

## Search strategy

## Query

((STOVE OR COOKER) AND FIREWOOD AND INSULATING AND (METAL AND ELBOW))/TX/BI/SA/KEYW/IN/PA

## 35 Documents

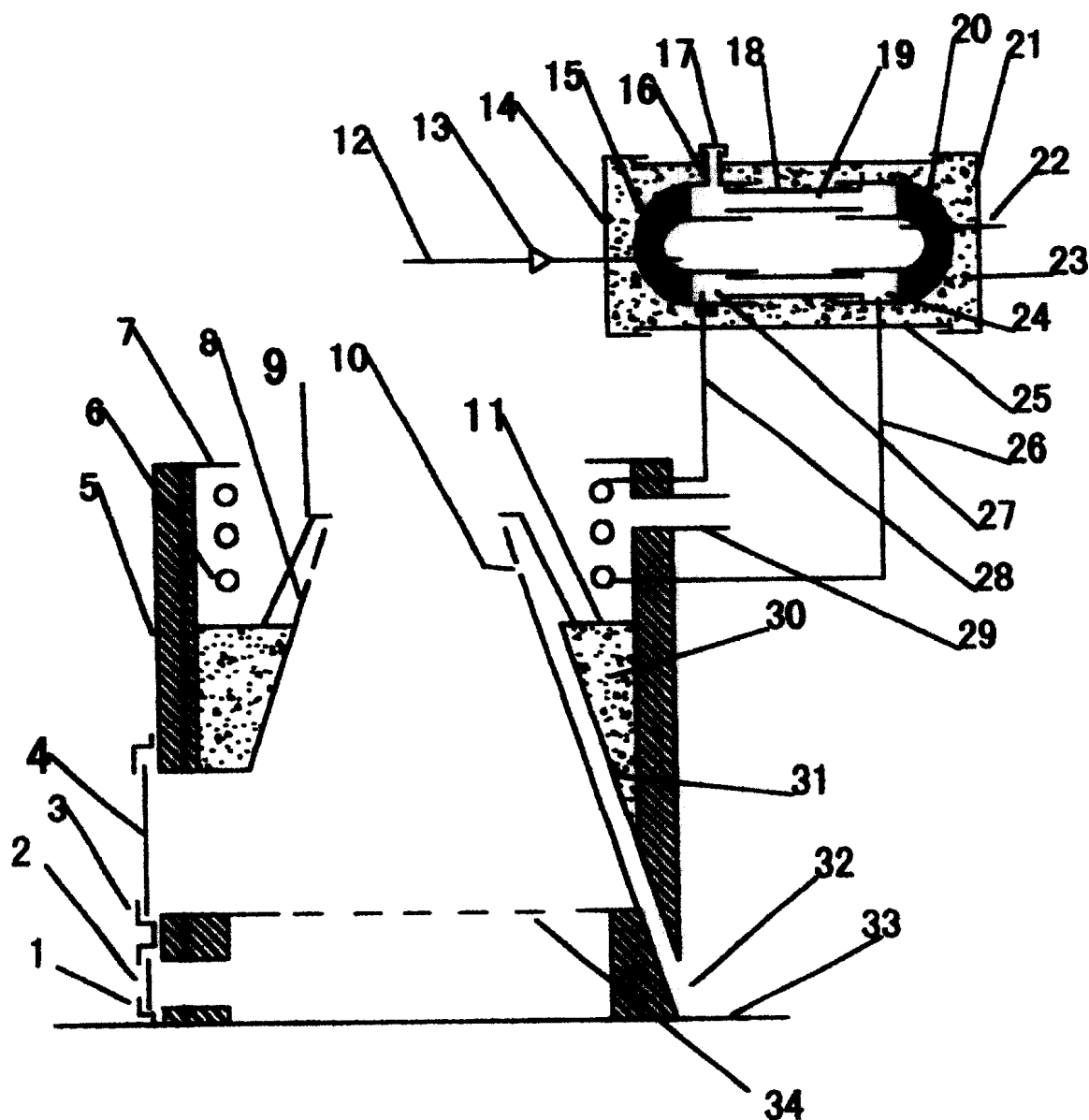
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| US5203316 A         | Portable camp <b>stove</b>                                                                                              | PRITCHETT WAYNE                                                 |
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| CN2049732U U        | Large and medium type gasification high-efficiency coal-                                                                | LI YANGZU                                                       |

| Publication numbers             | Title                                                                                                                                                                                            | Current assignees         |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
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| <a href="#">CN102485077 A</a>   | Work heat insulation gloves with exposed parts at upper parts of inner surfaces of five fingers                                                                                                  | TANG PENG, ...            |
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Family 1/35 - FAMPAT - ©Questel

**Title**

(CN100532948C)

Gasification type **firewood** burning hot water **stove****Images****Abstract**

(CN1724939)

The invention is a gasification **firewood** water heating kitchen range, and its kitchen range chamber is separated into top and bottom combustion chambers, there is secondary air feeding channel around the kitchen range chamber, the first combustion chamber is provided with secondary air inlet hole and gap on the top, the peripheral part in the second combustion chamber is installed with residual heat absorber, the cavity of the residual heat absorber is connected with thermal **insulating** water tank through pipeline, discharge flue is installed with heating radiator, and the invention adopts primary gasification and secondary air feeding structure and can make the **firewood** fully fire, both raising the combustion thermal efficiency of the **firewood** and reducing strong smoke pollution to the atmosphere. The invention can provide large amount of living hot water and heat and reducing atmospheric pollution while cooking a meal.

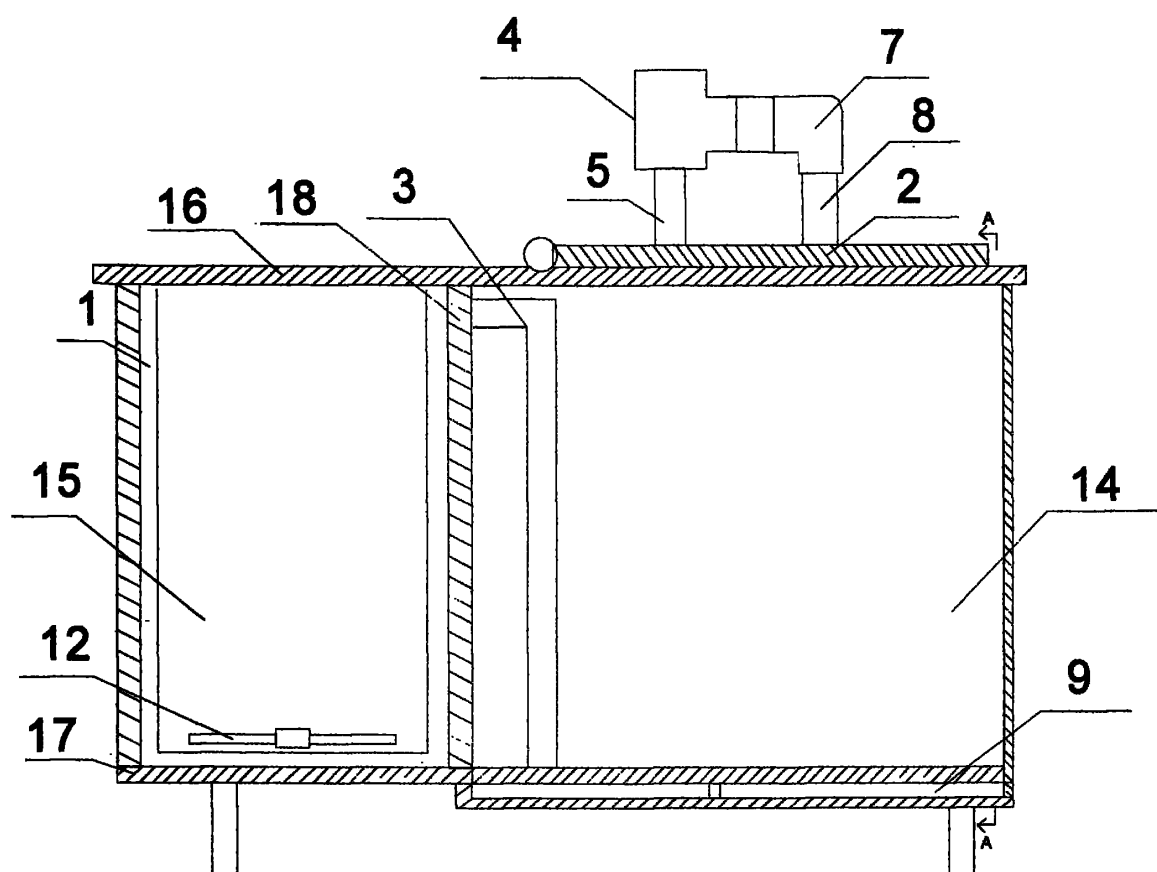
Family 2/35 - FAMPAT - ©Questel

**Title**

(CN201844426U)

Indoor thermo-motive smokeless **firewood** kitchen **stove** device

## Images



## Abstract

(CN201844426)

The utility model provides an indoor thermo-motive smokeless firewood kitchen stove device. A stove box is arranged at the left end of the indoor thermo-motive smokeless firewood kitchen stove device; a water tank is arranged at the right end of the thermo-motive smokeless firewood kitchen stove device; two small square holes and a small round hole are formed at one end on the left side of a bottom plate; a round screen mesh is mounted on the small round hole so as to form an ignition hole; an air inlet component made of a metal pipe is mounted on the two small square holes; a hole is formed below the air inlet component; a square hole is formed in a rear position at the upper end of the metal plate; a square hole is formed in a rear position at the right end of the bottom plate; a square metal smoke pipe is connected between the square hole on the metal plate and the square hole on the bottom plate; a broad and flat smoke passage is formed at the bottom of the water tank; a metal parting stop is welded in the middle of the smoke passage; a smoke vent is formed at the rear end of the smoke passage; an elbow pipe and a pipeline are mounted on the smoke vent; screw rods are welded on two sides of the smoke passage to tighten a blower; the outlet part of the blower is well connected with a metal pipe; the metal pipe and the pipeline are communicated with a smoke outlet pipe by the same tee joint; the smoke outlet pipe extends out of a room and is vertically and upward mounted along a wall until the height of the smoke outlet pipe surpasses or is equal to that of one floor.

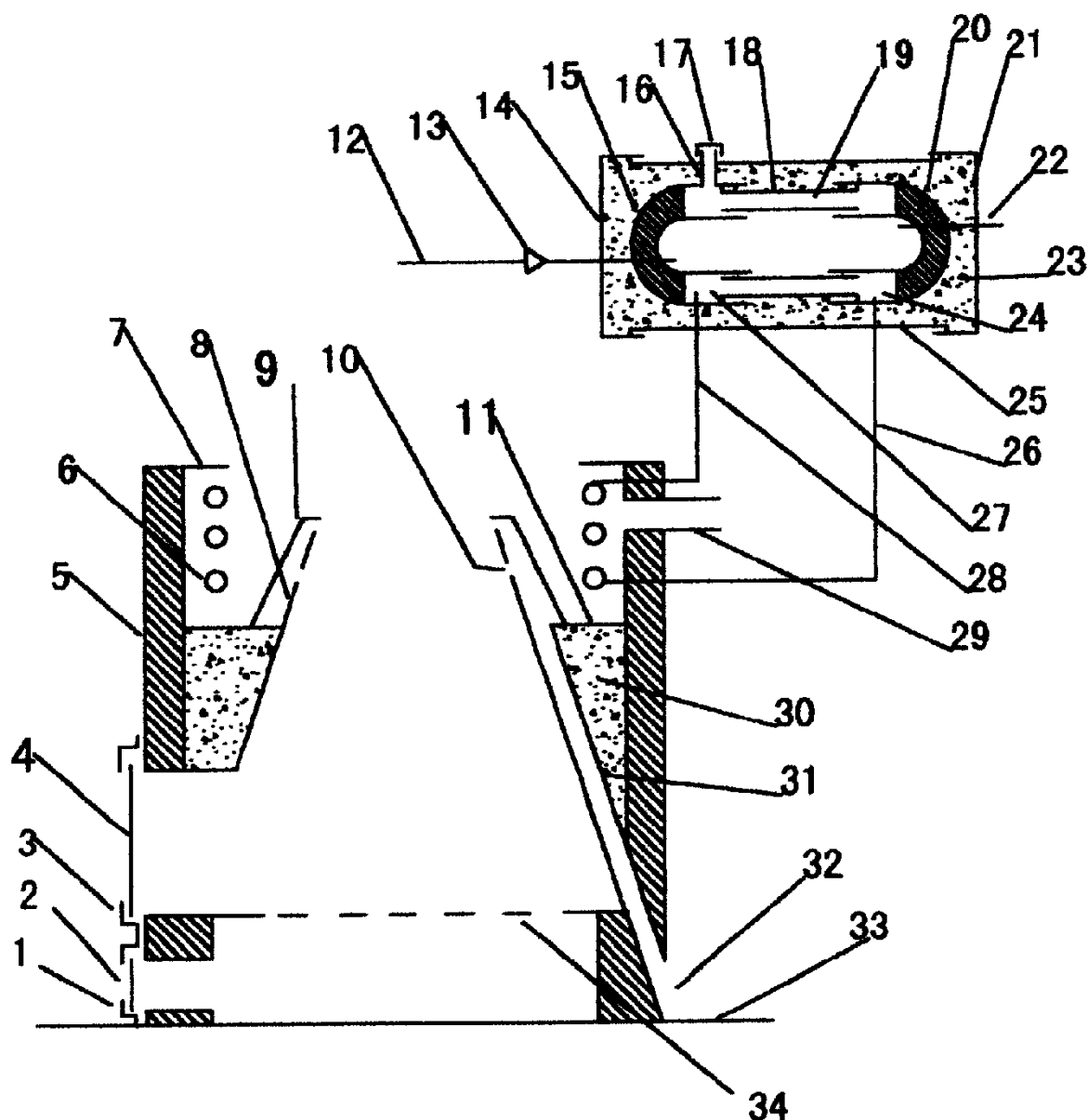
Family 3/35 - FAMPAT - ©Questel

## Title

(CN2739499U)

Firewood gasified hot-water range

## Images



## Abstract

(CN2739499)

The utility model provides a **firewood** gasified hot-water range. The range chamber is provided with two combustion chambers top and bottom, and the periphery of the range chamber is provided with a quadric air feed channel; the upper part of a first combustion chamber is provided with quadric air inlet holes and gaps, and the peripheral part in a second combustion chamber is provided with a waste heat absorber whose cavity is communicated with a condenser hot well through a duct; radiators are installed on a discharge flue. The utility model adopts a primary gasified and quadric air feed structure which can make the **firewood** sufficiently combust, not only the combustion heat efficiency of the **firewood** is improved but also the atmospheric black smoke pollution is reduced. The utility model adopts the structure that the waste heat is repeatedly recovered; when people cook, not only a good deal of life hot water and heating heat can be provided but also the atmospheric heat pollution can be reduced.

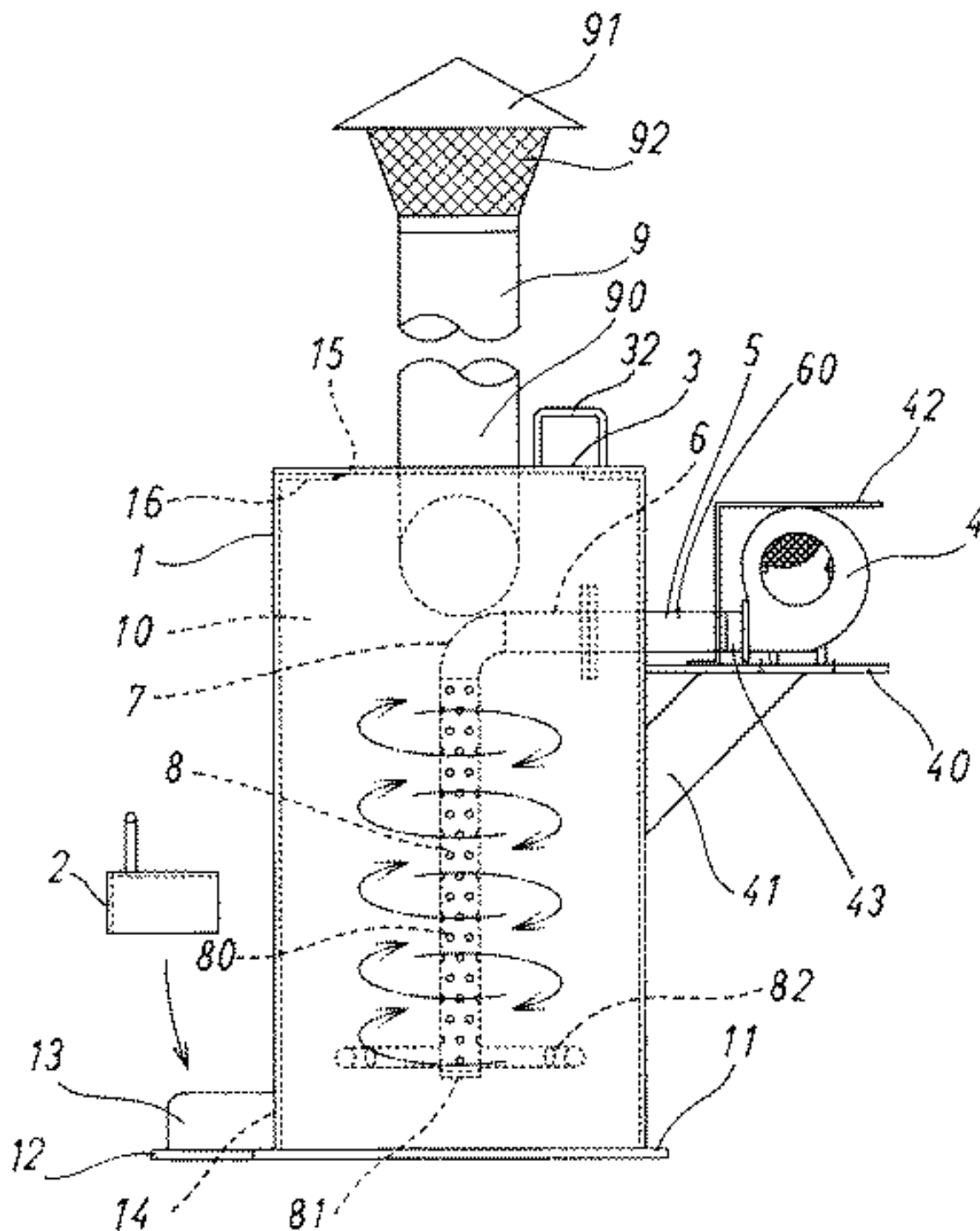
Family 4/35 - FAMPAT - ©Questel

## Title

(JP3168444U)

**Firewood stove**

## Images



### Abstract

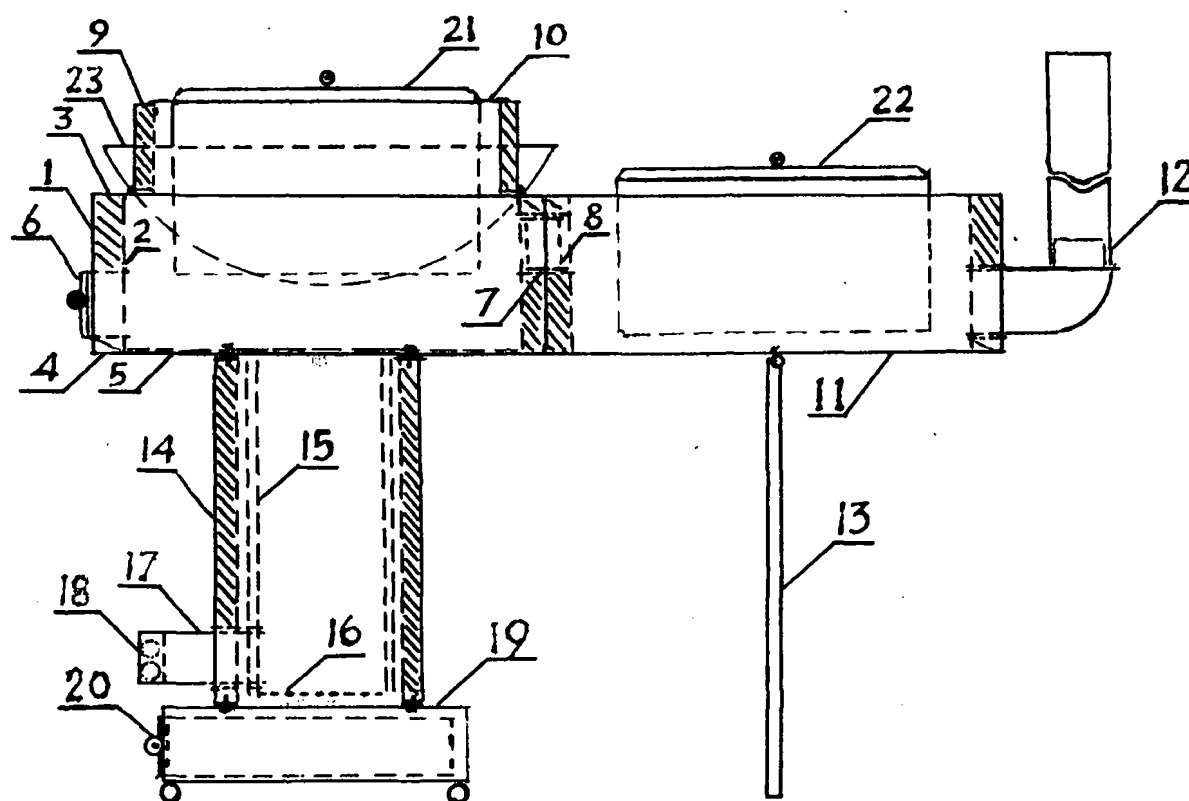
(JP3168444)

**PROBLEM TO BE SOLVED:** Compact while avoiding the size of the combustion chamber, and also can achieve the lightweight, such as wood or wood-based pellets remarkably efficiently burning solid fuel, improving the heating efficiency, the discharged smoke and to drastically Bromide combustion to a heating device can be suppressed. **SOLUTION:** Of the cylinder type **stove** body 1 a vertically erected, the **stove** body 1 orientated outside combustion air blower 4 disposed, tubular body 5 the **stove** body 1 the peripheral wall of the **stove** body are 1 through the center of the horizontal cross section so as to reach from the form, the lower end that is bent downward vertically 81 and hang, the air injection pipe and the rear tipping L schematic 5 upper 60 blower (outer end) 4 blast port 43 connected on the other hand, the air injection pipe 5 lower end 81 derived from (inside end) of the nozzle 82,82 in a projecting manner, the **stove** body 1 place closer to the upper peripheral wall of the chimney from 9 wood **stove** is stretched. **SELECTED DRAWING:** Fig. 1

(CN101761942B)

Gasified combustion double-connecting stove

## Images



## Abstract

(CN101761942)

The invention discloses a gasified combustion double-connecting stove, belonging to the civil stove. The invention is characterized in that the double-connecting stove is composed of parts molded by punching thin metal plates; the biomass fuel such as the formed sticks, blocks and granules and the irregular firewood, grass, stalks, leaves, scraps, bamboo roots and the like can be gasified and combusted at high temperature; the thermal efficiency, the gasification rate and the combustion rate are respectively over 50 percent, 90 percent and 95 percent; a pot and a wok are deeply buried to ensure flame not to be exposed; the whole stove body is portable, can bear high pressure and can be applicable to the small/big pots and the small/big woks; when in use, due to the performance of heat insulation, the double-connecting stove can supply more heat energy than the general stove; the upper part, the middle part and the lower part of the double-connecting stove can be easily assembled and disassembled; the whole packing is square, thereby being beneficial for transportation in large quantities; the gasified combustion double-connecting stove is suitable for family use, and has the obvious advantages of time and energy saving after being used in hotels and stalls and can also be suitable for group boiling in the field; and the service life of the gasified combustion double-connecting stove is over 10-20 years.

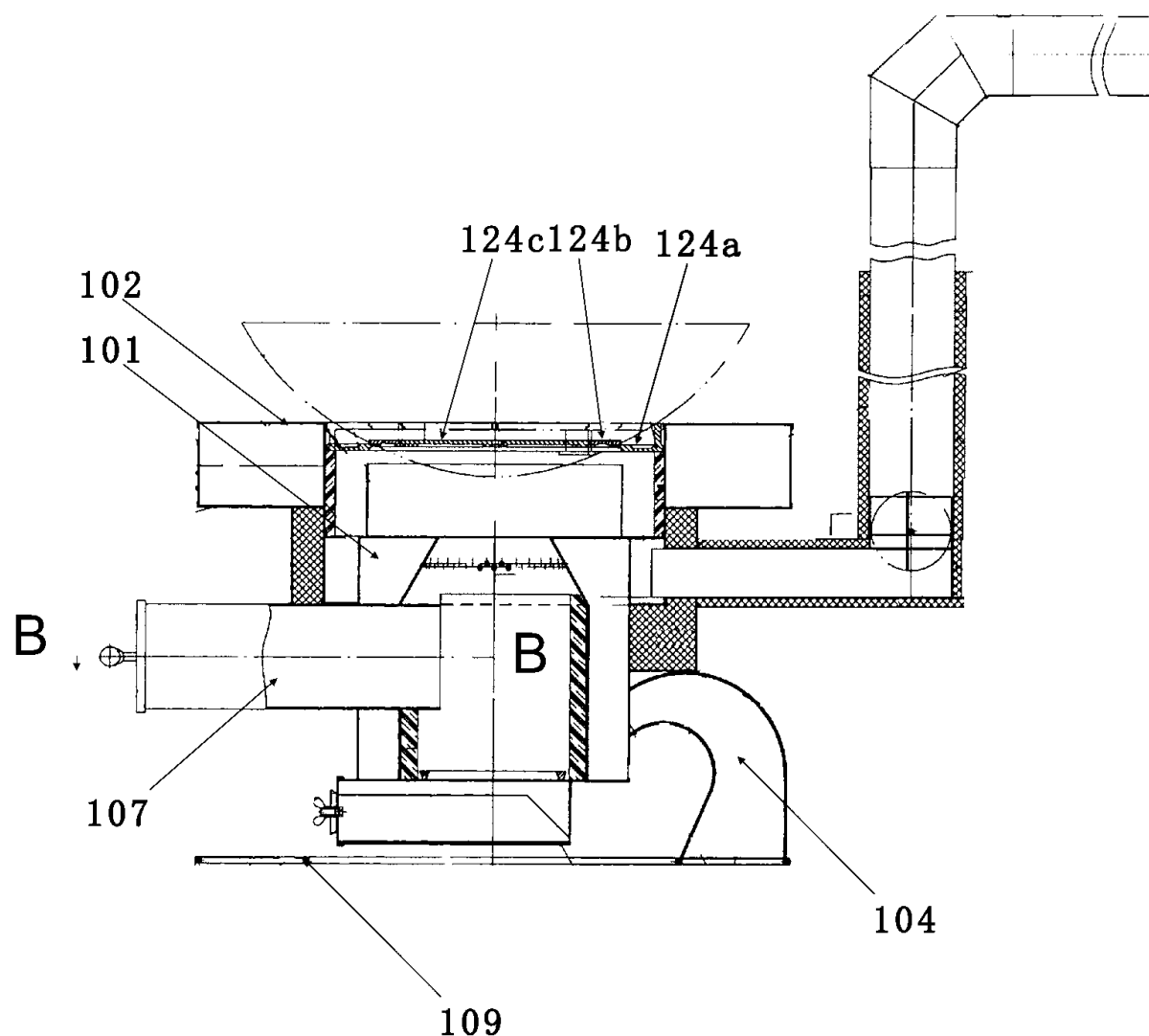
Family 6/35 - FAMPAT - ©Questel

## Title

(CN102829490)

Biomass fuel stove and operational method thereof

## Images



### Abstract

(CN102829490)

The invention provides a biomass fuel **stove**, which is characterized in that the **stove** comprises a **stove** body, a table, a race, a **stove** bridge, an ash chamber, a **cooker** stake and a flue outlet; the table is arranged at the upper end of the **stove** body; the **stove** body is fixed to the race through the **cooker** stake; a **stove** cover assembly is arranged above a fire blocking ring in the **stove** body; a thermal insulation ring is located on the inner side of the table; the **stove** body is provided with a **stove** door barrel; the flue outlet is arranged in the **stove** body; the **stove** bridge is mounted to the bottom of an internal **stove** cavity of the **stove** body; the ash chamber is correspondingly formed at the lower end of the **stove** bridge; an air regulation disk is correspondingly arranged at an ash head end of the ash chamber; a heat preservation layer is additionally arranged to the upper part of the **stove** body; and a flue thermal insulation sleeve is arranged on the outer side of the flue outlet. By the scheme provided by the invention, the product is applicable and environment-friendly; the **stove** body is internally provided with a **stove** core which is made of refractory material and stainless steel, so that the service life of the equipment is greatly prolonged; and the thermal insulation materials are arranged in the **stove** cavity, so thermal dissipation is prevented, and thus the product is energy-saving.

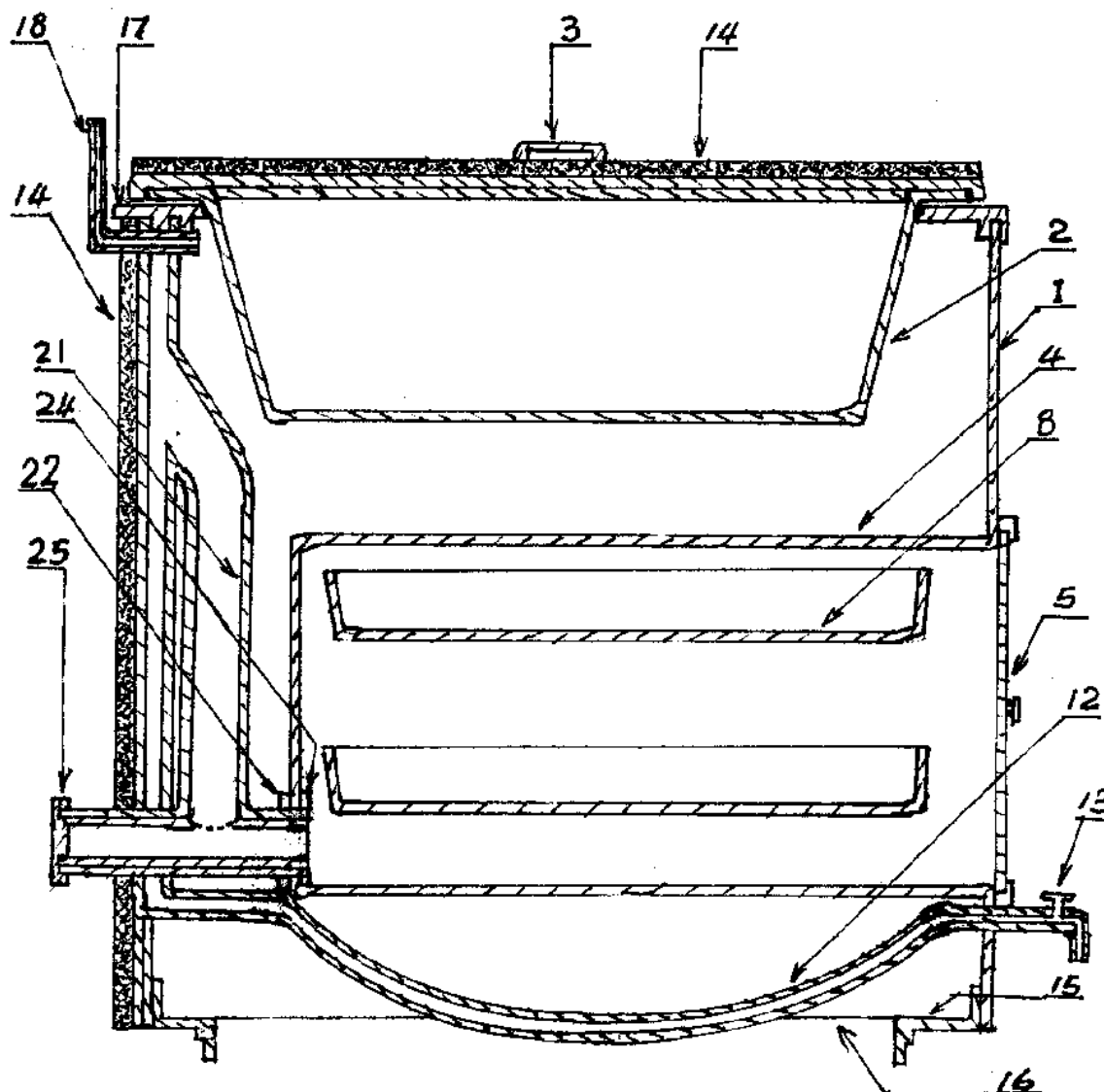
Family 7/35 - FAMPAT - ©Questel

### Title

(CN1220092)

Multiple heat source oven

### Images



### Abstract

(CN1220092)

The present invention discloses a multipurpose oven with several heating sources, and it is characterized by that its external form is made into the form of cube, and said invented multipurpose oven can be matched with gas **stove** equipment, electroheating furnace, coal-fired furnace and **firewood stove** for implementing several functions of steaming, roasting, cooking, baking and boiling water, and possesses the advantages of high working efficiency, simple structure, safety and convenient use, low cost, heat-**insulating**, saving energy, saving time, controllable temp., no burning or half-cooking food and extensive application range. Said invented multipurpose oven is composed of the components of external shell, heat-**insulating** layer, communicating mechanism, two roasting chambers, temp.-regulating plate, steam-regulation and control device, water-level indicator and overpressure alarm, etc..

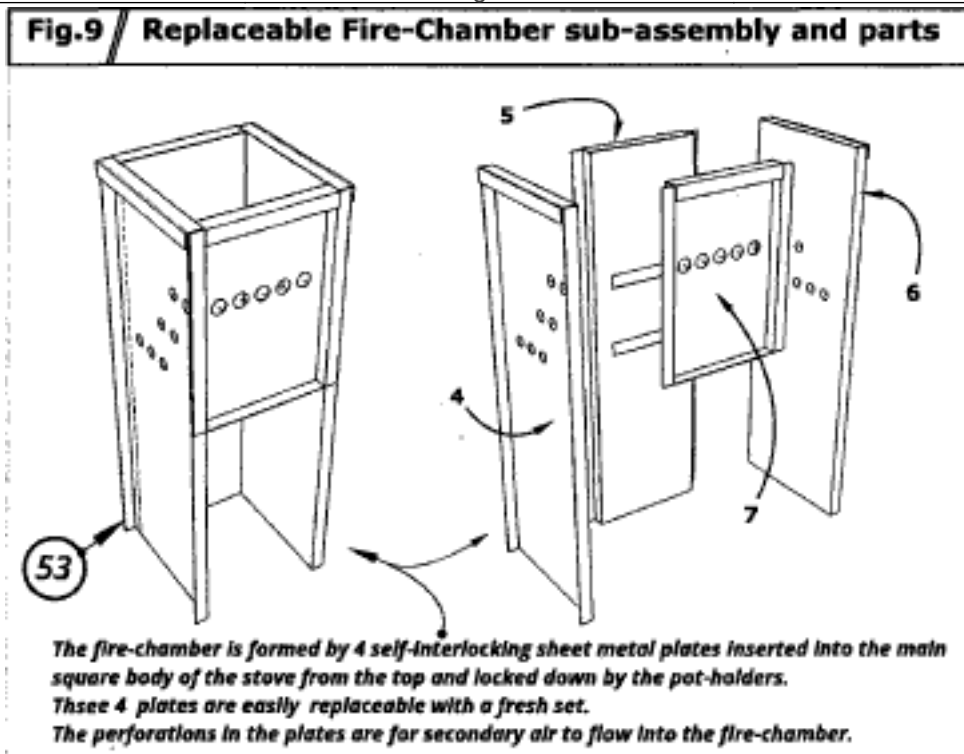
Family 8/35 - FAMPAT - ©Questel

### Title

(IN2015MU04978)

Biomass burning **stove** for clean & efficient domestic cooking

### Images



### Abstract

(IN4978/MUM/2015)

An innovative design adaptation of the basic Rocket **Stove** concept yielding a **Stove** with the ability to cook complete meals for small families using amazingly little biomass fuel. This innovative **stove** invention features {i} An optimally sized fire-tube (Fig.9:53) that gives clean burning without preventing direct food-flame contact, {ii} Inclined Fuel-Feed Hopper giving direct line-of-sight Fire visibility from a sitting position resulting in optimal control of Fire by user (Fig. 14), {iii} A demountable, continuously resizable potskirt fitting any pot and greatly enhancing heat-transfer (Fig. 12), {iv} Convenient Underside Tinder Ignition giving fast startup (Fig. 15), {v} Compact double-walled construction that provides for dual-insulation and secondary air circulation (Fig. 19), {vi} Live, Ash disposal mechanism for flushing of the **stove** even as fire and cooking continue uninterrupted. (Fig. 16), {vii} Replaceable Combustion Chamber Walls giving prolonged extension of operational life (Fig.17) and {viii} Modular construction permitting compact packaging and quick assembly and reassembly (Fig. 22).

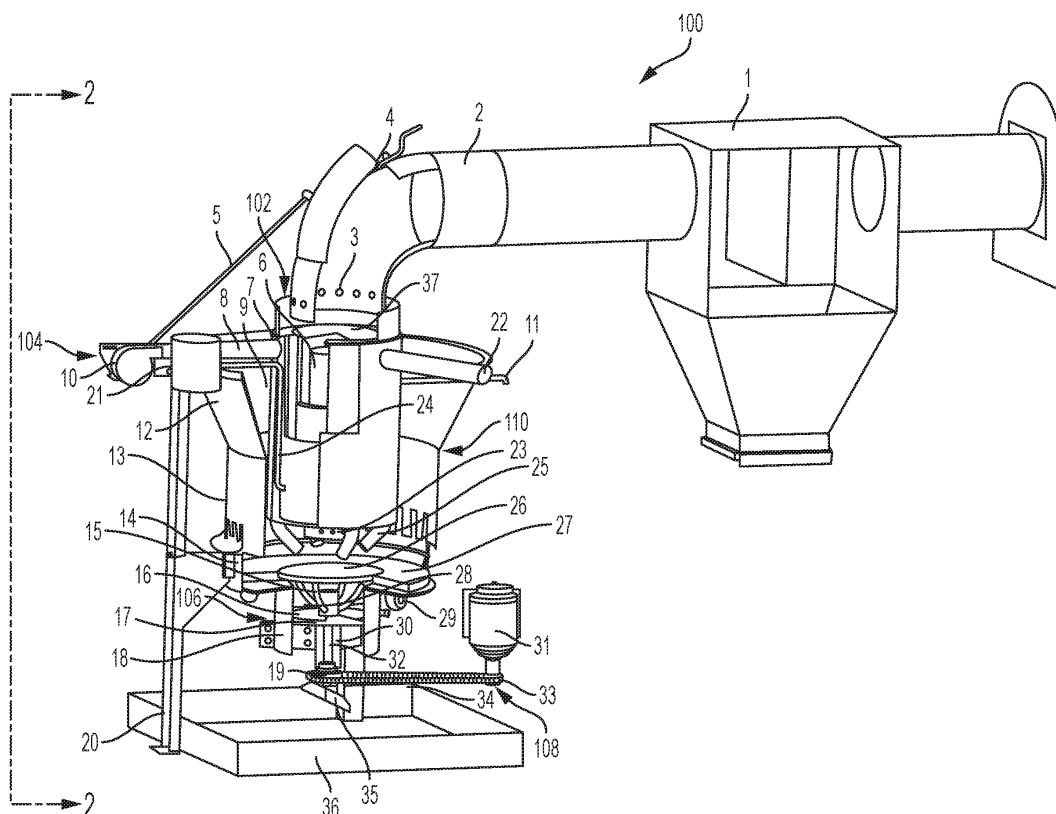
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### Title

(WO2016210317)

Biomass fuel **stove**

### Images



## Abstract

(WO2016/210317)

Disclosed is a biomass **stove** for burning biomass fuel using a combustion furnace. The **stove** includes a gravity feed fuel holding tank for feeding biomass fuel to the furnace. The combustion furnace includes a primary combustion furnace and a secondary combustion furnace surrounding the primary combustion furnace, as well as a water jacket surrounding the secondary combustion furnace and an air jacket further surrounding the water jacket. A fuel holding device may be in the form of a rotating furnace that includes a support surface with one or more curved vanes thereon for moving gravity fed fuel. An ash removal assembly includes an adjustable ash grate and a fixed ash grate below the furnace. Adjustment of the adjustable grate relative to the fixed grate moves openings into and out of alignment such that ash from burned biomass fuel is output to an ash pan.

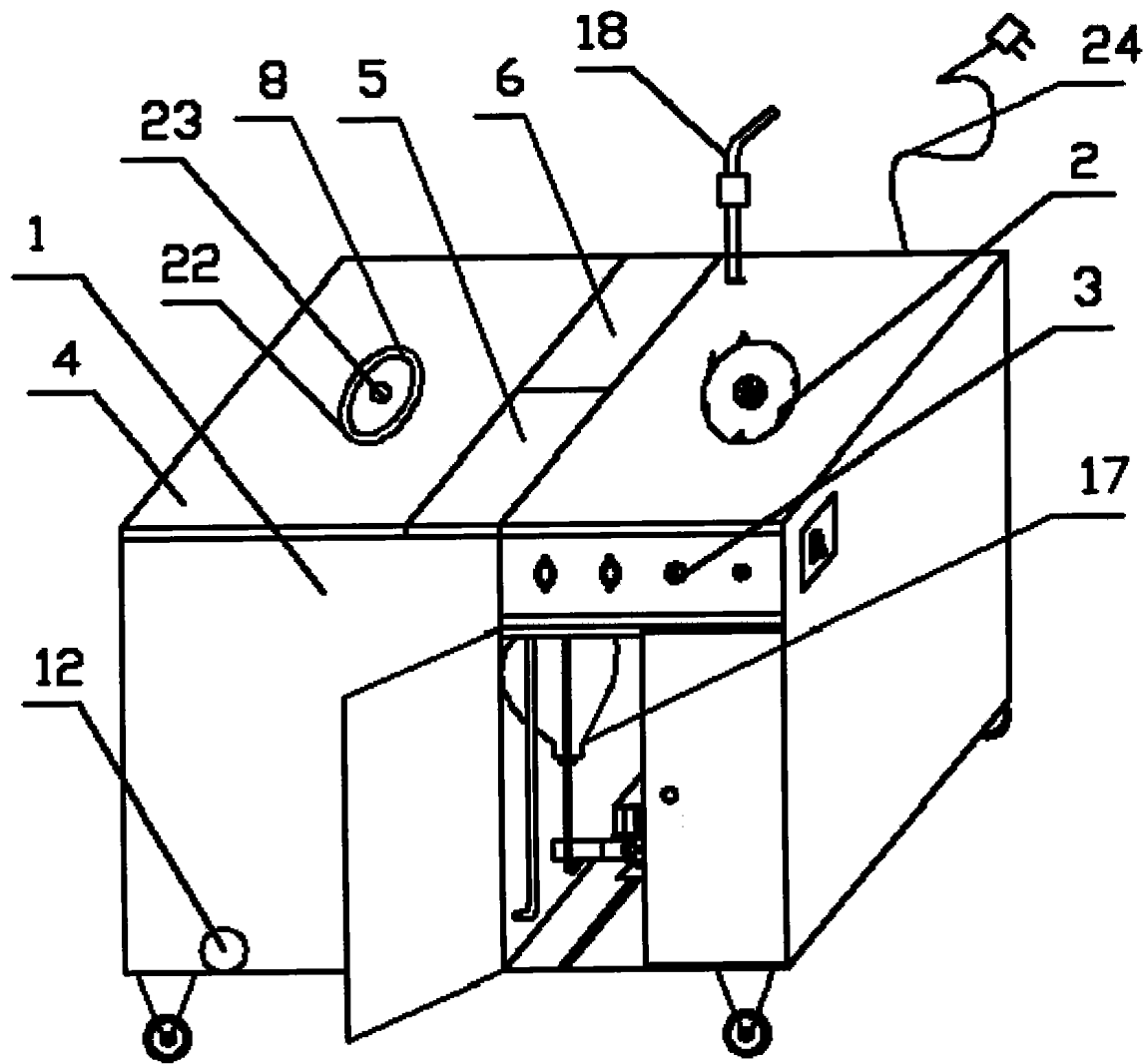
Family 10/35 - FAMPAT - ©Questel

## Title

(CN201181022U)

Integrated domestic biomass gasification **stove**

## Images



### Abstract

(CN201181022)

The utility model relates to a civil **cooker** in agricultural and miscellaneous products, in particular to an integral domestic biomass gasification furnace. The whole external part of a furnace body is made of a steel plate; a hearth is made of flame-proof materials and a **metal** plate; an air flue communicated with a blower is arranged at the bottom of the hearth and a porous blast nozzle is arranged on the air flue; in addition, a low-tension ignition device is arranged at the bottom of the hearth; a dirt collecting box is also arranged below a cooking range. The integral domestic biomass gasification furnace not only saves raw materials, occupies small area, has convenient use, is durable in use and has elegant appearance as well as practicability, but also causes the generated fuel gas to be clean, sanitary and pollution-free, and facilitates energy conservation, environmental protection and personnel health.

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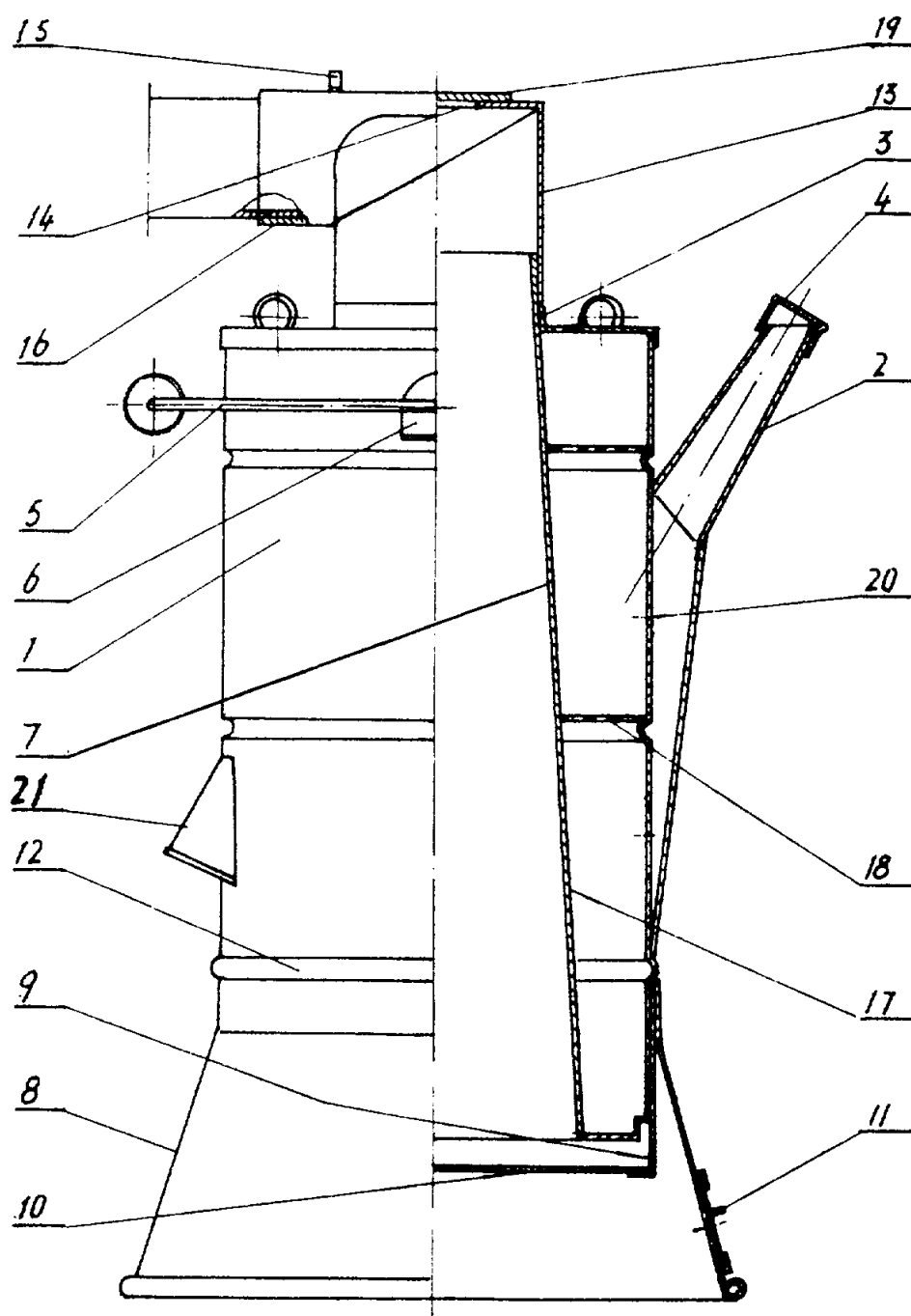
### Title

(CN202747397U)

Biomass fuel **stove**

### Images





### Abstract

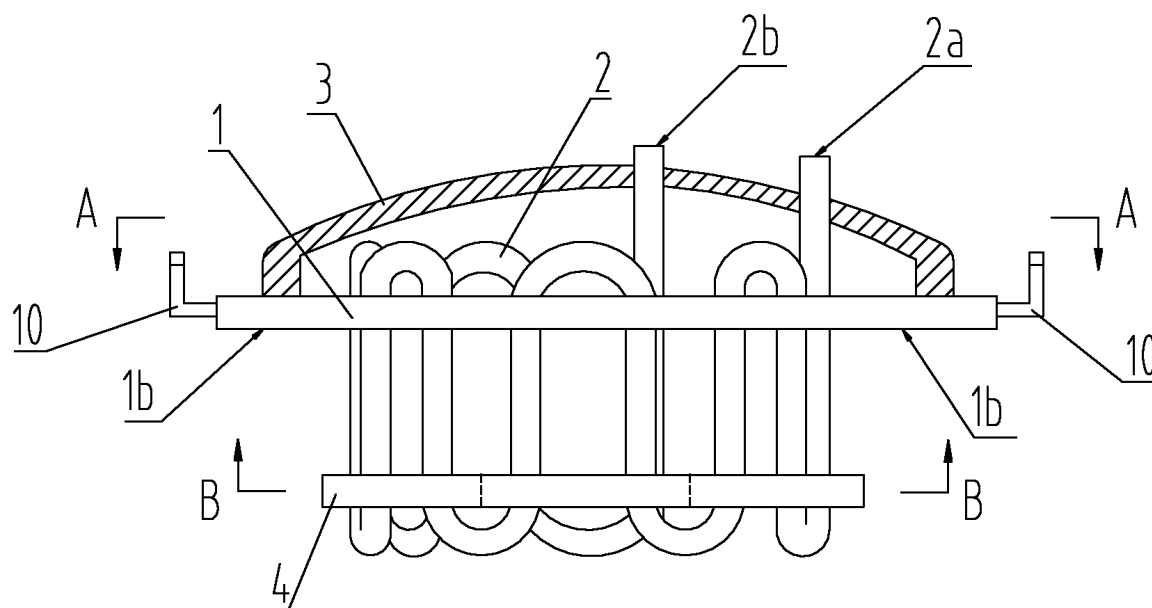
(CN86210054)

The utility model relates to a multifunctional energy saving kettle heating **stove** which is composed of a kettle, a **stove**, a charging and fume exhausting device, etc. The intermediate section of the kettle is provided with a kettle hearth with a hollow conical surface, enlarging the contact area of the kettle and flame, and the whole kettle heating **stove** is made into a sealed type system of combusting and fume exhausting. The utility model has the advantages of high combustion efficiency, energy saving and no environmental pollution. The utility model has multiple functions of heating water, cooking food, braising meat, braising steamed bread, etc., and can be used as a chafing dish. **Firewood**, grass, coal, gas, electricity, etc. can be taken as fuel. The utility model is suitable to be used in cities and towns, and is especially suitable for rural regions, grasslands and pasturing areas.

Family 13/35 - FAMPAT - ©Questel

**Title**

(CN201852154U)

Water heater installed in flue of **stove****Images****Abstract**

(CN201852154)

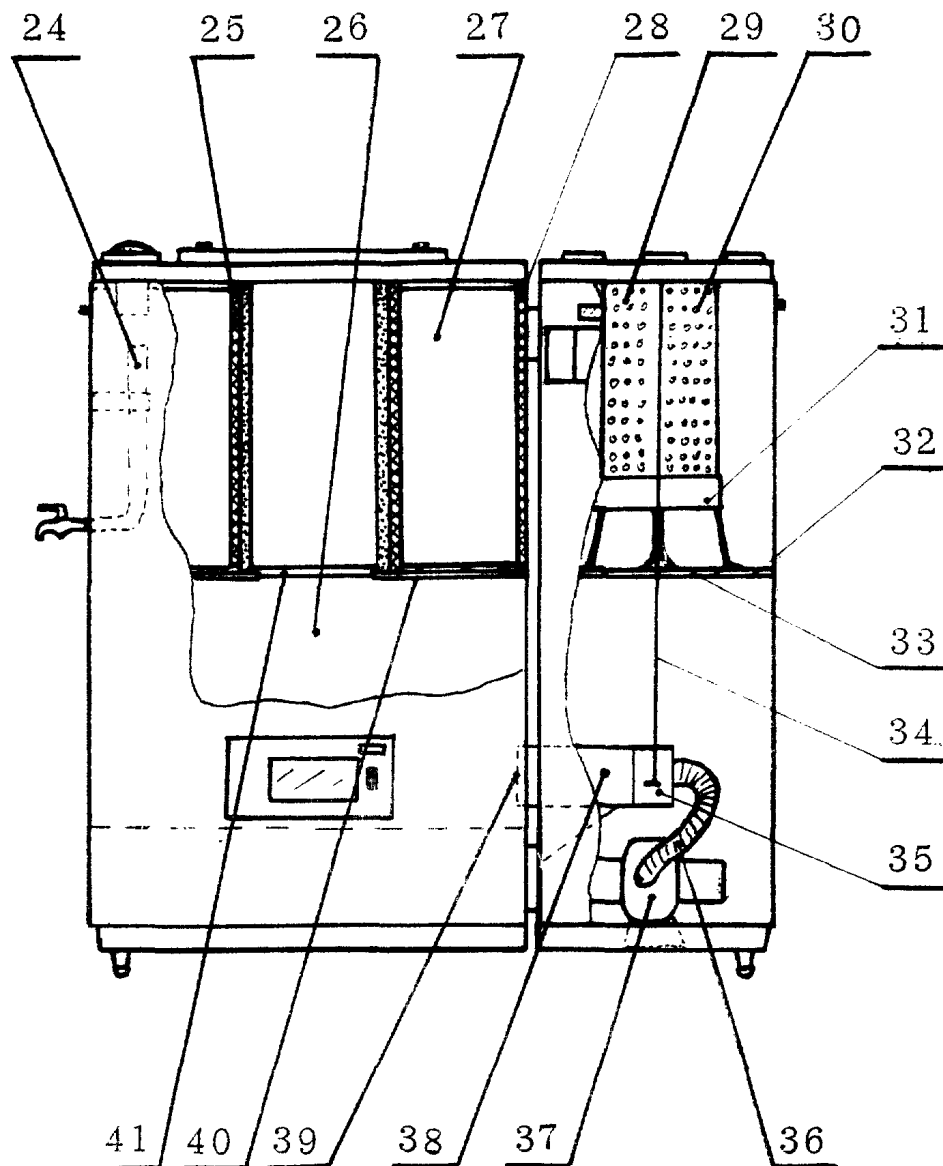
The utility model provides a water heater installed in a flue of a **stove**. The water heater is characterized in that: the water heater comprises an upper end plate and a heat exchanging pipe, wherein the upper end plate is provided with a plurality of installing holes, the installing holes are arrayed around the center of the upper end plate in the manner of a circle or a polygon, the heat exchanging pipe is bent in a reciprocating and snake-shaped way and sequentially passes through the installing holes of the upper end plate back and forth, and the two ends of the heat exchanging pipe penetrate out of the upper surface of the upper end plate to respectively form a water inlet and a water outlet; and the edge of the upper end plate extends to the periphery so as to form a supporting part used for supporting the water heater onto a boiler hole of the **stove**. By making full use of waste heat of smoke in the flue of the **stove** to carry out heating, the water heater is economical, saves energy, has simple structure and is convenient to clean.

Family 14/35 - FAMPAT - ©Questel

**Title**

(CN2032288U)

Coal cake **stove****Images**



### Abstract

(CN2032288)

The utility model relates to a briquette **stove**, which is designed for supplying a briquette **stove** with complete functions and good performance. The briquette **stove** is composed of a combustion system, a residual heat using system, an electric igniting device, an air blasting and combustion supporting system and an electrical appliance controlling system and has beautiful appearance. The utility model is characterized in that ignition and air blasting are both controlled by an electric appliance, ignition can be timed, and a singing signal device is arranged; air blasting and combustion support at different air feeding speeds can be selected according to the requirements of users for completing boiling tasks in short time, and the utility model supplies hot water. The utility model is an ideal cooking utensil with energy saving, time saving, fast ignition and big fire power.

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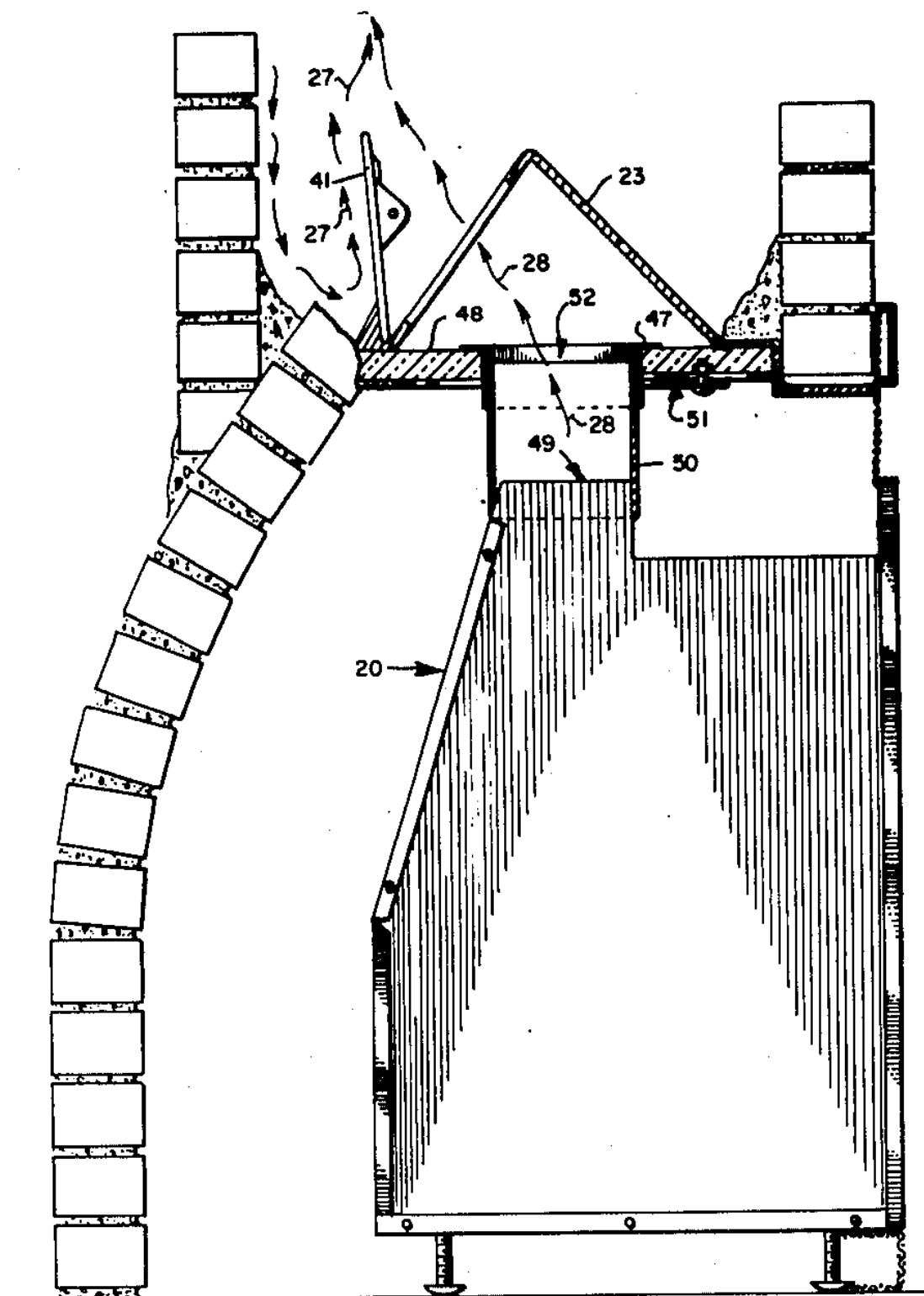
### Title

(US5203316)

Portable camp **stove**

### Images





### Abstract

(US4026264)

A portable heating unit which may quickly and easily be installed in an existing fireplace construction is described. The heating unit, with a controlled adaptable damper system, greatly increases the burning efficiency of the fuel and is designed to provide a circulating warm air stream for heating a room. The heating unit can quickly and easily be moved from the fireplace opening to restore the fireplace to its original operation when the extra heat is no longer needed.

The portable heating unit may also be installed in a self-contained enclosure. This enclosure incorporates a triangular-shaped flue that interconnects with a nearby chimney. The triangular flue is constructed so as to connect with a chimney to the right or to the left of the heating unit enclosure thereby allowing one chimney to service more than one heating unit at the same floor level.

Furthermore, a radiator may be installed within the portable heating unit and interconnected to the hot water heating system of a home so as to provide alternate heating of the hot water system when the home furnace is inoperable. The heating unit may also be converted to an outdoor barbecue when used without a self-contained enclosure.

Family 17/35 - FAMPAT - ©Questel

**Title**

(WO201640851)

Side-feed forced-air biomass burning cookstove

**Images**



**Abstract**

(WO2016/040851)

Disclosed herein are systems and devices that aid in reducing particulate emissions from biomass stoves, for example by the use of gases injected in or near the oxidation zone of a combustion chamber. Also disclosed are systems and devices providing electricity to a pump or blower that aids in injecting the gas and/or collecting exhaust gases. In some embodiments the device providing electricity is a thermoelectric generator that may also be used to power other devices. In many embodiments, the systems and devices inject a gas at or near the oxidation zone in the combustion chamber of a biomass **stove**. The gas injected into the zone may be fresh air, exhaust from combustion or combinations thereof. The gas can be forced into the combustion chamber with the aid of a pump or blower that may also aid in drawing in exhaust gas.

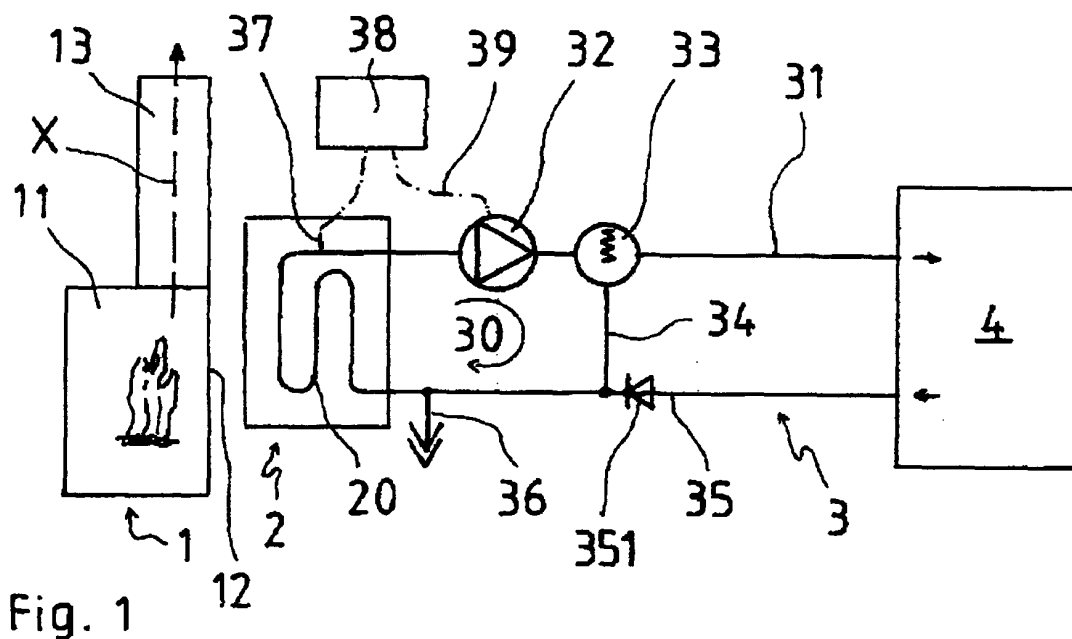
Family 18/35 - FAMPAT - ©Questel

**Title**

(EP1752710)

Assembly for **stove** with heat exchanger

**Images**



### Abstract

(EP1752710)

The system for tile ovens, stoves, or basic ovens (1) has a combustion chamber (11) with a rear wall and side walls, a hot gas flue (13), and a heat exchanger (2) through which flows a fluid for heat and/or hot water yield. The heat exchanger is installed between the rear wall and/or side wall or walls of the combustion chamber and/or the hot gas flue on one side, and the adjacent building walls on the other side. The heat exchanger is located in the region of great heat radiation in the direction of the heat radiation before an insulation of the building walls. An independent claim is included for a heat exchanger for the aforesaid arrangement which has a piping system (20) installed on heat conducting plates between return and feed connections.

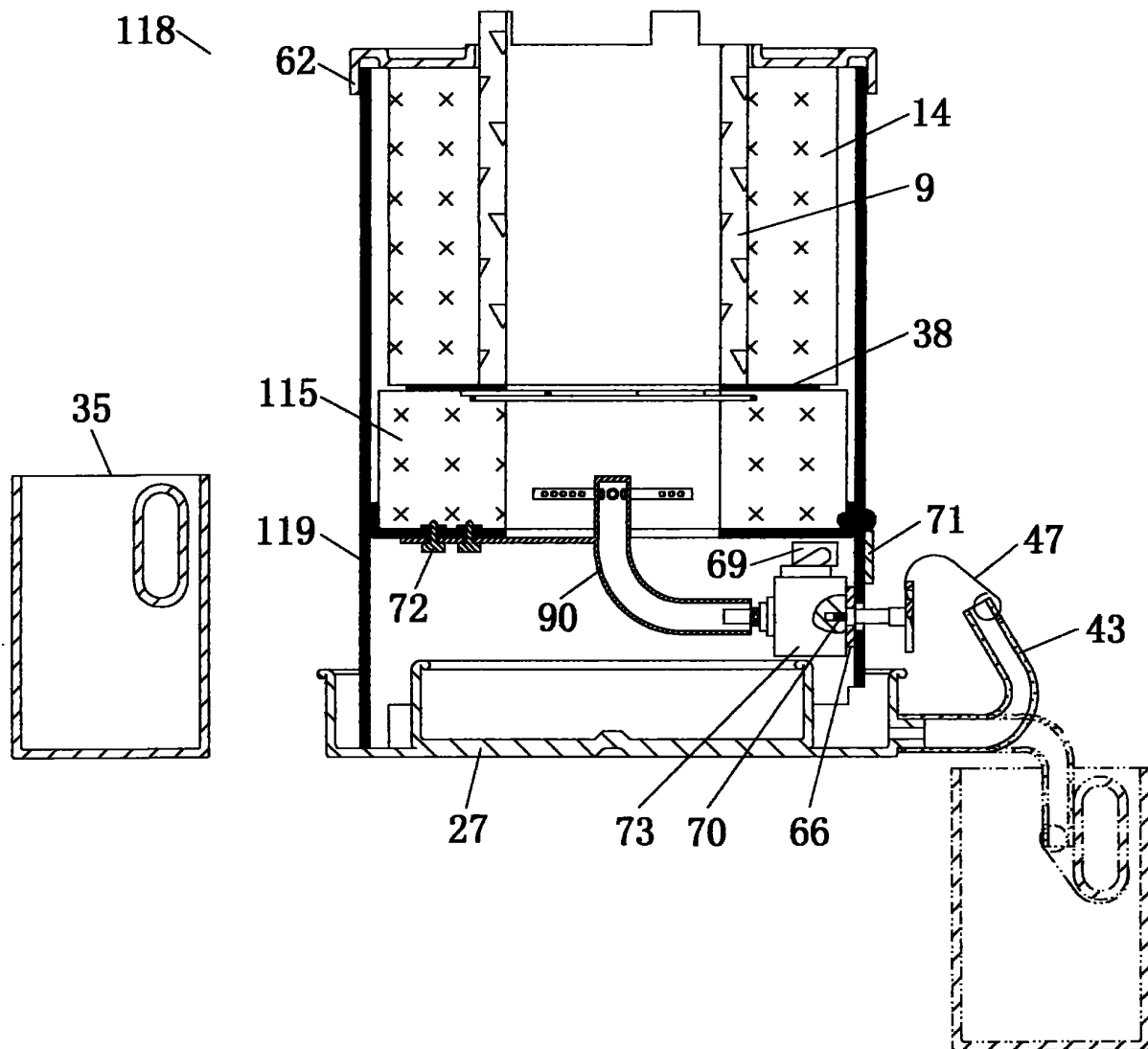
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### Title

(CN102207297)

Honeycomb briquette furnace flue, two honeycomb briquette furnaces and using method of two honeycomb briquette furnaces

### Images



## Abstract

(CN102207297)

The invention discloses a honeycomb briquette furnace flue, a honeycomb briquette furnace which is not provided with a gas appliance for ignition, a honeycomb briquette furnace with the gas appliance for ignition and a using method of the two honeycomb briquette furnaces. Due to the design of boiler leg supporters, the honeycomb briquette furnace flue can contact a boiler in the two honeycomb briquette furnaces; when the two honeycomb briquette furnaces are used, people can control the air supply rate of the two honeycomb briquette furnaces by using water, so the incomplete combustion of honeycomb briquettes in the two honeycomb briquette furnaces in the volatile combustion or coke combustion period can be converted into complete combustion; and the honeycomb briquettes in the honeycomb briquette furnace with the gas appliance for ignition do not have smoke in the process of the ignition, so the honeycomb briquettes in the honeycomb briquette furnace with the gas appliance for ignition can be combusted cleanly in the integral process.

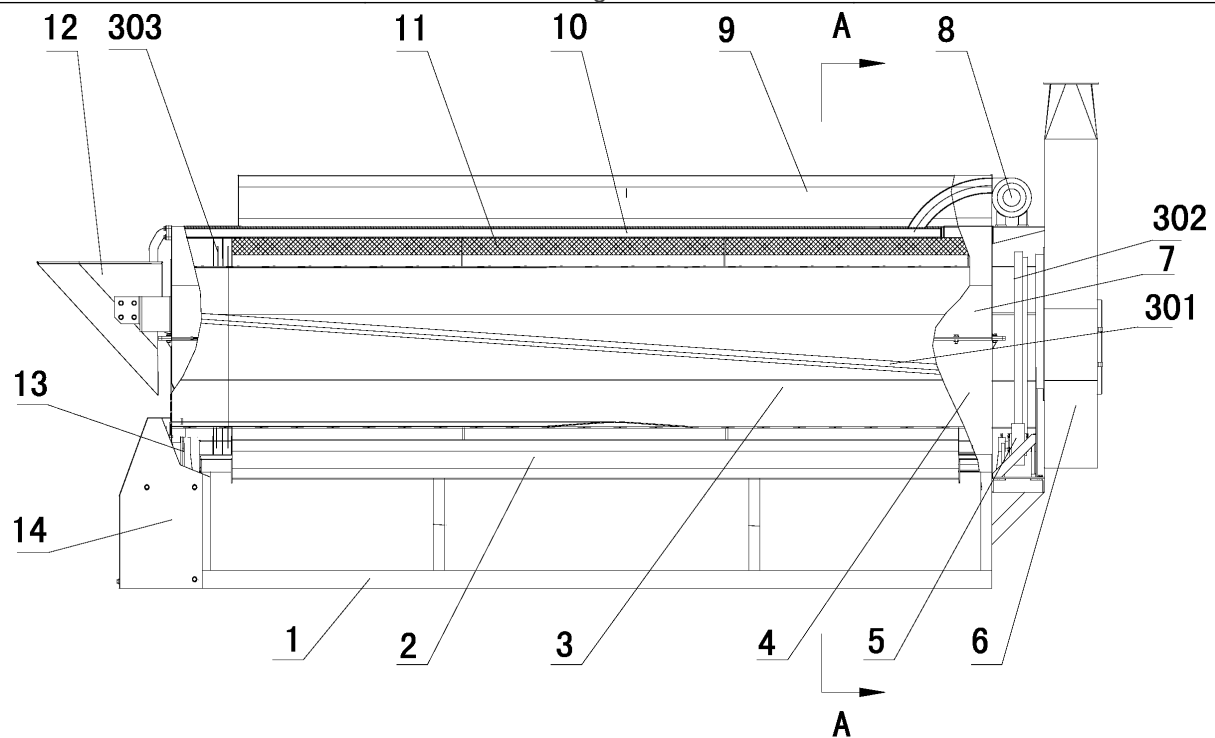
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## Title

(CN204634951U)

### Cylinder green color removing machine

## Images



## Abstract

(CN204634951)

The utility model provides a cylinder green color removing machine, includes barrel, heat reclamation device and hydrofuge cover, is equipped with overhead guard and enclosure in proper order on the upper portion of the barrel, heat reclamation device arranges in the overhead guard top and inlays the inside of enclosure, characterized by: the periphery in barrel cross -section is equilateral octagon, and the one face cloth of whenever being separated by on eight internal faces of barrel has item stator muscle, axial blower among the heat reclamation device is provided one side of hydrofuge cover. The utility model discloses change circular cylinder and for equilateral octagon, both improved intensity, simplified manufacturing process, make axiality and cylindricity guarantee, can also play the effect of stator muscle with the help of bead structure anistree in the section of thick bamboo to the stator muscle sets up quantity in the reducible section of thick bamboo. Secondly, shift out axial blower from the enclosure is inside, place in hydrofuge cover one side, because here temperature is lower, has avoided usually because of the phenomenon that the air -blower high temperature burns the motor, and saved the energy.

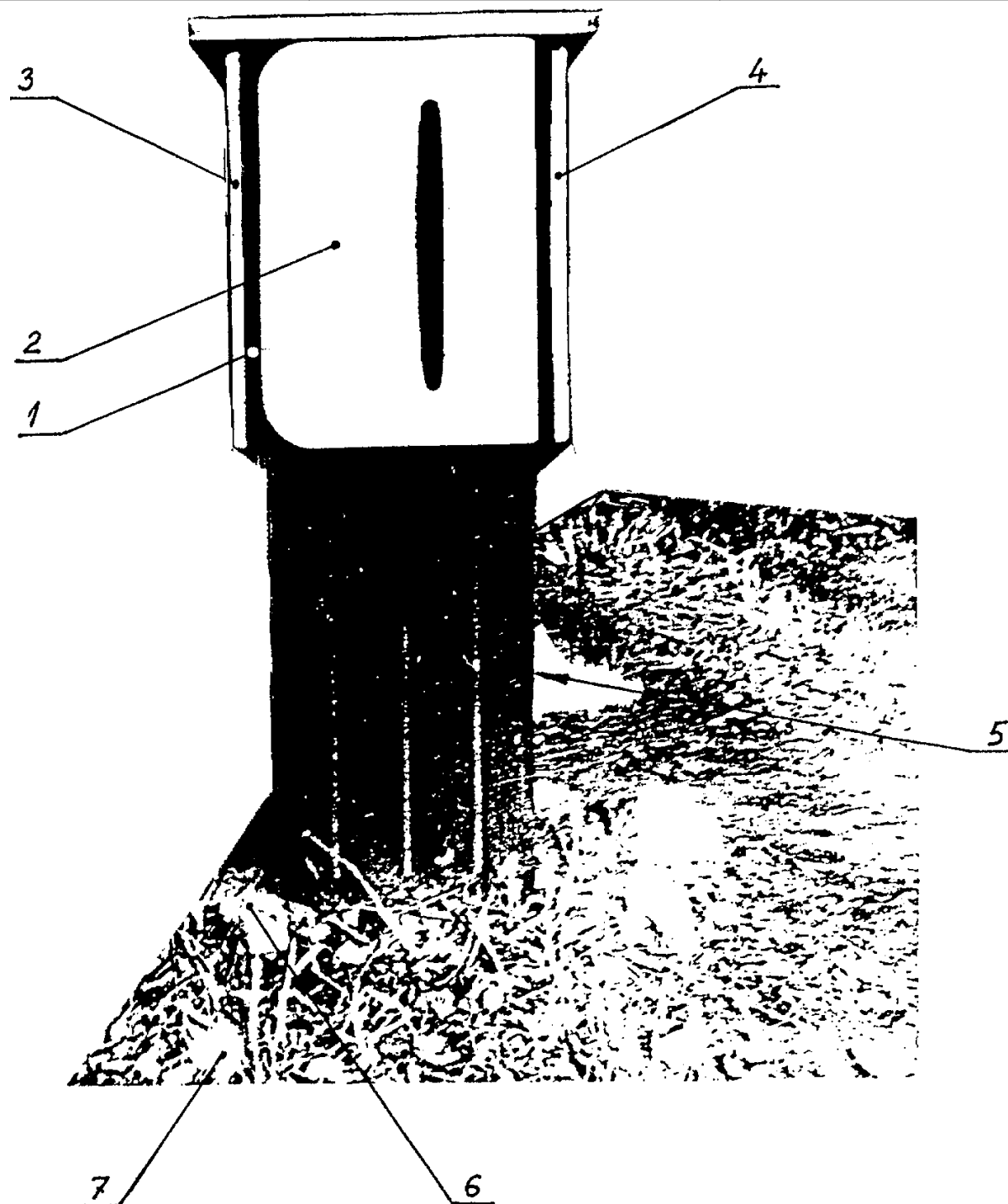
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## Title

(RU2194216)

### Portable solid-fuel oven for preparation of food and heating

## Images



Фиг. 1

**Abstract**

(RU2194216)

FIELD: camping and farmsteads. SUBSTANCE: oven includes separable combustion chamber which is put on separable column-ash collector. Combustion chamber comes in the form of lattice basket made of widely spaced bars placed in air jacket between this basket on one side and four solid sheet vertical walls mounted on frame and separable solid sheet bottom plate of combustion chamber located near fixed stationary lattice bottom on the other side. Air jacket freely communicates with atmosphere through 19 slit-shaped windows with thickness in the order of 10.0 mm and total length of 4600.0 mm for air suction along entire extent of each rib of frame of combustion chamber. Air jacket is area of after-burning of combustible fractions of smoke. When solid sheet bottom plate is removed area beneath stationary lattice bottom is upper half of chamber where fire is built in combustion chamber. Combustion chamber has burners arranged one above another at several levels. Each burner, except upper and lower burners, is formed by pair of one front and one rear inseparable mobile bars lying on left and right side fixed bars of lattice basket. Size of burner can be altered thanks to displacement of its two mobile bars. EFFECT: enhanced efficiency, universality and convenience of oven. 5 cl, 2 dwg

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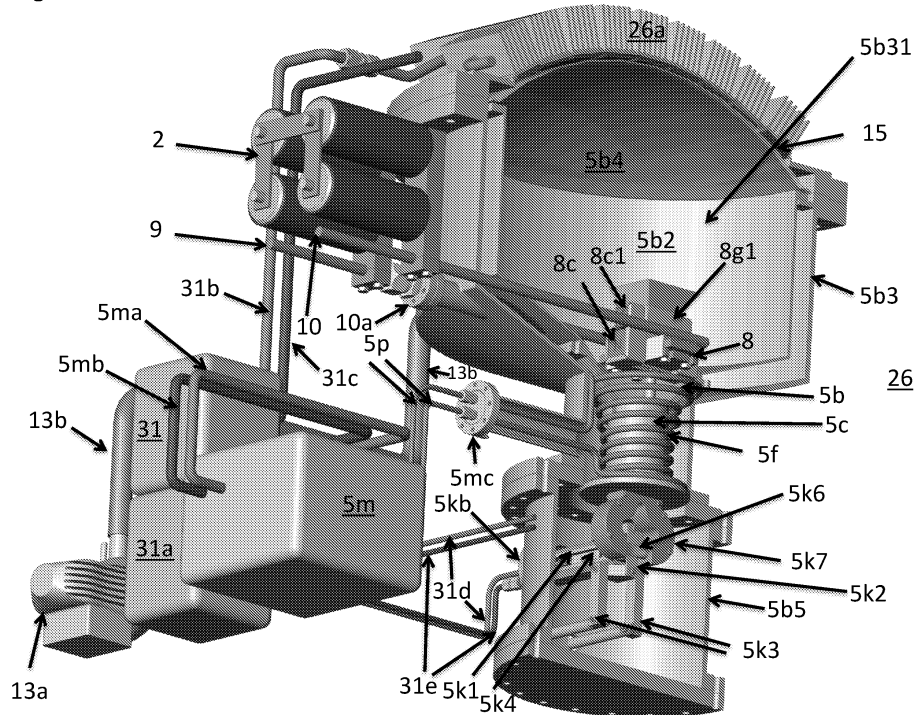
# Title

(EP3295460)

Thermophotovoltaic electrical power generator

# Images

Fig. 2125



# Abstract

(EP3295460)

A molten **metal** fuel to plasma to electricity power source that provides at least one of electrical and thermal power comprising (i) at least one reaction cell for the catalysis of atomic hydrogen to form hydrinos, (ii) a chemical fuel mixture comprising at least two components chosen from: a source of H<sub>2</sub>O catalyst or H<sub>2</sub>O catalyst; a source of atomic hydrogen or atomic hydrogen; reactants to form the source of H<sub>2</sub>O catalyst or H<sub>2</sub>O catalyst and a source of atomic hydrogen or atomic hydrogen; and a molten **metal** to cause the fuel to be highly conductive, (iii) a fuel injection system comprising an electromagnetic pump, (iv) at least one set of confinement electrodes that provide repetitive short bursts of low-voltage, high-current electrical energy to initiate rapid kinetics of the hydrino reaction and an energy gain due to forming hydrinos to form a brilliant-light emitting plasma.

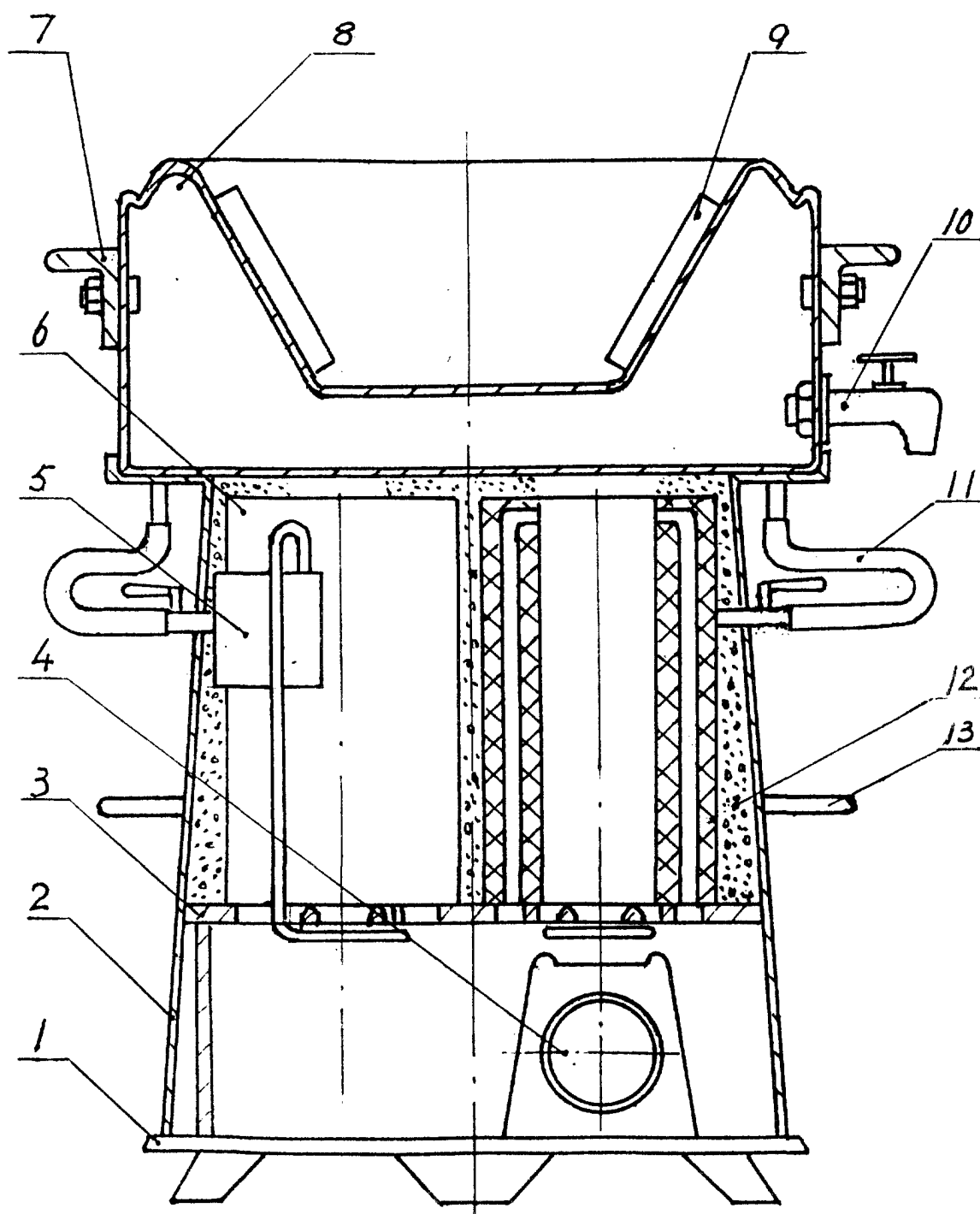
Family 23/35 - FAMPAT - ©Questel

# Title

(CN2049732U)

Large and medium type gasification high-efficiency coal-saving range

# Images



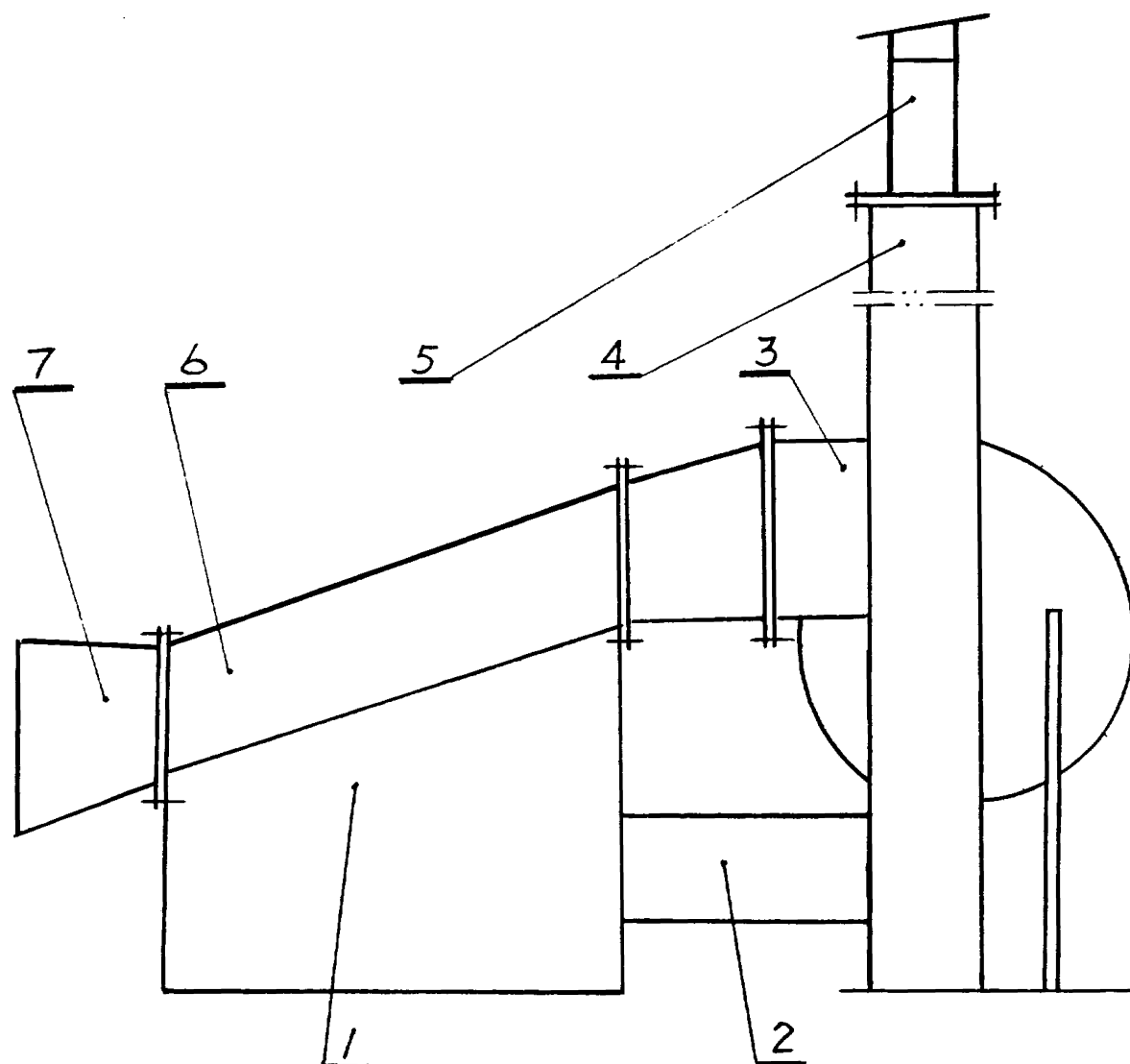
### Abstract

(CN2049732)

The utility model discloses a large and medium type gasification high-efficiency coal-saving range which mainly comprises a range body, an internal range, a vaporizing device, an annular tank, etc. The large and medium type gasification high-efficiency coal-saving range is mainly predominated by standard 10 centimeters honeycomb briquette which is burnt, and then self vaporous water vapor is steamed into a range firepot to take part in the combustion process of coal. The utility model has the advantages of high thermal efficiency and little pollution. Simultaneously, the large and medium type gasification high-efficiency coal-saving range can be moveable and is convenient to maintain. The large and medium type gasification high-efficiency coal-saving range provides an ideal range for the mess together units of unit canteens, diet industry, small businesses, etc.

(CN2239001U)

Energy-saving drying furnace

**Images****Abstract**

(CN2239001)

The utility model relates to a new energy-saving drying furnace, which belongs to the technical field of energy saving in agriculture. The furnace uses coal as fuel. Compared with the similar coal burning furnaces, the utility model has characteristics of energy saving, high heat efficiency, rapid heat generation, residual heat recovery, rapid temperature regulation, long service life, low cost, less occupation area, clean drying hot wind, etc. The whole of the drying furnace has a **metal** detachable structure and is composed of a furnace body, a residual heat recovery pipe of the furnace body, an air supply system, a residual heat recovery pipe for a chimney, the chimney, a plate-shaped heat exchanger having a composite structure, etc. The utility model has a compact and reasonable structure. The furnace is mainly used for providing heat sources with different drying temperatures for drying equipment of farm and sideline products, such as tea, corn, aquatic products, domestic fungus, etc.

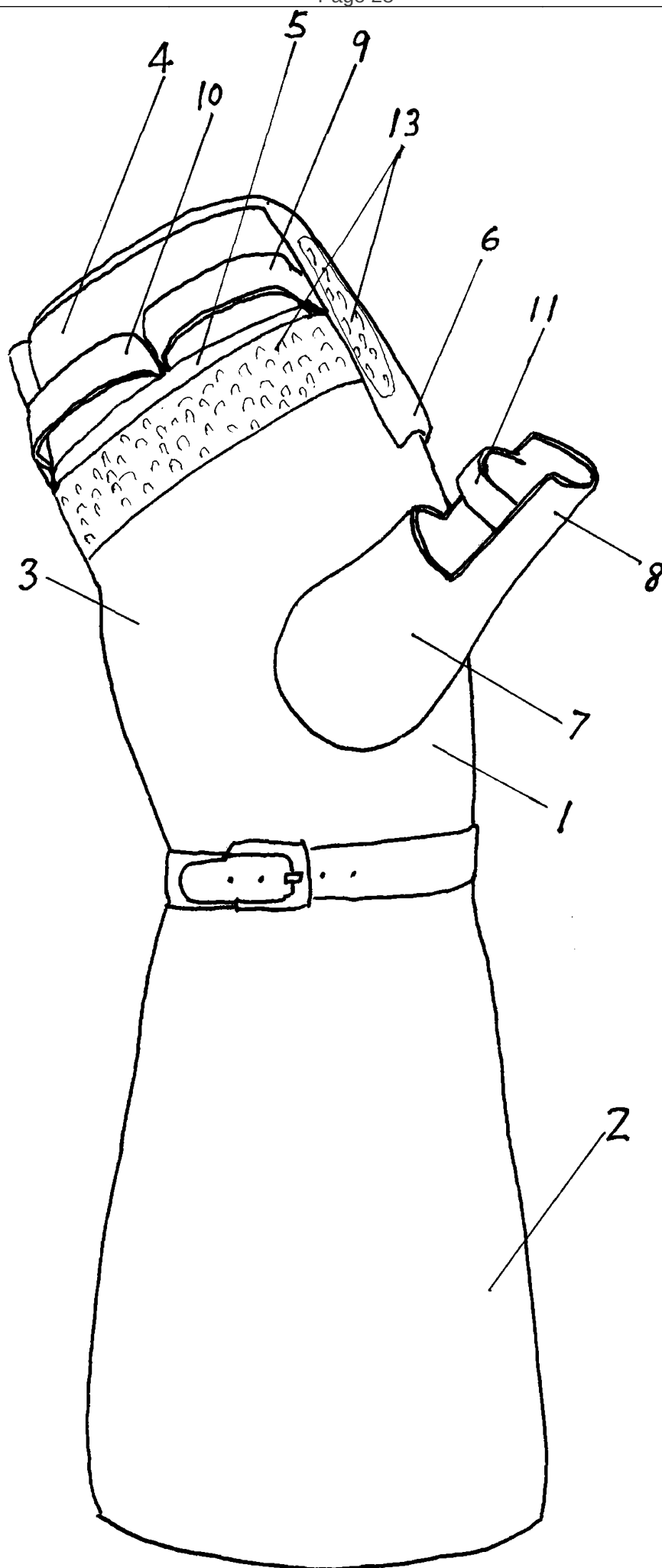
Family 25/35 - FAMPAT - ©Questel

**Title**

(CN102485077)

Work heat insulation gloves with exposed parts at upper parts of inner surfaces of five fingers

**Images**



**Abstract**

(CN102485077)

The invention relates to a pair of work heat insulation gloves with exposed parts at the upper parts of inner surfaces of five fingers and belongs to a pair of gloves, in particular to a pair of heat insulation gloves normally with electric heating functions worn in cold seasons for official document work and study such as reading, writing, typewriting and the like. Gloves bodies are made of thick and soft heat insulation materials, and the appearance of each glove body is in a mitten type, so hot air gathering is favorably realized; the inner surfaces of the upper parts of the five fingers are exposed, so the operation such as book turning, writing, typewriting and the like is convenient; the gloves are provided with finger sleeve belts, so the heat insulation materials arranged at the back side parts of the glove bodies are ensured to be tightly pasted with the palm backs and the finger backs for following heat insulation, and whether the gloves are provided with or not provided with electric warming cores, the glove bodies are connected with or not connected with sleeve tubes, and the gloves are provided with or not provided with other four finger window sealing covers are determined according to the consideration of whether the heat insulation function of the gloves needs to be enhanced or not. The work heat insulation gloves with the exposed parts at the upper parts of the inner surfaces of the five fingers have the advantage that various activities of the fingers and the palms such as bending, straightening, pinching, clicking and the like are convenient.

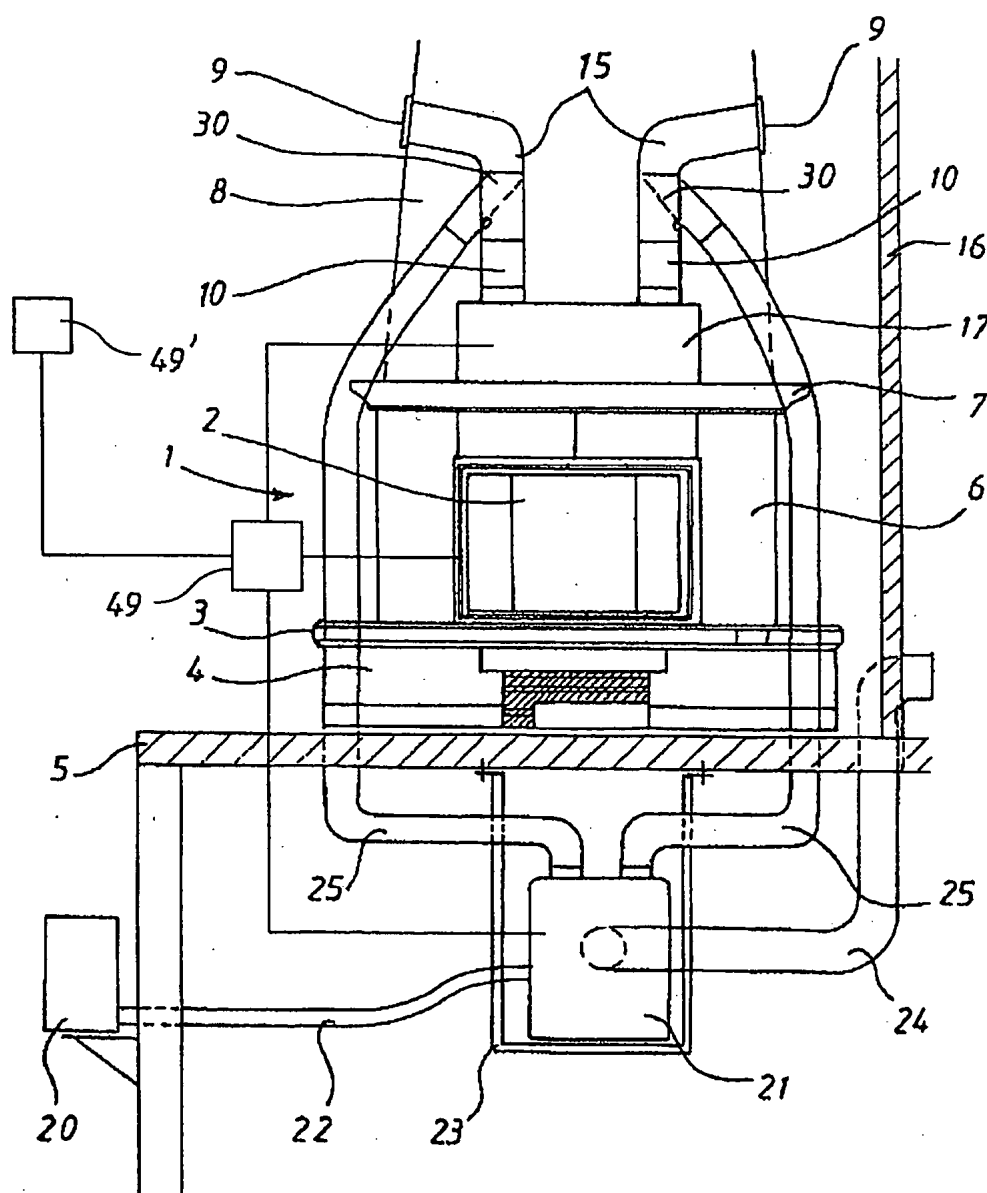
Family 26/35 - FAMPAT - ©Questel

**Title**

(EP1695010)

Heating and air-conditioning device

**Images**

**FIG.1****Abstract**

(EP1695010)

The invention relates to a device which can be used alternatively to heat and air-condition a space, such as a residential, working or storage premises or room or any other enclosed area. The inventive device consists of: a heating unit (1) comprising a closed firebox (2) and an air circuit which is used to release the calories produced by said closed firebox (2); and an optionally-reversible air-conditioning unit comprising at least two exchangers including an inner exchanger which is placed in an inner air circuit that communicates with the exterior by means of the aforementioned calorie-releasing air circuit in order to diffuse the air from inside the device externally. In addition, at least one of the exchangers is placed upstream and, preferably, at the outlet of the air circuit which is connected to the closed firebox (2). In this way, at least one air flow can be obtained at a suitable temperature and cooled if necessary, e.g. during hot periods, and additional calories or frigories can be permanently or occasionally supplied to the closed heating firebox, e.g. during cold periods.

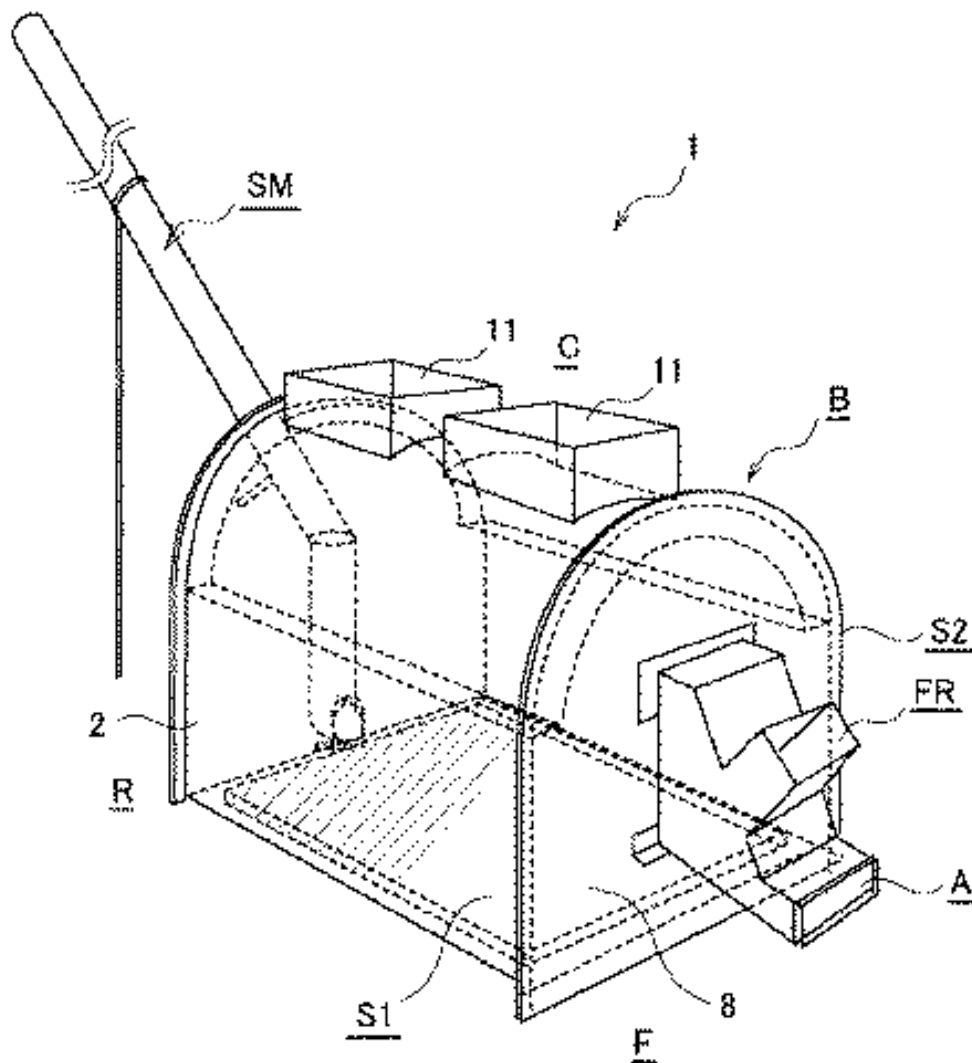
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**Title**

(JP2006052335)

### Assembly type charcoal kiln apparatus

## Images



## Abstract

(JP2006052335)

PROBLEM TO BE SOLVED: To provide a assembly type charcoal kiln apparatus made of stainless steel, which has a main part made of stainless steel, is installed outdoors, is arranged any where any time according to circumstances and makes charcoal in a full scale.

**SOLUTION:** The assembly type charcoal kiln apparatus is equipped with a kiln main body 1 that has a plate-like wall material 2 made of stainless steel for sealing a sidewall face 2, a hollow dome of a double structure made of stainless steel that is positioned above the wall material and forms the external shape of a rooftop wall surface and a front lid 8 and a rear lid in which bricks are piled on the inside of the plate-like wall material and front and rear wall surfaces and detachable lids are arranged in the longitudinal direction while leaving a part of a hot air port or a smoke outlet. A soil and sand input port 11 for feeding soil and sand to the hollow part of the hollow dome is arranged on the hollow dome, a fire hole set furnished

with a fire hole FR and an air intake A is detachably installed at the front of the front lid correspondingly to a partial opening part.

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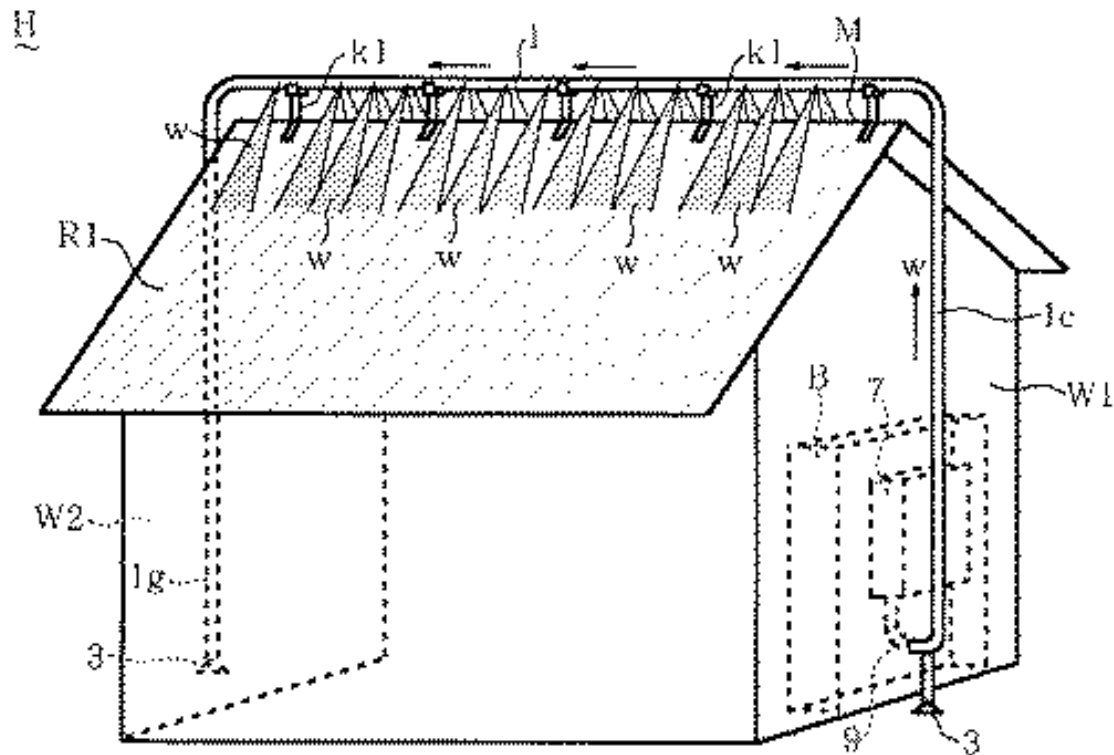
Family 28/35 - FAMPAT - ©Questel

#### Title

(JP3130770U)

Snow removal device

#### Images



#### Abstract

(JP3130770)

PROBLEM TO BE SOLVED: The accumulated snow on the roof to the pool safety, easily, and quickly removing snow, easy operation and low manufacturing costs, may be applied to provide a snow removal. SOLUTION: Installed inside of a building (H) water heaters (7), such water heater (7) connected to a pressurizing pump, an outlet pipe (1) connected to the water heater (7), comprising, an outlet pipe (1) the building (W1) from the side of the flap (H) (1c) rise pipe (R1) of a roof via the ridge disposed along (M), the discharge hole (13) and the downward inclined downward and the water drain hole (15), such hole and (13) the water drain hole (15) and discharge heat insulated so as to expose the covered by a cover (12), a roof (R1) with a gradient of the building so as to be higher than (M) (k1) via the receiving metal fixed with the seat, the discharge pipe (1) (W1) communicating with the side flap (1c) of the lower part of the connecting pipe, the water drain valve is (3) arranged, snow removal device. SELECTED DRAWING: 1 Fig.

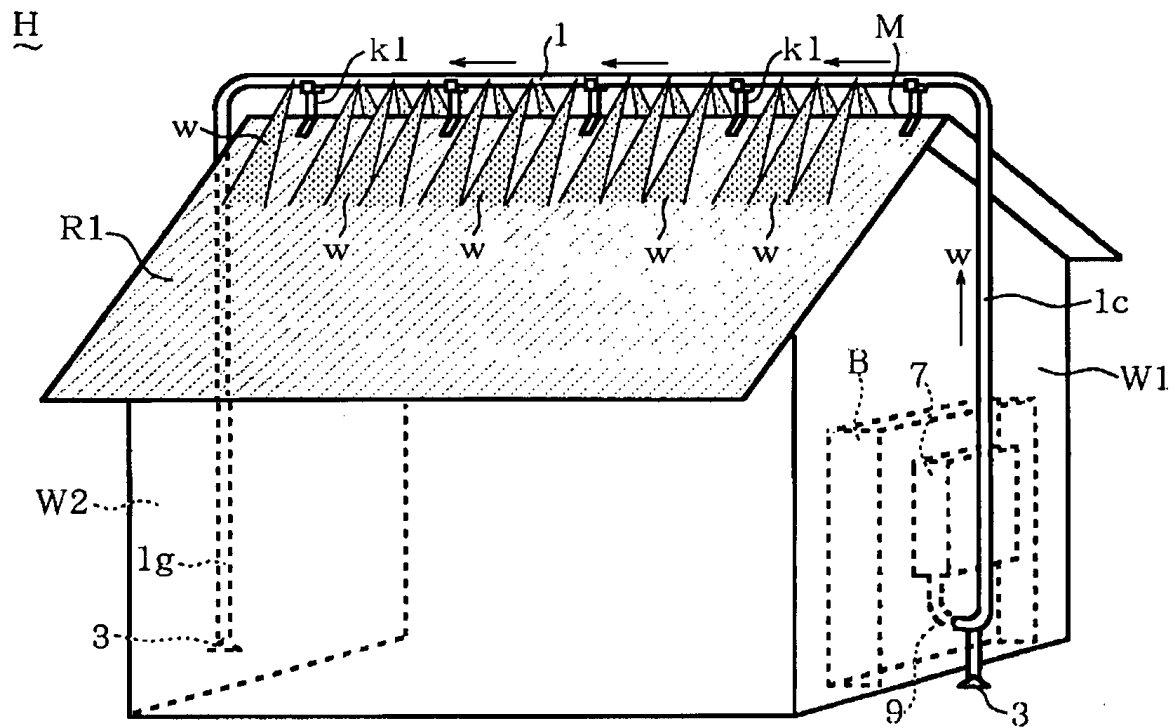
Family 29/35 - FAMPAT - ©Questel

#### Title

(EP1881127)

Snow removal device

#### Images



### Abstract

(EP1881127)

A snow removal device is provided for a building having sidewalls and a sloping roof with at least one of a ridge and a corner ridge. The snow removal device includes a hot water heater, a pressurization pump in fluid communication with the hot water heater, a connection pipe, a water discharge pipe connected to the hot water heater via the connection pipe, the water discharge pipe being configured to be installed in a direction along the ridge or the corner ridge, the water discharge pipe having horizontal or downwardly sloping water discharge apertures and downwardly facing water release apertures, the water discharge pipe being fixed to the building by brackets positioned to be higher than the ridge or the corner ridge.

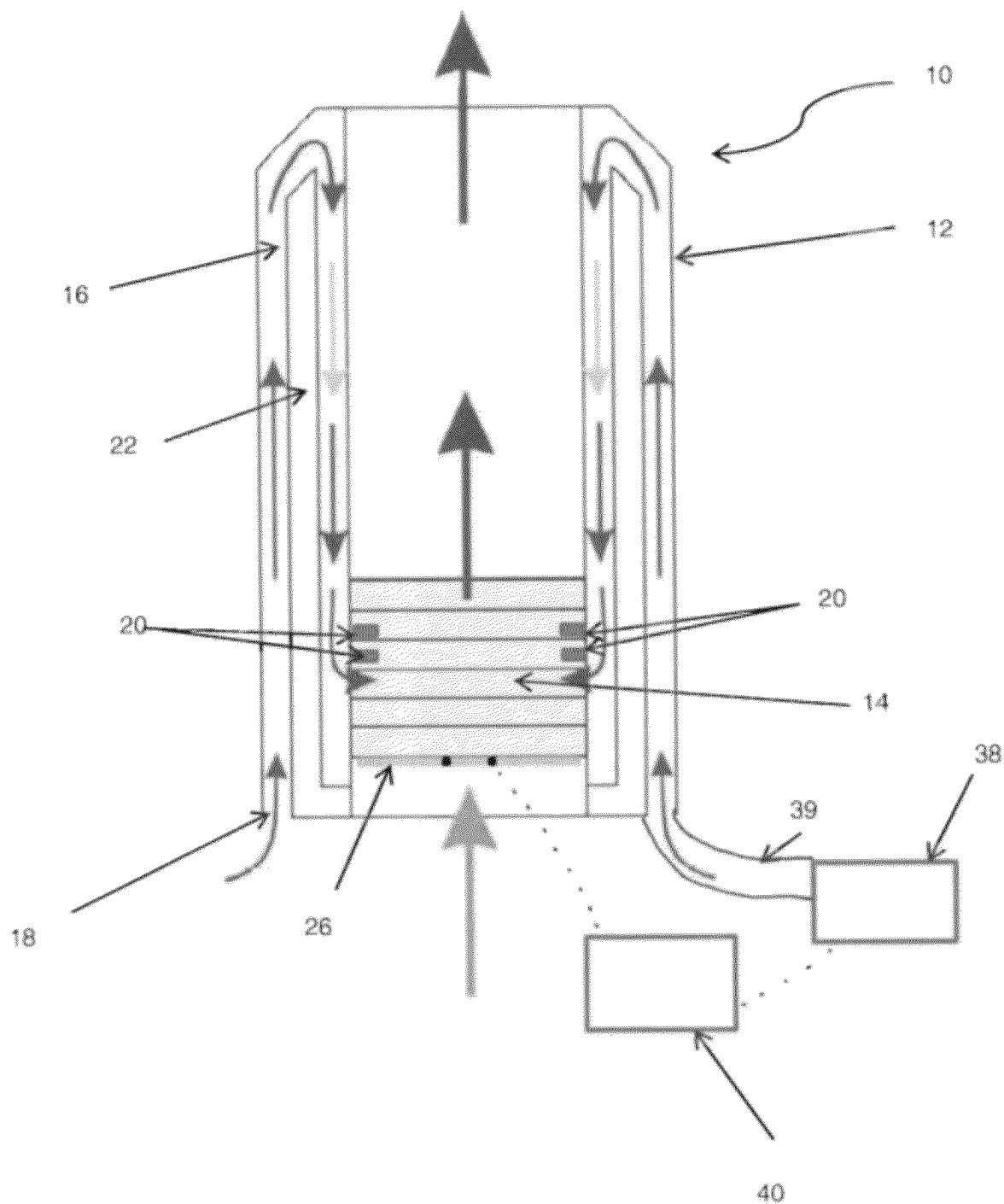
Family 30/35 - FAMPAT - ©Questel

### Title

(WO201227512)

Enhanced emission control for outdoor wood-fired boilers

### Images

**Abstract**

(WO2012/027512)

An emission control apparatus which can be used on an outdoor wood-fired boiler. Ambient air, which has a much higher concentration of available oxygen in relation to exhaust gases, is caused to be heated before being passed through catalyst-coated media along with exhaust gases, thereby improving the performance of the catalytic reaction.

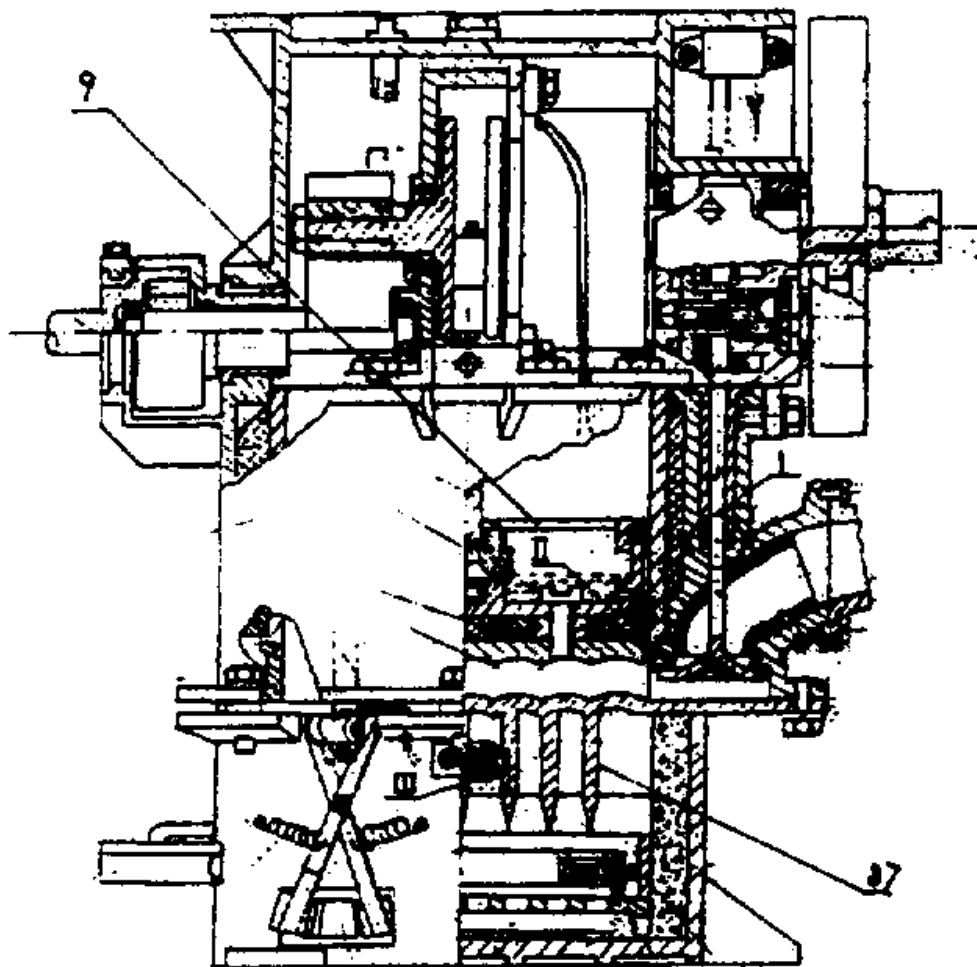
Family 31/35 - FAMPAT - ©Questel

**Title**

(CN1160819)

Temperature difference engine

**Images**

**Abstract**

(CN1160819)

The present invention discloses temp difference engine working on various heat sources including solar light, terrestrial heat, fuel, etc. It consists of cylinder, work producing piston, resistance-less condensator and heat conductor. Ethyl ether, 1-pentene, 1-butyne and other easy to gasify and liquefy matter are stored in condensator. Below the cylinder of engine, is installed heat absorbing element or transparent device with special structure. The present invention has medium capable of using circularly, and has wide heat source, simple structure, good energy-saving effect and no pollution.

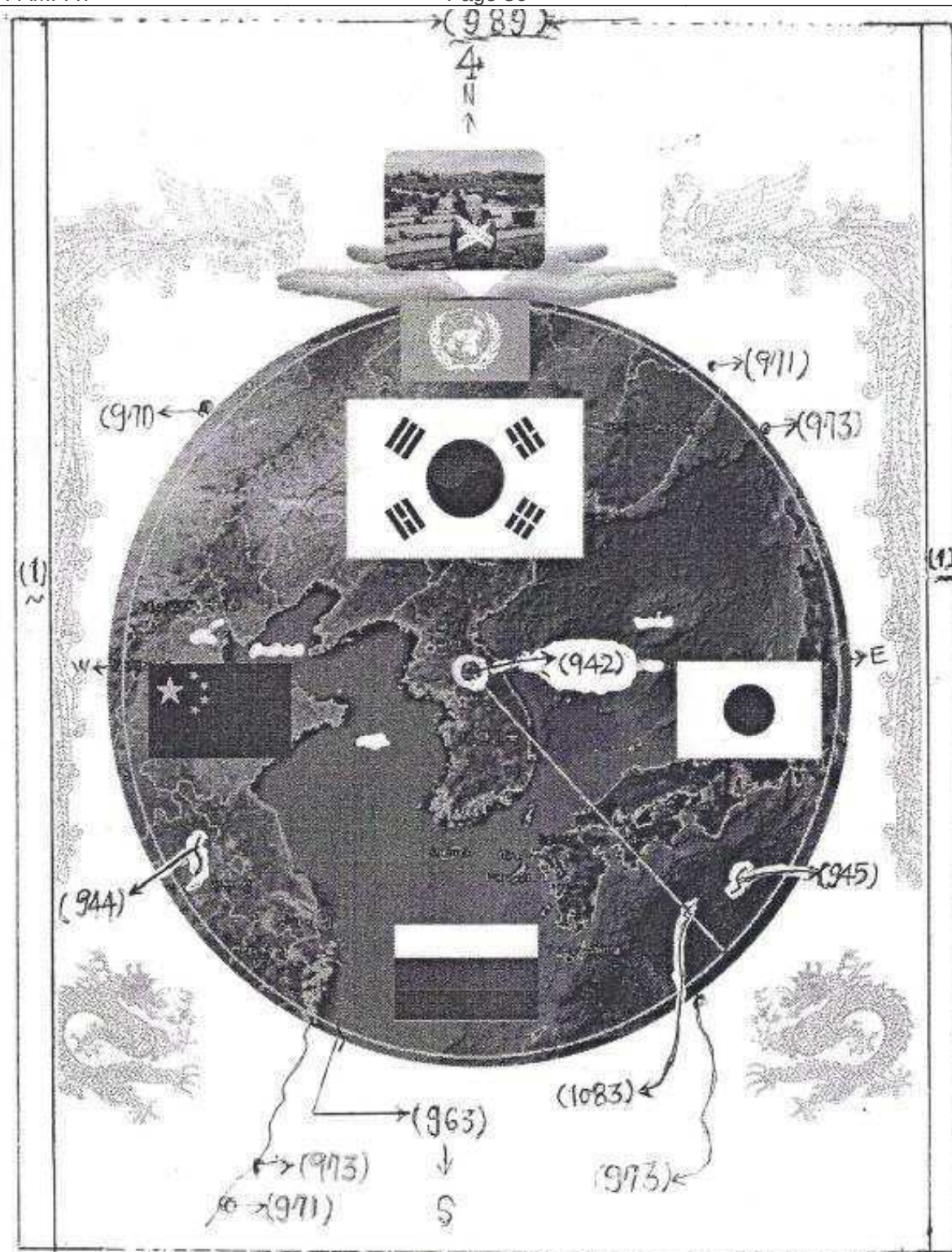
Family 32/35 - FAMPAT - ©Questel

**Title**

(KR20140005836)

Peace retained reclamation construction machinery processing unit which is equipped with

**Images**



### Abstract

(KR20140005836)

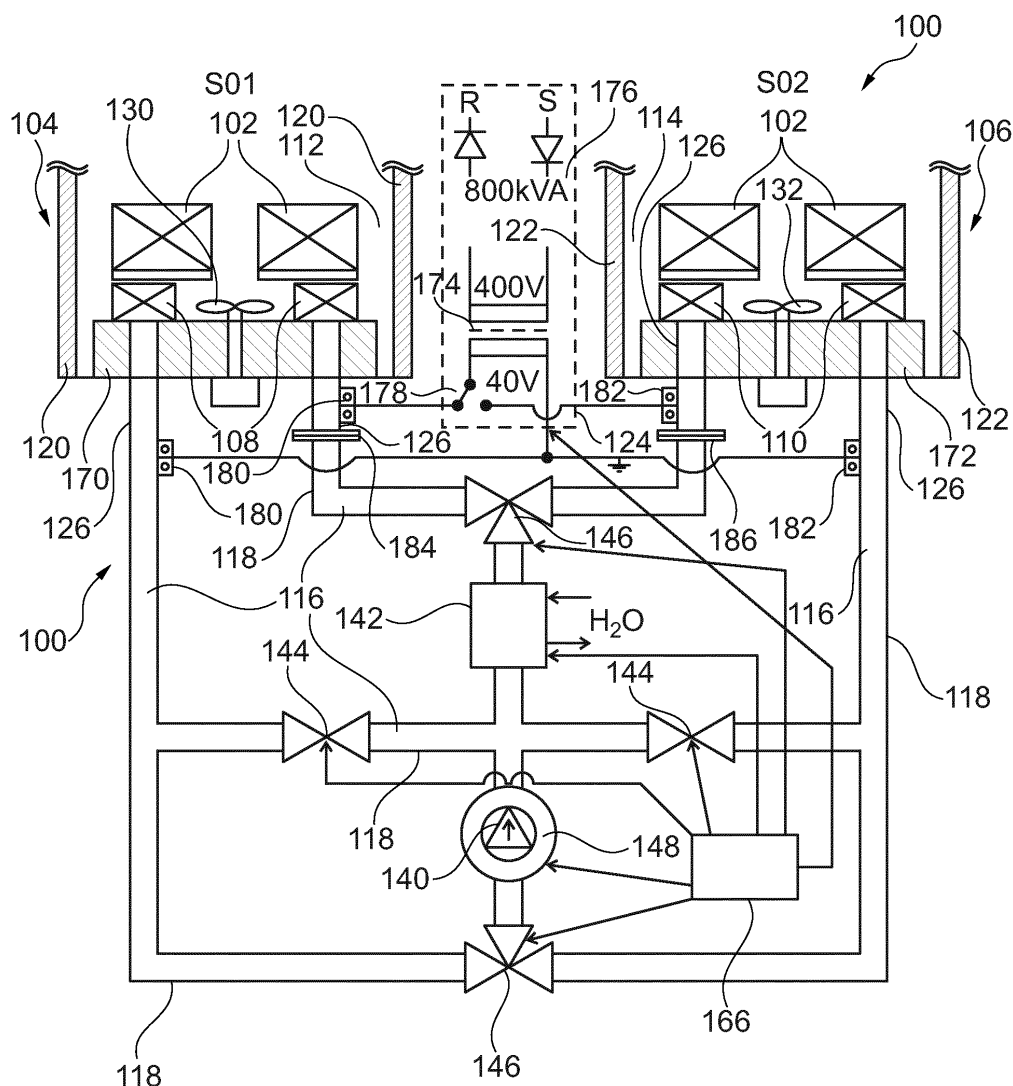
The present invention relates to a public waters reclamation device having a peace retained construction machine to promptly and efficiently prevent various natural disasters including large forest fires caused by droughts and floods on the land or around the sea, Asian dust, heavy snowfall, intense heat, typhoon, earthquakes and tidal waves, landslides, and radioactive contamination and various territorial disputes, wars, and terrorism based on the weather forecast of a National Weather Service which checks and analyzes weather data transmitted from a flood control device and an artificial satellite inside the body of the public waters reclamation device using reclamation devices having a nonpolluting natural energy construction machine, although a conventional technique has side effects due to a construction delay by executing a reclamation process using an engine which uses oil for operation.

Family 33/35 - FAMPAT - ©Questel

Title

(EP2791605)

Bell-type furnace with a heat dispensing device positioned within a protective hood, in particular fed by an energy source external to the furnace chamber, for dispensing heat to annealing gas

**Images****Abstract**

(EP2791605)

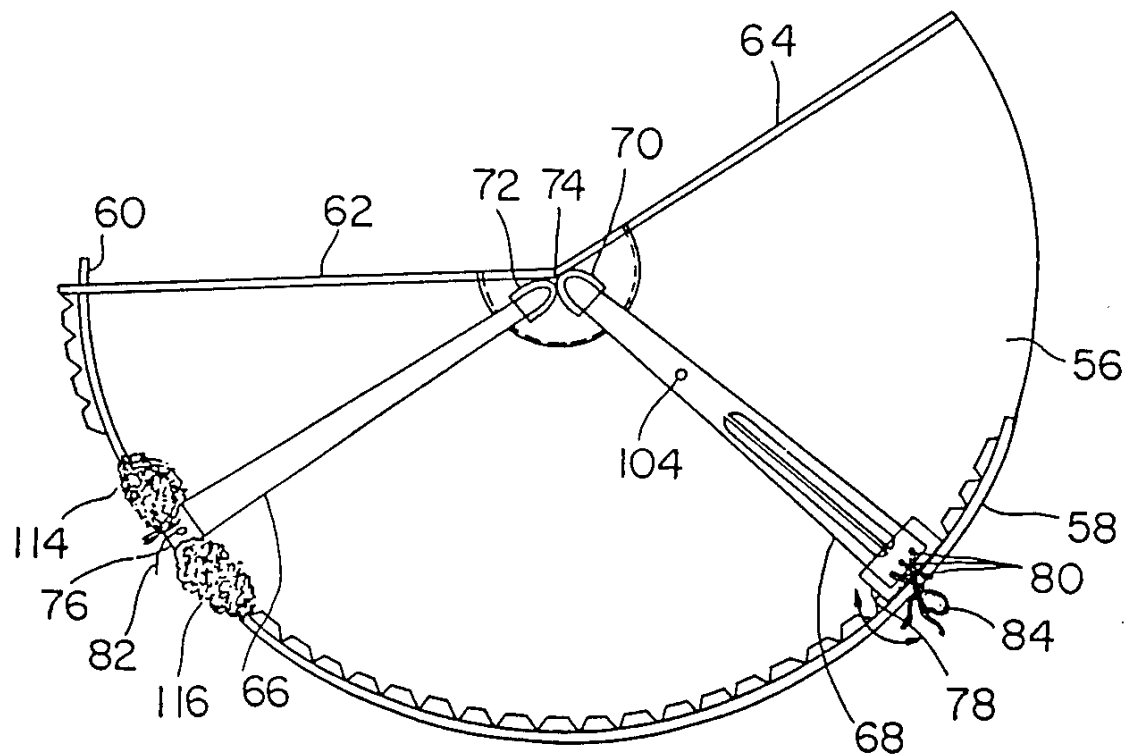
A furnace (100) for the heat treatment of annealing stock (102), wherein the furnace (100) has a closeable first furnace chamber (104) which is designed for receiving and for the heat treatment of annealing stock (102) by means of thermal interaction of the annealing stock (102) with a heatable or coolable first annealing gas (112) in the first furnace chamber (104), and a removable first protective hood (120) by means of which the first furnace chamber (104) can be closed. Furthermore, a first heat exchange device (108) which is at least partially located in the interior of the first furnace chamber (104) closed by means of the first protective hood (120) is provided for heat exchange with the first annealing gas (112) within the first protective hood (120). The heat exchange device (108) is arranged in such a manner relative to a first annealing gas ventilator (130) for driving the annealing gas that, in each operating state of the furnace (100), the annealing gas driven by the first annealing gas ventilator (130) energizes the heat exchange device (100).

Family 34/35 - FAMPAT - ©Questel

**Title**

(US4744381)

Center pole lodge

**Images****Abstract**

(US4744381)

A ventilating system for a tepee includes an uppermost portion of a wall of a tepee, a substantially horizontally disposed opening defined by a top of the uppermost portion, a support disposed above a center of the opening, and a cone-shaped cap having a vertex, a base and a pivot point located on a top side of the wall, wherein the pivot point is rotatably supported by the support and wherein a bottommost portion of the base, opposite from the pivot point, rests on an outer annular surface of the uppermost portion, such that the cap is rotatable about the support.

Family 35/35 - FAMPAT - ©Questel

**Title**

(KR101570665)

Flood disaster control system

**Images****Abstract**

(KR20120112315)

**PURPOSE:** A flood damage control system using the potential energy of water is provided to efficiently and rapidly treat a flood and drought according to a weather forecast using the pressure difference of water. **CONSTITUTION:** A flood damage control system(1) using the potential energy of water comprises circular water tanks or circular concrete dams(680), water tanks or concrete dams, multiple valves(409), pipelines, fire nozzles, floodgates, and channels(294). The circular water tanks or circular concrete dams are located at the tops of mountains. The water tanks or concrete dams are formed in the circular water tanks or circular concrete dams and stores water. The valves and the pipelines are connected to the water tanks or concrete dams. The fire hoses are located at portions of the pipelines. The floodgates and channels are formed in the concrete dams and fire fighting pumps.