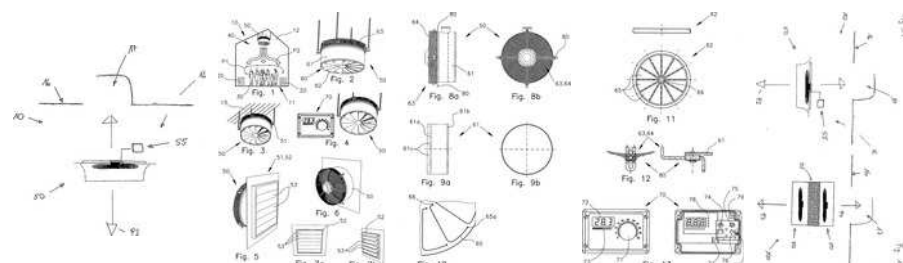
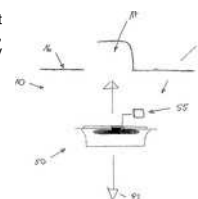


25 results for ((turbulator+) /TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX AND (transductor OR sensor+) /TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX) AND (F24F)/IPC - Collection: FAMPAT

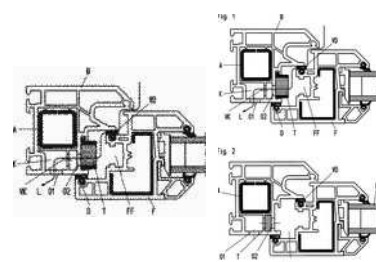
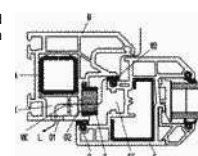
#	Title	Publication number	1st app. date	Applicant/Assignee	1st publ. date	Publ. date
1.	Ceiling fan with flow guide means and method for this purpose	DE102016002997	2016-03-14	H DOLL WÄRMETECHNIK*	2017-09-14	2017-09-14

The invention relates to a space with a heat recovery system (40), comprising a fan device (50) has, wherein the fan means (50), particularly a ceiling fan means, for heat recovery of thermal energy from a first heat level to a second heat level, in particular a floor level to a ground level, construction, comprising a fan unit having a pressure side, wherein the fan means (50) pressure-flow guide means (60), containing one fan unit generated flow bypass, wherein the flow guide means at least one (60) **turbulator** entity (62), one flow by changing the fan unit generated flow effects.



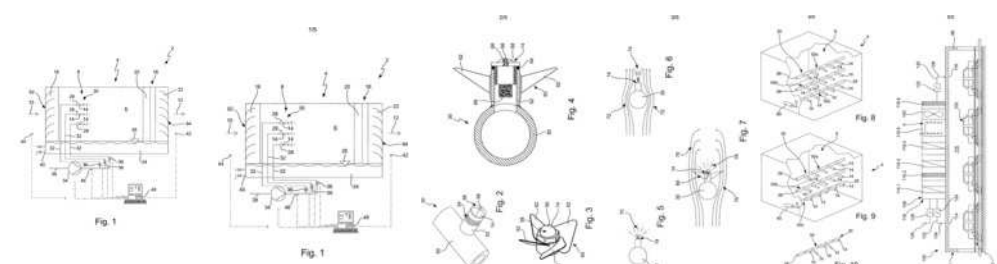
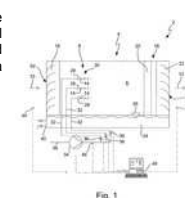
2.	Ventilation for window consists of hollow chambered profiled sections, seal, turbulator in blind frame	DE19926894	1999-06-12	THYSEN POLYMER*	2000-12-28	2000-12-28
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The window or door consists of hollow-chambered (HK) profiled sections with a seal (D) between the blind frame (B) and casement. (F). Fresh air is supplied through the blind frame via at least one ventilator seal (VD) to the interior of the building. At least one **turbulator** (T) is incorporated in the window's blind frame into the fresh-air current (L) from the outside inwards. The **turbulator** restricts the air-inflow when a set air pressure is exceeded.



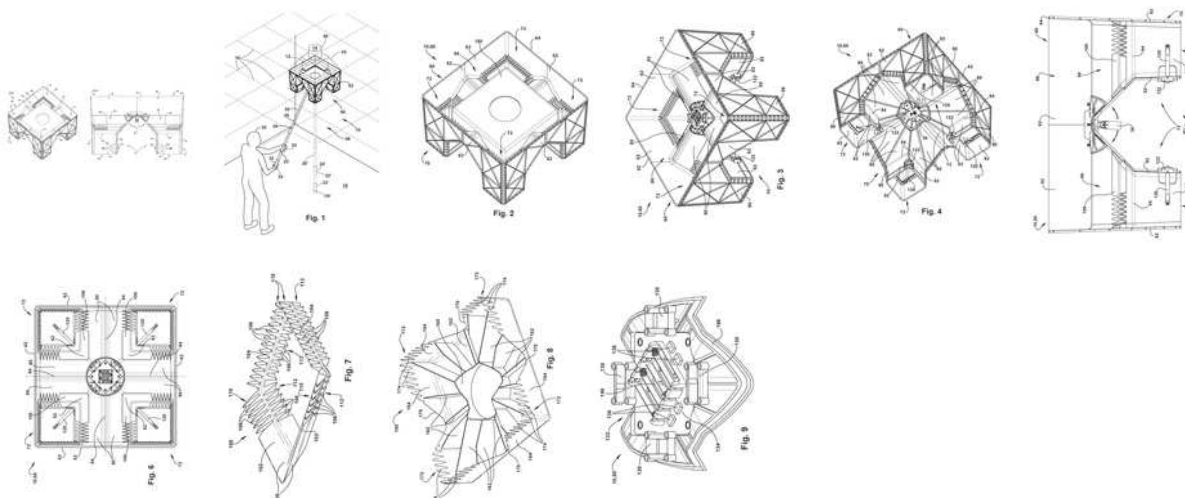
3.	Device for humidifying an air stream	DE102016124478	2016-12-15	EISENMANN* LAVAIR KLIMATECHNIK*	2018-06-21	2018-06-21
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The invention relates to a device for conditioning room air and/or process air, comprising a nozzle system (8) that has a plurality of nozzles (14) arranged in one or more nozzle branches (28), for atomising liquid, and at least one pump (34) by means of which the liquid being atomised is pressurised, wherein said nozzles (14) are designed as swirl nozzles and/or the pump (34) applies a pressure to the liquid being atomised of between 3 and 50 bar. According to the invention, the liquid, particularly water, can be atomised particularly finely and a good degree of evaporation can be achieved, as a result of which the amount of water loss is also reduced. The claimed device is characterised by a low susceptibility to failure, a long pump (34) service life and low maintenance requirements.



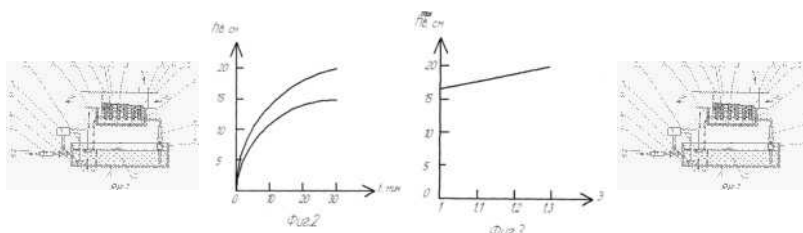
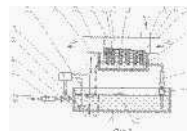
4. Air flow hood US20160252114 2016-02-23 DOIWAR INSTRUMENTS DWYER INSTR DWYER INSTRUMENTS* 2016-09-01 2016-09-01

An apparatus for measuring airflow through a diffuser of an HVAC system includes a hood for being positioned adjacent the diffuser so that airflow discharged from the diffuser is directed into the hood. The hood is configured to divide and direct the airflow through a plurality of discharge channels. Sensor probes measure the airflow through each discharge channel.



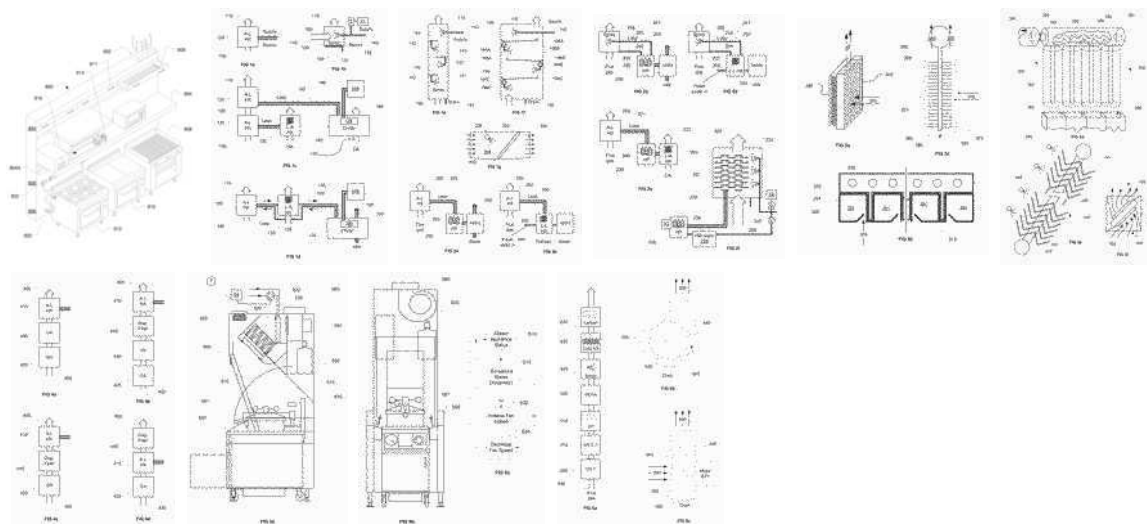
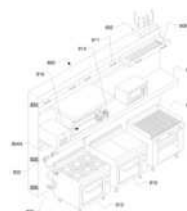
5. Installation of indirect-evaporating cooling RU2391606 2008-10-16 FEDERAL NOE GUP GNPP SPLAV* 2010-06-10 2010-06-10

FIELD: power industry. ^ SUBSTANCE: installation consists of case with tray and branches for supply of common and withdrawal of basic and auxiliary air flows, of feeding unit with magnetic water softener made in form of two units of magnetic water treatment, and of package of heat-exchanging plates out of moisture-proof and capillary-porous material. Each of units of magnetic water treatment contains a cylinder ferromagnetic case with a magnet rod and a **turbulator** made in form of a truncated cone. Water comes into a tank of the feeding unit via the unit of magnetic treatment of water, installed on water feeding line, upon a signal from a **sensor** of minimal water level. Water saturated with oxygen is directed from the tank via the pump and the second unit of magnetic treatment of water to the tray for wetting capillary-porous plates. Air flow passes through these plates and is cooled with evaporated water. ^ EFFECT: increased rate of water evaporation, increased cooling power and reliability, and reduced operation expenditures. ^ 3 dwg



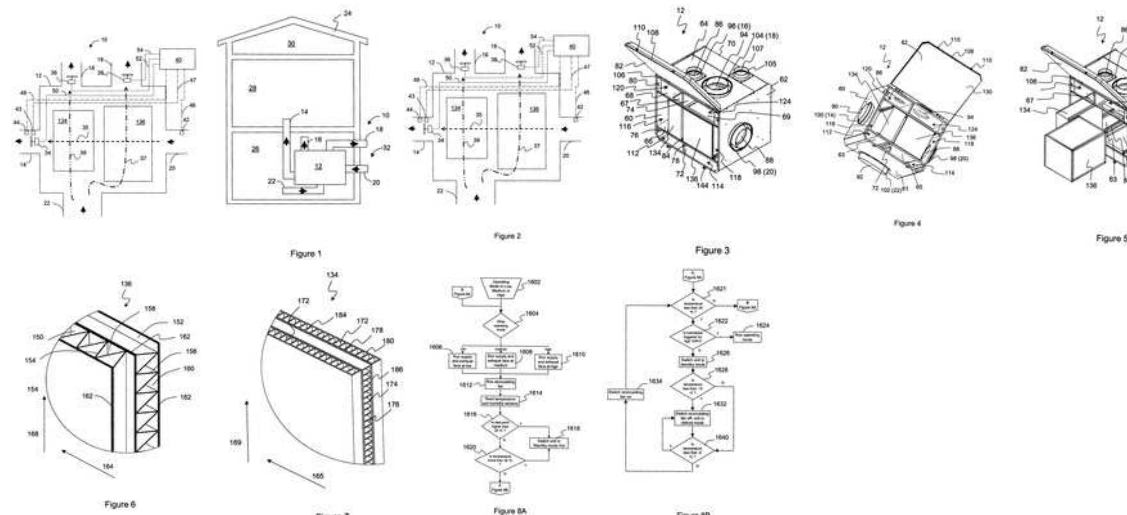
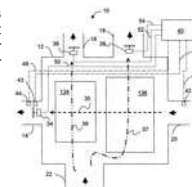
6. Recirculating exhaust system CA2965271 2007-04-18 HALTON* OHAY HARTON OWAI HARTON 2007-10-25 2007-10-25

A method of conveying heat energy comprises flowing exhaust fumes from an exhaust hood through a heat exchanger, and using a liquid conveyed through the heat exchanger as a heat source for a heat pump to generate heat at a higher temperature than the liquid.



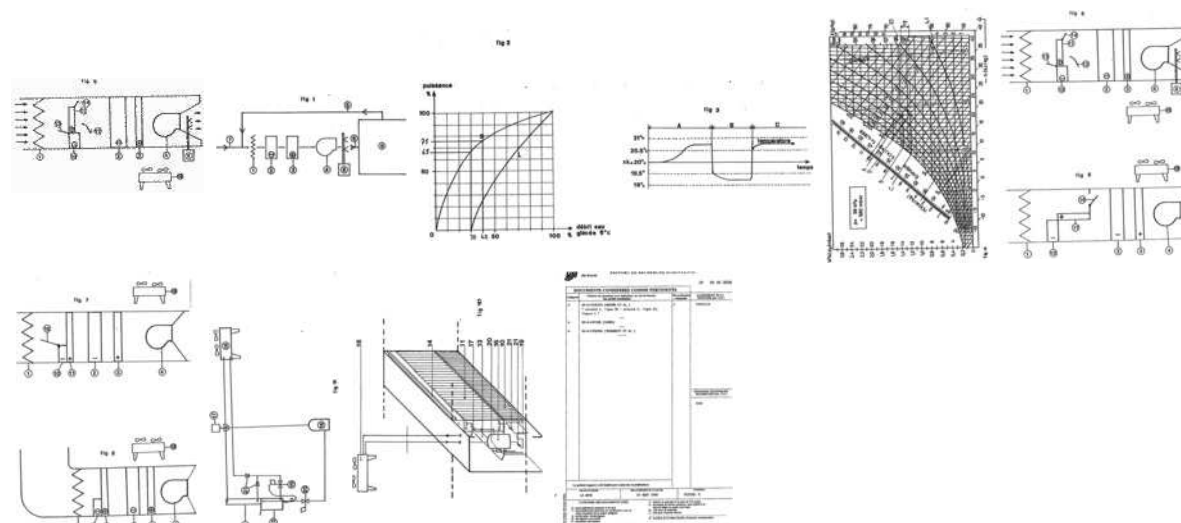
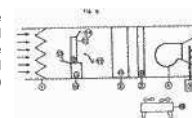
7. [Energy recovery and humidity control system](#) WO2007051286 2006-10-25 [AIR TECHNOLOGY EQUIPMENT*](#) 2007-05-10 2007-05-10

A system and method for energy recovery and humidity control comprises an enclosure (12) with a plurality of ports (86,90,92,94,86) connected to a plurality of ducts (14,16,18,20,22). The system has an enthalpy exchange core (136) exchanging heat and humidity between first air stream (35) and a second air stream (37), and a heat exchange sub-core (134) exchanging heat between the first air stream (35) and a third air stream (39), and fans (34,38,36) for circulating the first air stream (35), the second air stream (37) and the third air stream (39) respectively, and a controller (40) for controlling the fans (34,36,38) and regulating the flows of the first air stream (35), the second air stream (37) and the third air stream (39).



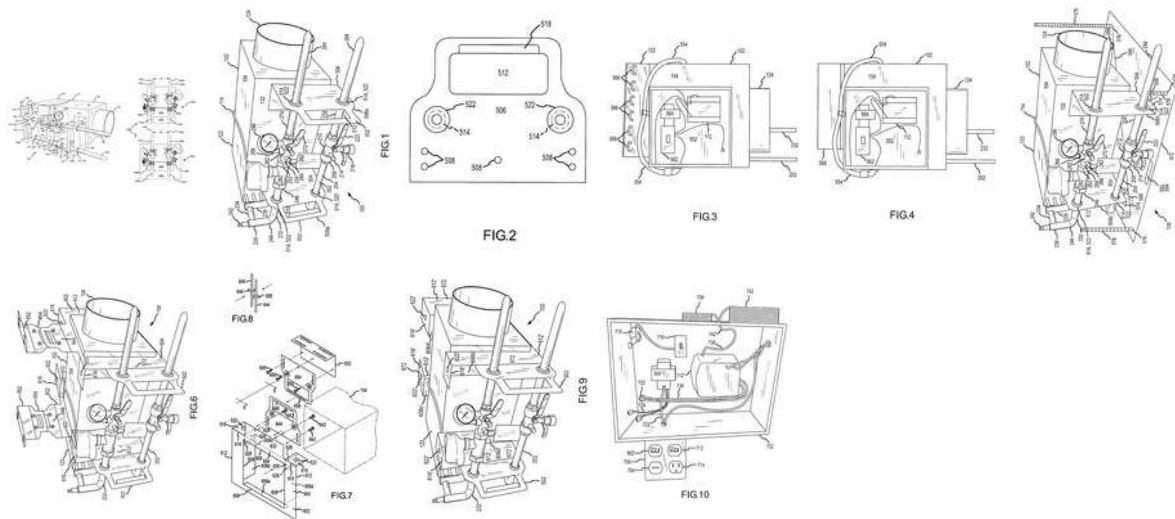
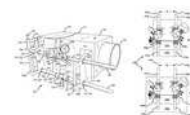
8. [High performance dehumidifier for air conditioning.](#) EP0399937 1989-05-25 [BOIZARD MICHEL*](#) 1990-11-28 1990-11-28

The subject of the invention is a high-performance dehumidifier for an air-conditioning installation of the type comprising successively between the intake of the air to be conditioned and the restitution of the conditioned air into the enclosure to be air-conditioned, a cooling battery (2), a heating battery (3), a fan (4) and a humidifier, characterised in that it is constituted by an assembly arranged upstream of the cooling battery and comprising on the one hand an evaporator or cooling battery (10) arranged so as to be traversed by only a part of the flow of air to be conditioned intended for said cooling battery (2) and on the other hand a condenser or heating battery (11) connected to said evaporator (10) and arranged to be traversed by at least a part of the flow of air to be conditioned which does not pass through said evaporator (10), and by means (16, 19, 20) for recovering the evaporated fluid originating from said evaporator (10), compressing it and conveying it to said condenser (11). Application in air-conditioning. <IMAGE>



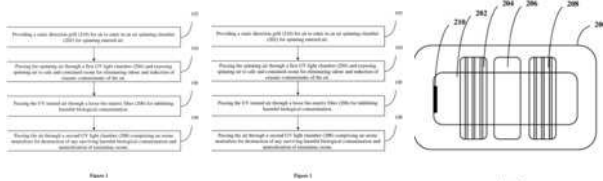
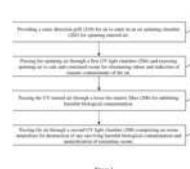
9. **Embedded heat exchanger for heating, ventilation, and air conditioning (hvac) systems and methods** US20080164006 2008-01-10 KARAMANOS JOHN C 2008-07-10 2008-07-10

A zone-control unit for use in a heating, ventilation, and air conditioning (HVAC) system, the zone-control unit includes a heat exchanger, an inlet piping assembly coupled with the heat exchanger for supplying fluid to the heat exchanger, an outlet piping assembly coupled with the heat exchanger for receiving fluid from the heat exchanger, a bracket that maintains the inlet piping assembly and the outlet piping assembly in positional relationship, and an ancillary component coupled with the heat exchanger.



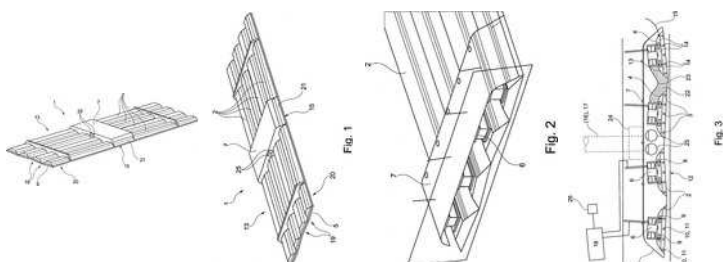
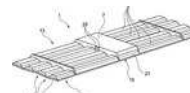
10. **A method and system for air purification** GB201416240 2014-09-15 AIRFILT* 2014-10-29 2014-10-29

A method and system for air purification comprising an air spinning chamber 202 having a grill 210 for spinning entered air, a first UV light chamber 204, a bio-matrix filter 206, a second UV light chamber 208 comprising an ozone neutralizer. The grill is preferably for creating a turbulent air flow through the first chamber to allow the air to stay in the first chamber for longer. The arrangement preferably includes a controller and an ozone sensor for determining a fault condition or malfunction, the controller arranged to shut-off the system if a fault is detected.



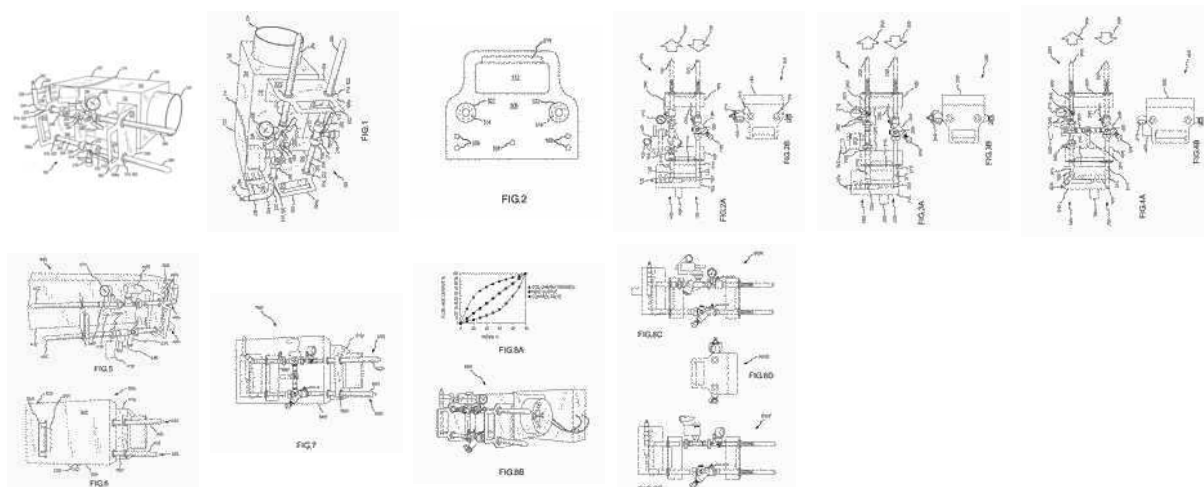
11. **Method and apparatus for space heating by radiant** DE102013102423 2013-03-11 PHOENIX METALL* 2014-09-11 2014-09-11

The air-conditioning method for rooms with at least one lighting device for use in a method according to claim 1 and a radiation plate and/or cooling element and a Overhead heating, comprising a panel or a plurality of radiation effective, parallel panels, in which a conduit or more panels, integrated parallel tubular channels, each having a heat pipe is, heating or cooling medium flows with a



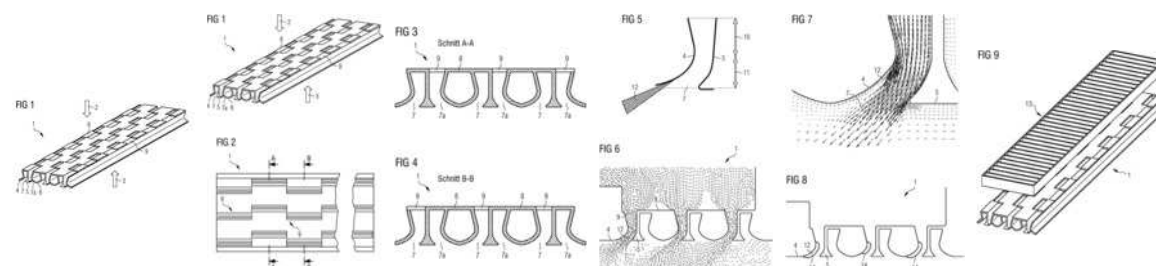
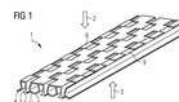
12. Limited loss laminar flow dampers for heating, ventilation, and air conditioning (hvac) systems WO2007079434 2007-01-03 KARAMANOS JOHN C;KARAMANOS JOHN CHRIS 2007-07-12 2007-07-12

HVAC devices, systems, and methods include dampers for controlling the flow of air or other gasses through an HVAC duct, often while inhibiting turbulence within the duct or pressure loss within the duct. Embodiments of such dampers may employ a two-part damper arrangement. In many embodiments, flow will travel through the middle of the damper uniformly and with a laminar flow. One or more small, relatively unobtrusive **sensor** (optionally being wireless) can be included for controlling operation of the damper, the **sensor(s)** optionally measuring the distance between damper elements, sound, air flow, or the like, with such **sensor(s)**/ damper combination inhibiting inadvertent pressure drop and turbulence in flows through the damper. The damper elements may optionally comprise airfoil cross-sections, with alternative dampers having a resilient helical configuration that can choke down flow by inducing a vortex in the flow, allowing static pressure regain to occur within the duct system.



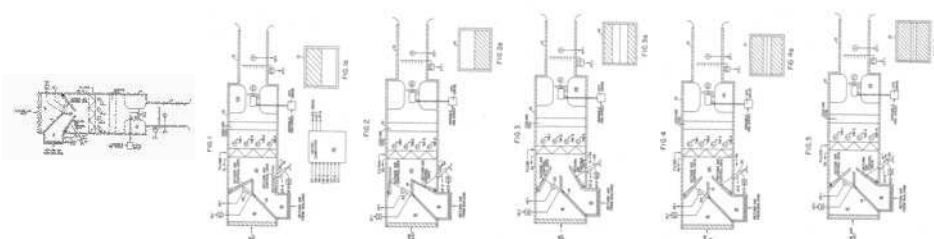
13. Air outlet CN203623686 2013-05-16 OESTERREICH SIEMENS SIEMENS* 2014-06-04 2014-06-04

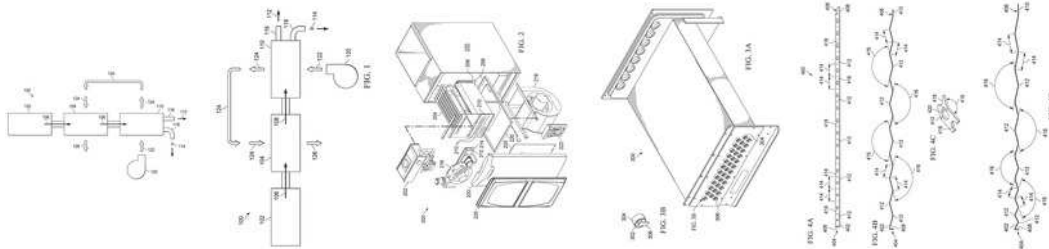
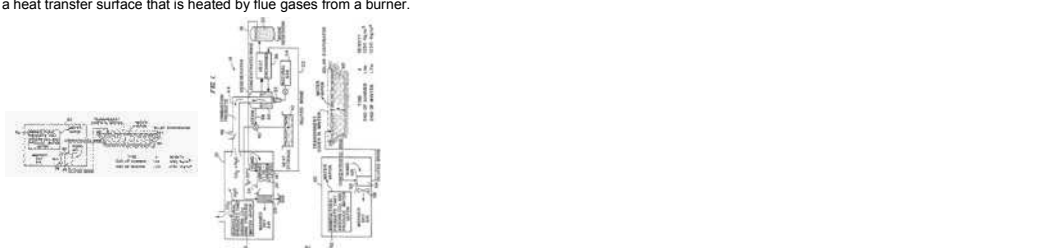
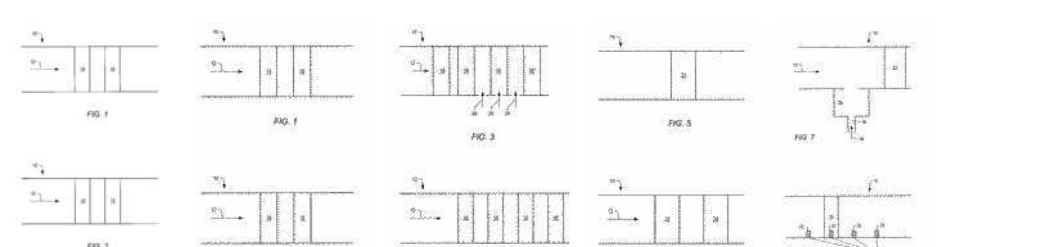
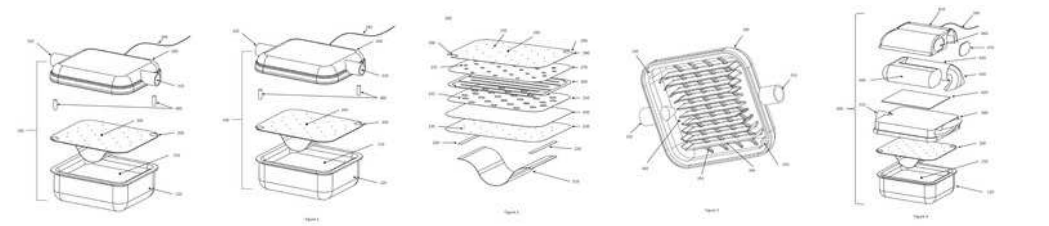
The invention relates to an air outlet (1) designed as an extruded profiled element and having an air feed side (2) and an air outlet side (3), comprising a plurality of air-conducting elements (4, 5, 6), which are oriented in a profiled-element longitudinal direction and which form at least two air outlet openings (7), which are separated from each other and which extend over the length of the air outlet profiled element, wherein the air outlet openings (7) conduct the exiting air in at least two different blow-out directions, and a plate (8), which is arranged upstream of the air-conducting elements (4, 5, 6) in an air flow direction and which is arranged perpendicular to the air flow direction, wherein the plate (8) has openings (9), which allow air to flow through to the air outlet openings (7) in alternation, and wherein the air outlet openings (7) have a flow cross-section in the flow direction that narrows in a first segment (10) and expands in a second segment (11), wherein one of the air-conducting elements forming the flow is designed in the second segment (11) to form a vacuum zone (12).



14. Air blending apparatus for heating, ventilating and air conditioning (hvac) US4605160 1984-06-08 DAY AUTOMATION SYSTEMS* 1986-08-12 1986-08-12

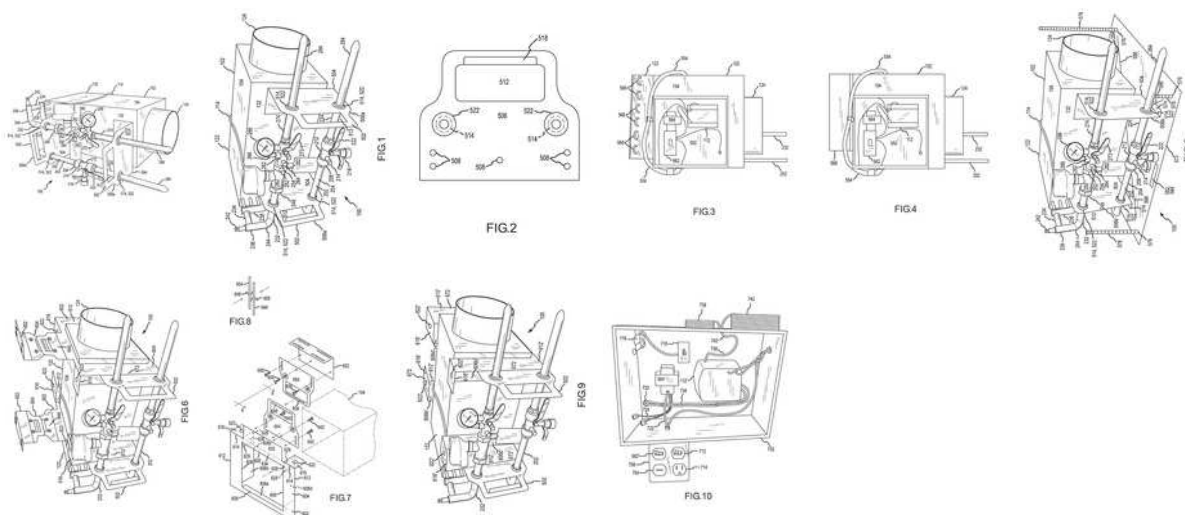
Apparatus for blending and destratification of outside and return air streams which are cooled or heated, as by fluid containing heat transfer coils, and discharged into a building. Gates control the flow and blending of outside and inside air in a casing in a region defined at its downstream end by the coils and at its upstream end by the gates which project into the region. The gates are pivotally mounted and vary the volume in the region, and also increase the velocity of air therein to prevent stratification. An array of **sensors** monitors the temperature of the air passing through the coils and controls the gates, especially when the velocity is low, thereby preventing any freezing of the fluid in the coils which can cause damage. The gates may be panels filled with insulation which provide a seal to protect the coils when the apparatus is not in use. A programmed computer receives inputs from the temperature **sensor** array and from a discharge air velocity **sensor** for independently actuating the gates to effect blending, and effect destratification, when destratification is necessary.



15.	Hvac systems and methods with improved heat exchangers	CA2891812	2014-06-25	LENNOX*	2015-12-25	2015-12-25
Systems, tools, and methods are presented that enable a plurality of turbulators to enhance heat transfer within a heat exchanger of a heating, ventilating, and air conditioning (HVAC) system. The plurality of turbulators each include a ribbon member having a variable pattern formed over a length. In one instance, the variable pattern of the ribbon member includes a plurality of bends defining intervals of alternating pitch. The intervals progressively increase in dimension as the ribbon member is traversed over the length. In another embodiment, the intervals contain apertures whose area increases as the length is traversed. Other systems, tools and methods are presented.						
						
16.	Method of and means for controlling the condition of air in an enclosure	US4819447	1983-03-25	GEOPHYSICAL ENGINEERING* ORMAT TURBINES	1989-04-11	1989-04-11
Apparatus for conditioning air in an enclosure includes a direct contact air/brine heat exchanger with which air in the enclosure is exchanged, and a reservoir of brine. A first brine loop is established by which brine from the reservoir is exchanged with the direct contact heat exchanger for condensing water vapor in the enclosure air onto the brine to form dilute brine that flows into the reservoir. The apparatus also includes a brine concentrator for evaporating water from the dilute brine in the first loop to produce concentrated brine that is supplied to the reservoir. The brine concentrator is preferably constructed and arranged such that a thin film of dilute brine in the first loop flows over a heat transfer surface that is heated by flue gases from a burner.						
						
17.	System and method for improving indoor air quality	US20040041564	2002-09-03	BROWN RICHARD	2004-03-04	2004-03-04
A method for improving air quality in a human dwelling may include irradiating a portion of air flowing through an airflow conduit with ultraviolet light. The method may include turbulating, filtering, and/or adjusting a humidity of at least a portion of the air. The method may include creating an air pressure within the dwelling that exceeds an air pressure outside of the dwelling and/or monitoring air quality of at least a portion of the air. A system for improving air quality of air flowing through an airflow conduit may include an ultraviolet light source, a humidity control unit, a turbulator, and/or a filter. The system may include a blower and/or a ventilator. The system may include a sensor and/or a monitor for transmitting air quality characteristics to a remote site.						
						
18.	Medical humidifier	AU2016203593	2016-05-30	Roger Foote	2016-11-10	2016-11-10
A low cost medical humidifier for adding moisture to a patient air flow is disclosed. The humidifier comprises a water reservoir, a disposable evaporative wick containing a heater, a lid containing electrical contacts to engage the heater in the wick and airway connections. The wick heater comprises a PET film with aluminium tracks and a cover layer of PTC resistive ink. The heater is covered with paper to provide a water pathway via capillary flow. There is a capillary path from the water reservoir to the wick. The wick and heater are manufactured with printing and calendaring processes in reel to reel processes.						
						

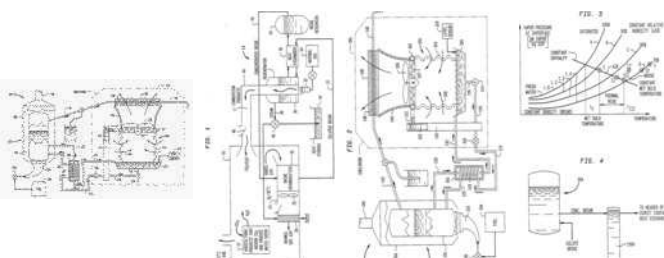
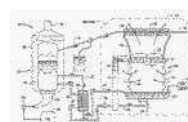
22. [Embedded heat exchanger for heating, ventilation, and air conditioning \(hvac\) systems and methods](#) US20140325844 2014-05-05 KARAMANOS JOHN CHRIS 2014-11-06 2014-11-06

A zone-control unit for use in a heating, ventilation, and air conditioning (HVAC) system, the zone-control unit includes a heat exchanger, an inlet piping assembly coupled with the heat exchanger for supplying fluid to the heat exchanger, an outlet piping assembly coupled with the heat exchanger for receiving fluid from the heat exchanger, a bracket that maintains the inlet piping assembly and the outlet piping assembly in positional relationship, and an ancillary component coupled with the heat exchanger.



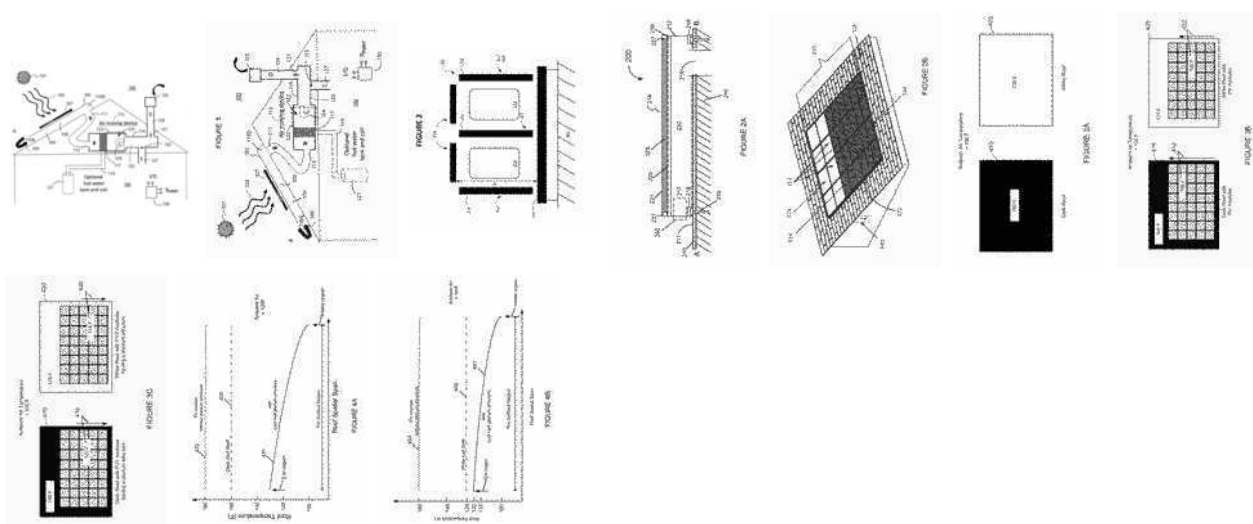
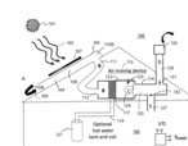
23. [Method of and means for controlling the condition of air in an enclosure](#) US4841740 1987-07-02 GEOPHYSICAL ENGINEERING ORMAT TURBINES* 1989-06-27 1989-06-27

Apparatus for conditioning air in an enclosure includes a direct contact air/brine heat exchanger with which air in the enclosure is exchanged, and a reservoir of brine. A first brine loop is established by which brine from the reservoir is exchanged with the direct contact heat exchanger for condensing water vapor in the enclosure air onto the brine to form dilute brine that flows into the reservoir. The apparatus also includes a brine concentrator for evaporating water from the dilute brine in the first loop to produce concentrated brine that is supplied to the reservoir. The brine concentrator is preferably constructed and arranged such that a thin film of dilute brine in the first loop flows over a heat transfer surface that is heated by flue gases from a burner.



24. [Method and structure for a cool roof by using a plenum structure](#) WO2010144672 2010-06-04 MEMC ELECTRONIC MATERIALS* NVT* PVT SOLAR SUNEDISON* 2010-12-16 2010-12-16

A method for providing a cool roof by processing fluid within a vicinity of a roof structure having a surface area includes transferring a volume of air with a selected flow rate through a plenum structure disposed underlying one or more solar modules and coupled to the roof structure spatially over a height above a portion of the surface area. Each of the one or more solar modules is coupled to each other. The plenum structure has at least an intake region and an exit region for the volume of air. The method additionally includes maintaining a roof temperature profile for the portion of the surface area starting from the intake region to the exit region for a predetermined amount of time using at least the flow rate of the volume of air being transported through the plenum structure.



25. Cathode inlet gas humidification system and method for a fuel cell system WO2004086547 2003-03-21 MODINE MANUFACTURING* TEXACO DEVELOPMENT 2004-10-07 2004-10-07

A method and system (10) are provided for humidifying a cathode inlet gas flow (18) in a fuel cell system (12) including a fuel cell (14) and a compressor (16) for supplying the cathode inlet gas flow (18) to a cathode side (20) of the fuel cell (14). According to the method and system (10) heat is transferred from the cathode inlet gas flow (18) to a cathode exhaust flow (24) at a first flow location with respect to the cathode inlet gas flow (18), and water vapor is transferred from the cathode exhaust flow (24) to the cathode inlet gas flow (18) at a downstream flow location from the first flow location with respect to the cathode inlet gas flow (18).

