The invention relates to a stove which is suitable for various kinds of gas pressure, comprising a stove embodiment and a gas stove head set up inside the stove embodiment connected by a gas pipe which is set up at an air outlet mouth of a pressure control valve of a gas tank. A control unit contains a valve base set up on the stove embodiment, the valve base having a hollow room and an air intake mouth connecting the hollow room, the air intake mouth is connected with a gas pipe so that the various kinds of pressure gas output from the pressure control valve can input into the room, a magnetic valve is set up in that room, consisting relatively to the air outlet mouth of the stove head air intake end to control if the gas in that room shall flow to the stove head by the air outlet mouth and for lighting to burn; an automatic lighting device is set up on the stove embodiment and electrically is connected with the magnetic valve so as to active the magnetic valve and light the stove.
STOVE SUITABLE FOR VARIOUS KINDS OF GAS PRESSURE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The invention relates to a gas stove, in more details it means a stove which is suitable for various kinds of gas pressure.

[0003] 2. Description of the Related Art

[0004] As shown in FIG. 1, prior high-pressure gas oven 1 in general consists of a stove embodiment 2 and a stove head 3. Stove head 3 is set up and connected with a pressure control valve (not shown on the drawing) of air outlet end of a gas tank. When it is being used, open the gas tank, adjust the outlet pressure of the pressure control valve and use a match or a lighting stick to light the stove head to make it burning and bake the food.

[0005] The above-mentioned high-pressure gas oven equipment need to be used a match or a lighting stick to light the stove head, but the way of lighting is a little inconvenient. Moreover, medium and high pressure gas oven is not equipped with a temperature sensor, and the design of an automatic fire extinguishing. Once the burning temperature of the stove head is too high and cannot decrease the temperature by an automatic fire extinguishing, there will be a possible danger to be happened in use.

[0006] Next, prior structure of the gas stove for family or business use generally consists of components such as a shell, several stove heads, and a gas switch. The gas switch is set up on the surface of the shell and connected with the stove head so as to make it move and flow the control gas into the stove head. When in use, turn the knob of the gas switch to make the gas flow into the stove head and light the stove. As usual, although the degree of the fire of the gas stove can be controlled and adjusted by the gas switch. Nevertheless, limited by the types of a gas switch (low, medium or high pressure gas switch), the degree of the stove fire has its maximum. In order to generate a big fire to be applied for fast frying and boiling food, the gas stove for business use has to adopt a medium and high pressure gas stove and a gas switch which is able to control the medium and high pressure gas, while the gas stove for family use generally adopts low-pressure gas and a low-pressure gas switch. In other words, either the gas stove for family use or business use cannot adapt to the gas without a pressure set-up so it has lower flexibility.

SUMMARY OF THE INVENTION

[0007] The main object of the invention is to offer a stove suitable for various kinds of gas pressure to solve the prior defects. It is suitable for various kinds of gas pressure and needs not use a match or a lighting stick to light the fire so it is much more convenient.

[0008] Another object of the invention is to offer a stove suitable for various kinds of gas pressure as well as the function of being equipped with a temperature sensor and an automatic fire extinguishing.

[0009] Thus, in order to achieve the aforementioned objects, the invention offers a stove suitable for various kinds of gas pressure, its features are and comprising a control unit contains a valve base set up on the stove embodiment, the valve base having a hollow room and an air intake mouth connecting the hollow room, the air intake mouth is connected with a gas pipe so that the various kinds of pressure gas output from the pressure control valve can input into the room, a magnetic valve is set up in that room, consisting relatively to the air outlet mouth of the stove head air intake end to control if the gas in that room shall flow to the stove head by the air outlet mouth and for lighting to burn; an automatic lighting device is set up on the stove embodiment and electrically is connected with the magnetic valve so as to active the magnetic valve and light the stove.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] Shown as follows, there are several better practical examples of the invention and in accommodation with figures to further describe in details as follows:

[0011] FIG. 1 is an operation schematic drawing of a usual high-pressure gas oven.

[0012] FIG. 2 is the 1st schematic drawing of a better practical example of the invention of the invention.

[0013] FIG. 3 is 3D combination drawing of the control unit of the 1st better practical example of the invention.

[0014] FIG. 4 is the 2nd schematic drawing of a better practical example of the invention of the invention.

[0015] FIG. 5 is the 3rd schematic drawing of a better practical example of the invention of the invention.

[0016] FIG. 6 is the 4th schematic drawing of a better practical example of the invention.

[0017] FIG. 7 is the 5th schematic drawing of a better practical example of the invention.

DETAILED DESCRIPTION OF THE INVENTION

[0018] First, as shown in FIG. 1 to FIG. 3, a better practical example of the invention stove 10 is suitable for various kinds of gas pressure. It contains a stove embodiment 12 and a stove head 13 set up in the stove embodiment 12. The stove embodiment 12 is a prior pattern of an oven. The stove head 13 is connected with a pressure control valve 16 of the air outlet mouth by a gas pipe 14 and set up at a gas tank 15. The pressure control valve 16 can control the pressure gas output from the gas pipe 14; the aforementioned each component and composition is the same as the prior gas oven equipment and there is no need to state in details. The features of stove 10 of the invention are and contain:

[0019] A control unit 17 is consisted of a valve base 22 and a magnetic valve 24. The valve base 22 is set up on the rack 25 of air intake mouth at the stove embodiment 12 relatively to the stove head 13, having a embodiment 26. On the embodiment 26 there indented with a hollow room 28 and at one end is penetrated with an air intake mouth 30 of a connecting room 28. The air intake mouth 30 is connected with a gas pipe 14. The magnetic valve 24 is a prior constant close-pattern magnetic valve placed inside the room 28. Its air outlet mouth 32 is for a gas nozzle 34 to be placed so that the gas can be injected in the stove head 13 by the gas nozzle 34.
An automatic lighting device 18 is a prior continual electric lighting device set up on the rack 25 and electrically connected with the magnetic valve 24. Its lighting stick 35 is set up by the stove head 13 so as to activate the magnetic valve 24 to work and light the stove.

In addition, the stove 10 further contains a temperature control device 19, including electrically connecting with a temperature set-up device 36 and a temperature sensor 38. The temperature set-up device 36 is set up on the rack 25 and electrically connected with an automatic lighting device 18 so as to be set and activate the temperature value of the automatic lighting device 18 to work. The temperature sensor 38 is set up by the stove head 13 so to sensor the burning temperature of the fire of the stove head 13 and send the signal back to the temperature set-up device 36.

Consequently, the methods of using of the stove 10 of the invention are as follows:

When the user wants to light the stove head 13, he has to turn on the gas tank 15 and adjust the pressure control valve 16 to the expected pressure. The high-pressure gas can be flowed into the room 28 and magnetic valve 24 by the gas pipe 14 and then press the button 39 on the automatic lighting device 18. Thus the magnetic valve 24 shall be driven and opened by the automatic lighting device 18 so that the gas is able to flow to the stove head 13 and be lighted by the electric arc generated by the lighting stick 35.

Next, if the user wants to avoid the burning temperature of the stove head 13 from being too high and lead to a dangerous situation, before he lights the stove head 13 or the stove head 13 burns, he can use the temperature set-up device 36 to set up a proper temperature. In this way, when the burning temperature of the stove head 13 detected by the temperature sensor 38 exceeds the set-up value the temperature set-up device 36 shall immediately send an electrical signal to the automatic lighting device 18 so that the automatic lighting device 18 shall send out a signal to stop the magnetic valve 24 and magnetic valve 24 shall be back to a close condition so that the gas shall no longer flow to the stove head 13 for burning.

Next, as shown in FIG. 4, the stove 40 is another better practical example of the invention. Its structure differs from that of the above stove 10 is: the stove embodiment 42 is a prior type of a gas stove embodiment. Its button 44 of the automatic lighting device and the button 46 of the temperature set-up device are set up on the cover of the stove embodiment 42. Thus, the ways of use of the stove 40 are stated as above. The user merely needs to press the button 44 to start the automatic lighting device and light the stove. In comparison with the prior gas stove's way of turning knob of the gas switch to start the stove to light the fire, the way of using the stove 40 is obviously more convenient. Moreover, whatever kind of gas pressure of the stove 40 (low, medium, or high pressure), the stove 40 can be used according to the above way of operation to control the gas to provide the stove head with burning and further generate different degrees of burning of the stove fire (the bigger the gas pressure is the fire of the stove is stronger), in comparison with the prior gas stove limited by the gas pressure, the types of gas switch (low, medium or high pressure gas switch), the usages of the stove 40 are obviously wider and with more practical value.

As further shown in FIG. 5, stove 50 is another better practical example of the invention. Its structure is generally the same as the stove 40. The difference is: it further contains a pressure control valve 52 and set up at the out part of the stove embodiment 54 and connected with the valve base (not shown in the drawing). In this way, the pressure control valve 52 can control the gas pressure of the magnetic valve that enters the valve base.

As shown in FIG. 6, stove 60 is another better practical example of the invention. Its structure is the same as the stove 10. The difference is: by the stove head 63 of the stove embodiment 62 there is set up with a prior empty-burning sensor device 64. The empty-burning sensor device 64 is electrically connected with the automatic lighting device 65. Its sensor end 66 can flexibly be connected at the bottom of a pot 67 on the stove embodiment 62. In this way, when the liquid in the pot 67 is emptyly burned into a dry condition without care, the double metal in the sensor end 66 shall be transformed by the heat and form a broken circuit condition so as to break the circuit of the automatic lighting device 65 and to stop the magnetic valve 68 from working and thus the gas shall not flow to the stove head 63 for burning and the fire will be extinguished so as to maintain the safety in using a stove.

As shown in FIG. 7, stove 70 is another better practical example of the invention. The magnetic valve 74 on the valve base 72 valve 74 combines a pressure control valve 76 and is set up in the stove embodiment 78. Thus, the pressure control valve 76 can be used to control the gas pressure control into the valve base 72.

Known from the above, when the design of a control unit the stove of the invention as the mechanism of gas control applies to a stove, there is no need to use a match or a lighting stick to light the fire and it is equipped with functions of a temperature sensor and an automatic fire extinguishing. And when the stove applied to a gas stove. The way of lighting is more convenient, besides it is suitable for various kinds of gas pressure. It usages are wider and more practical than the prior gas stove.

What is claimed is:
1. A stove suitable for various kinds of gas pressure, its features are and comprising:

   a control unit contains a valve base set up on the stove embodiment, the valve base having a hollow room and an air intake mouth connecting the hollow room, the air intake mouth is connected with a gas pipe so that the various kinds of pressure gas output from the pressure control valve can input into the room, a magnetic valve is set up in that room, consisting relatively to the air outlet mouth of the stove head air intake end to control if the gas in that room shall flow to the stove head by the air outlet mouth and for lighting to burn;

   an automatic lighting device is set up on the stove embodiment and electrically is connected with the magnetic valve so as to activate the magnetic valve and light the stove.

2. The stove as defined in claim 1, wherein, there is an embodiment on the valve base, the room is set up on the embodiment, the air intake mouth is penetrated and set up at one end of the embodiment.
3. The stove as defined in claim 1, wherein, further contains a temperature control device, which is electrically connected with an automatic lighting device and a stove head so as the temperature value can be set up and activate the automatic lighting device to work and sensor the burning temperature of the stove head.

4. The stove as defined in claim 1, wherein, further contains a rack which is set up on the stove embodiment relatively to the stove head, the control unit and the automatic lighting device are set up on the rack.

5. The stove as defined in claim 1, wherein, the magnetic valve is a prior close-type magnetic valve.

6. The stove as defined in claim 1, wherein, further contains a pressure control valve, which is set up on the outer part of the stove embodiment and connected with the valve base so as to control the gas pressure that flows into the magnetic valve.

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