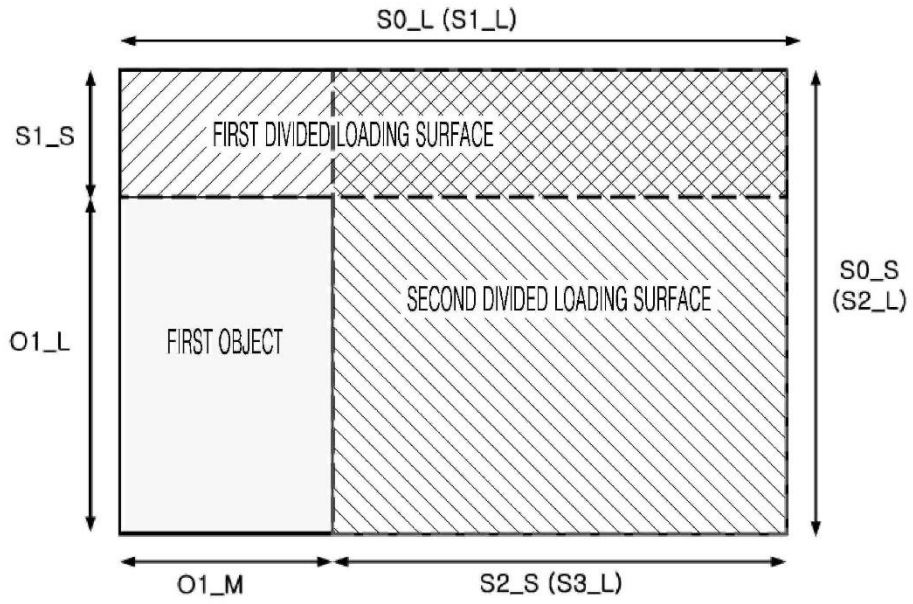

S0_L (S1_L)
S1_S
FIRST DIVIDED LOADING SURFACE
SECOND DIVIDED LOADING SURFACE
S0_S
(S2_L)
O1_L
FIRST OBJECT
O1_M
S2_S (S3_L)

FIG. 8B

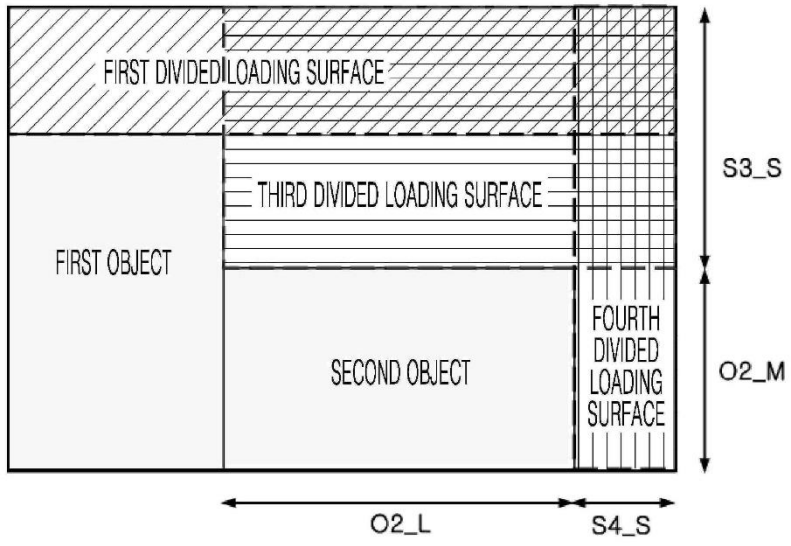
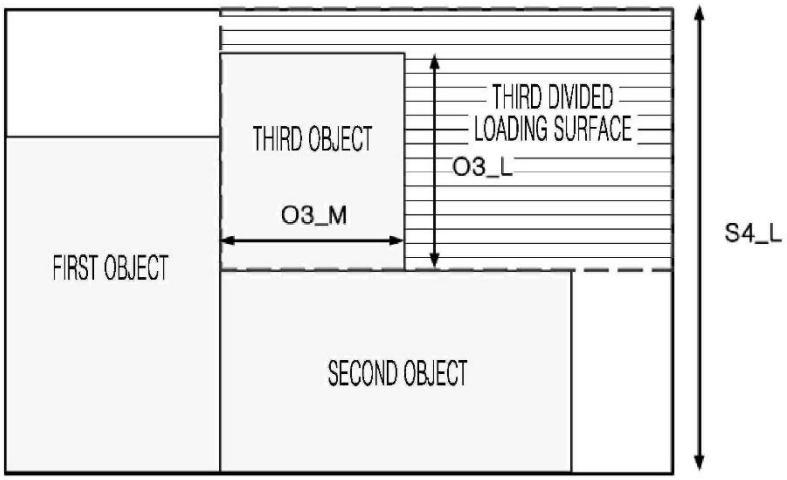

FIRST DIVIDED LOADING SURFACE
S3_S
THIRD DIVIDED LOADING SURFACE
FIRST OBJECT
SECOND OBJECT
FOURTH DIVIDED LOADING SURFACE
O2_M
O2_L
S4_S

FIG. 8C


THIRD OBJECT
THIRD DIVIDED
LOADING SURFACE
O3_L
O3_M
S4_L
FIRST OBJECT
SECOND OBJECT