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Diaz

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(54) **REFRIGERATION CYCLE EJECTOR POWER GENERATOR**

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F25B 1/08	(2006.01)
F25B 9/06	(2006.01)
F03B 1/04	(2006.01)
F03B 17/00	(2006.01)

(52) **U.S. Cl.**

CPC ***F25B 9/08*** (2013.01); ***F03B 1/04*** (2013.01); ***F03B 17/005*** (2013.01); ***F25B 1/08*** (2013.01); ***F25B 9/06*** (2013.01); *F25B 2341/0014* (2013.01); *F25B 2400/14* (2013.01)

(58) **Field of Classification Search**

CPC F25B 1/06; F25B 1/08; F25B 9/06; F25B 9/08; F25B 2341/0014; F01D 15/005; F03B 1/04; F03B 17/005

See application file for complete search history.

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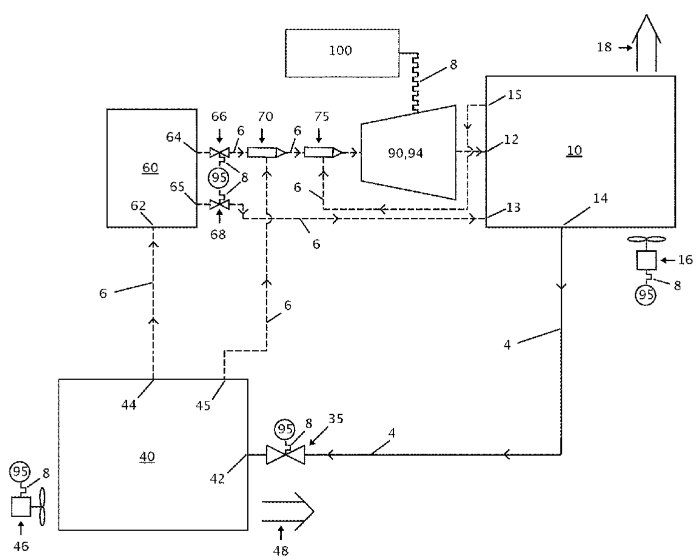
(57) **ABSTRACT**

Refrigeration cycle ejector power generator makes use of refrigerant in a refrigeration cycle to feed an ejector or injector within the refrigeration cycle causing the ejector to fire refrigerant at extremely high pressures and velocities into a turbine fan or blade that is sealed inside the refrigeration system and is connected to a generator in order to generate electricity. Refrigeration cycle ejector power generator comprises: a condenser, an expansion valve, an evaporator, a compressor, an ejector valve, a first ejector, a turbine, and a controller or computer. Refrigeration cycle ejector power generator is a refrigeration cycle with at least one ejector positioned in the refrigeration cycle that emits refrigerant at a high pressure and high velocity that is directed at a turbine, causing it to rotate, where this rotational energy may be used to turn a generator, thereby generating electricity.

8 Claims, 15 Drawing Sheets



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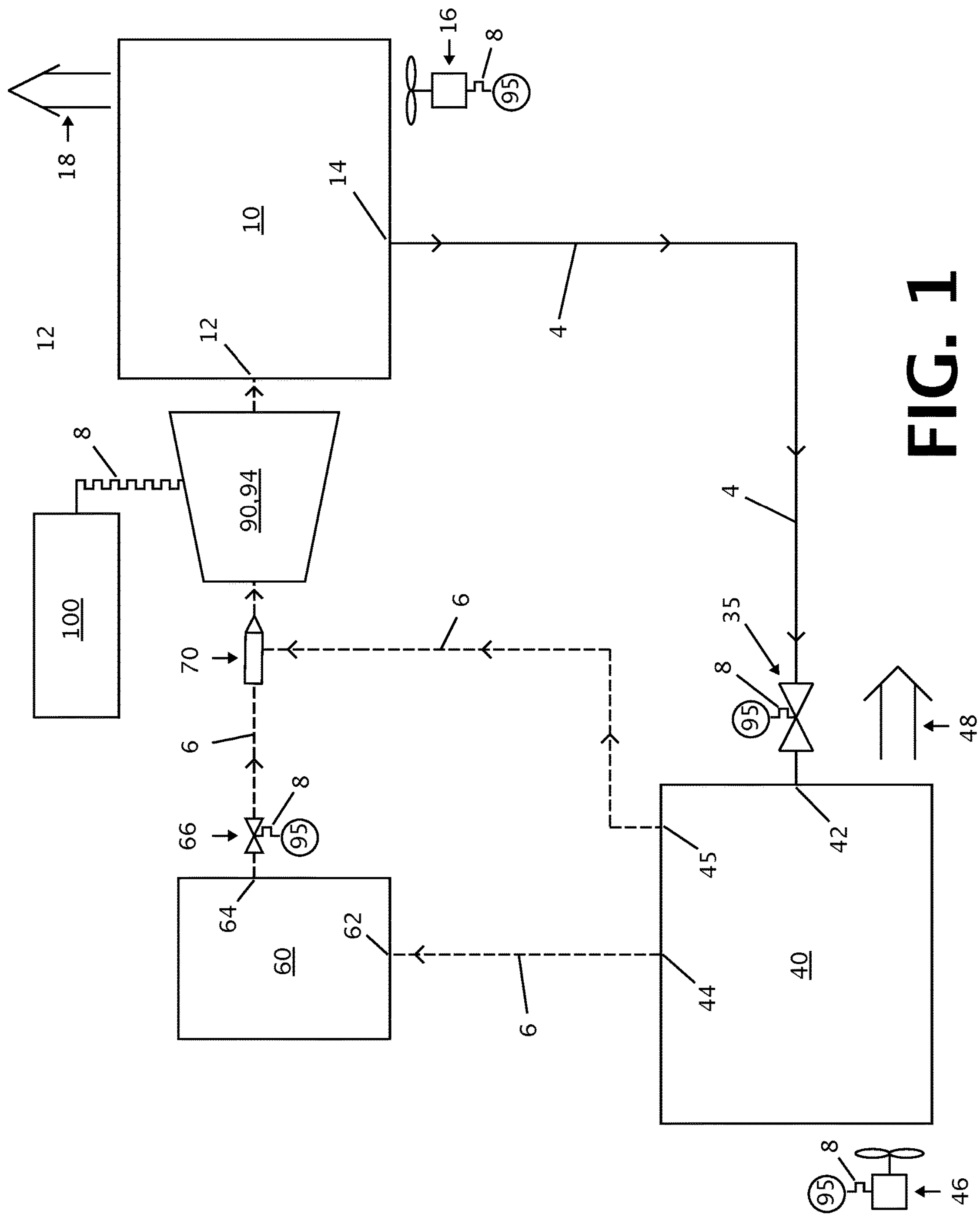

FIG. 1

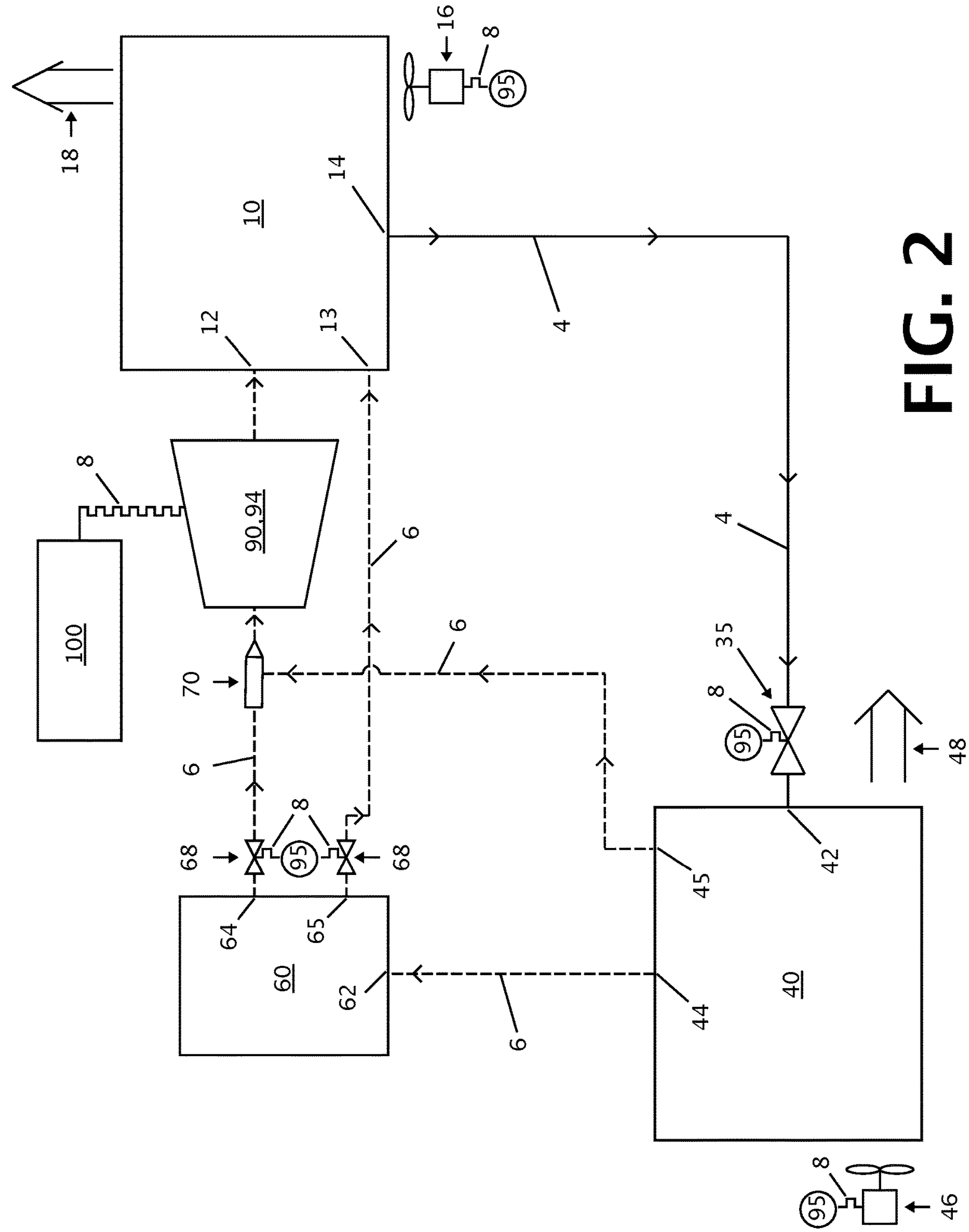

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FIG. 2

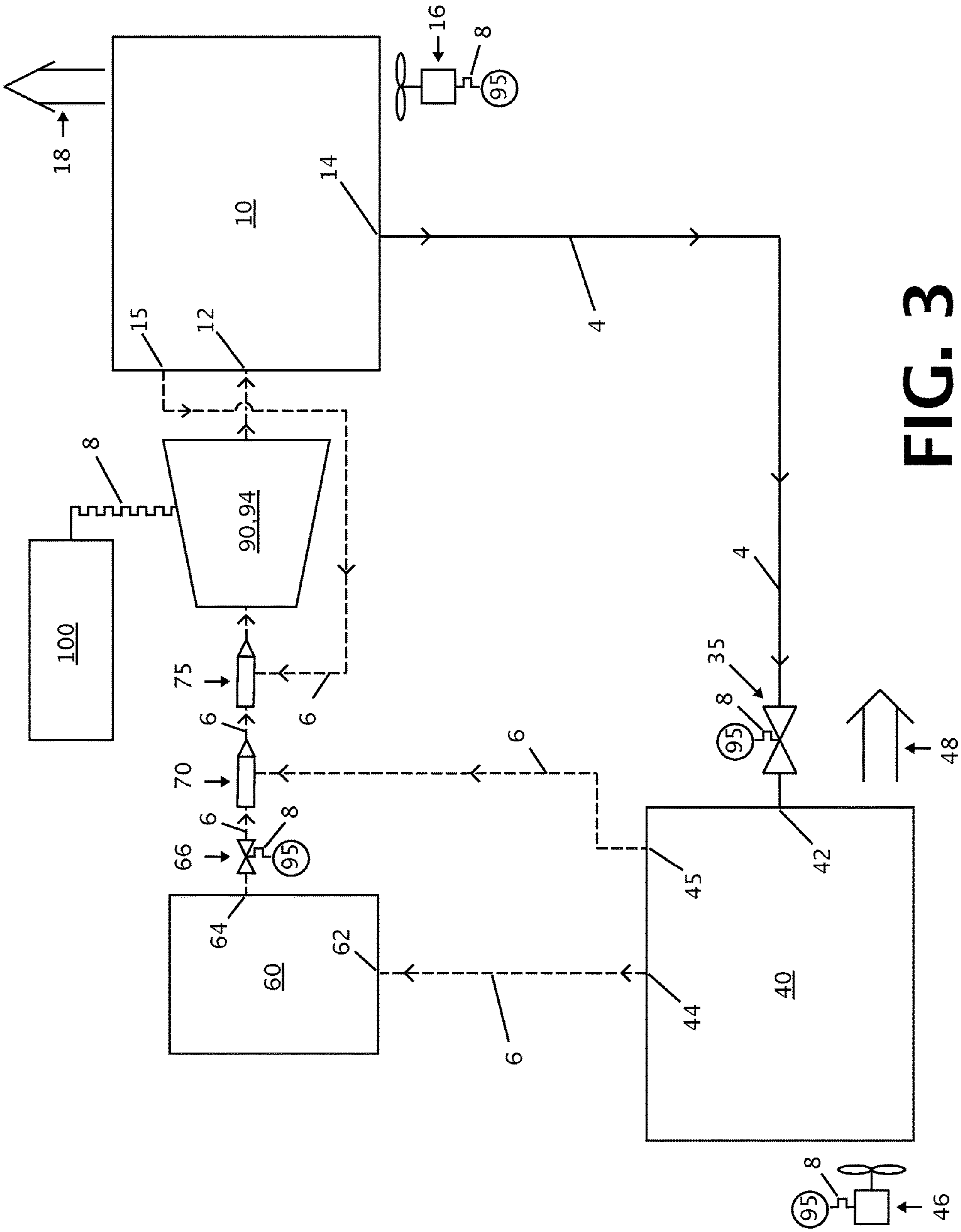
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FIG. 3

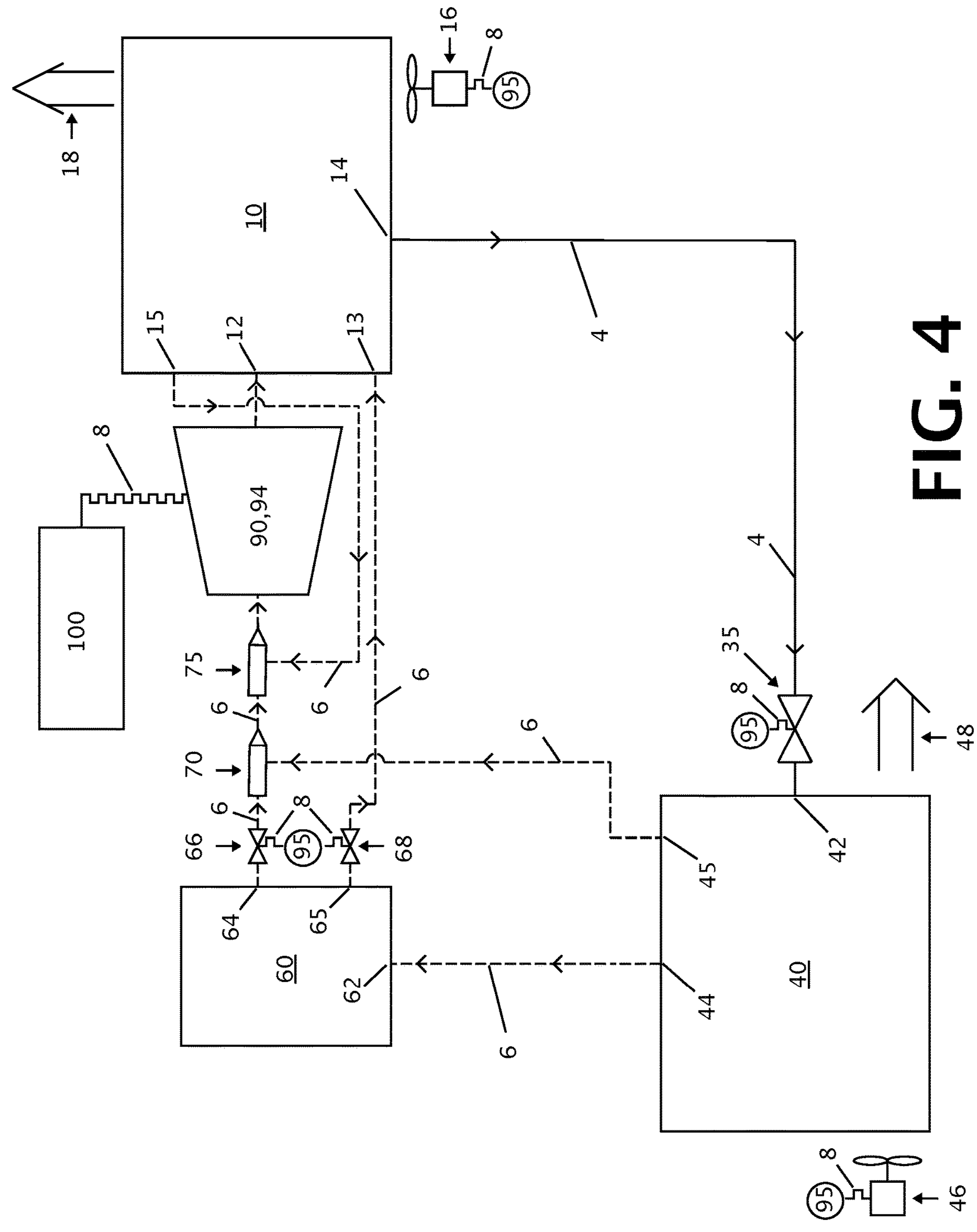
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FIG. 4

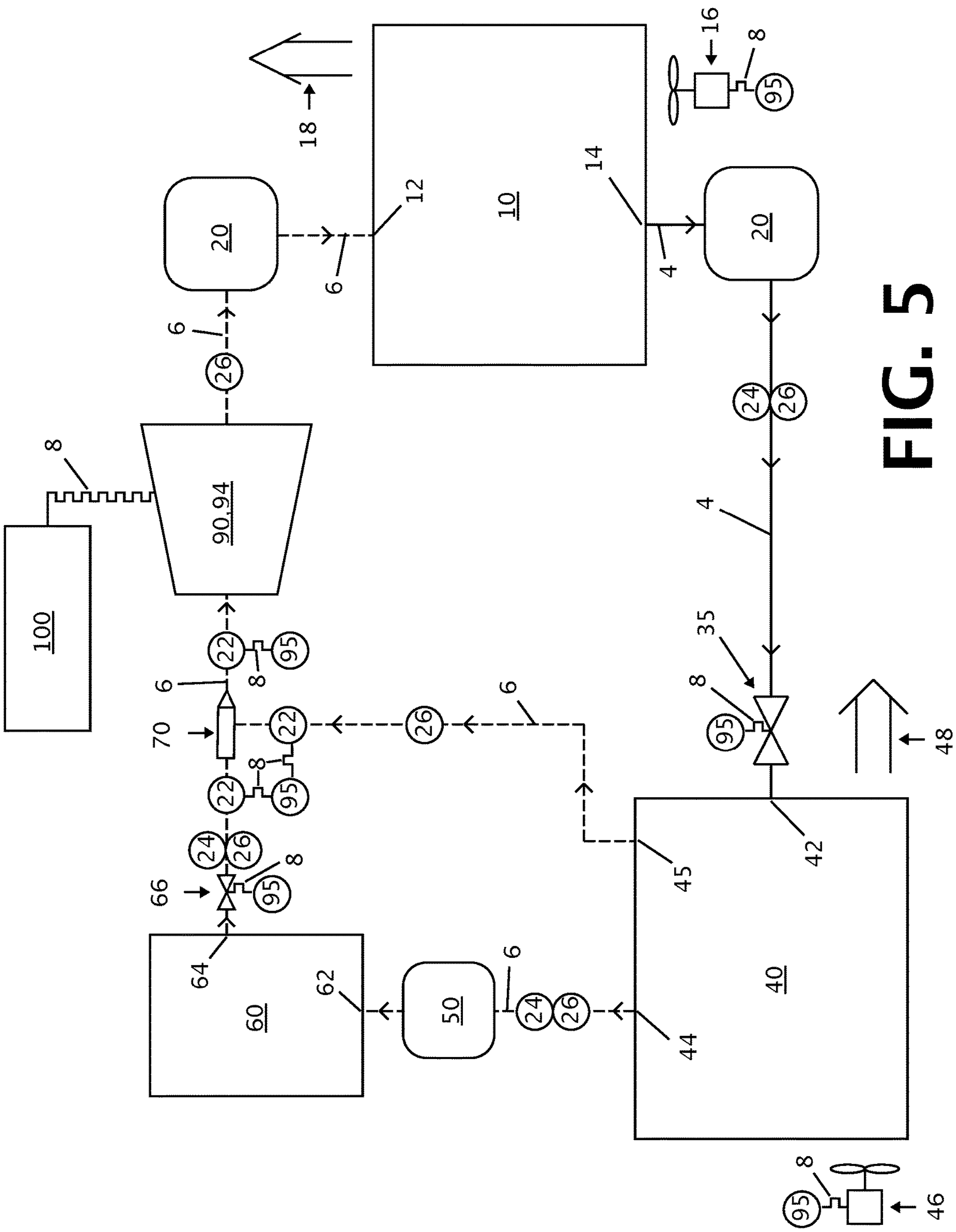
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FIG. 5

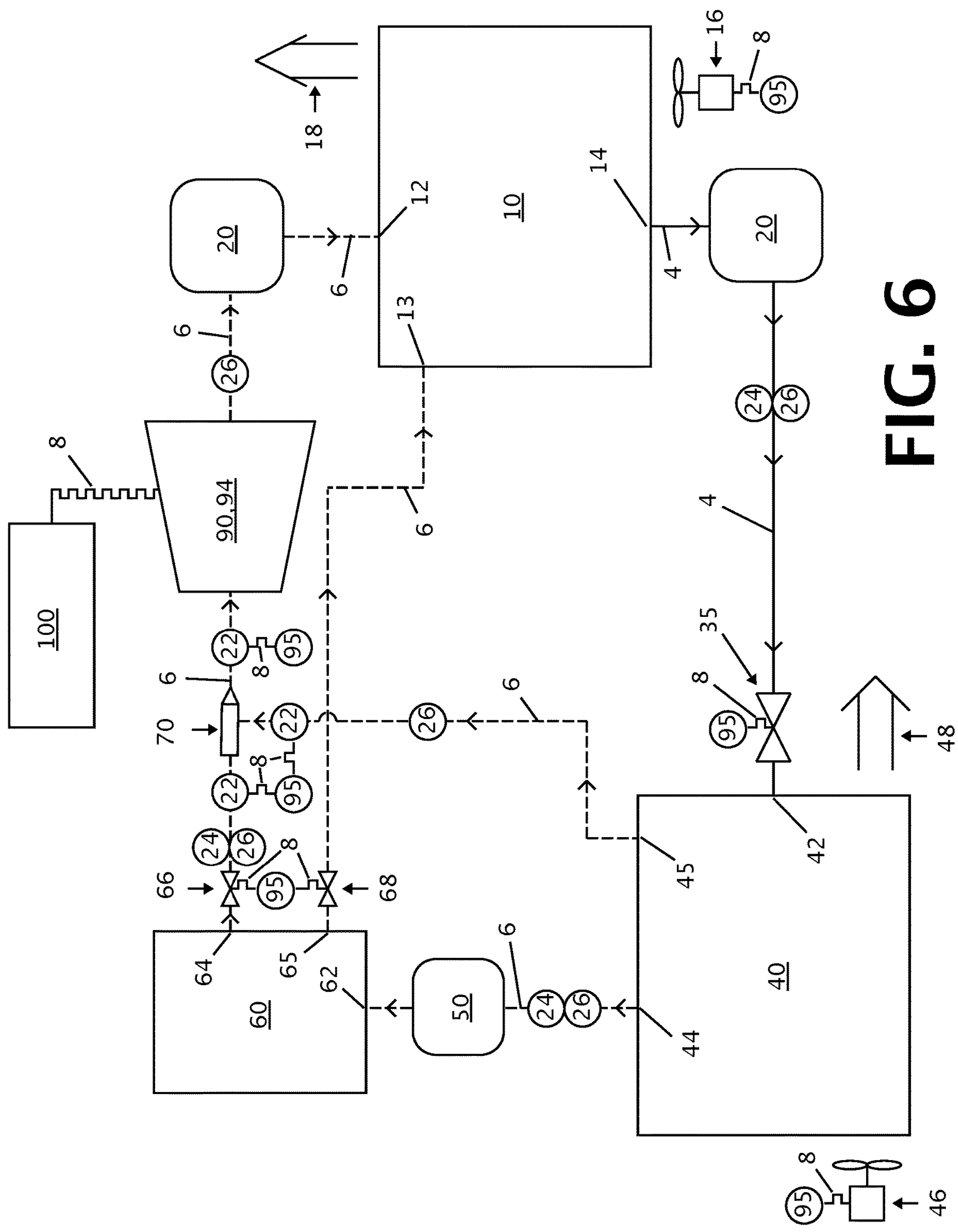
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FIG. 6

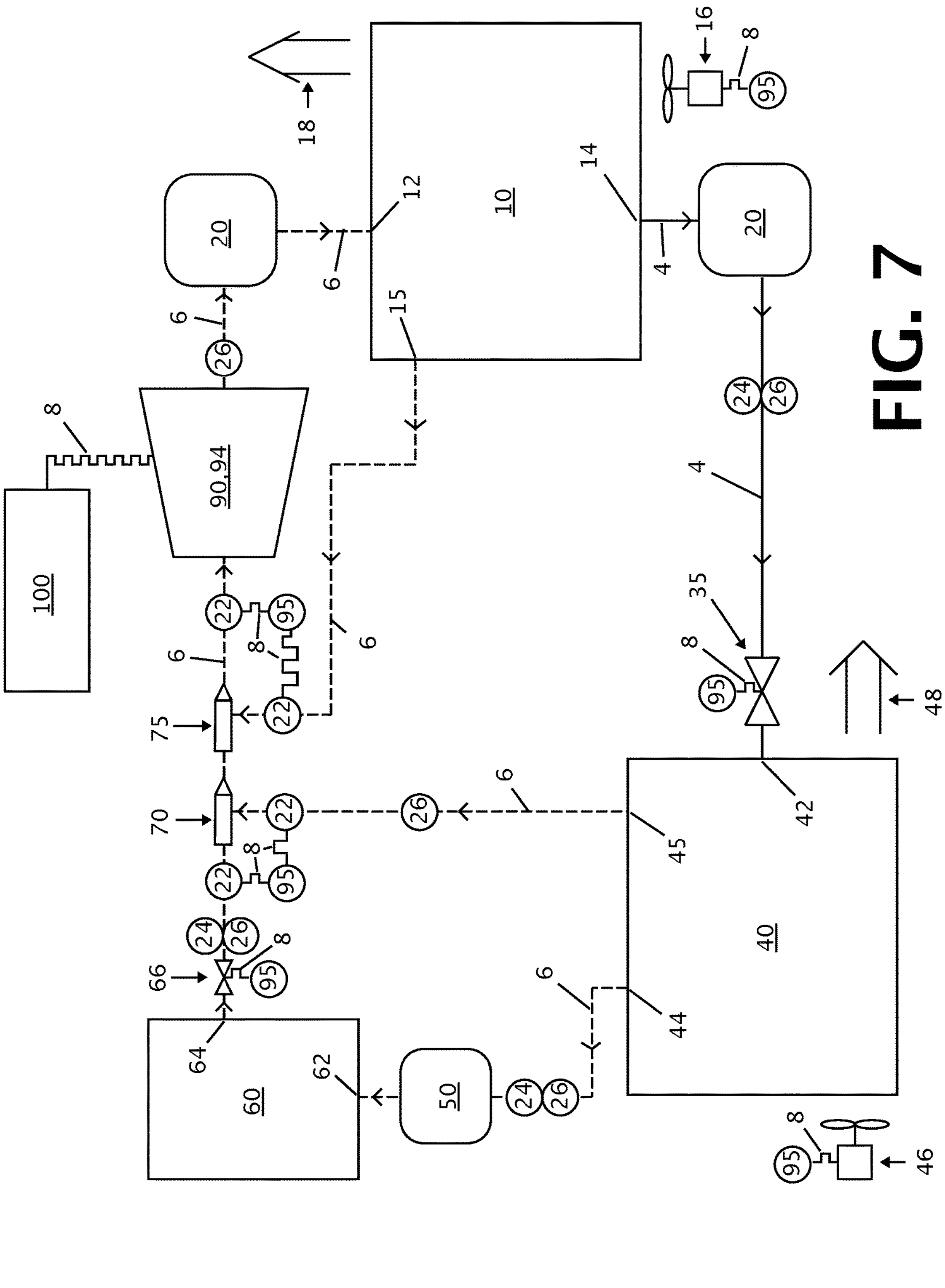
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FIG. 7

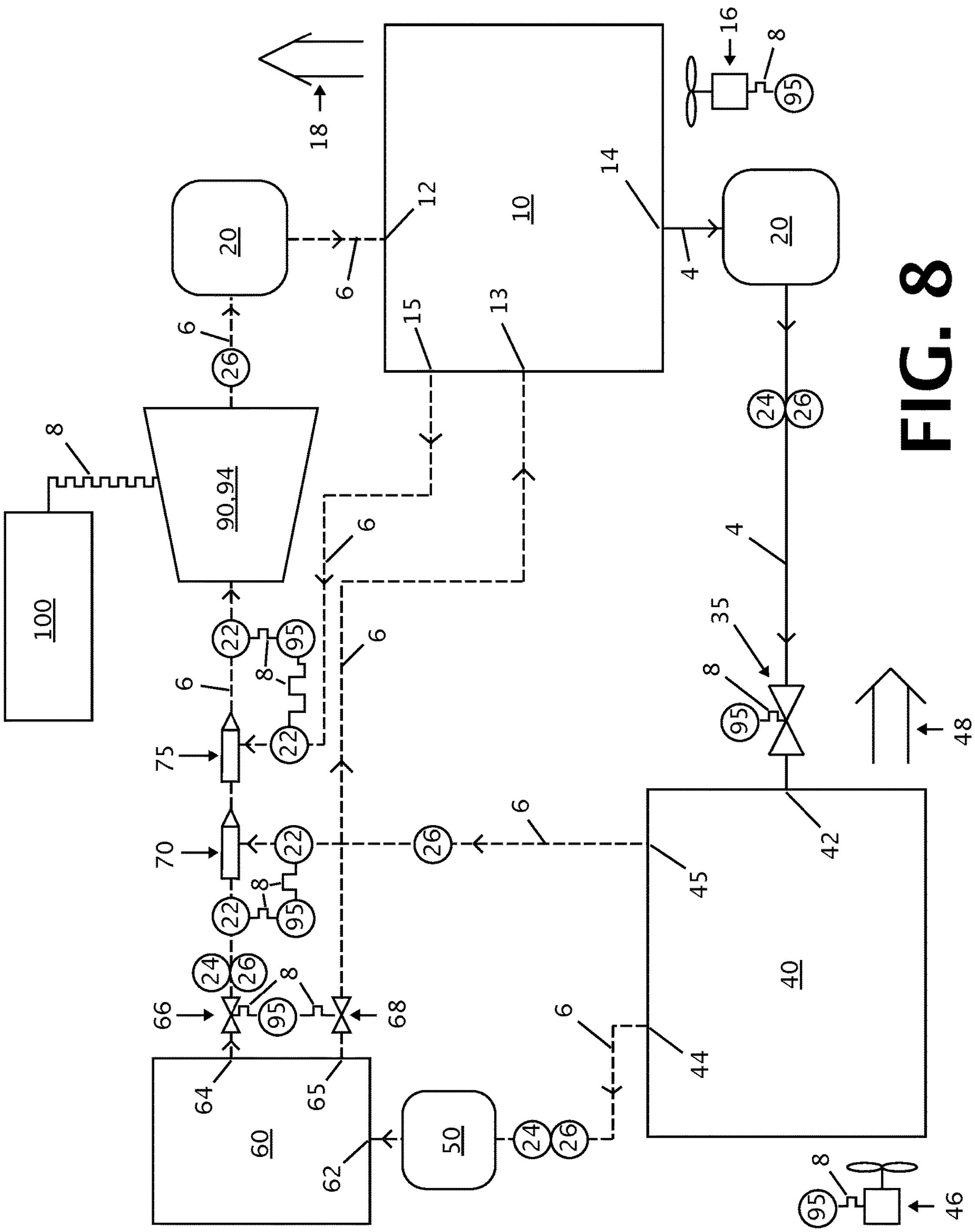
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FIG. 8

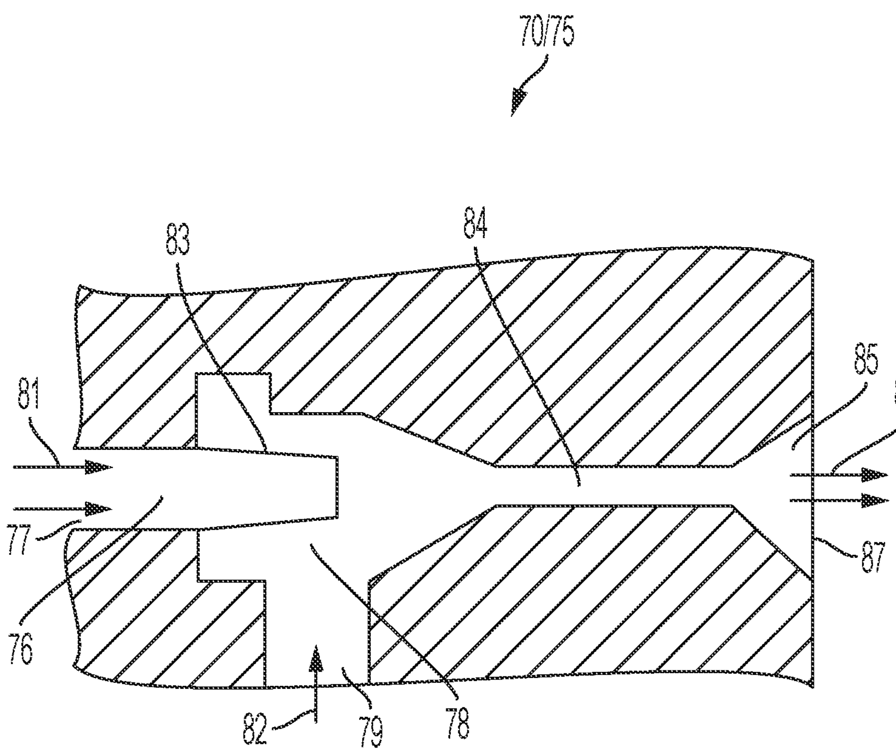

FIG. 9

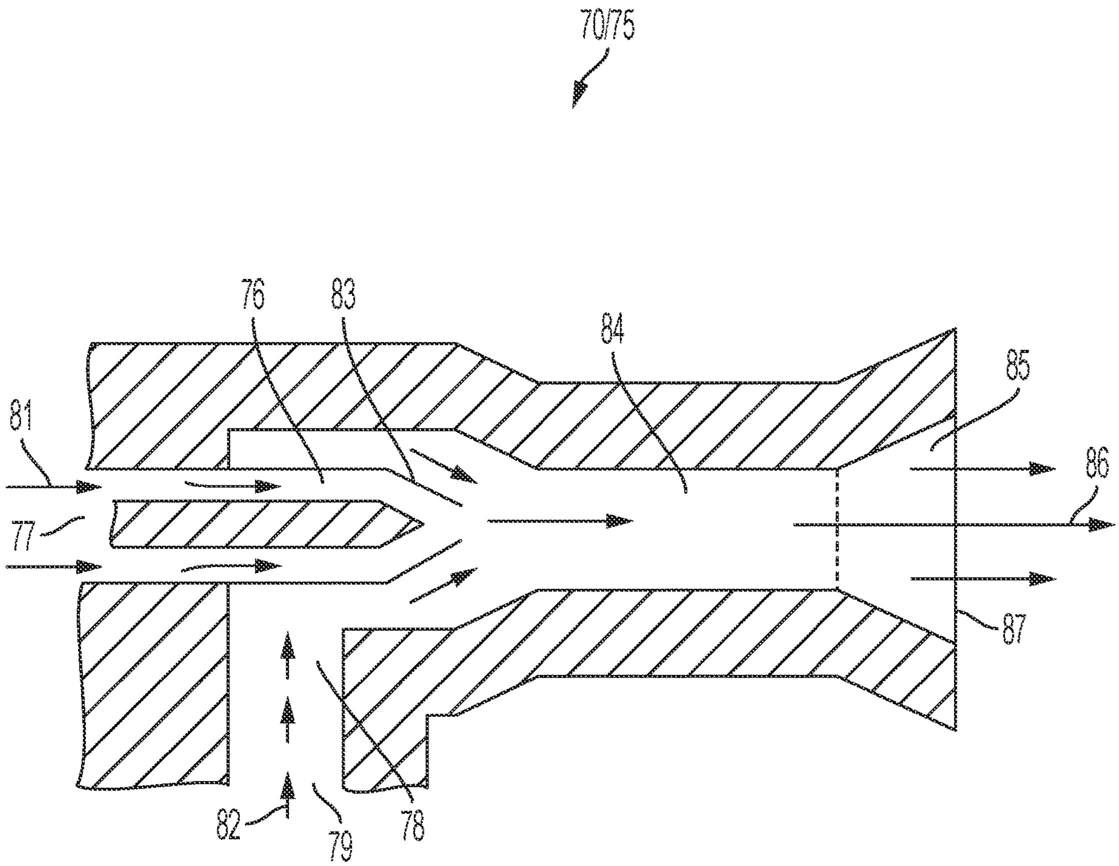

FIG. 10

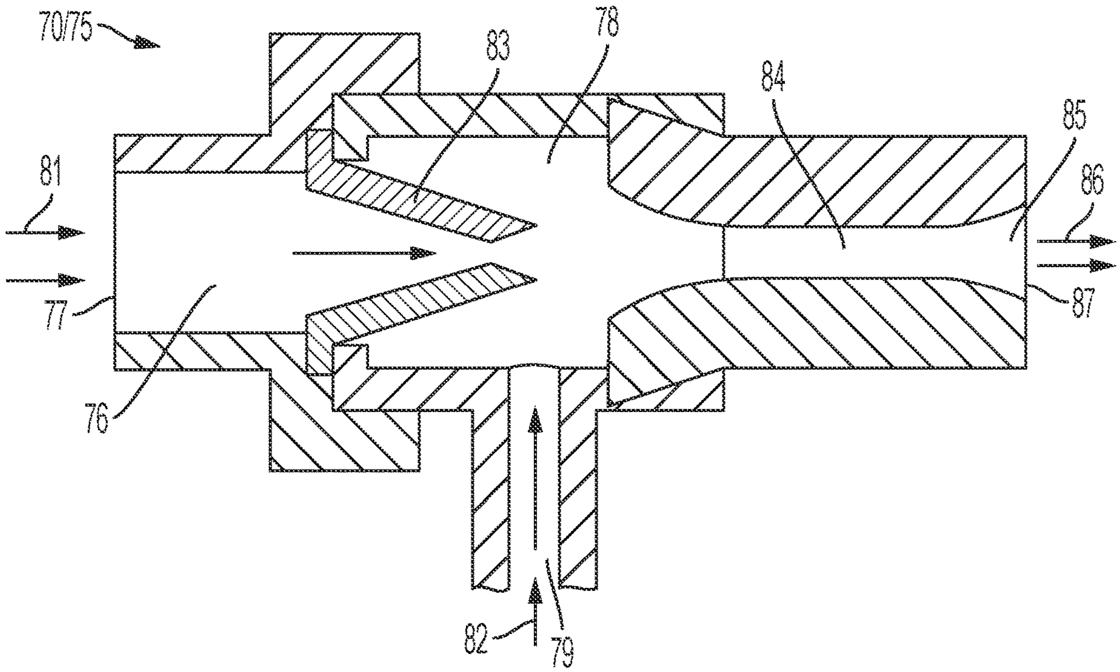
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FIG. 11

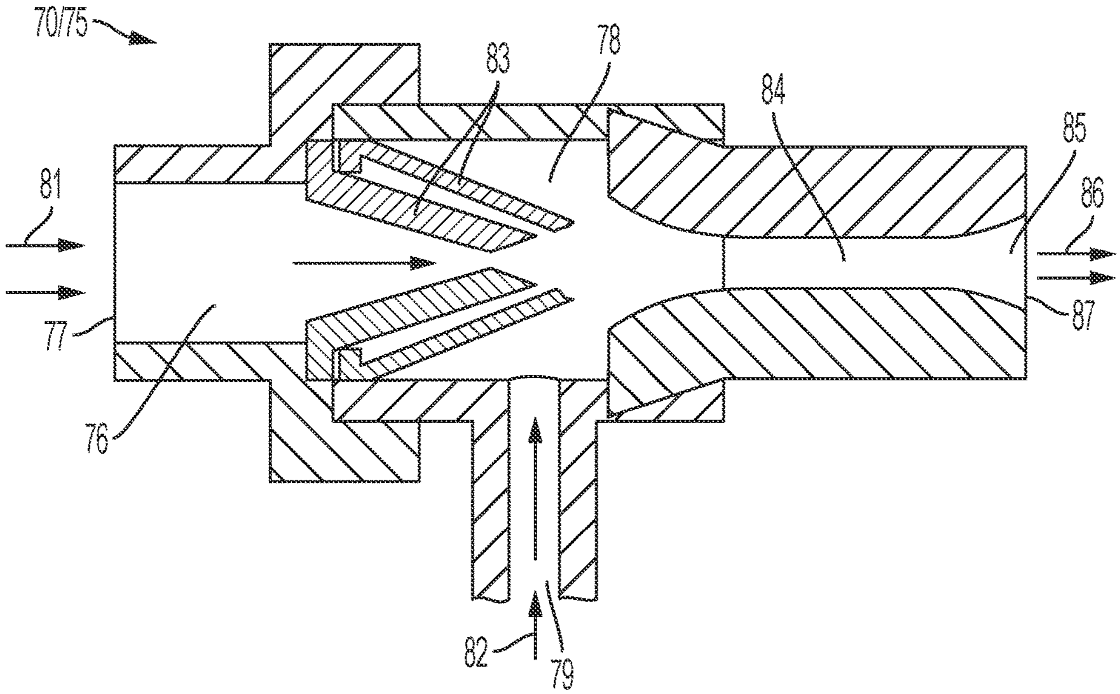
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FIG. 12

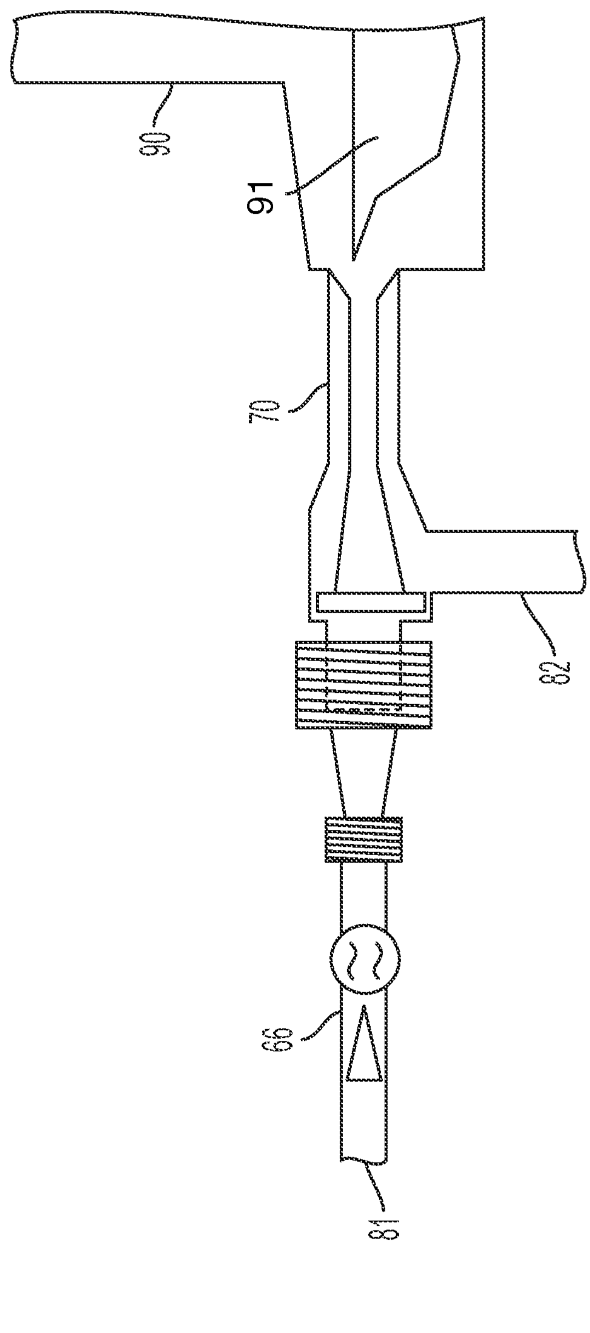

FIG. 13

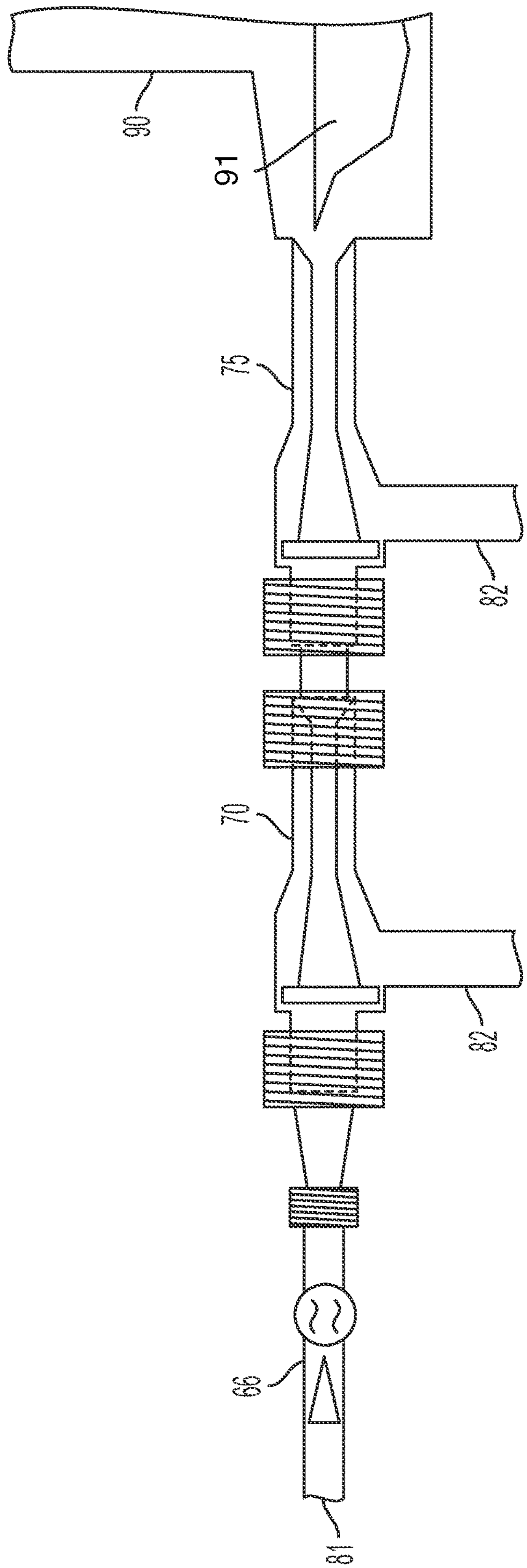

FIG. 14

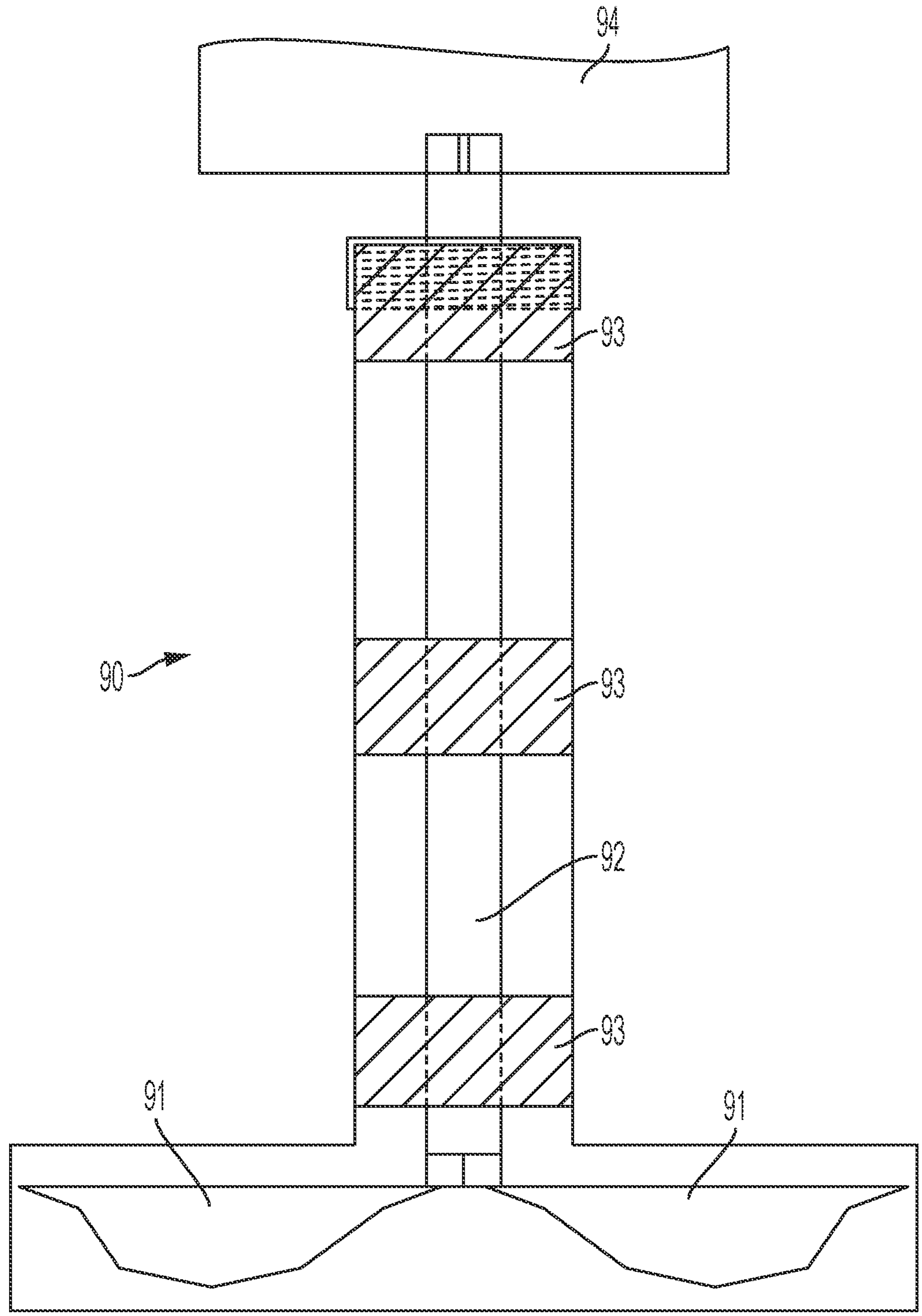

FIG. 15

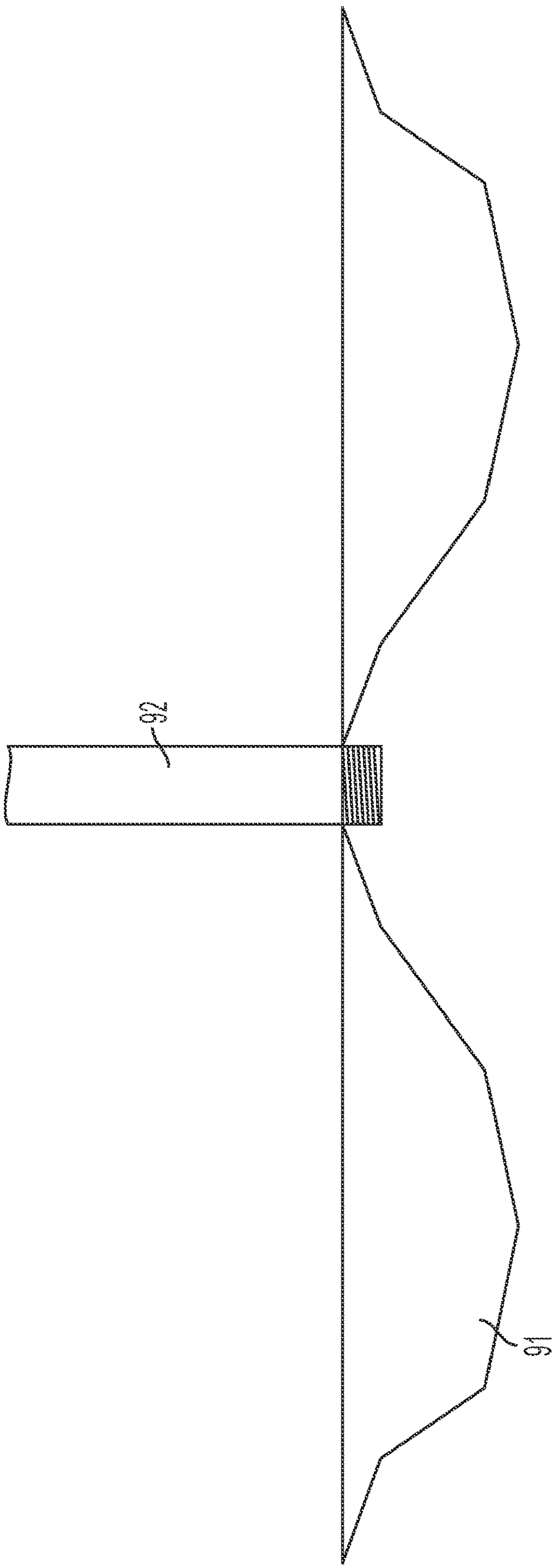

FIG. 16

REFRIGERATION CYCLE EJECTOR POWER GENERATOR

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to refrigeration technology including the refrigeration cycle and its components. This invention also relates to ejector technology, injector technology, or high-pressure nozzle technology, which are dual chambered ejectors or injectors that eject gas or liquid at extremely high pressures and velocities. Specifically, this invention uses refrigerant in a refrigeration cycle to feed an ejector or injector within the refrigeration cycle causing the ejector to fire refrigerant at extremely high pressures and velocities into a turbine fan or blade that is sealed inside the refrigeration system and is connected to a generator in order to generate electricity.

2. Description of Related Art

There are many types of refrigerants and refrigeration cycles in the prior art. Most, if not all, refrigerants in the prior art are referred to as Freon® which is a registered trademark of the DuPont company. Freon® type refrigerants are fluorocarbons. All fluorocarbons are assigned an R number, which is determined systematically according to molecular structure. Fluorocarbons are being phased out because of their high ozone depletion effects. As a replacement to fluorocarbons, other refrigerants are currently being used, such as ammonia, sulfur dioxide, and non-halogenated hydrocarbons. This invention does not use a fluorocarbon or any other standard type of refrigerant. Instead, this invention uses carbon dioxide or CO_2 as a refrigerant. Carbon dioxide is used because it has zero effects on the ozone layer. Carbon dioxide has a global warming potential of one. Carbon dioxide is nonflammable, nontoxic, and economically readily available at low cost. Carbon dioxide can generate much greater pressures and velocities of fluid ejectment from an ejector, where greater ejectment pressures and velocities yield greater rotation speeds of the turbine fan, which leads to more efficient power production.

Refrigeration cycles operate by cycling a refrigerant through a continuous cycle. During one cycle, the refrigerant changes from liquid to gas, then gas to liquid. A large degree of thermodynamic efficiency is gained from the phase changes of the refrigerant in the refrigeration cycles. Even more thermodynamic efficiency can be gained when the refrigerant exists as a super critical liquid or fluid. All substances turn into a supercritical fluid at a temperature and pressure above the substance's critical point. In the supercritical state, the substance does not exist as a distinct liquid state or a distinct gas state. Rather, by definition, supercritical fluids behave like a liquid and a gas simultaneously. This invention cycles carbon dioxide in a supercritical state through a refrigeration cycle. Carbon dioxide does not reach a supercritical state until at a pressure of 74 atmospheres and above, along with a temperature of 31.1 Celsius and above. Therefore, the components of the refrigeration cycle of this invention must be able to withstand refrigerant pressures of 74 atmospheres and above, which is a very high pressure requirement. Additionally, the components of the refrigeration cycle of this invention must be able to withstand refrigerant temperatures of 31.1 Celsius and above, which is not an extremely high temperature requirement. The use of carbon dioxide as a refrigerant at the supercritical state

requires certain modifications and improvements to components in the refrigeration cycle to allow for proper functioning of the refrigeration cycle and generator. One caveat of using supercritical carbon dioxide in a refrigeration cycle is that high pressures and velocities can cause carbon dioxide to flow through the refrigeration cycle at velocities that are greater than the speed of sound thereby causing sonic booms or vibrations in the refrigeration cycle components, which could be catastrophic to the whole system. Another caveat is that the turbine must also be able to withstand pressures of 74 atmospheres and above, since it is position within the refrigeration cycle.

There are many ejectors or injectors in the prior art. This invention uses novel, specially shaped ejectors or injectors to accommodate the properties of carbon dioxide and to yield high-pressure and high-velocity effluent fluid from the ejector, which, in turn, produces efficient rotation of the turbine or fan and efficient power production. The novel and specially shaped ejectors or injectors of this invention produce high-pressure high-velocity fluid flows for efficient power production but do not yield velocities that are greater than the speed of sound thereby preventing sonic booms in the flow of refrigerant. The novel and specially shaped ejectors or injectors of this invention are designed to curtail sonic booms or sonic conditions in effluent fluid flow of the ejector or injector.

BRIEF SUMMARY OF THE INVENTION

It is an aspect of refrigeration cycle ejector power generator to include a refrigeration cycle apparatus that cycles carbon dioxide in the super critical state as the refrigerant.

It is an aspect of refrigeration cycle apparatus to be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above.

It is an aspect of refrigeration cycle ejector power generator to include at least one ejector or injector positioned inline with the refrigerant of the refrigeration cycle apparatus.

It is an aspect of at least one ejector or injector to be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above.

It is an aspect of at least one ejector to have a special shape or design that helps curtail sonic conditions in the cycling super critical state carbon dioxide.

It is an aspect of refrigeration cycle ejector power generator to include a turbine positioned inline with the refrigerant of the refrigeration cycle apparatus.

It is an aspect of generator to be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above.

It is an aspect of at least one ejector or injector to spray refrigerant or push compressed refrigerant onto the turbine thereby causing the turbine to rotate.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a diagram of a first mode of refrigeration cycle ejector power generator with one ejector.

FIG. **2** is a diagram of a second mode of refrigeration cycle ejector power generator with one ejector and a condenser bypass valve.

FIG. **3** is a diagram of a third mode of refrigeration cycle ejector power generator with two ejectors.

FIG. **4** is a diagram of a fourth mode of refrigeration cycle ejector power generator with two ejectors and a condenser bypass valve.

FIG. **5** is a diagram of a plurality of modes of refrigeration cycle ejector power generator with one ejector and additional refrigeration cycle components.

FIG. **6** is a diagram of a plurality of modes of refrigeration cycle ejector power generator with one ejector, a condenser bypass valve, and additional refrigeration cycle components.

FIG. **7** is a diagram of a plurality of modes of refrigeration cycle ejector power generator with two ejectors and additional refrigeration cycle components.

FIG. **8** is a diagram of a plurality of modes of refrigeration cycle ejector power generator with two ejectors, a condenser bypass valve, and additional refrigeration cycle components.

FIG. **9** is a cross sectional view of an ejector.

FIG. **10** is a cross sectional view of a specialized ejector.

FIG. **11** is a cross sectional view of a specialized ejector.

FIG. **12** is a cross sectional view of a specialized ejector.

FIG. **13** is a cross sectional view of a segment of refrigeration cycle ejector power generator with one ejector.

FIG. **14** is a cross sectional view of a segment of refrigeration cycle ejector power generator with two ejectors.

FIG. **15** is a cross sectional view of the turbine.

FIG. **16** is a cross sectional view of the turban fan.

DEFINITION LIST

Term	Definition
2	Refrigeration Cycle Ejector Power Generator
4	Piping or Tubing with Primarily Liquid Refrigerant (solid lines)
6	Piping or Tubing with Primarily Gaseous Refrigerant (dashed lines)
8	Electrical Wiring (stepped lines)
10	Condenser
12	Primary entry Port on Condenser
13	Secondary Entry Port
14	Primary exit Port on Condenser
15	Secondary Exit Port on Condenser
16	Condenser Fan or Pump
18	Heated Air or Water
20	Separator
22	Pressure Transmitter
24	Pressure Gauge
26	Temperature Gauge
35	Expansion Valve
40	Evaporator
42	Primary entry Port on Evaporator
44	Primary exit Port on Evaporator
45	Secondary Exit Port on Evaporator
46	Evaporator Fan or Pump
48	Cooled Air or Water
50	Accumulator
60	Compressor
62	Primary Entry Port on Compressor
64	Primary Exit Port on Compressor
65	Secondary Exit Port on Compressor
66	Ejector Valve
68	Condenser Bypass Valve
70	First Ejector
75	Second Ejector
76	High Pressure Chamber
77	Primary Entry Port
78	Low Pressure Chamber
79	Secondary Entry Port
81	High Pressure Influent Refrigerant
82	Low Pressure Influent Refrigerant
83	Nozzle
84	Mixing Chamber
85	Diffuser
86	Effluent Refrigerant
87	Exit Port
90	Turbine
91	Fan
92	Fan Shaft

-continued

Term	Definition
93	Fan Shaft Seal
94	Generator
95	Controller or Computer
100	Battery

DETAILED DESCRIPTION OF THE INVENTION

Refrigeration cycle ejector power generator **2** comprises: a condenser **10**, an expansion valve **35**, an evaporator **40**, a compressor **60**, an ejector valve **66**, a first ejector **70**, a turbine **90**, and a controller or computer **95**, as depicted in FIG. **1**. Refrigeration cycle ejector power generator **2** is a refrigeration cycle with at least one ejector **70** positioned in the refrigeration cycle that emits refrigerant at a high pressure and high velocity that is directed at a turbine **90**, causing it to rotate, where this rotational energy may be used to turn a generator **94**, thereby generating electricity.

Condenser **10** is a device that condenses gas or vapor into a liquid by removing heat from the gas or vapor to cause it to condense into a liquid. A condenser **10** is a basic component of a refrigeration cycle. Condenser **10** is a containment vessel with a primary entry port **12** and a primary exit port **14**. Primarily gaseous refrigerant flows into condenser **10** from primary entry port **12** and primarily liquid refrigerant flows out of condenser **10** from the primary exit port **14**. The containment vessel has a heat exchanger, radiator, or coil. Heat is transmitted to the environment through the heat exchanger, radiator, or coil where a condenser fan or pump **16** blows cooler air or pumps cooler water from the environment through the heat exchanger, radiator, or coil to export heat to the environment. Heated air or water **18** is released into the environment. Environmental air or water must be cooler than the refrigerant in the condenser **10**. Condenser **10** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above. Condenser **10** may be any known type of condenser such as an air coil, air fin, surface condenser, isolation condenser, laboratory condenser, or any other known type of condenser. Primary exit port **14** of condenser **10** is connected by piping or tubing **4** to the entry port on expansion valve **35**. Condenser **10** and piping or tubing **4** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above.

Expansion valve **35** is a valve that controls or meters the amount of refrigerant released into the evaporator **40**. An expansion valve **35** is sometimes referred to as a metering valve or a throttle valve. An expansion valve **35** is a basic component of a refrigeration cycle. Expansion valve **35** has an entry port, an exit port, and a temperature sensing bulb. The temperature sensing bulb is an isolated chamber filled with refrigerant which expands and contracts according to temperature and is linked to a mechanical valve. The expansion and contraction causes the mechanical valve to open as the temperature on the bulb increases and close as the temperature decreases, thereby metering refrigerant flow into the evaporator. Influent refrigerant to the expansion valve **35** is under high pressure. Effluent refrigerant from the expansion valve **35** is under low pressure. Expansion valve **35** may be any known type of expansion valve including an internally equalized valve or an externally equalized valve. Expansion valve **35** must be calibrated to yield the desired flow rate of refrigerant in the refrigeration cycle and to insure that the velocity of refrigerant in the refrigeration cycle does not exceed the speed of sound at any point in the cycle. Alternately, expansion valve **35** may be an actuated valve that is electronically controlled. Expansion valve **35** may be any known type of actuated valve capable of regulating refrigerant flow that can withstand very high pressures ranging from 74 atmospheres and above. In this mode, expansion valve **35** is connected to controller or computer **95** by electrical wiring **8** to create electrical continuity there between. Controller or computer **95** sends electrical signals to expansion valve **35** through electrical wiring **8** that function to control the expansion valve **35** and the degree to which expansion valve **35** is open or closed. The exit port of expansion valve **35** is connected by piping or tubing **6** to the primary entry port **42** on evaporator **40**. Expansion valve **35** and piping or tubing **6** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above.

Evaporator **40** is a device that boils or evaporates liquid into a gas or vapor by adding heat to the liquid to cause it to evaporate into a gas or vapor. An evaporator **40** is a basic component of a refrigeration cycle. Evaporator **40** is a containment vessel with a primary entry port **42**, a primary exit port **44**, and a secondary exit port **45**. Primarily liquid refrigerant cooled by the condenser **10** flows through expansion valve **35**, through primary entry port **42**, and into evaporator **40**, where the refrigerant is boiled to vapor or gas. Refrigerant pressure is reduced from passing through expansion valve **35** thereby lowering the boiling point of the refrigerant. Primarily gaseous refrigerant then flows out of evaporator **40**, exiting from primary exit port **44**. The containment vessel has a heat exchanger, radiator, or coil. Heat is transmitted to the refrigerant from the heat exchanger, radiator, or coil where an evaporator fan or pump **16** blows warmer air or warmer water through the heat exchanger, radiator, or coil to import heat into the refrigerant. Cooled air or water **48** is released into the environment. Environmental air or water must be warmer than the refrigerant in the evaporator **40**. Evaporator **40** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above. Evaporator **40** may be any known type of evaporator such as an air coil, air fin, surface evaporator, isolation evaporator, laboratory evaporator, or any other known type of evaporator. Primary exit port **44** of evaporator **40** is connected by piping or tubing **6** to the primary entry port **62** on compressor **60**. Secondary exit port **45** of evaporator **40** is connected by piping or tubing **6** to the secondary entry port **79** on first ejector **70**. Evaporator **40** and piping or tubing **6** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above.

Compressor **60** is a device that increases the pressure of a gas by reducing its volume. Compressor **60** uses a mechanical mechanism to pump gaseous refrigerant into a smaller volume thereby increasing its pressure. A compressor **60** is a basic component of a refrigeration cycle. Compressor **60** is a containment vessel with a primary entry port **62** and a primary exit port **64**. Gaseous refrigerant from evaporator **40** flows into compressor **60** from primary entry port **62** and pressurized gaseous refrigerant flows out of compressor **60** from the primary exit port **64**. The pressurization of the gaseous refrigerant causes the refrigerant to heat up. Compressor **60** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above. Influent refrigerant to the compressor **60** is under low pressure. Effluent refrigerant from compressor **60** is under high pressure. Compressor **60** may be any known type of evaporator such as a reciprocating compressors, ionic liquid piston compressor, rotary screw compressor, rotary vane compressor, rolling piston compressor, scroll compressor, diaphragm compressor, dynamic compressor, or any other known type of compressor. Primary exit port **64** of compressor **60** is connected by piping or tubing **6** to the entry port on ejector valve **66**. Compressor **60** and piping or tubing **6** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above.

Ejector valve **66** is an actuated valve that is controlled by the controller or computer **95**. Ejector valve **66** is a valve that regulates, directs, or controls the flow of refrigerant by opening, closing, or partially obstructing the passageway through the valve. Ejector valve **66** has an entry port and an exit port. Ejector valve **66** may be any known type of actuated valve capable of regulating refrigerant flow that can withstand very high pressures ranging from 74 atmospheres and above. Ejector valve **66** is connected to controller or computer **95** by electrical wiring **8** to create electrical continuity there between. Controller or computer **95** sends electrical signals to ejector valve **66** through electrical wiring **8** that function to control the ejector valve **66** and the degree to which ejector valve **66** is open or closed. Ejector valve **66** regulates or controls the flow of refrigerant flowing out of primary exit port **64** on compressor **60** and into the primary entry port **77** on first ejector **70**. Exit port of ejector valve **66** is connected by piping or tubing **6** to the primary entry port **77** on first ejector **70**. Ejector valve **66** and piping or tubing **6** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above.

First ejector **70** is an ejector comprising: a primary entry port **77**, a high pressure chamber **76**, a secondary entry port **79**, a low pressure chamber **78**, a nozzle **83**, a mixing chamber **84**, a diffuser **85**, and an exit port **87**. First ejector **70** is an oblong shaped or cylindrical shaped fitting with open ends. First ejector **70** has a longitudinal axis, an upstream end, a side, a downstream end, an interior, and an exterior. The upstream end is open and is designated as the primary entry port **77**. The downstream end is open and is designated as the exit port **87**. Side is a rigid oblong shaped or cylindrical shaped member that connects primary entry port **77** to exit port **87**. Side is a containment barrier with the exception of one port, which is designated as secondary entry port **79**. Secondary entry port **79** is a port or opening in the side of first ejector **70**. Secondary entry port **79** of first ejector **70** is connected by piping or tubing to secondary exit port **45** on evaporator **40**. Exit port **87** on first ejector **70** is connected by piping or tubing **6** to entry port on turbine **90**, as depicted in FIG. **13**. First ejector **70** and piping or tubing must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above.

Nozzle **83** is a nozzle. Nozzle **83** is a rigid oblong member with one conical shaped end or tapered cylindrical end. Both ends of nozzle **83** are open. Nozzle **83** has a longitudinal axis, a large end, a small end, an interior, and an exterior. Nozzle **83** is located inside first ejector **70** and positioned with its longitudinal axis coincident with that of first ejector **70**. The large end of nozzle **83** is positioned toward the upstream end of first ejector **70**, and the small end of nozzle **83** is positioned toward the downstream end of first ejector **70**, so that the conical shape tapers inward in the direction of the flow of refrigerant. Nozzle **83** functions to direct the flow of refrigerant into a more narrow stream. Nozzle **83** separates the high pressure chamber **76** from the low pressure chamber **78** within first ejector **70**.

High pressure chamber **76** is a chamber within the interior of first ejector **70** located at the upstream end of first ejector **70**. High pressure chamber **76** is a rigid oblong chamber with one conical shaped end or tapered cylindrical end. High pressure chamber **76** has a first end, a middle, and a tapered end. High pressure chamber **76** is essentially the interior of nozzle **83**. First end is an open cylindrical shaped end. Tapered end is an open conical shaped or tapered end. High pressure chamber **76** is defined by the primary entry port **77** at its first end, the interior of nozzle **83** in the middle, and the interior of the tapered end of nozzle **83** at its tapered end. High pressure chamber **76** is fed through primary entry port **77** with high pressure influent refrigerant **81** from exit port on ejector valve **66**.

Low pressure chamber **78** is a chamber within the interior of first ejector **70** located in the middle of first ejector **70** and adjacent to high pressure chamber **76**. Low pressure chamber **78** is a rigid oblong chamber with one conical shaped end or tapered cylindrical end. Low pressure chamber **78** has a first end, a middle, and a tapered end. Low pressure chamber **78** surrounds the small end of nozzle **83** so that the small end of nozzle **83** is completely within and inside of low pressure chamber **78**. Low pressure chamber **78** is defined by the exterior of nozzle **83** at its first end, the interior of first ejector **70** in the middle, and the tapered interior of first ejector **70** at its tapered end. The interior of first ejector **70** tapers at this location in the same direction as nozzle **83**. The tapered end of low pressure chamber **78** surrounds the tapered end of high pressure chamber **76** as depicted. There is a port or opening in the middle of low pressure chamber **78**. This port or opening is the secondary entry port **79**. Low pressure influent refrigerant **82** from secondary exit port **45** on evaporator **40** flows into low pressure chamber **78** through secondary entry port **79**. During operation, the pressure in high pressure chamber **76** is greater than that of low pressure chamber **78**.

Mixing chamber **84** is a chamber within the interior of first ejector **70** located in the middle of first ejector **70** and adjacent to low pressure chamber **78**. Mixing chamber **84** is a rigid cylindrical chamber with a first end and a second end. First and seconds ends are both open. Mixing chamber **84** is defined by the tapered end of low pressure chamber **78** at its first end, the interior of first ejector **70** in the middle, and the small end of diffuser **85** at its second end.

Diffuser **85** is a chamber within the interior of first ejector **70** located at the downstream end of first ejector **70** and adjacent to mixing chamber **84**. Diffuser **85** is a rigid conical shaped chamber or tapered cylindrical chamber with a small end and a large end. Small end and large end are both open. The small end of diffuser is contiguous with the second end of mixing chamber **84**. The large end of diffuser **85** is exit port **87**. Diffuser **85** functions to direct the flow of refrigerant outward into a more wide stream. Exit port **87** on first ejector **70** is connected by piping or tubing **6** to entry port on turbine **90**, as depicted in FIG. **13**. Piping or tubing **6** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above. High pressure and high velocity effluent refrigerant **86** from first ejector **70** is directed at fan **91** causing it to rotate. Rotation of fan **91** causes rotation of fan shaft **92** thereby causing rotation of generator **94**.

First ejector **70** functions to emit high pressure and high velocity effluent refrigerant **86**, which is used to rotate turbine **90**. The operating principle is that pressure energy in the influent refrigerant **81** is converted into velocity energy by adiabatic expansion of the fluid upon exiting the high pressure chamber **76** or nozzle **83**, causing a pressure drop, which creates a low-pressure zone in the low pressure chamber **78**, just upstream of the mixing chamber **84**, where this low-pressure zone sucks fluid in through the secondary entry port **79**, then the two fluids mix in the mixing chamber **84**, which causes a dramatic increase in fluid velocity, where the high velocity fluid then enters the diffuser **85**, which decreases fluid velocity and increases fluid pressure, thereby emitting high pressure and high velocity effluent refrigerant **86**. Most ejectors in the prior art have much longer diffusers than those of this invention and therefore emit fluid with much greater pressures and much lower velocities. Most ejector applications require high pressure and do not require high velocity. First ejector **70** is specially designed to yield a high pressure and a high velocity fluid which functions to created more efficient rotation of turbine **90**.

Turbine **90** is a sealed vessel or containment vessel that is capable of containing high pressure refrigerant. Turbine **90** comprises: a fan **91**, a fan shaft **92**, and at least one fan shaft seal **93**. Sealed vessel or containment vessel contains fan **91**. Fan **91** is rigidly attached to fan shaft **92**. A cross sectional view of turbine **90** is depicted in FIG. **15**. Turbine **90** has an entry port and an exit port. Turbine entry port is connected by piping or tubing to exit port **87** on first ejector **70** or second ejector **75**. Exit port on turbine **90** is connected by piping or tubing **6** to primary entry port **12** on condenser **10**. Turbine **90** and piping or tubing **6** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above. Fan **91** is an arrangement of vanes or blades, which are acted upon by the flow of effluent refrigerant **86** from first ejector **70**. A cross sectional view of fan **91** is depicted in FIG. **16**. Fan **91** may be any known type of fan. Fan **91** may be an impeller, propeller, rotor, runner, or similar. Fan shaft **92** is a shaft or rigid solid cylindrical member. Fan shaft **92** has a first end and a second end. The first end of fan shaft **92** is rigidly attached to fan **91** or to each vane or blade of fan **91**. The second end of fan shaft **92** is rigidly attached to generator **94**. Fan shaft **92** extends through at least one fan shaft seal **93**. At least one fan shaft seal **93** is a seal or bearing that separates the first end of fan shaft **92** from the second end of fan shaft **92**. At least one fan shaft seal **93** is a seals around fan shaft **92** and allows rotation of fan shaft **92** without leaking through the seal. The first end of fan shaft **92** is positioned in a high pressure environment. The second end of fan shaft **92** is position in a low pressure environment or atmospheric pressure environment. At least one fan shaft seal **93** functions to keep the high pressure refrigerant contained within turbine **90** and to prevent leakage of refrigerant into generator **94**. Generator **94** is located outside of the refrigeration cycle, in regular pressure environment or atmospheric pressure environment. In best mode, turbine **90** comprises three fan shaft seals **93** in order to contain the very high pressure refrigerant within the sealed vessel or containment vessel of turbine **90**. High pressure and high velocity effluent refrigerant **86** from first ejector **70** is directed at fan **91** causing it to rotate. Rotation of fan **91** causes rotation of fan shaft **92** thereby causing rotation of generator **94**.

Note that the refrigeration cycle consists of a high pressure portion and a low pressure portion. The high pressure portion spans from the compressor **60** to the expansion valve **35** and all components in between. The low pressure portion spans from the expansion valve **35** to the compressor **60** and all components in between.

Generator **94** is a power generator. Generator **94** is a device that converts mechanical energy into electrical power by spinning a rotor spinning inside of a stator. Generator **94** may be any known type of generator. Generator **94** is connected by electrical wiring **8** to a battery **100**. Battery **100** is an electrical battery. Battery **100** may be any known type of electrical battery.

Controller or computer **95** is a controller or computer. Controller or computer **95** comprises an integrated circuit with has a central processing unit and memory. Controller or computer **95** may be any known type of integrated circuit or central processing unit. Controller or computer **95** must be programmed with custom software designed to properly operate refrigeration cycle ejector power generator **2**.

Refrigeration cycle ejector power generator **2** may further comprise: a secondary exit port **65** on compressor **60**, a condenser bypass valve **68**, and a secondary entry port **13** on condenser **10**, as depicted in FIG. **2**. Secondary exit port **65** is a second exit port in compressor **60**. Secondary entry port **13** is a second entry port in Condenser **10**. Condenser bypass valve **68** is an actuated valve that is controlled by the controller or computer **95**. Condenser bypass valve **68** is a valve that regulates, directs, or controls the flow of refrigerant by opening, closing, or partially obstructing the passageway through the valve. Condenser bypass valve **68** has an entry port and an exit port. Condenser bypass valve **68** may be any known type of actuated valve capable of regulating refrigerant flow that can withstand very high pressures ranging from 74 atmospheres and above. Condenser bypass valve **68** is connected to controller or computer **95** by electrical wiring **8** to create electrical continuity there between. Controller or computer **95** sends electrical signals to Condenser bypass valve **68** through electrical wiring **8** that function to control the condenser bypass valve **68** and the degree to which condenser bypass valve **68** is open or closed. Secondary exit port **65** on compressor **60** is connected by piping or tubing **6** to the entry port on condenser bypass valve **68**. Exit port on condenser bypass valve **68** is connected by piping or tubing **6** to a secondary entry port **13** on condenser **10**. Piping or tubing **6** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above.

This arrangement helps regulate or control the pressure of refrigerant in compressor **60** and in whole refrigeration cycle. The primary or majority flow of refrigerant exiting from compressor **60** flows through ejector valve **66** and first ejector **70**. The addition of condenser bypass valve **68** provides a bypass flow path or safety valve flow path for the direct flow of refrigerant from the compressor **60** to the condenser **10**, thereby bypassing first ejector **70**. This safety valve flow path would open and be used if and when the pressure in compressor **60** surpasses a maximum setting. There is a maximum pressure that would cause sonic conditions in the refrigerant and sonic booms in the refrigeration cycle. The maximum pressure setting of compressor **60** would be set to prevent such a sonic condition. This arrangement would require a pressure gauge in compressor **60** that is connected by electrical wiring **8** to controller or computer **95**.

Refrigeration cycle ejector power generator **2** may further comprise: a second ejector **75** and a secondary exit port **15** on condenser **10**, as depicted in FIGS. **3** and **4**. In this configuration, the effluent refrigerant from first ejector **70** is the influent refrigerant of second ejector **75**. This two ejector configuration produces greater pressures and velocities of refrigerant than those of single ejector configurations, thereby increasing the efficiency of power production.

Secondary exit port **15** is a second exit port in condenser **10**. Secondary exit port **15** is located above primary exit port **14** and in a position on condenser **10** where the contained refrigerant is primarily gaseous as opposed to the bottom of condenser **10** where the contained refrigerant is primarily liquid.

Second ejector **75** is an ejector comprising: a primary entry port **77**, a high pressure chamber **76**, a secondary entry port **79**, a low pressure chamber **78**, a nozzle **83**, a mixing chamber **84**, a diffuser **85**, and an exit port **87**. Second ejector **75** is an oblong shaped or cylindrical shaped fitting with open ends. Second ejector **75** has a longitudinal axis, an upstream end, a side, a downstream end, an interior, and an exterior. The upstream end is open and is designated as the primary entry port **77**. The downstream end is open and is designated as the exit port **87**. Side is a rigid oblong shaped or cylindrical shaped member that connects primary entry port **77** to exit port **87**. Side is a containment barrier with the exception of one port, which is designated as secondary entry port **79**. Secondary entry port **79** is a port or opening in the side of second ejector **75**. Secondary entry port **79** on second ejector **75** is connected by piping or tubing to secondary exit port **15** on condenser **10**. Exit port **87** of first ejector **70** is connected by piping or tubing **6** to the primary entry port **77** on second ejector **75**, as depicted in FIG. **14**. Second ejector **75** and piping or tubing must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above.

Nozzle **83** is a nozzle. Nozzle **83** is a rigid oblong member with one conical shaped end or tapered cylindrical end. Both ends of nozzle **83** are open. Nozzle **83** has a longitudinal axis, a large end, a small end, an interior, and an exterior. Nozzle **83** is located inside second ejector **75** and positioned with its longitudinal axis coincident with that of second ejector **75**. The large end of nozzle **83** is positioned toward the upstream end of second ejector **75**, and the small end of nozzle **83** is positioned toward the downstream end of second ejector **75**, so that the conical shape tapers inward in the direction of the flow of refrigerant. Nozzle **83** functions to direct the flow of refrigerant into a more narrow stream. Nozzle **83** separates the high pressure chamber **76** from the low pressure chamber **78** within second ejector **75**.

High pressure chamber **76** is a chamber within the interior of second ejector **75** located at the upstream end of second ejector **75**. High pressure chamber **76** is a rigid oblong chamber with one conical shaped end or tapered cylindrical end. High pressure chamber **76** has a first end, a middle, and a tapered end. High pressure chamber **76** is essentially the interior of nozzle **83**. First end is an open cylindrical shaped end. Tapered end is an open conical shaped or tapered end. High pressure chamber **76** is defined by the primary entry port **77** at its first end, the interior of nozzle **83** in the middle, and the interior of the tapered end of nozzle **83** at its tapered end. High pressure chamber **76** is fed through primary entry port **77** with high pressure influent refrigerant **81**, which is the effluent refrigerant from the exit port of first ejector **70**.

Low pressure chamber **78** is a chamber within the interior of second ejector **75** located in the middle of second ejector **75** and adjacent to high pressure chamber **76**. Low pressure chamber **78** is a rigid oblong chamber with one conical shaped end or tapered cylindrical end. Low pressure chamber **78** has a first end, a middle, and a tapered end. Low pressure chamber **78** surrounds the small end of nozzle **83** so that the small end of nozzle **83** is completely within and inside of low pressure chamber **78**. Low pressure chamber **78** is defined by the exterior of nozzle **83** at its first end, the interior of second ejector **75** in the middle, and the tapered interior of second ejector **75** at its tapered end. The interior of second ejector **75** tapers at this location in the same direction as nozzle **83**. The tapered end of low pressure chamber **78** surrounds the tapered end of high pressure chamber **76** as depicted. There is a port or opening in the middle of low pressure chamber **78**. This port or opening is the secondary entry port **79**. Low pressure chamber **78** is fed through secondary entry port **79** with low pressure influent refrigerant **82** from secondary exit port **15** on condenser **10**. During operation, the pressure in high pressure chamber **76** is greater than that of low pressure chamber **78**.

Mixing chamber **84** is a chamber within the interior of second ejector **75** located in the middle of second ejector **75** and adjacent to low pressure chamber **78**. Mixing chamber **84** is a rigid cylindrical chamber with a first end and a second end. First and seconds ends are both open. Mixing chamber **84** is defined by the tapered end of low pressure chamber **78** at its first end, the interior of second ejector **75** in the middle, and the small end of diffuser **85** at its second end.

Diffuser **85** is a chamber within the interior of second ejector **75** located at the downstream end of second ejector **75** and adjacent to mixing chamber **84**. Diffuser **85** is a rigid conical shaped chamber or tapered cylindrical chamber with a small end and a large end. Small end and large end are both open. The small end of diffuser is contiguous with the second end of mixing chamber **84**. The large end of diffuser **85** is exit port **87**. Diffuser **85** functions to direct the flow of refrigerant outward into a more wide stream. Exit port **87** on second ejector **75** is connected by piping or tubing **6** to entry port on turbine **90**, as depicted in FIG. **14**. Piping or tubing **6** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above. High pressure and high velocity effluent refrigerant **86** from second ejector **75** is directed at fan **91** causing it to rotate. Rotation of fan **91** causes rotation of fan shaft **92** thereby causing rotation of generator **94**.

Second ejector **75** functions to emit high pressure and high velocity refrigerant **86**, which is used to rotate turbine **90**. The operating principle is that pressure energy in the influent refrigerant **81** is converted into velocity energy by adiabatic expansion of the fluid upon exiting the high pressure chamber **76** or nozzle **83**, causing a pressure drop, which creates a low-pressure zone in the low pressure chamber **78**, just upstream of the mixing chamber **84**, where this low-pressure zone sucks fluid in through the secondary entry port **79**, then the two fluids mix in the mixing chamber **84**, which causes a dramatic increase in fluid velocity, where the high velocity fluid then enters the diffuser **85**, which decreases fluid velocity and increases fluid pressure, thereby emitting high pressure and high velocity effluent refrigerant **86**. Most ejectors in the prior art have much longer diffusers than those of this invention and therefore emit fluid with much greater pressures and much lower velocities. Most ejector applications require high pressure and do not require high velocity. Second ejector **75** is specially designed to yield a high pressure and a high velocity fluid which functions to created more efficient rotation of turbine **90**.

First or second ejector **70**,**75** may include a nozzle **83** with a specialized shape as depicted in FIG. **10**. Nozzle **83** with a specialized shape includes a center section. Center section is a rigid oblong member with at least one conical shaped end. Center section is position in the interior of nozzle **83**. Center section has a first end, a second end, and a longitudinal axis. The longitudinal axis of center section is coincident with that of nozzle **83**. First end is the upstream end of center section. First end may be cylindrical shaped or conical shaped. Second end is the downstream end of center section. Second end has a conical shaped end that tapers in the same direction as nozzle **83** as depicted. This specialized shape of nozzle **83** helps curtail sonic conditions in the refrigerant.

First or second ejector **70**,**75** may include a nozzle **83** with a specialized shape as depicted in FIG. **11**. Nozzle **83** with specialized shape includes a reverse tapered small end. In this configuration, the small end of nozzle **83** is not formed or cut with an edge that runs perpendicular to the longitudinal axis of nozzle **83**. But rather, the small end of nozzle **83** is formed or cut with an edge that runs at a non-perpendicular angle with the longitudinal axis of nozzle **83**. The tapered angle of edge runs in the opposite direction of the taper on nozzle **83** as depicted. This specialized shape of nozzle **83** helps curtail sonic conditions in the refrigerant.

First or second ejector **70**,**75** may include a nozzle **83** with a specialized shape as depicted in FIG. **12**. Nozzle **83** with specialized shape includes a dual walled nozzle body with a reverse tapered small end. In this configuration, nozzle **83** has a dual paned or dual walled body. Nozzle **83** does not have a single pane or single walled body. But rather, nozzle **83** has a dual paned or dual walled body as depicted. Dual panes or dual walls create an additional chamber within nozzle **83**. Additional chamber is a conical shaped chamber. Additional chamber has an upstream end and a downstream end. The upstream end of additional chamber is closed and the downstream end is open as depicted. Refrigerant may flow in and out of additional chamber through open downstream end. Also, the small end of nozzle **83** is not formed or cut with an edge that runs perpendicular to the longitudinal axis of nozzle **83**. But rather, the small end of nozzle **83** is formed or cut with an edge that runs at a non-perpendicular angle with the longitudinal axis of nozzle **83**. The tapered angle of edge runs in the opposite direction of the taper on nozzle **83** as depicted. The open downstream end of additional chamber is positioned along this taper and thus is tapered. This specialized shape of nozzle **83** helps curtail sonic conditions in the refrigerant.

Refrigeration cycle ejector power generator **2** may further comprise a plurality of pressure transmitters **22**. A pressure transmitter is an electromechanical device that converts a mechanical pressure reading value into a proportional electrical signal. A pressure transmitter continuously reads pressure and transmits an electrical signal containing the pressure reading. Each pressure transmitter **22** may be any known type of pressure transmitter that can withstand very high pressures ranging from 74 atmospheres and above. Each pressure transmitter **22** is connected to controller or computer **95** by electrical wiring **8** to create electrical continuity there between. Controller or computer **95** receives electrical signals from each pressure transmitter **22** through electrical wiring **8**. Controller or computer **95** uses the pressure readings from each pressure transmitter **22** in order to help control the flow of refrigerant in the refrigeration cycle by opening and closing expansion valve **35**, ejector valve **66**, and condenser bypass valve **68**. With single ejector best modes, a pressure transmitter **22** is positioned at: the high pressure influent refrigerant **81** of first ejector **70**, the low pressure influent refrigerant **81** of first ejector **70**, and the effluent refrigerant **86** of first ejector **70**, as depicted in FIGS. **5-6**. With double ejector best modes, a pressure transmitter **22** is positioned at: the high pressure influent refrigerant **81** of first ejector **70**, the low pressure influent refrigerant **81** of first ejector **70**, the high pressure influent refrigerant **81** of second ejector **75**, the low pressure influent refrigerant **81** of first ejector **75**, and the effluent refrigerant **86** of second ejector **75**, as depicted in FIGS. **7-8**.

Refrigeration cycle ejector power generator **2** may further comprise a plurality of pressure gauges **24**. A pressure gauge is a device that measures refrigerant pressure. Each pressure gauge **24** may be any known type of pressure gauge that can withstand very high pressures ranging from 74 atmospheres and above. Pressure gauges **24** may be positioned at various locations in the refrigeration cycle as depicted in FIGS. **5-8**.

Refrigeration cycle ejector power generator **2** may further comprise a plurality of temperature gauges **26**. A temperature gauge is a device that measures refrigerant temperature. Each temperature gauge **26** may be any known type of temperature gauge that can withstand very high pressures ranging from 74 atmospheres and above. Temperature gauges **26** may be positioned at various locations in the refrigeration cycle as depicted in FIGS. **5-8**.

Refrigeration cycle ejector power generator **2** may further comprise one or more separators **20**. A separator **20** is a vessel that functions to separate contaminants from the refrigerant, such as water, oil, air, dirt, etc., and to prevent the flow of contaminants in the refrigeration cycle. A separator **20** may be positioned in the refrigeration cycle between condenser **10** and evaporator **40** and/or between the turbine **90** and the condenser **10**, as depicted in FIGS. **5-8**. Each separator **20** may be any known type of separator. Separator **20** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above.

Refrigeration cycle ejector power generator **2** may further comprise an accumulator **50**. Accumulator **50** is a vessel that functions to separate liquid refrigerant from gaseous refrigerant to prevent the flow of liquid refrigerant into compressor **60**. An accumulator **50** may be positioned in the refrigeration cycle between evaporator **40** and compressor **60**, as depicted in FIGS. **5-8**. Accumulator **50** may be any known type of accumulator. Accumulator **50** must be capable of containing refrigerant under very high pressures ranging from 74 atmospheres and above.

Each of the following claims pertains to subject matter presented in the corresponding figure number. Thus, claim **1** pertains to subject matter depicted in FIG. **1**. Claim **2** pertains to subject matter depicted in FIG. **2**, and so on.

What is claimed is:

1. A refrigeration cycle ejector power generator comprising: a condenser; an expansion valve; an evaporator; a compressor; an ejector valve; a first ejector; a turbine; a plurality piping or tubing; and a controller or computer, wherein,

said condenser is a containment vessel with a primary entry port, a primary exit port, and a heat exchanger, radiator, or coil,

said expansion valve is a metering valve or throttle valve with an entry port and an exit port,

said evaporator is a containment vessel with a primary entry port, a primary exit port, a secondary exit port, and a heat exchanger, radiator, or coil,

said compressor is a containment vessel with a primary entry port, a primary exit port, and a pump,

said ejector valve is an actuated valve with an entry port and an exit port,

said first ejector is an ejector with a primary entry port, a high pressure chamber, a secondary entry port, a low pressure chamber, a nozzle, a mixing chamber, a diffuser, and an exit port,

said turbine is a containment vessel or sealed vessel with a fan, a fan shaft, a fan shaft seal, an entry port, and an exit port,

said fan shaft has a first end and a second end,

said controller or computer is an integrated circuit with a central processing unit and memory,

said primary exit port on said condenser is connected by said plurality of piping or tubing to said entry port on said expansion valve,

said exit port on said expansion valve is connected by said plurality of piping or tubing to said primary entry port on said evaporator,

said primary exit port on said evaporator is connected by said plurality of piping or tubing to said primary entry port on said compressor,

said secondary exit port on said evaporator is connected by said plurality of piping or tubing to said secondary entry port on said first ejector,

said primary exit port on said compressor is connected by said plurality of piping or tubing to said entry port on said ejector valve,

said exit port on said ejector valve is connected by said plurality of piping or tubing to said primary entry port on said first ejector,

said exit port on said first ejector is connected by said plurality of piping or tubing to said entry port on said turbine,

said fan on said turbine is located within said containment vessel or sealed vessel of said turbine,

said first end of said fan shaft is located within said containment vessel or sealed vessel of said turbine,

said second end of said fan shaft is located outside of said containment vessel or sealed vessel of said turbine,

said fan shaft seal is a seal or bearing attached to said fan shaft between said first end and said second end of said fan shaft,

said fan on said turbine is rigidly attached to said first end of said fan shaft,

said exit port on said turbine is connected by said plurality of piping or tubing to said primary entry port on said condenser, and

said ejector valve is connected by electrical wiring to said controller or computer.

2. A refrigeration cycle ejector power generator as recited in claim **1** further comprising a condenser bypass valve, wherein,

said condenser has a secondary entry port,

said compressor has a secondary exit port,

said condenser bypass valve is an actuated valve with an entry port and an exit port,

said secondary exit port on said compressor is connected by said plurality of piping or tubing to said entry port on said condenser bypass valve,

said exit port on said condenser bypass valve is connected by said plurality of piping or tubing to said secondary entry port on said condenser, and

said condenser bypass valve is connected by electrical wiring to said controller or computer.

3. A refrigeration cycle ejector power generator comprising: a condenser; an expansion valve; an evaporator; a compressor; an ejector valve; a first ejector; a second ejector; a turbine; a plurality of piping or tubing; and a controller or computer, wherein,

said condenser is a containment vessel with a primary entry port, a primary exit port, a secondary exit port, and a heat exchanger, radiator, or coil,

said expansion valve is a metering valve or throttle valve with an entry port and an exit port,

said evaporator is a containment vessel with a primary entry port, a primary exit port, a secondary exit port, and a heat exchanger, radiator, or coil, said compressor is a containment vessel with a primary entry port, a primary exit port, and a pump,

said ejector valve is an actuated valve with an entry port and an exit port,

said first ejector is an ejector with a primary entry port, a high pressure chamber, a secondary entry port, a low pressure chamber, a nozzle, a mixing chamber, a diffuser, and an exit port,

said second ejector is an ejector with a primary entry port, a high pressure chamber, a secondary entry port, a low pressure chamber, a nozzle, a mixing chamber, a diffuser, and an exit port,

said turbine is a containment vessel with a fan, a fan shaft, a fan shaft seal, an entry port, and an exit port,

said fan shaft has a first end and a second end,

said controller or computer is an integrated circuit with a central processing unit and memory,

said primary exit port on said condenser is connected by said plurality of piping or tubing to said entry port on said expansion valve,

said exit port on said expansion valve is connected by said plurality of piping or tubing to said primary entry port on said evaporator,

said primary exit port on said evaporator is connected by said plurality of piping or tubing to said primary entry port on said compressor,

said secondary exit port on said evaporator is connected by said plurality of piping or tubing to said secondary entry port on said first ejector,

said primary exit port on said compressor is connected by said plurality of piping or tubing to said entry port on said ejector valve,

said exit port on said ejector valve is connected by said plurality of piping or tubing to said primary entry port on said first ejector,

said exit port on said first ejector is connected by said plurality of piping or tubing to said primary entry port on said second ejector,

said secondary exit port on said condenser is connected by said plurality of piping or tubing to said secondary entry port on said second ejector,

said exit port on said second ejector is connected by said plurality of piping or tubing to said entry port on said turbine,

said fan on said turbine is located within said containment vessel or sealed vessel of said turbine,

said first end of said fan shaft is located within said containment vessel or sealed vessel of said turbine,

said second end of said fan shaft is located outside of said containment vessel or sealed vessel of said turbine,

said fan shaft seal is a seal or bearing attached to said fan shaft between said first end and said second end of said fan shaft,

said fan on said turbine is rigidly attached to said first end of said fan shaft,

said exit port on said turbine is connected by said plurality of piping or tubing to said primary entry port on said condenser, and

said ejector valve is connected by electrical wiring to said controller or computer.

4. A refrigeration cycle ejector power generator as recited in claim **3** further comprising a condenser bypass valve, wherein,

said condenser has a secondary entry port,

said compressor has a secondary exit port,

said condenser bypass valve is an actuated valve with an entry port and an exit port,

said secondary exit port on said compressor is connected by said plurality of piping or tubing to said entry port on said condenser bypass valve,

said exit port on said condenser bypass valve is connected by said plurality of piping or tubing to said secondary entry port on said condenser, and

said condenser bypass valve is connected by electrical wiring to said controller or computer.

5. A refrigeration cycle ejector power generator as recited in claim **1** further comprising: a first pressure transmitter; a second pressure transmitter; and a third pressure transmitter, wherein,

said first, second, and third pressure transmitters are each a pressure transmitter,

said first, second, and third pressure transmitters are each connected by electrical wiring to said controller or computer,

said first pressure transmitter is installed within said plurality of piping or tubing connecting said ejector valve to said first ejector,

said second pressure transmitter is installed within said plurality of piping or tubing connecting said secondary exit port on said evaporator to said secondary entry port on said first ejector, and

said third pressure transmitter is installed within said plurality of piping or tubing connecting said exit port on said first ejector to said entry port on said turbine.

6. A refrigeration cycle ejector power generator as recited in claim **2** further comprising: a first pressure transmitter; a second pressure transmitter; and a third pressure transmitter, wherein,

said first, second, and third pressure transmitters are each a pressure transmitter,

said first, second, and third pressure transmitters are each connected by electrical wiring to said controller or computer,

said first pressure transmitter is installed within said plurality of piping or tubing connecting said ejector valve to said first ejector,

said second pressure transmitter is installed within said plurality of piping or tubing connecting said secondary exit port on said evaporator to said secondary entry port on said first ejector, and

said third pressure transmitter is installed within said plurality of piping or tubing connecting said exit port on said first ejector to said entry port on said turbine.

7. A refrigeration cycle ejector power generator as recited in claim **3** further comprising: a first pressure transmitter; a second pressure transmitter; a third pressure transmitter, and a fourth pressure transmitter, wherein,

said first, second, third, and fourth pressure transmitters are each a pressure transmitter,

said first, second, third, and fourth pressure transmitters are each connected by electrical wiring to said controller or computer,

said first pressure transmitter is installed within said plurality of piping or tubing connecting said ejector valve to said first ejector,

said second pressure transmitter is installed within said plurality of piping or tubing connecting said secondary exit port on said evaporator to said secondary entry port on said first ejector,

said third pressure transmitter is installed within said plurality of piping or tubing connecting said exit port on said first ejector to said entry port on said turbine, and said fourth pressure transmitter is installed within said plurality of piping or tubing connecting said secondary exit port on said condenser to said secondary entry port on said second.

8. A refrigeration cycle ejector power generator as recited in claim **4** further comprising: a first pressure transmitter; a second pressure transmitter; a third pressure transmitter, and a fourth pressure transmitter, wherein,

said first, second, third, and fourth pressure transmitters are each a pressure transmitter,

said first, second, third, and fourth pressure transmitters are each connected by electrical wiring to said controller or computer,

said first pressure transmitter is installed within said plurality of piping or tubing connecting said ejector valve to said first ejector,

said second pressure transmitter is installed within said plurality of piping or tubing connecting said secondary exit port on said evaporator to said secondary entry port on said first ejector,

said third pressure transmitter is installed within said plurality of piping or tubing connecting said exit port on said first ejector to said entry port on said turbine, and

said fourth pressure transmitter is installed within said plurality of piping or tubing connecting said secondary exit port on said condenser to said secondary entry port on said second ejector.

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