

FIG.1

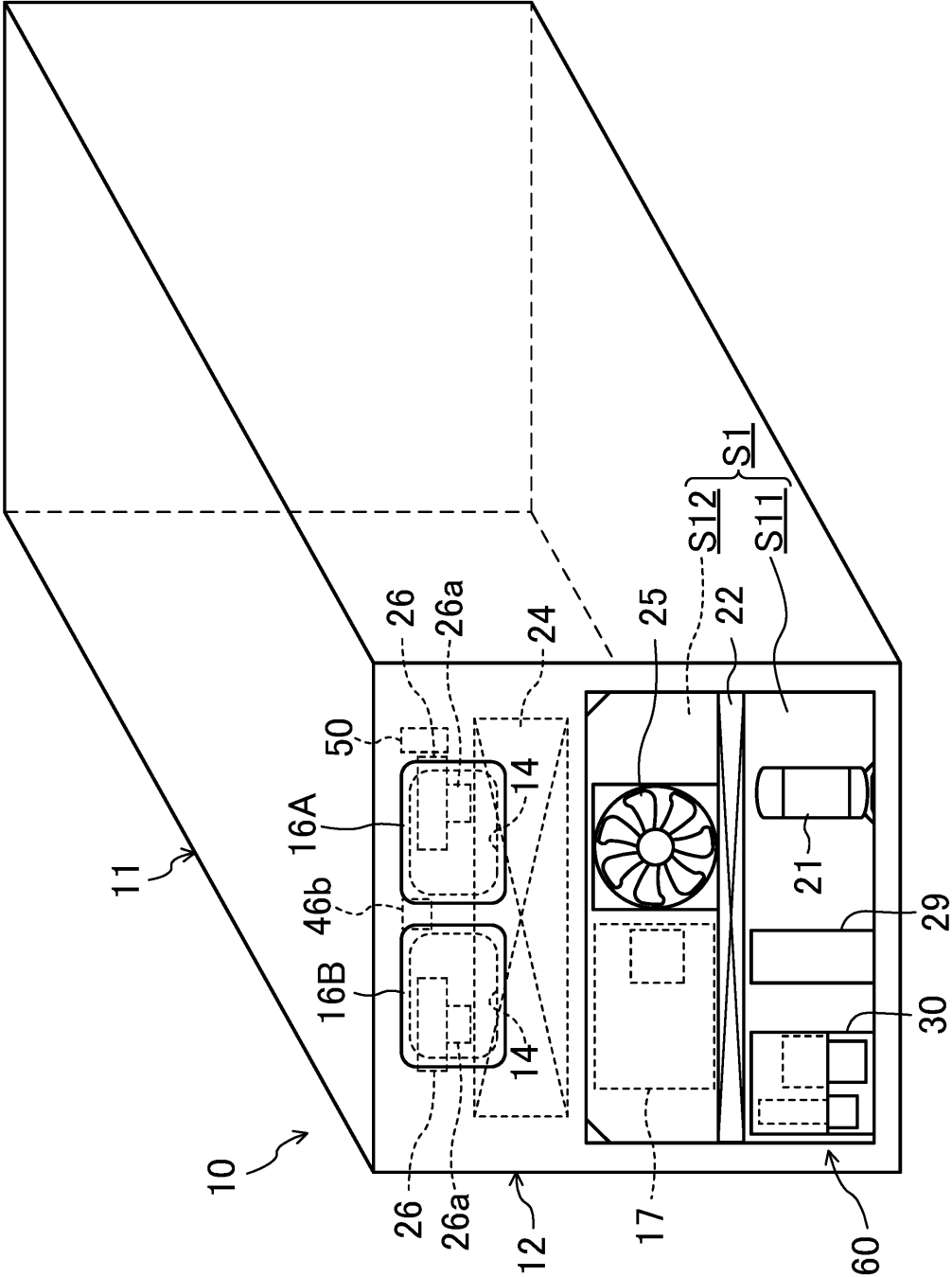


FIG.3

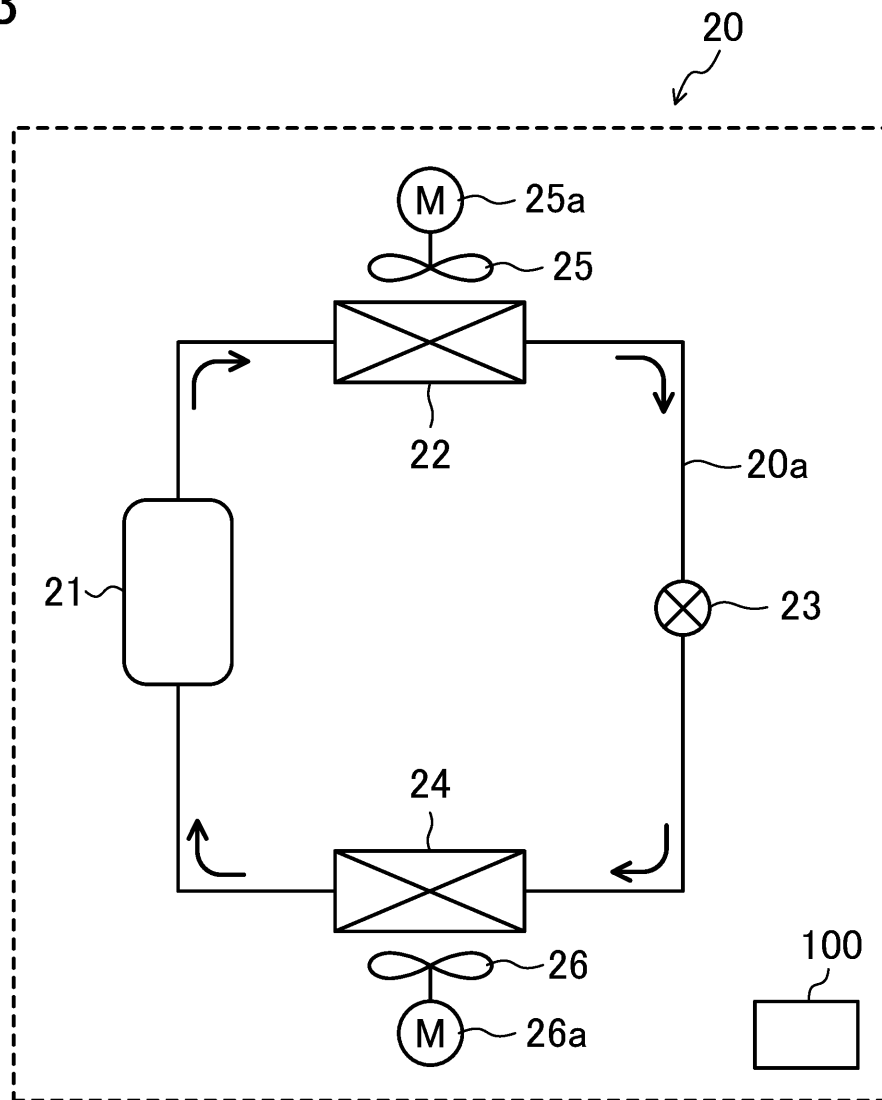


FIG.5

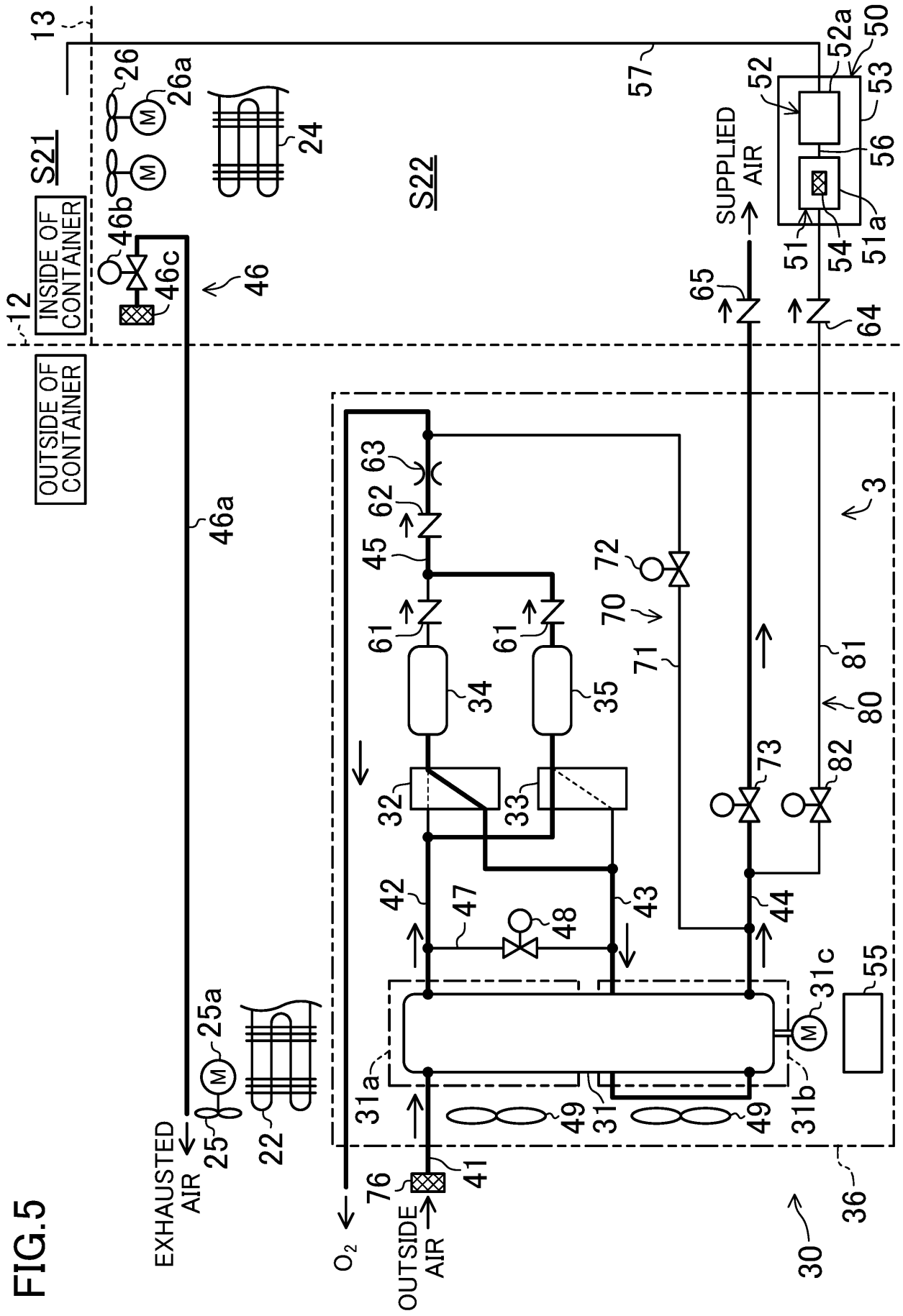


FIG. 6

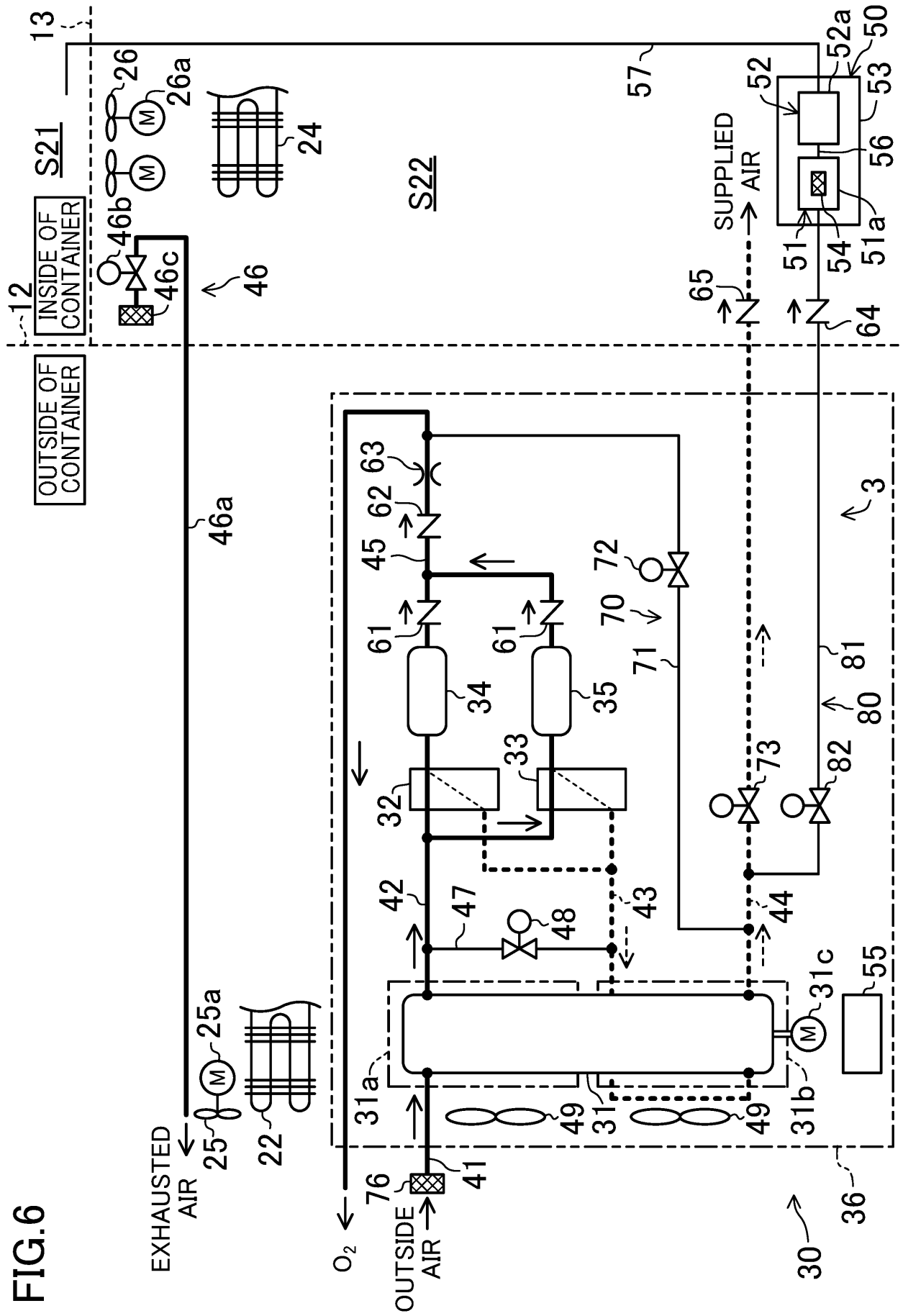


FIG. 7

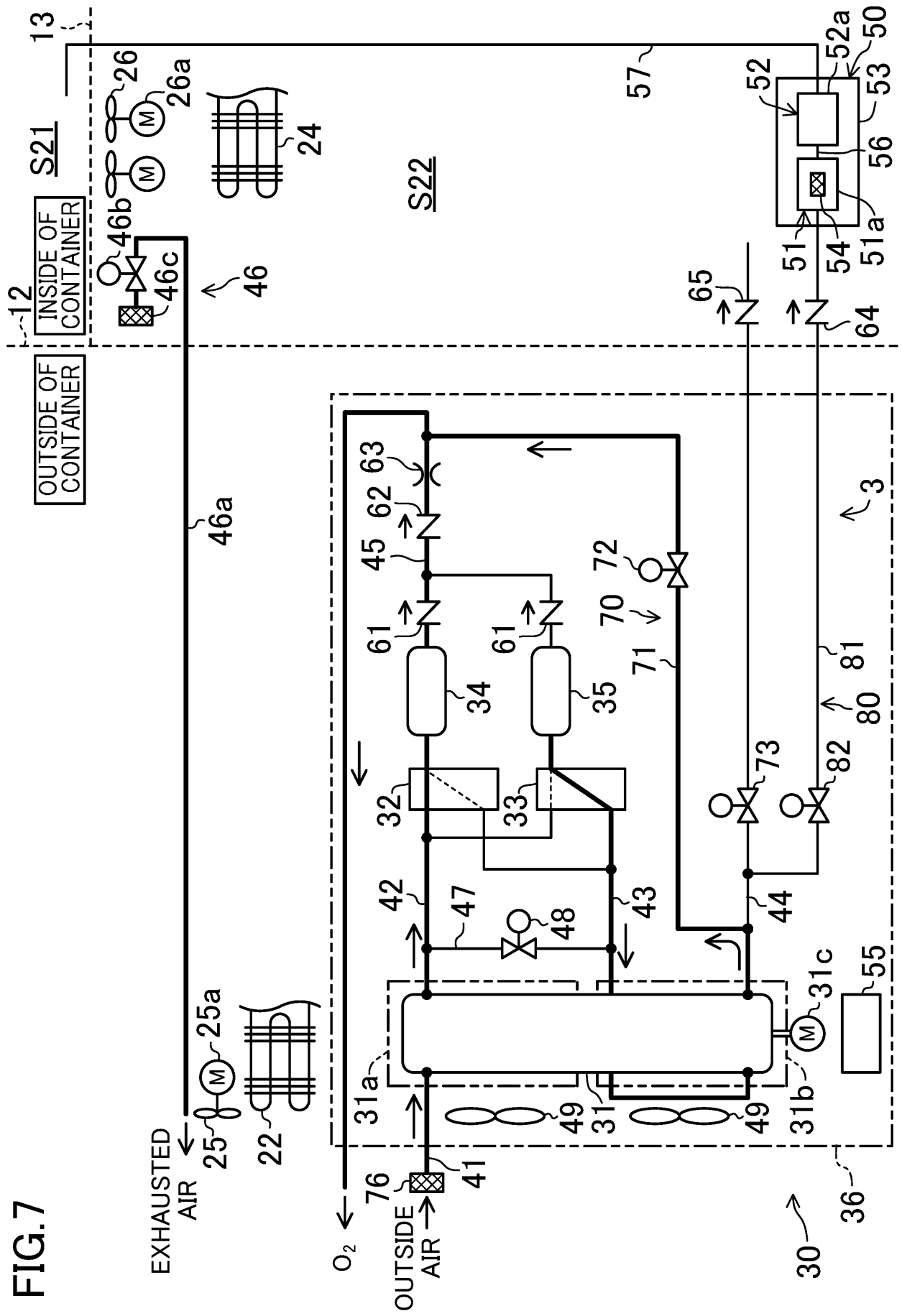


FIG. 8

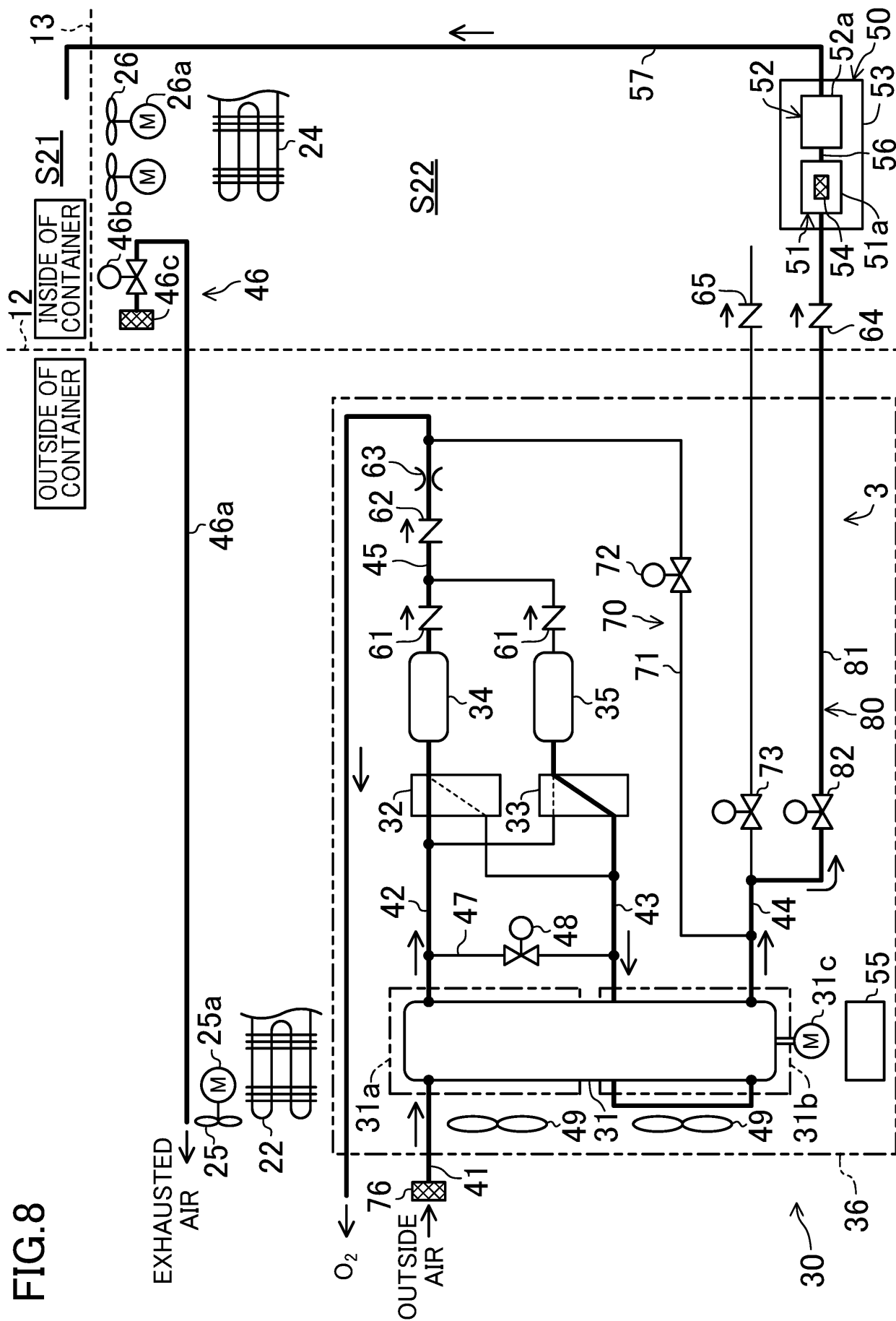


FIG.9

TIMING OF SWITCHING OF VALVES AND STATES OF ADSORPTION COLUMNS

OPERATION	FIRST OPERATION	PRESSURE EQUALIZATION OPERATION	SECOND OPERATION	PRESSURE EQUALIZATION OPERATION
FIRST DIRECTIONAL CONTROL VALVE	FIRST STATE	SECOND STATE	SECOND STATE	FIRST STATE
SECOND DIRECTIONAL CONTROL VALVE	FIRST STATE			
FIRST ADSORPTION COLUMN	PRESSURIZED/ADSORPTION	PRESSURIZED/ADSORPTION	DEPRESSURIZED/DESORPTION	PRESSURIZED/ADSORPTION
SECOND ADSORPTION COLUMN	DEPRESSURIZED/DESORPTION	PRESSURIZED/ADSORPTION	PRESSURIZED/ADSORPTION	PRESSURIZED/ADSORPTION

FIG.10

FIRST OPERATION MODE (→8%)

OPERATION	FIRST OPERATION	PRESSURE EQUALIZATION OPERATION	SECOND OPERATION	PRESSURE EQUALIZATION OPERATION
EXHAUST ON-OFF VALVE		CLOSE		
SUPPLY ON-OFF VALVE		OPEN		
NITROGEN- ENRICHED AIR		SUPPLIED		

FIG.11

SECOND OPERATION MODE (8%→5%)

OPERATION	FIRST OPERATION		PRESSURE EQUALIZATION OPERATION		SECOND OPERATION		PRESSURE EQUALIZATION OPERATION	
EXHAUST ON-OFF VALVE	OPEN		CLOSE		OPEN		CLOSE	
SUPPLY ON-OFF VALVE	CLOSE		OPEN		CLOSE		OPEN	
NITROGEN-ENRICHED AIR	DISCHARGED		SUPPLIED		DISCHARGED		SUPPLIED	

FIG.12

THIRD OPERATION MODE (5%→3%)

OPERATION	FIRST OPERATION		PRESSURE EQUALIZATION OPERATION		SECOND OPERATION		PRESSURE EQUALIZATION OPERATION
EXHAUST ON-OFF VALVE	OPEN	CLOSE	CLOSE		OPEN	CLOSE	
SUPPLY ON-OFF VALVE	CLOSE	OPEN	OPEN		CLOSE	OPEN	
NITROGEN-ENRICHED AIR	DISCHARGED	SUPPLIED	DISCHARGED		DISCHARGED	SUPPLIED	

FIG.14

