

Cleaner Process

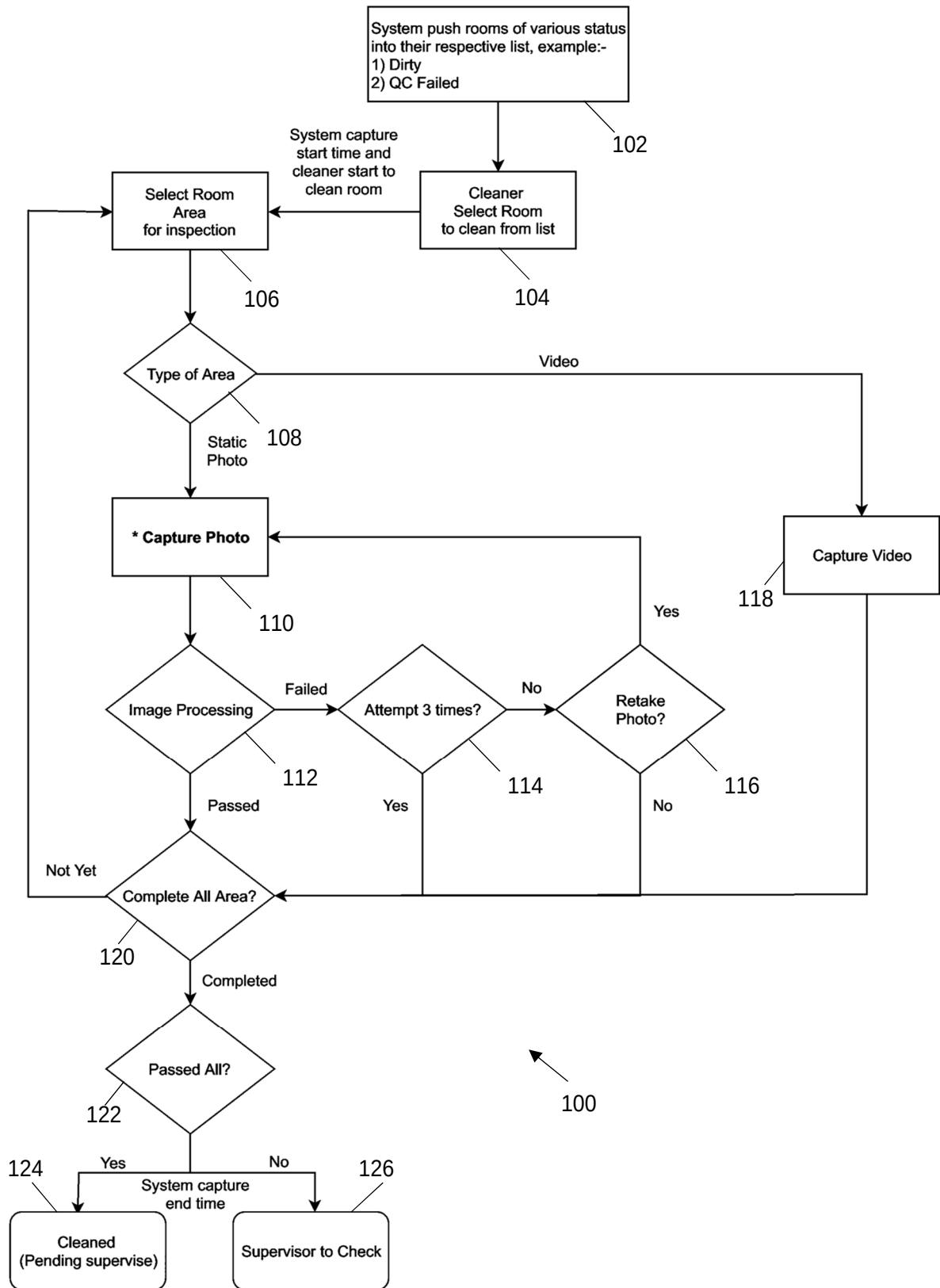
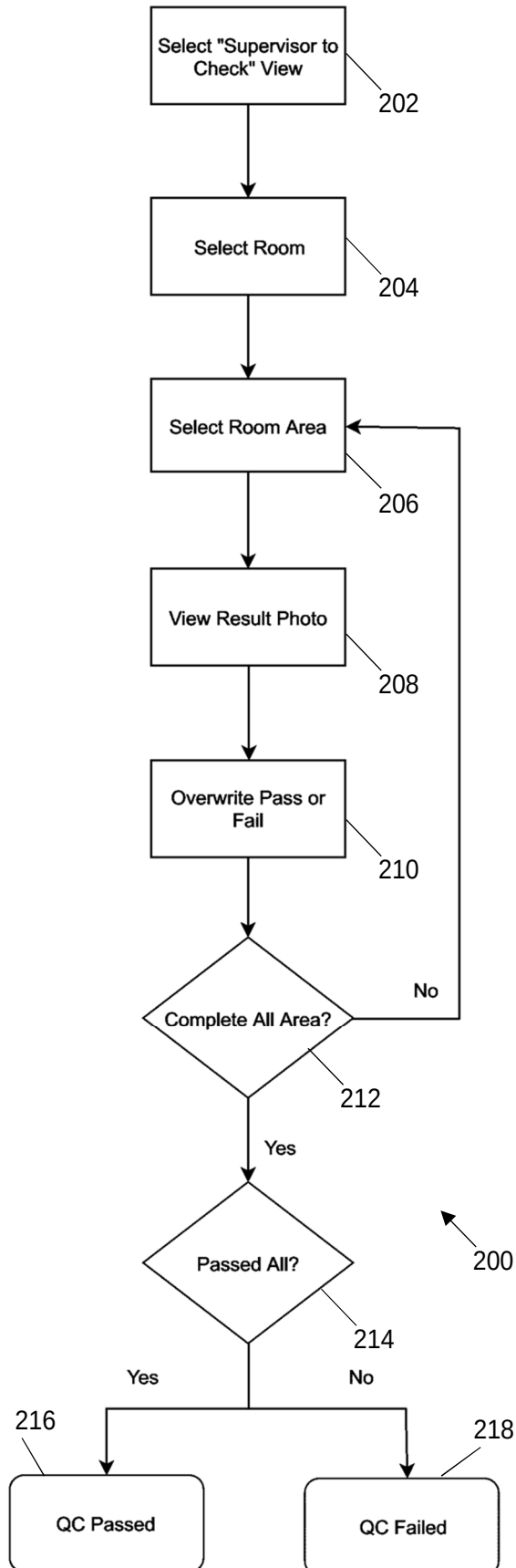


FIG. 1

FIG. 2 Supervisor Remote Checking Process



Supervisor on site checking Process

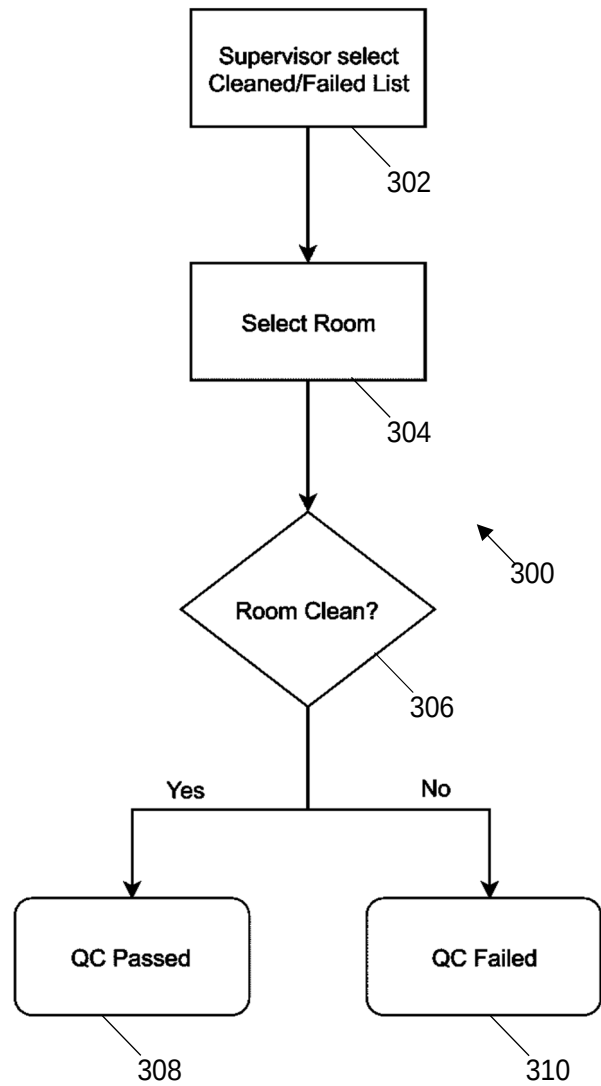


FIG. 3

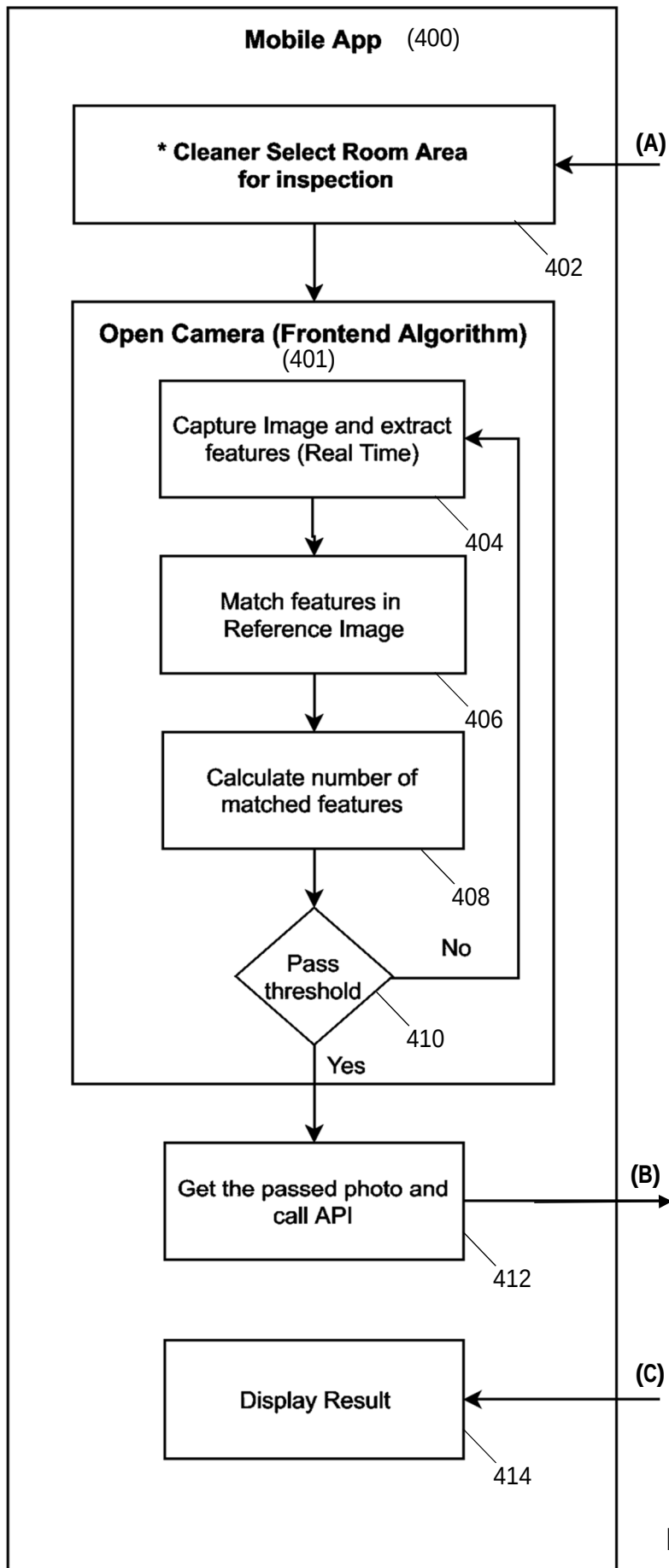


FIG. 4

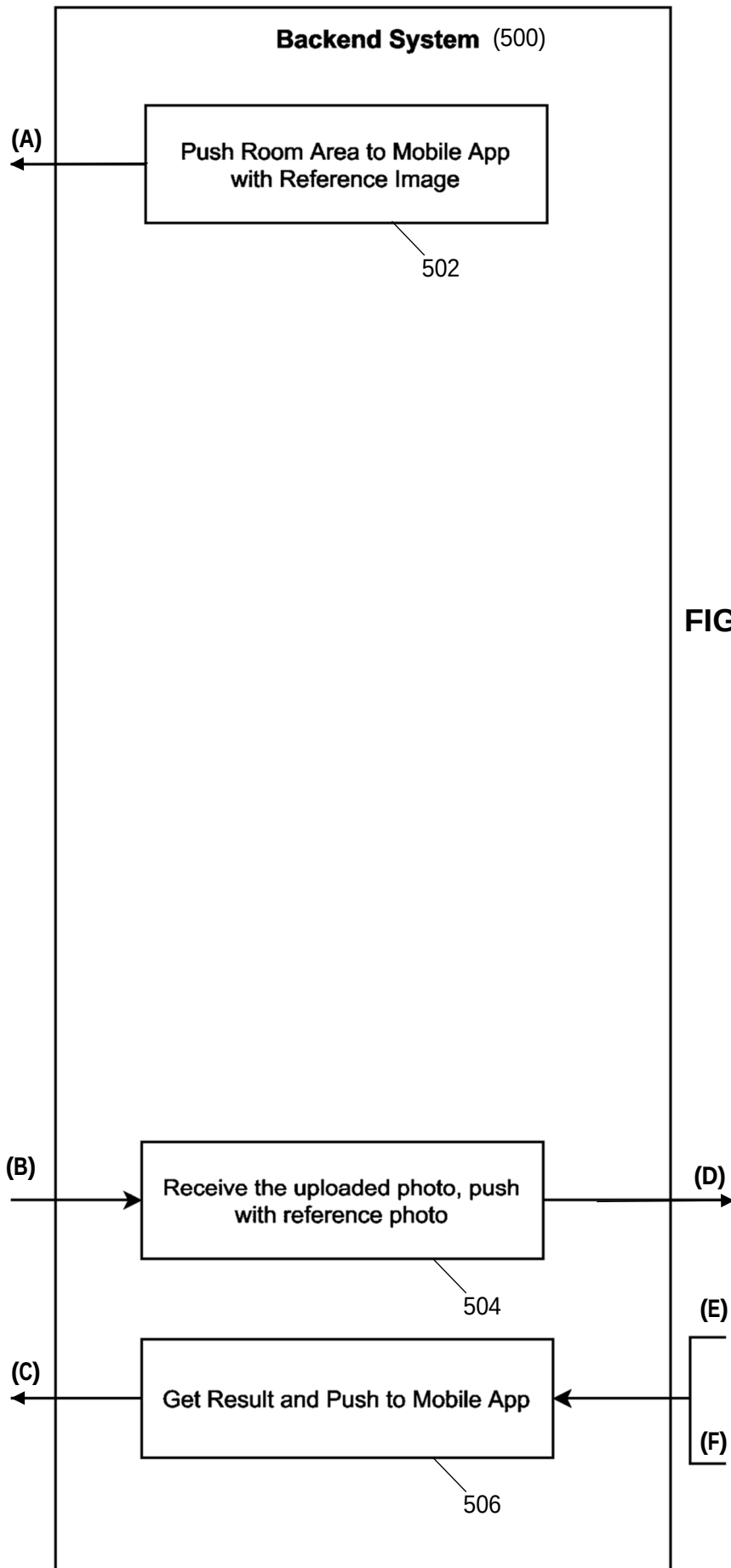


FIG. 5

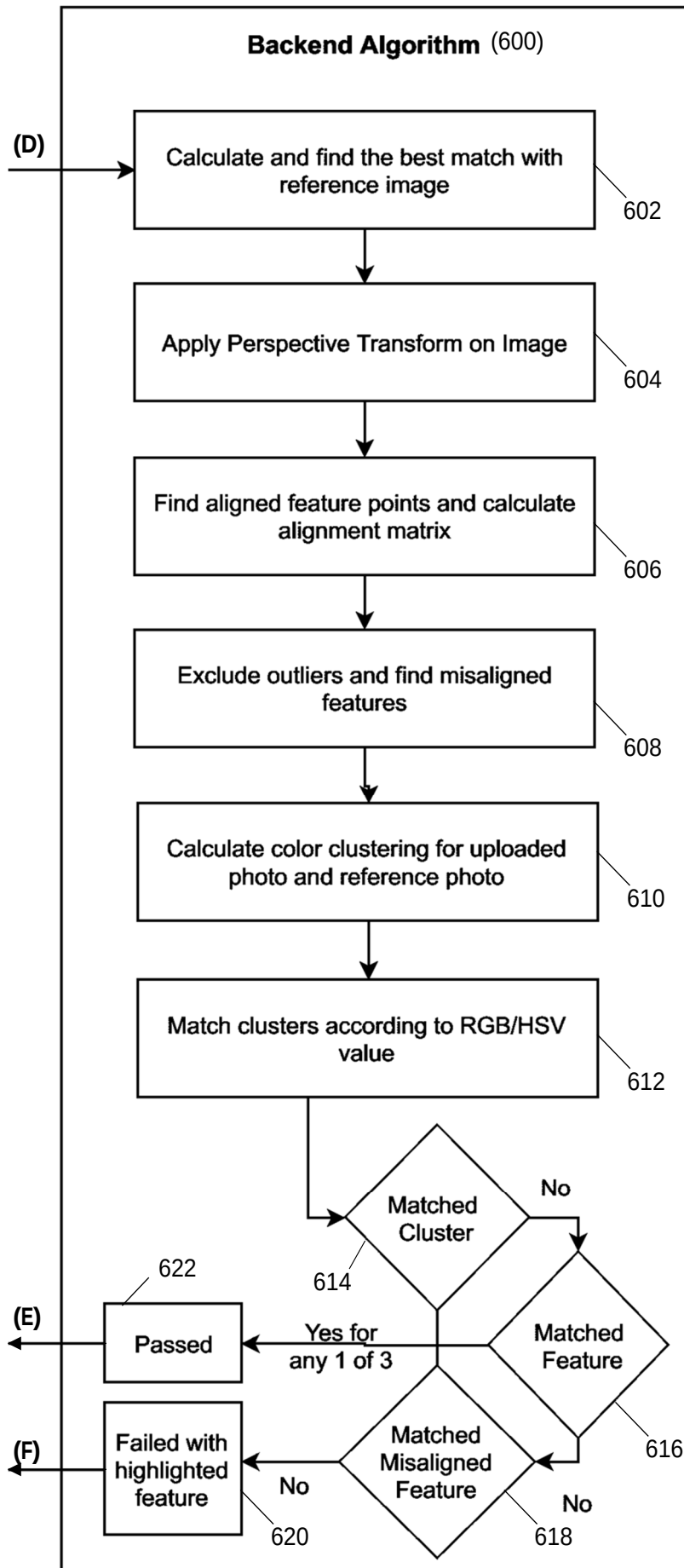
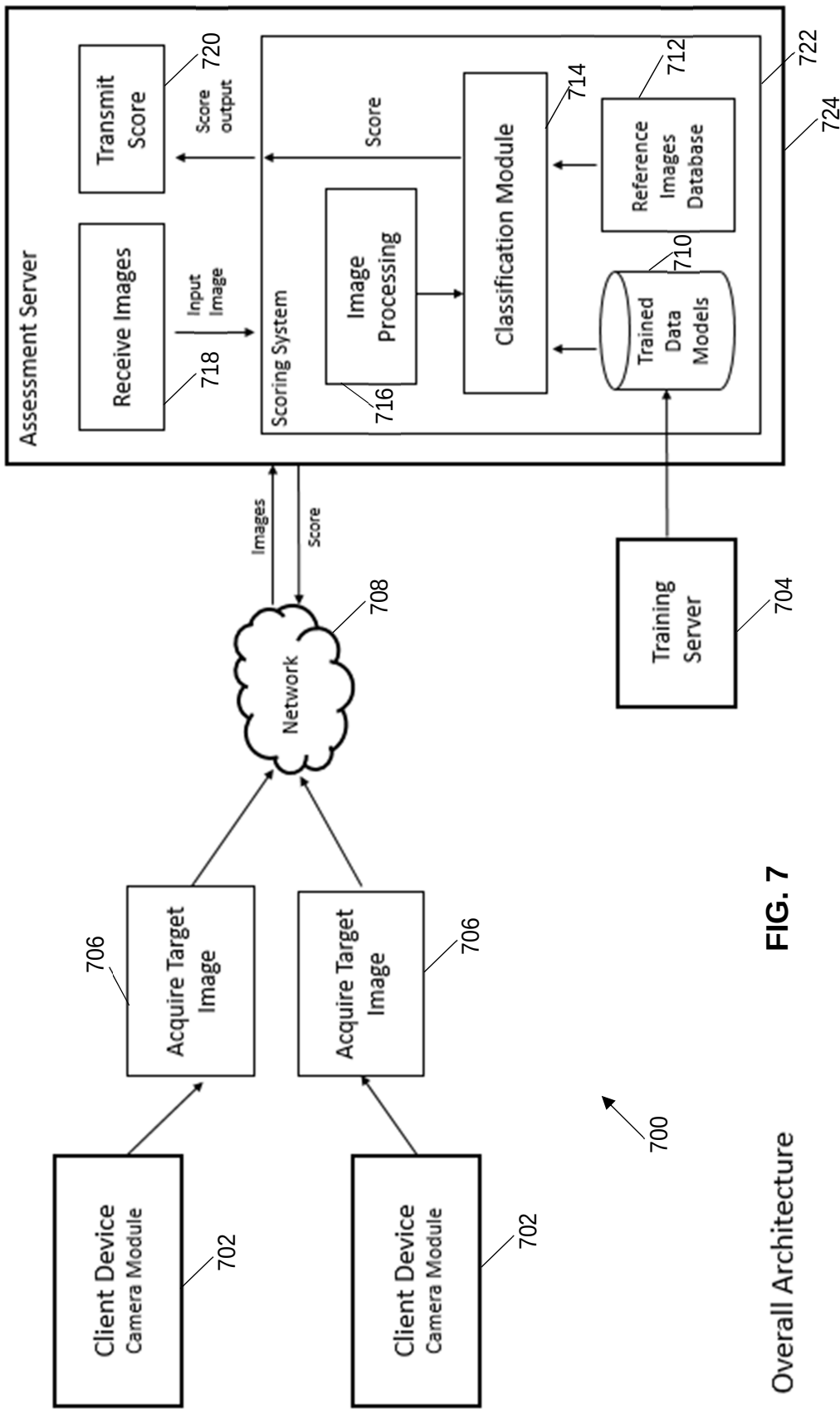


FIG. 6



Overall Architecture

FIG. 7

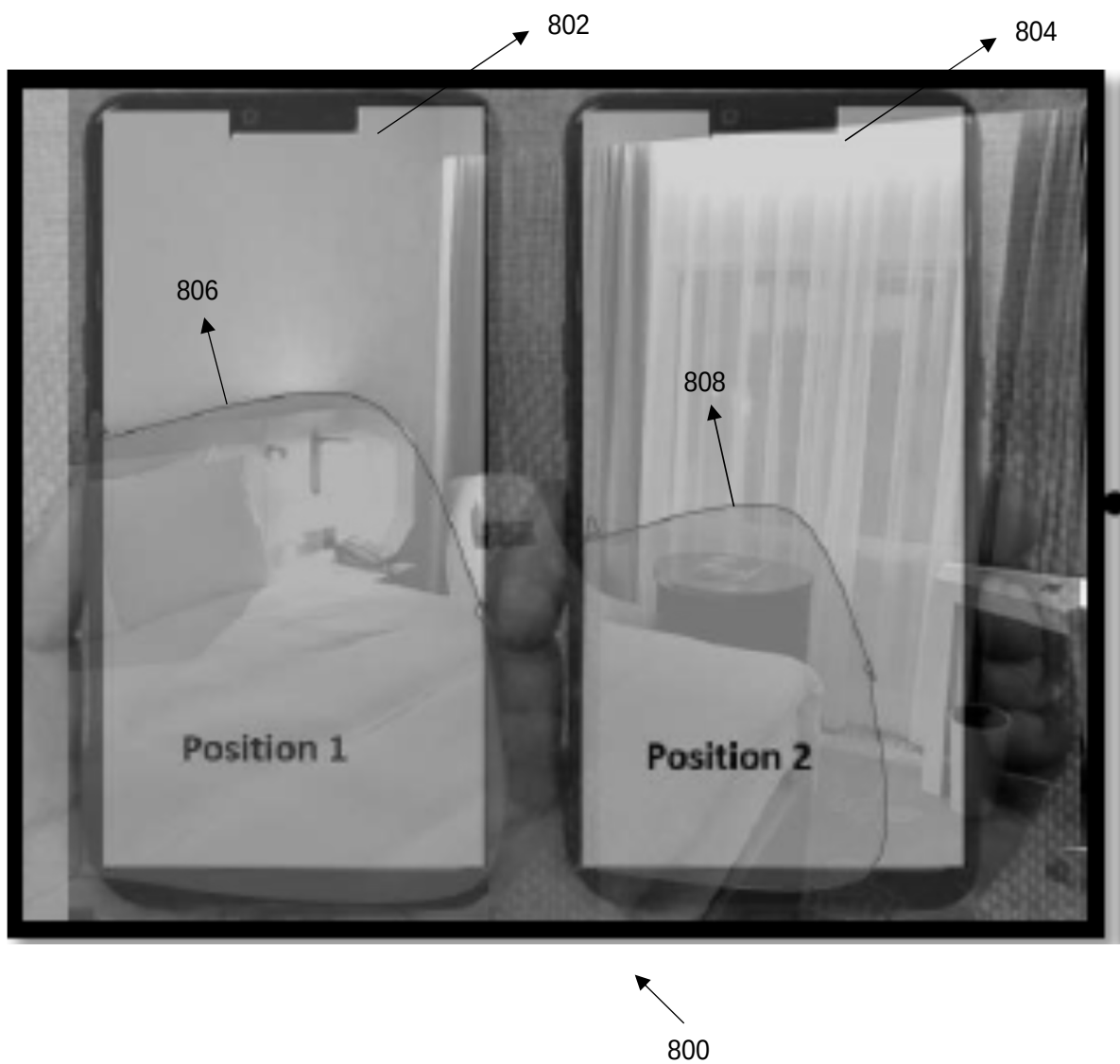


FIG. 8

Logon as : supName
Role: Supervisor

SELECT ROOM #
201

SELECT Housekeeper (dropdown)
hseKeeperName1 V

SELECT Year (Dropdown)
2019 V

SELECT Month (Dropdown)
SEPTEMBER - 2019 V

Performance Indicator – Room Level

Within Time Allocated (<30 mins)

Within Time Allocated (31-60 mins)

Exceed Time Allocated (> 60 mins)

Housekeeper Performance Record
(900A)

Date: DD-MM-YYYY
Time: nn:nn:nn

AREA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	29	30	31
Bed																														
Furniture																														
TV / Loose Items																														
Decorative																														
Floor / carpet																														
Windows and Curtains																														
Cupboard / Wardrobe																														
Fridge and mini bar																														
Lamps and lights																														
Trash bin (s)																														
Area 2 - Bathroom																														
Wash basin(s)																														
Toiletries																														
Toilet bowl																														
Toilet roll(s)																														
Shower area																														
Towels and mat																														
Taps																														
Floor																														
Lights																														
Trash bin (s)																														
Mirror																														

FIG. 9

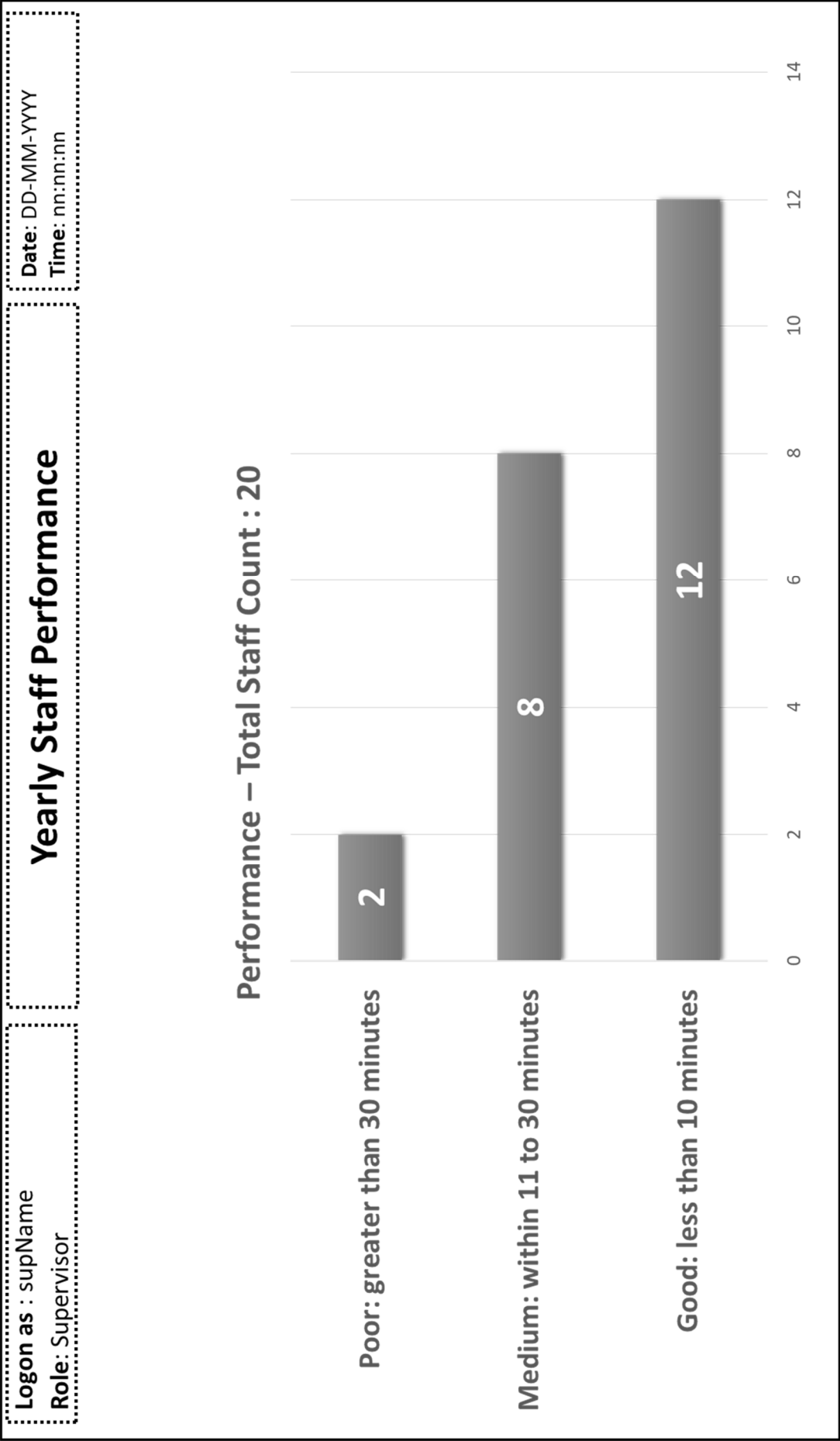


FIG. 10

Logon as : supName Role: Supervisor		Room Item Review (1100A)		Date: DD-MM-YYYY Time: nn:nn:nn																					
Housekeeper: hseKeeperName		Room #: 201		Date: 20-AUG-2019 Time: 09:45:00 am																					
				Type: Scheduled / Adhoc																					
<table border="1"> <tr> <td>BED</td> <td>Fail</td> </tr> <tr> <td>TV Console</td> <td>Pass</td> </tr> <tr> <td>Floor / Carpet</td> <td>Fail</td> </tr> <tr> <td>Fridge / Minibar</td> <td>Fail</td> </tr> <tr> <td>Minibar</td> <td>Fail</td> </tr> <tr> <td>Lamps / Lights</td> <td>Fail</td> </tr> <tr> <td>Trash Bins</td> <td>Pass</td> </tr> <tr> <td>Windows / Curtains</td> <td>Pass</td> </tr> <tr> <td>Decorations</td> <td>Pass</td> </tr> <tr> <td>Wardrobe</td> <td>Pass</td> </tr> </table>		BED	Fail	TV Console	Pass	Floor / Carpet	Fail	Fridge / Minibar	Fail	Minibar	Fail	Lamps / Lights	Fail	Trash Bins	Pass	Windows / Curtains	Pass	Decorations	Pass	Wardrobe	Pass	REFERENCE IMAGE		Current Captured Image	
BED	Fail																								
TV Console	Pass																								
Floor / Carpet	Fail																								
Fridge / Minibar	Fail																								
Minibar	Fail																								
Lamps / Lights	Fail																								
Trash Bins	Pass																								
Windows / Curtains	Pass																								
Decorations	Pass																								
Wardrobe	Pass																								
		Fail Count: 5		Override																					
		Comments:																							
		SELECT AREA (Dropdown)																							
		Bed Area (1/3)		V																					
		Bathroom Area (2/3)																							
		Study Table Area (3/3)																							
1		>> 3		CONFIRM/APPROVE																					
				CANCEL																					

FIG. 11A

Room Item Detail Review (1100B)		Date: DD-MM-YYYY Time: nn:nn:nn	
Room #: 201		Date: 20-AUG-2019	
Logon as : supName Role: Supervisor		Housekeeper: hseKeeperName	
Date/Time 20-Sep-2019	Room 201	Image List	
SELECT AREA (Dropdown) BED (1/15) V		Image 1 Fail	
TV Console (2/15)		Image 2 Fail	
Floor / Carpet (3/15)		Image 3 Fail	
Performance Indicator – Item Level		Image 3 Pass	
Within Time Allocated (<15 mins) Within Time Allocated (15-19 mins) Exceed Time Allocated (>= 20 mins)		Start: 8:01:00 ← 05 mins →	
		8:06:00 ← 03mins →	
		8:09:00 ← 06.02 mins →	
		End: 8:15:02	
TOTAL TIME TAKEN: 14.02 minutes		1 >> 1	

FIG. 11B

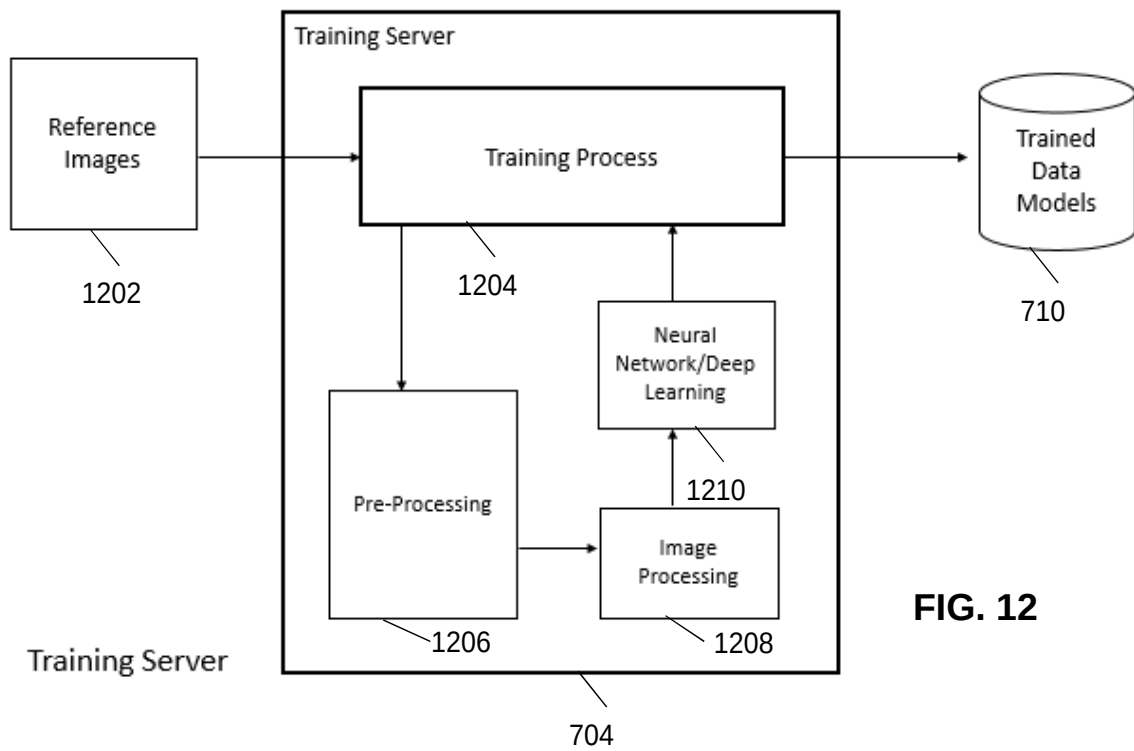


FIG. 12

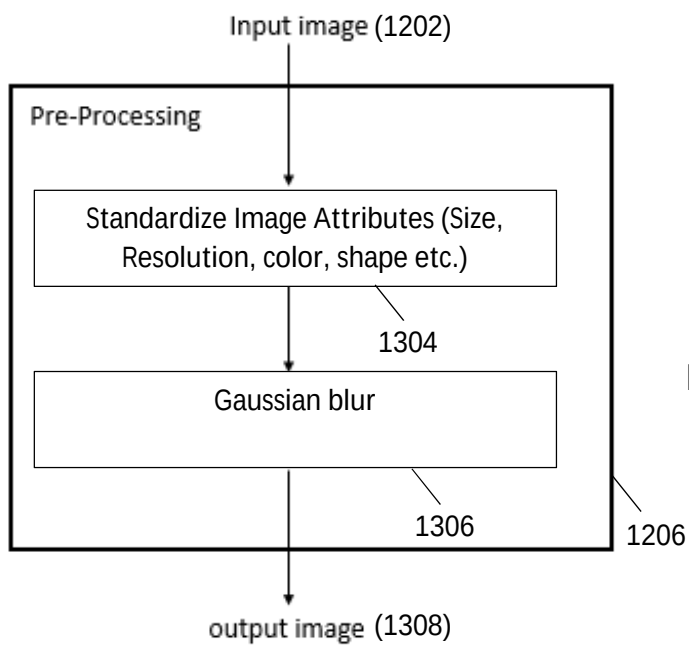


FIG. 13

Pre-Processing

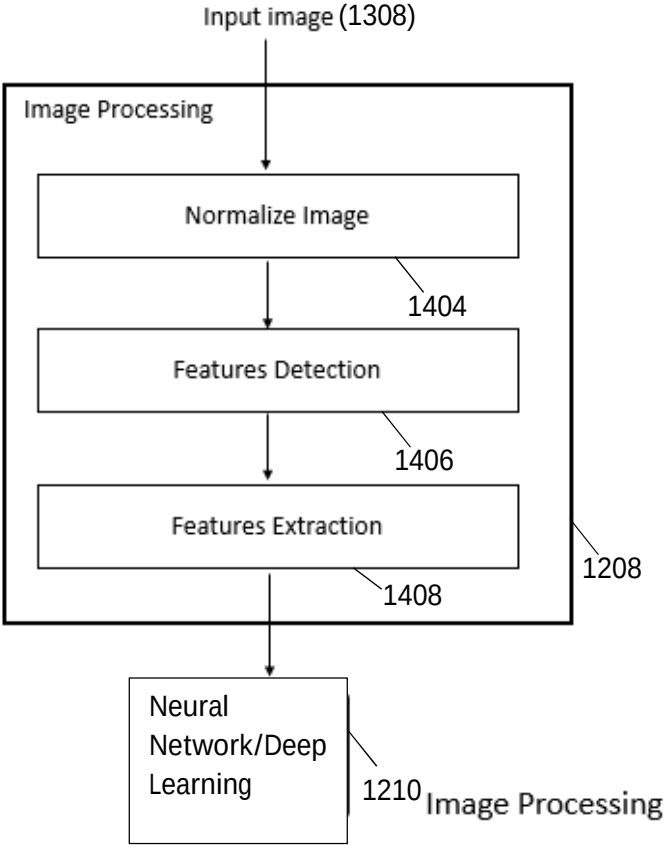
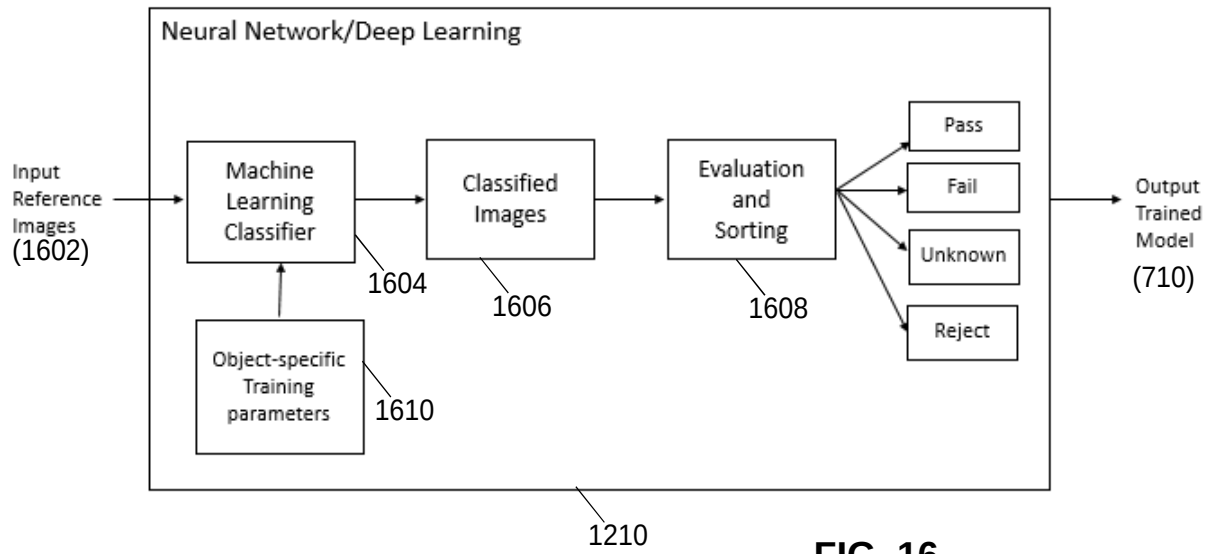


FIG. 14

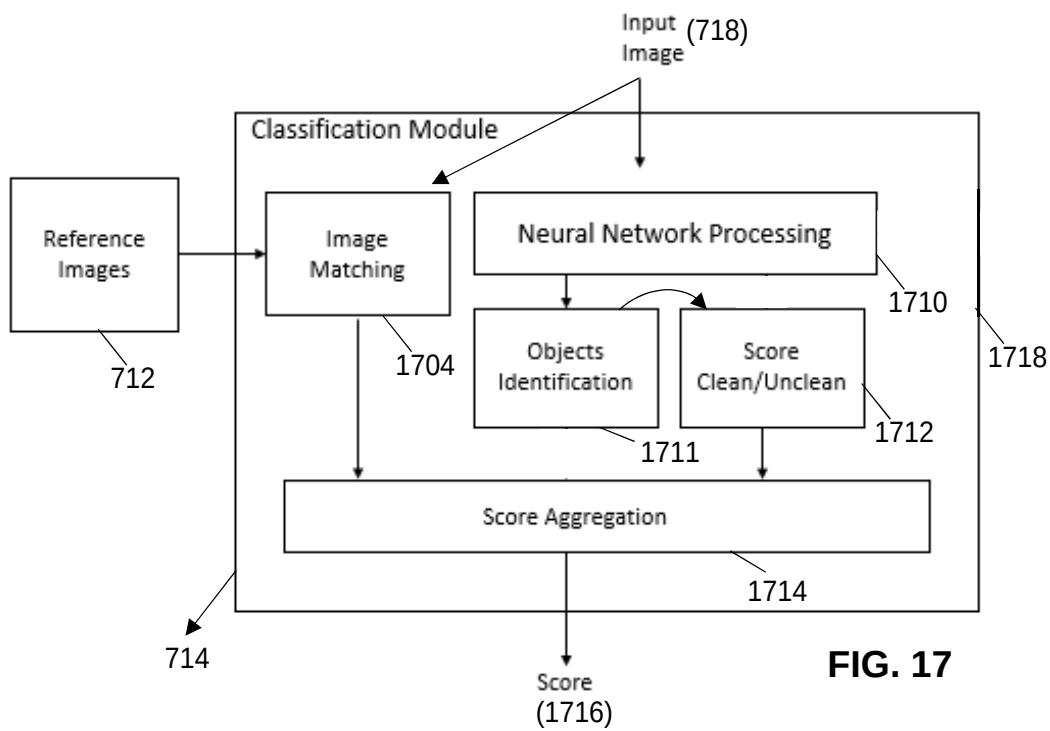
0.12	0.12	0.12	0.13	0.14
0.14	0.15	0.80	0.78	0.78
0.18	0.80	0.81	0.81	0.80
0.80	0.80	0.82	0.82	0.82

FIG. 15

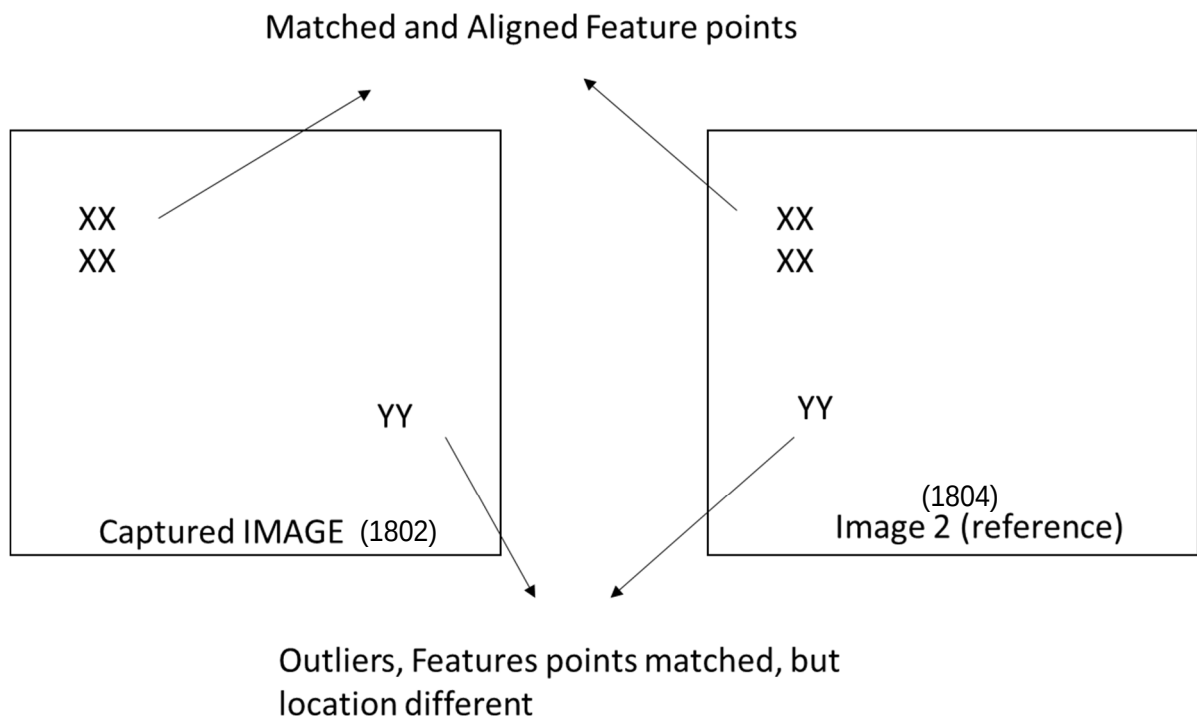
1500



Training – Neural Network/Machine Learning



Classification Module

**FIG. 18**

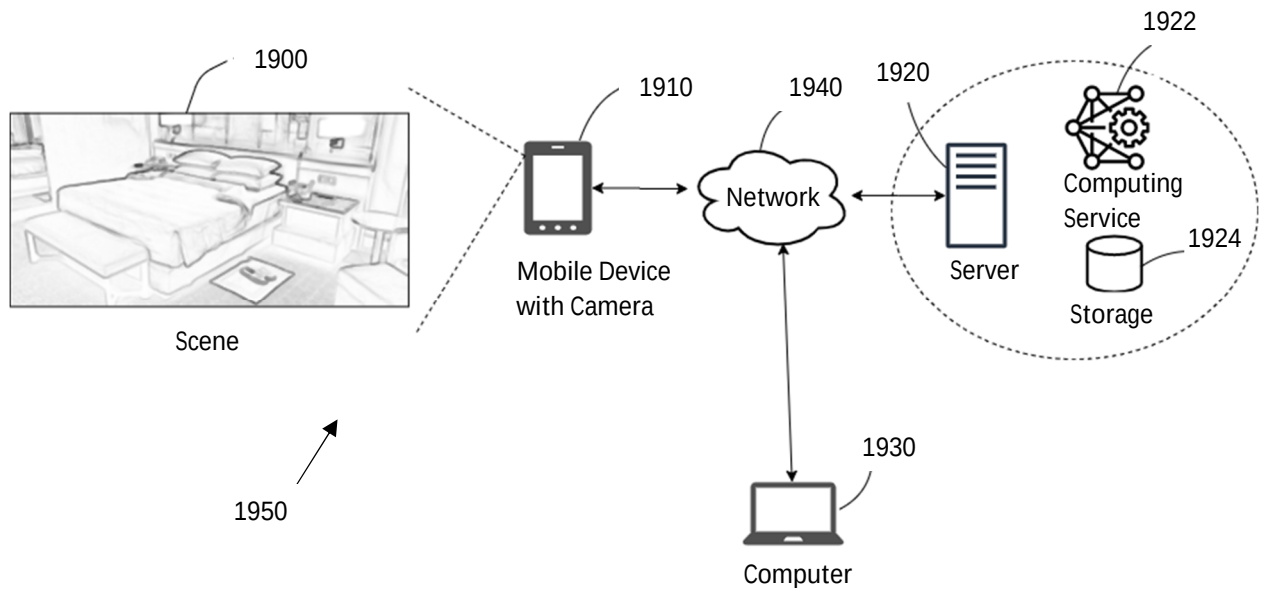


FIG. 19

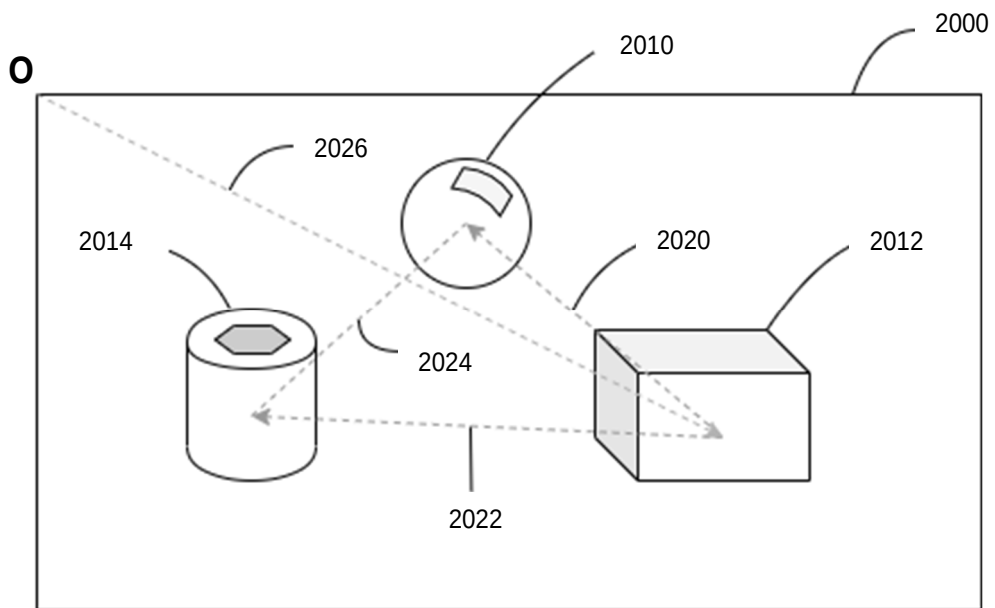


FIG. 20

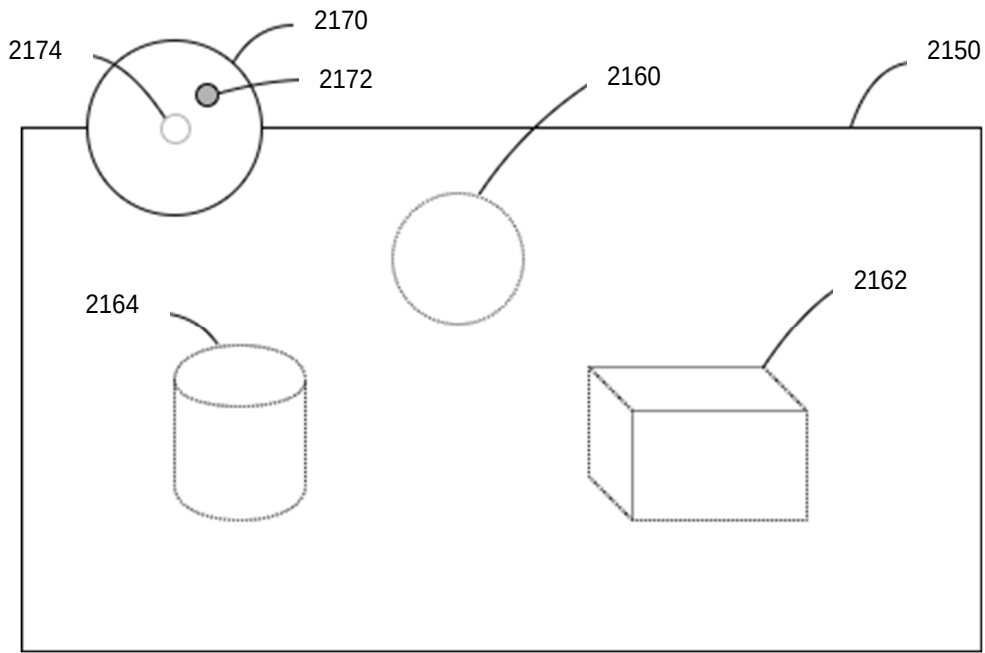


FIG. 21

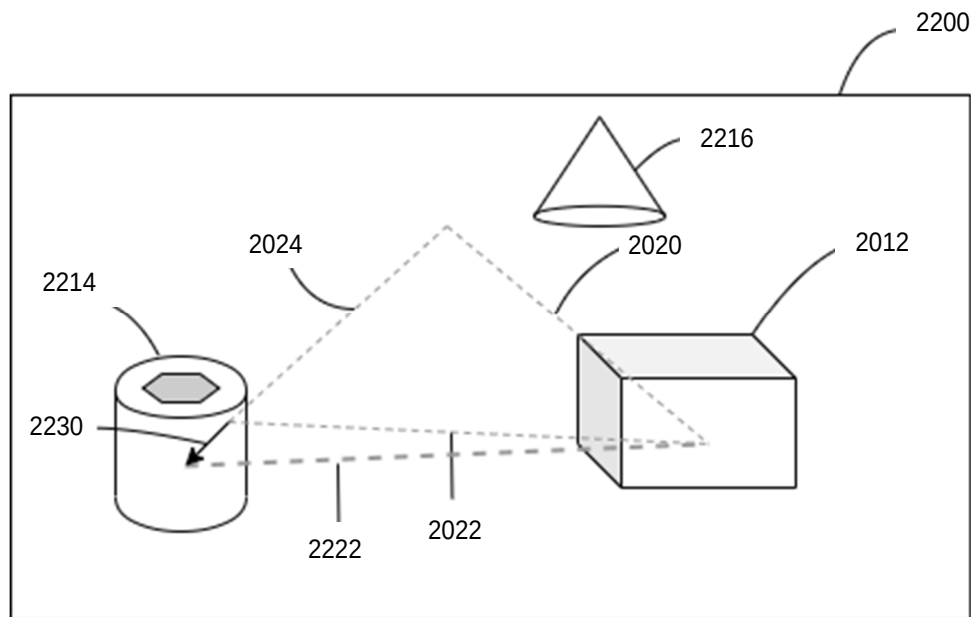


FIG. 22

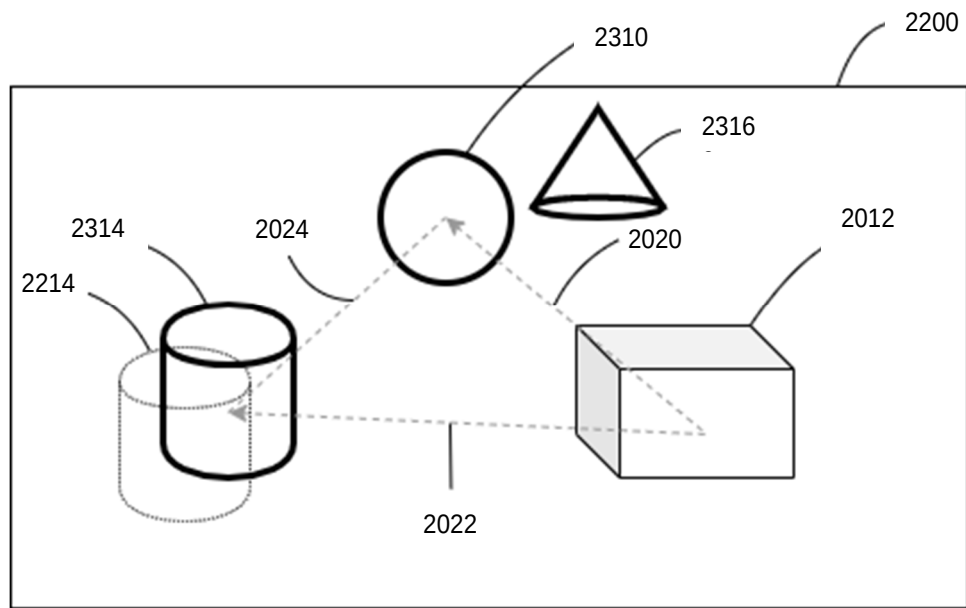


FIG. 23

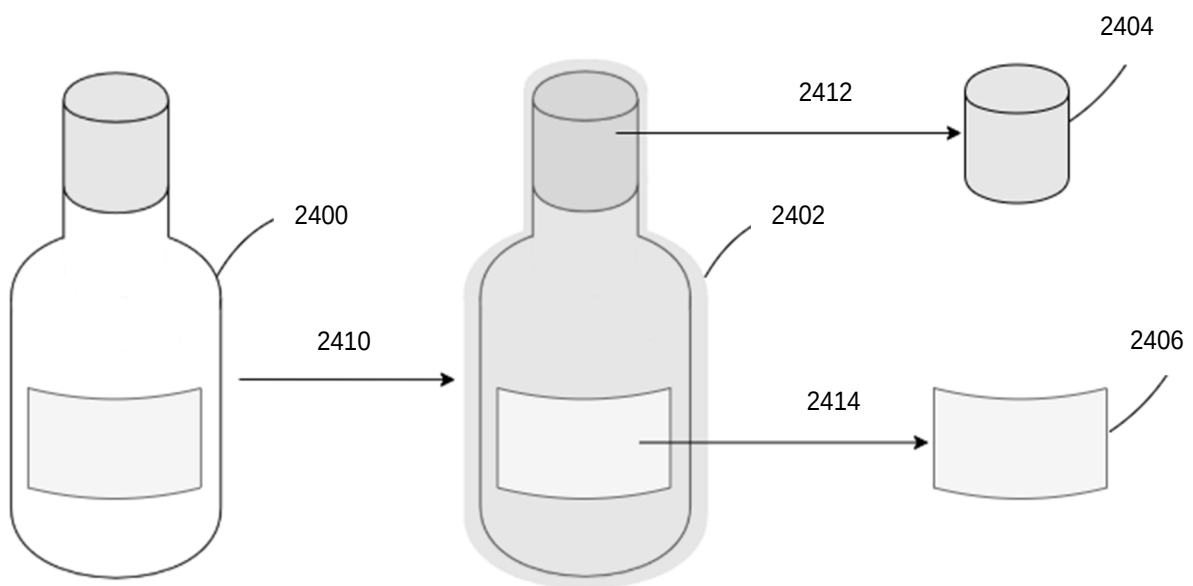


FIG. 24

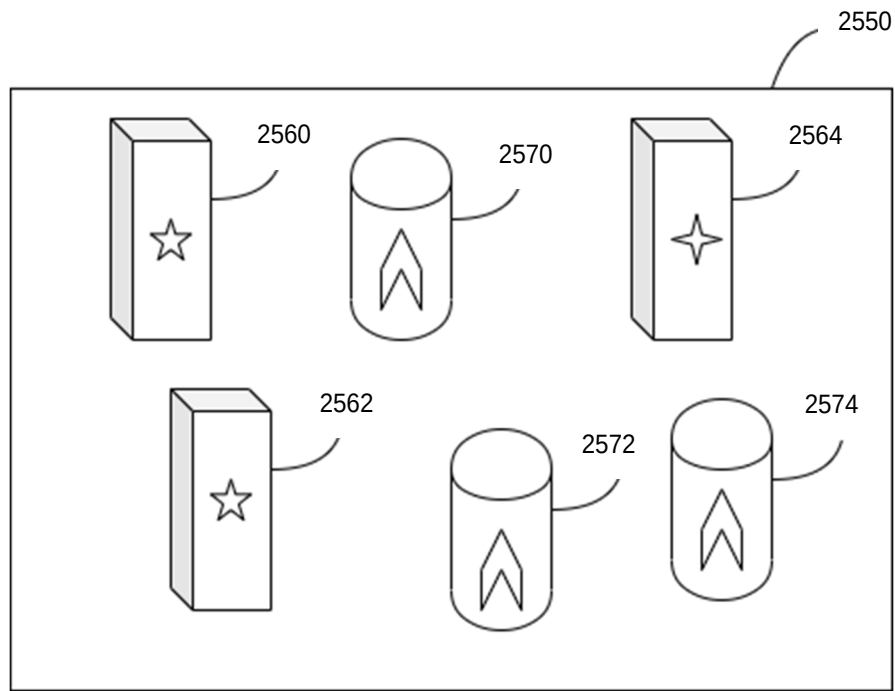


FIG. 25

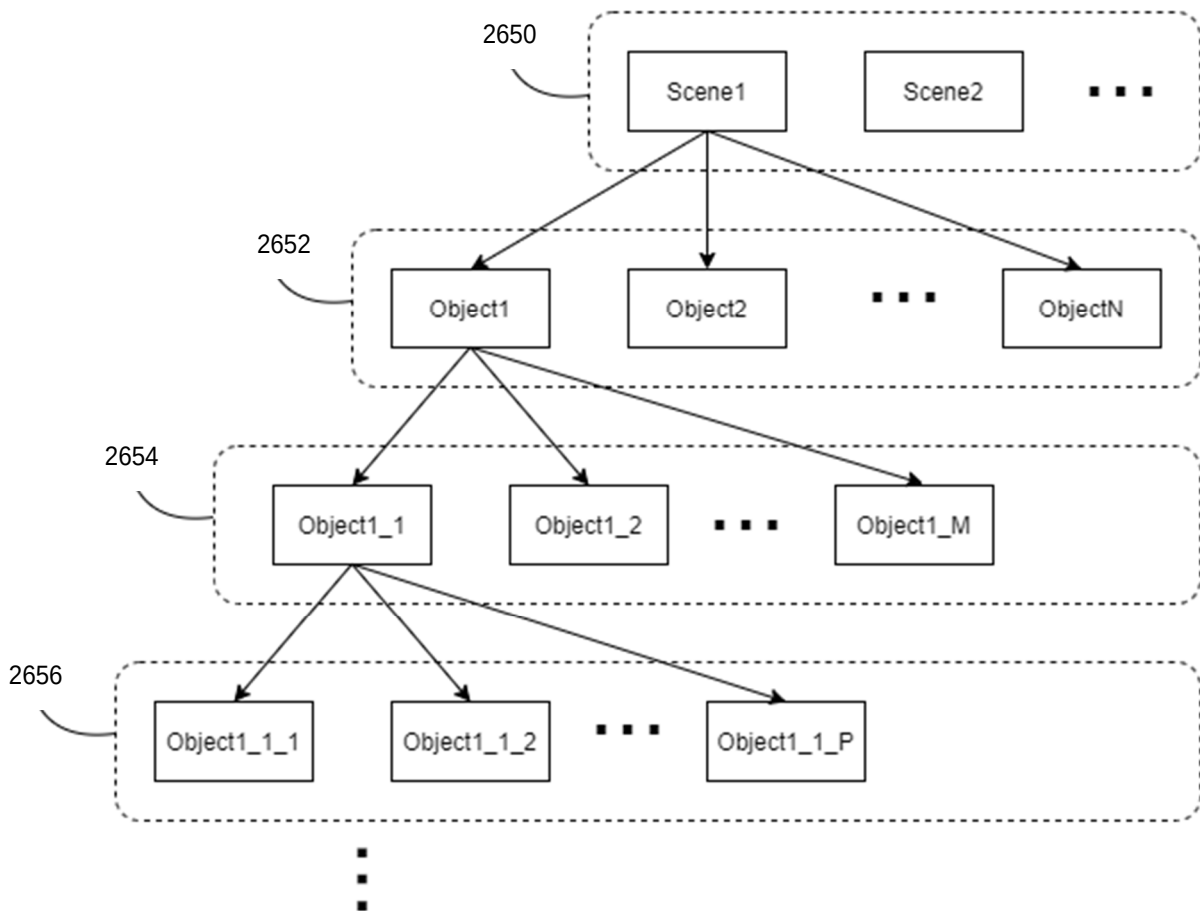


FIG. 26

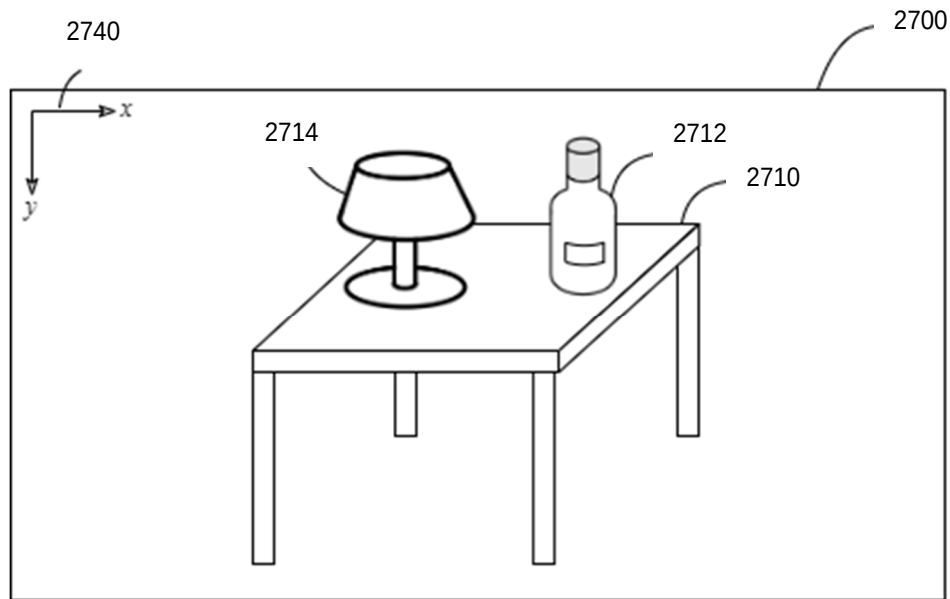


FIG. 27

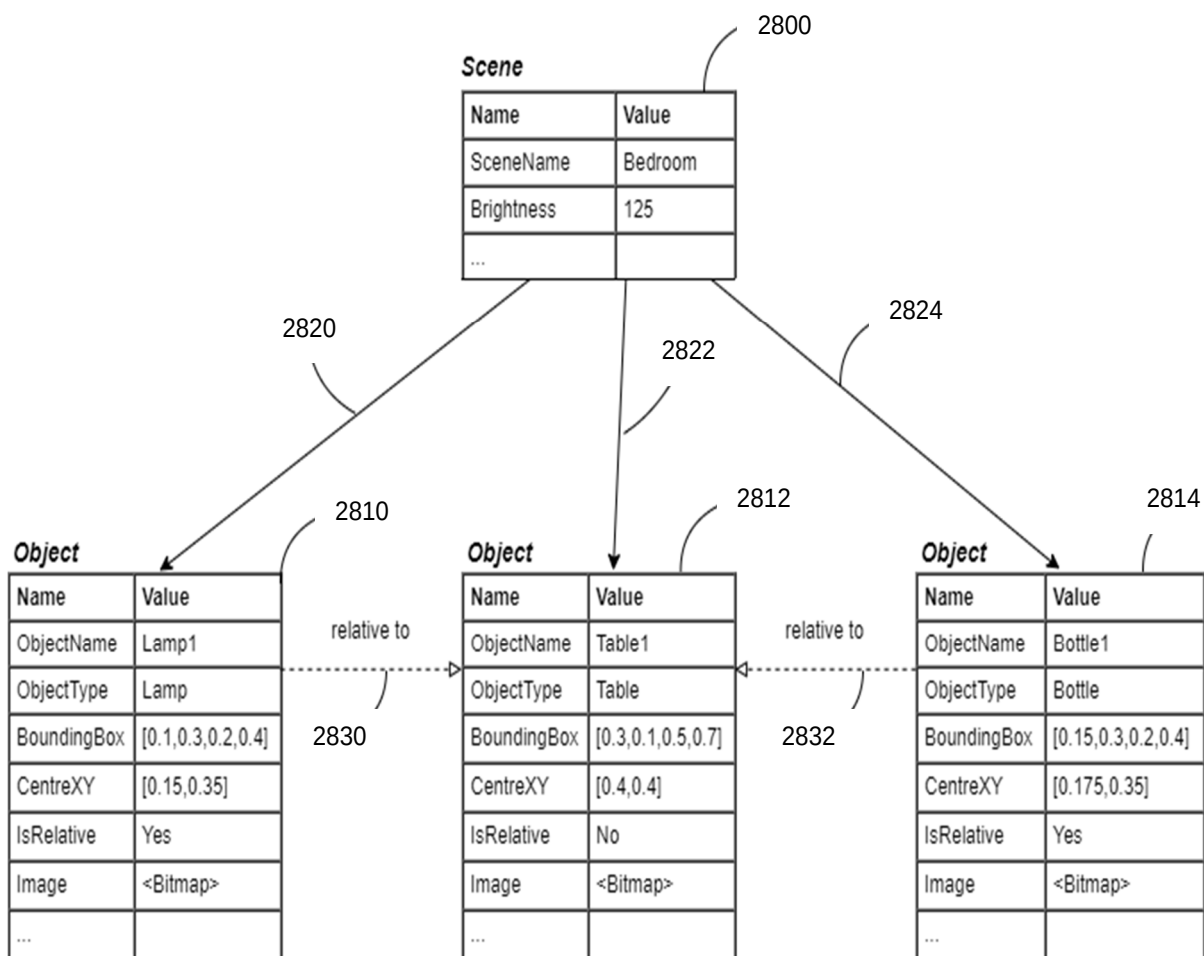


FIG. 28

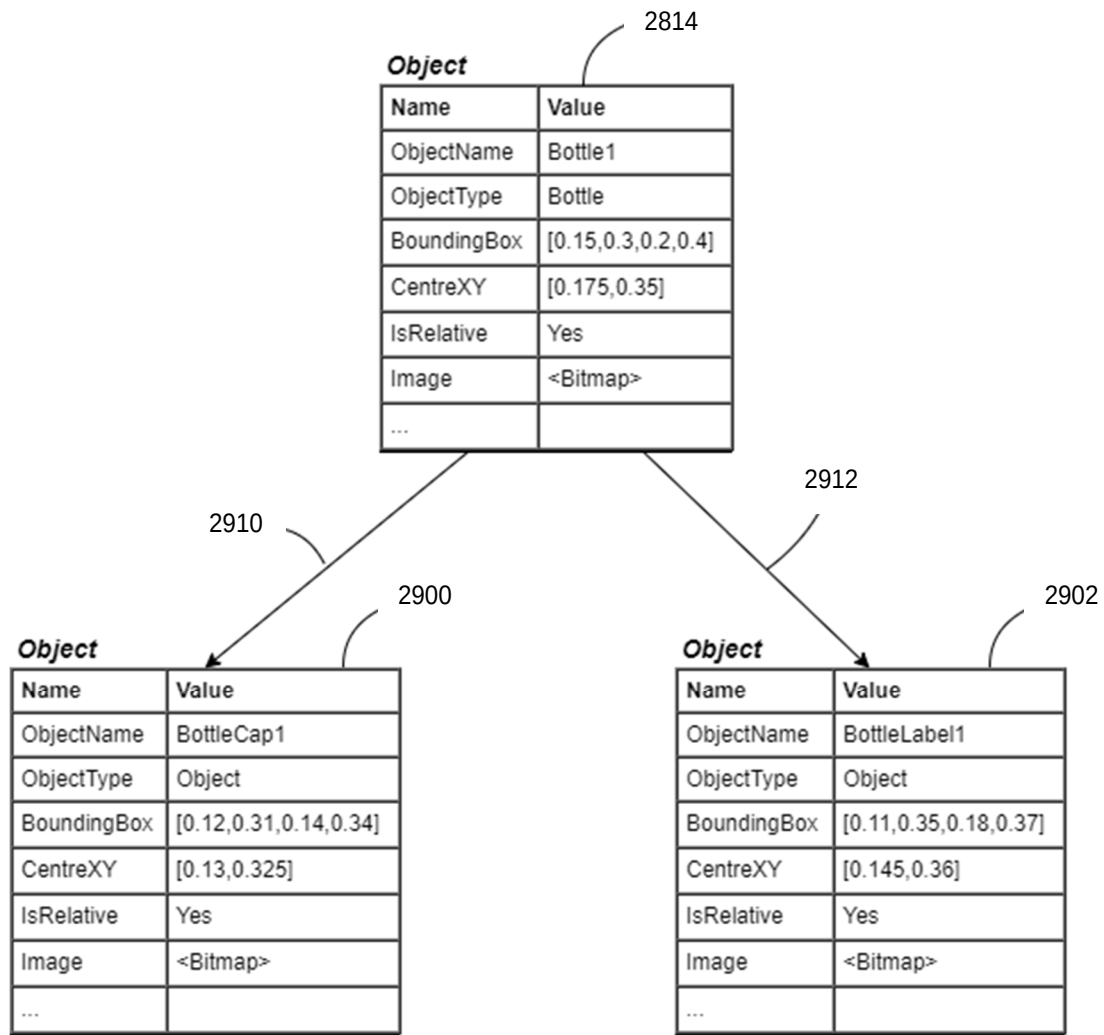


FIG. 29

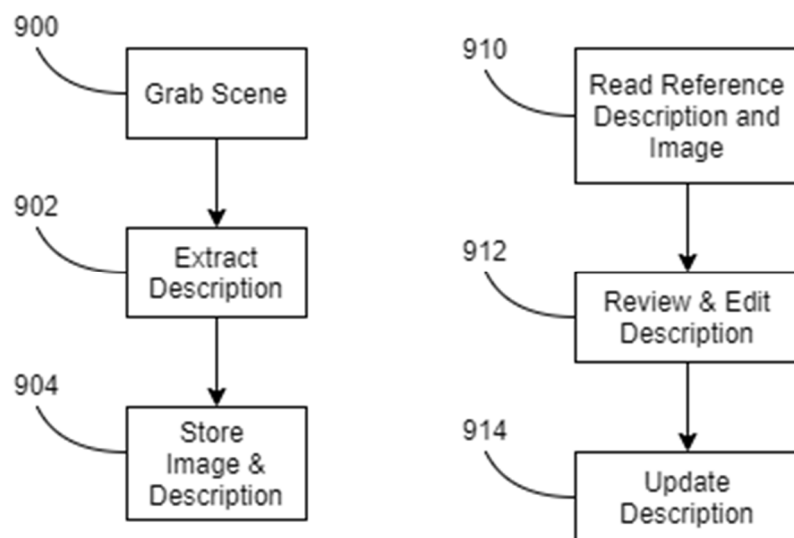
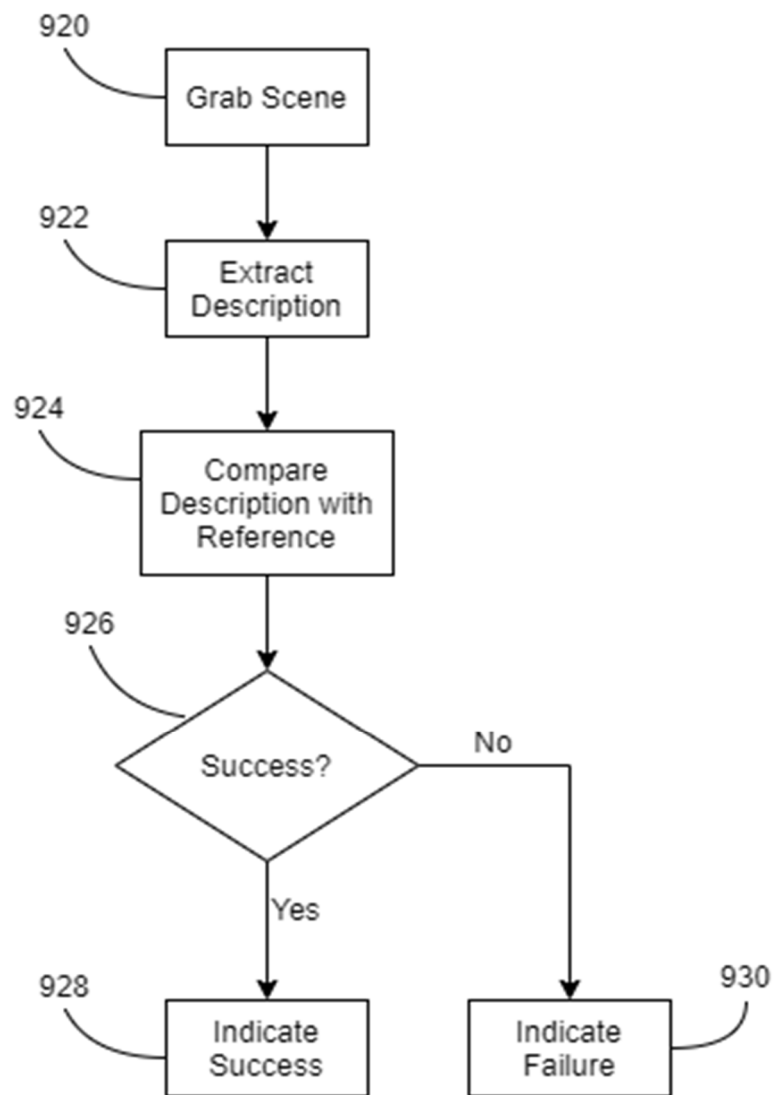


FIG. 30

**FIG. 31**

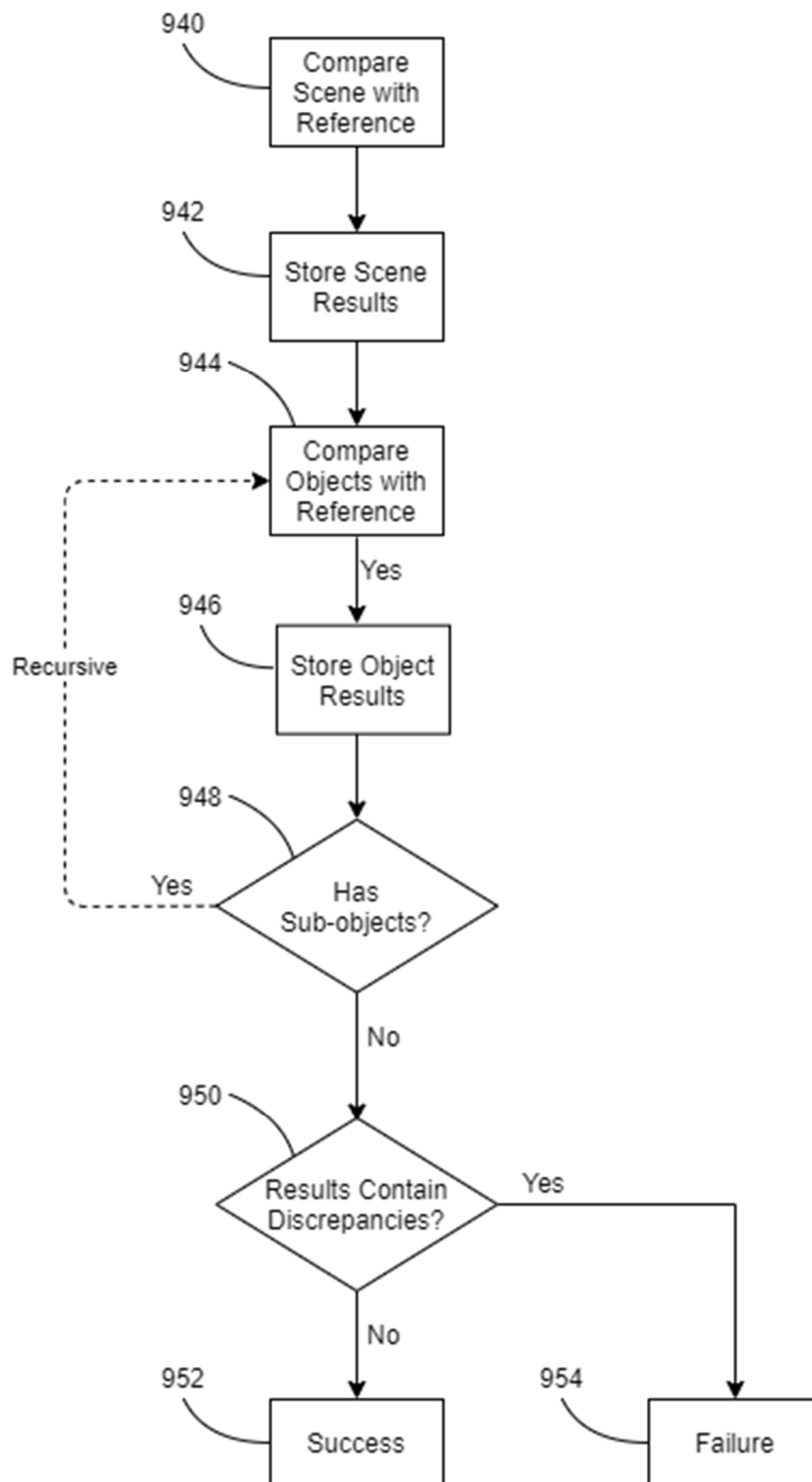


FIG. 32

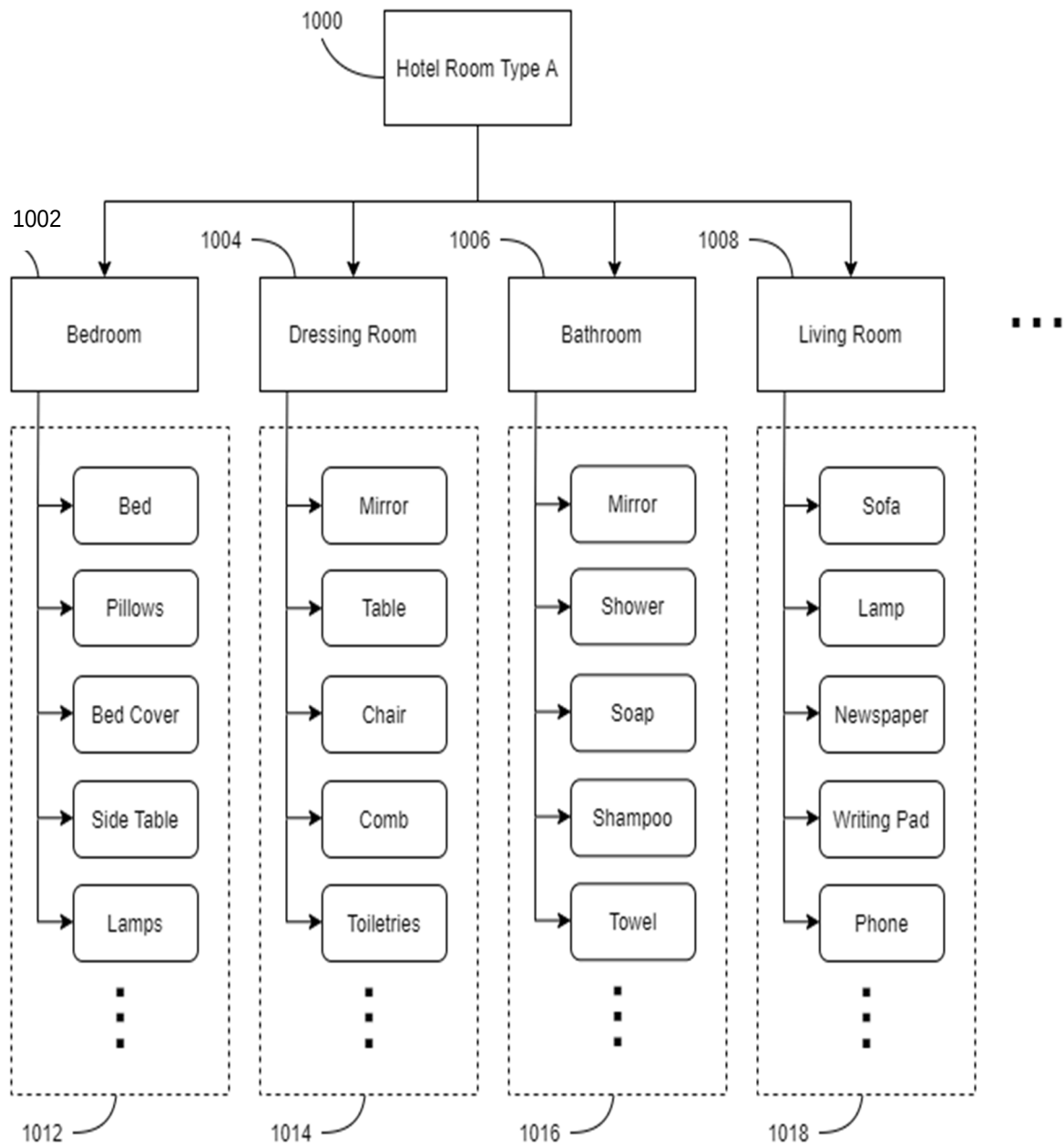


FIG. 33

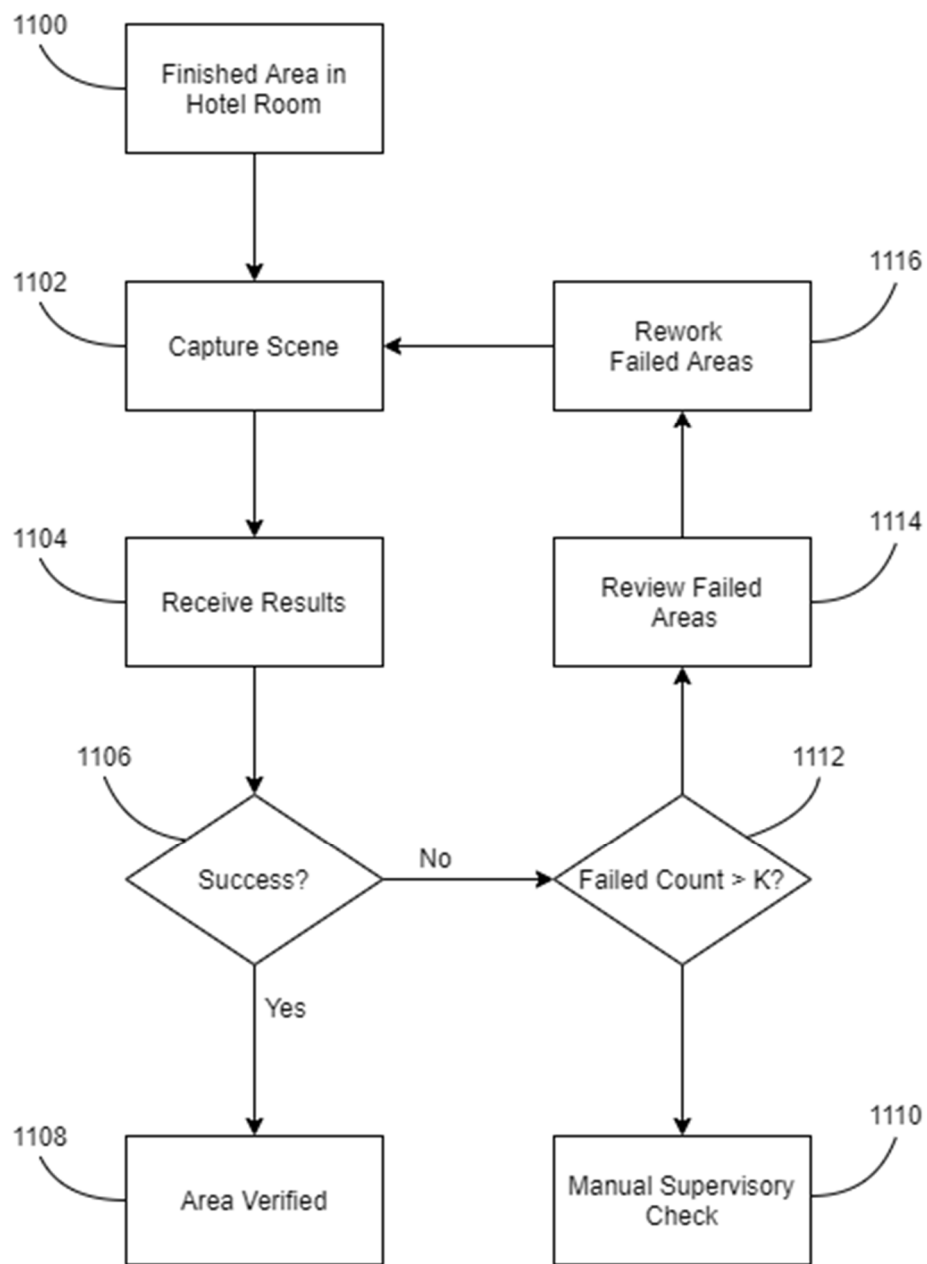


FIG. 34

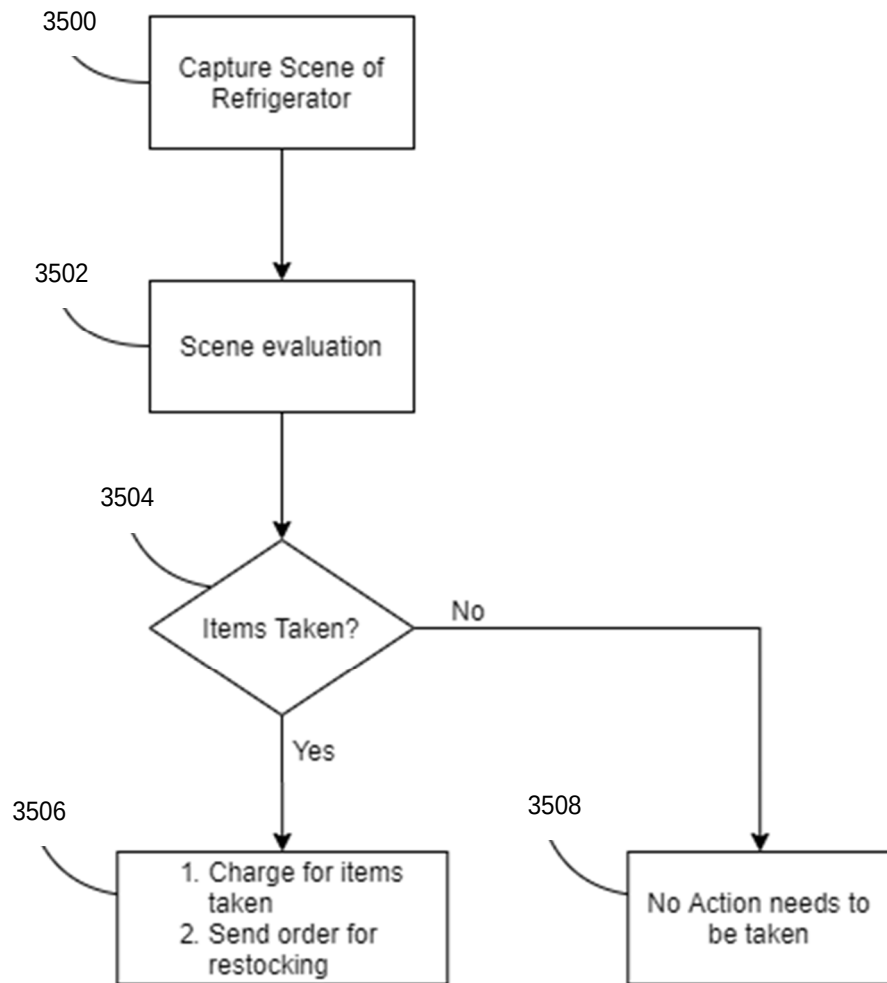
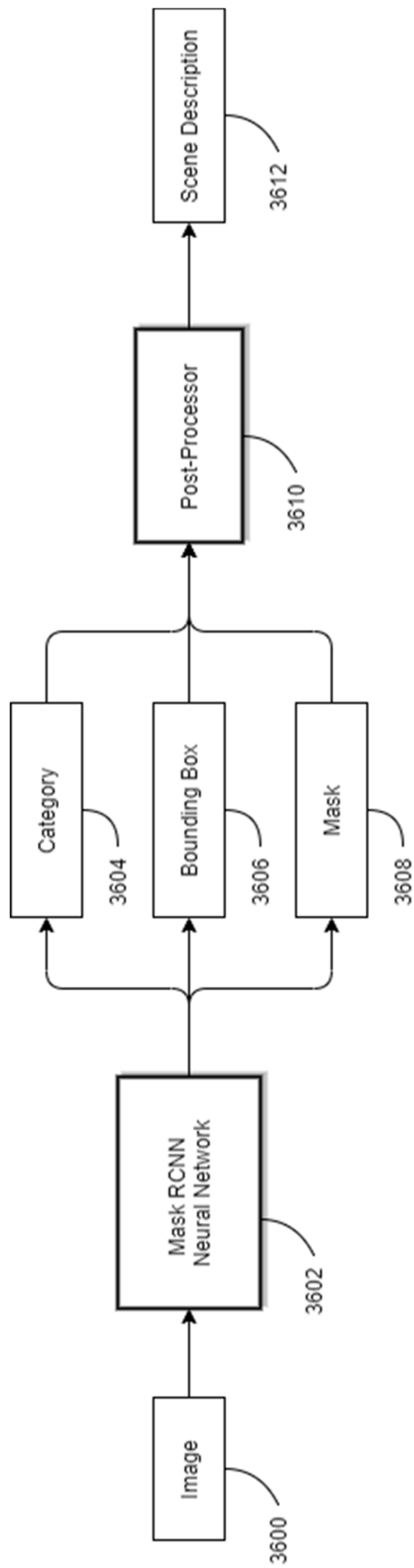


FIG. 35

**FIG. 36**

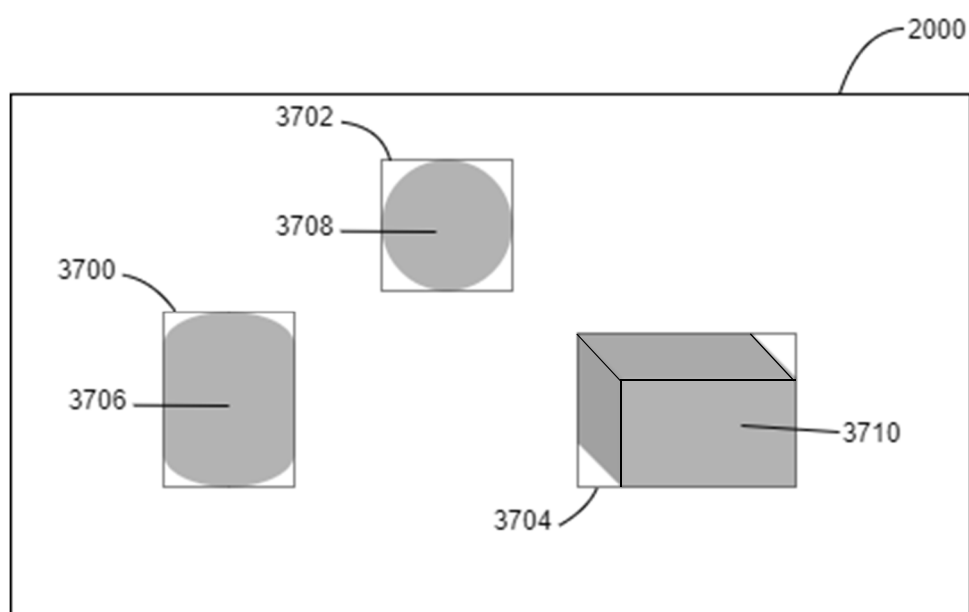


FIG. 37