

Stove Valve



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BACKGROUND OF THE INVENTION

1) FIELD OF THE INVENTION

5 The present invention relates to a stove valve for controlling the air and the gas flow.

2) DESCRIPTION OF THE PRIOR ART

 Usually, stove valves are divided into two types, one for controlling the gas flow and the other for controlling the air flow. For conveniently controlling
10 the mixture ratio between the gas and the air, the pipe diameter of the gas valve is smaller and that of the air valve is larger; the ratio between the two pipe diameters approximately equals to the mixture ratio between the gas and the air.

 As indicated in FIG. 1, the structure of a conventional valve has a gas valve (10) and an air valve (11) respectively installed in a gas pipeline (20) and
15 an air pipeline (30); both the gas valve (10) and the air valve (11) have rotary grips (12) to control the rotation of the plug bodies inside the valves for opening the valve the gas or the air to run; when using this structure to control, the rotary grips (12) of the gas valve (10) and the air valve (11) have to be rotated one by one for opening and closing the valves; that is not very
20 convenient; in addition, the incorrect flow control of the said two valves

usually obstacles the combustion or safe combustion of the gas and thereby causing dangerous situation.

SUMMARY OF THE INVENTION

The objective of the present invention is to provide a stove valve
5 capable of using a mono-movement to synchronously control the on/off of two
valves; wherein, a first valve and a second valve are fastened as one unit; the
first valve has a pull rod and a first plug body while the second valve has a
second plug body; a drive shaft controls the synchronous movement between
the first and the second plug bodies; pulling the pull rod synchronously open
10 the said two valves for convenient operation and furthermore, for safely
maintaining a correct mixture ratio between the gas and the air.

To enable a further understanding of the structural features and the
technical contents of the present invention, the brief description of the drawings
below is followed by the detailed description of the preferred embodiment.

15 BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a schematic drawing of the assembly of the structure of a
conventional stove valve and the pipelines thereof.

Figure 2 is a schematic drawing of the perspective and external view of
an exemplary embodiment of the present invention.

Figure 3 is a drawing of an exemplary embodiment of the present invention in an opened state.

Figure 4 is a drawing of an exemplary embodiment of the present invention in a closed state.

5 Figure 5 is a schematic drawing of the perspective and external view of another exemplary embodiment of the present invention.

Figure 6 is a drawing of another exemplary embodiment of the present invention in an opened state.

Figure 7 is a drawing of another exemplary embodiment of the present
10 invention in a closed state.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIGS. 2, 3 and 4, the present invention comprises a first valve (40) and a second valve (50) respectively assembled with a gas pipeline (20) and an air pipeline (30); wherein, a first plug body (41) is disposed inside
15 the first valve (40) for controlling the gas flow; the top portion of the first plug body (41) extends upwards via a first drive shaft (42) to connect with a pull rod (43); the pull rod (43) rotates to control the rotation of the first plug body (41); the bottom end of the first plug body (41) connects with a second drive shaft (44) extending downwardly to the outside; a plurality of first fastening
20 members (45) are disposed on the first valve (40); a second plug body (51) is

disposed on the second valve (50) to connect with the second drive shaft (44); a plurality of second fastening members (52) are disposed on the second valve (50) opposite the first fastening members (45) for fastening the first valve (40) and the second valve (50) as one unit.

5 Referring to FIGS. 3 and 4, after assembling both the pipelines (20, 30), the user only has to pull the pull rod (43) located on the first valve (40) to synchronously control the on/off of the first valve (40) and the second valve (50) for a considerably convenient and fast operation.

Referring to FIGS. 5, 6 and 7, the another exemplary embodiments of
10 the present invention, when the structures of the first and the second valves (40, 50) change to cause the displacements of the angles of the plug bodies (41, 51) change (at 90° or 180°), a wheel train (53), such as a gear or a chain wheel, is used to for cooperatively change the rotative speed thereof; therefore, when the first and the second valves (40, 50) are opened, a correct ratio between the gas
15 and the air flow can be maintained for achieving the same effect.

When in use, the present invention utilizes the difference between the gas pipeline and the air pipeline to make the flow of the gas and the air to maintain at a certain ratio, so that the user only has to pull the pull rod to synchronously control the on/off of the two valves; the present invention is not

only convenient and fast in operation, it further maintains a correct mixture ratio between the gas and the air for preferred safe operation.

It is of course to be understood that the embodiment described herein is merely illustrative of the principles of the invention and that a wide variety of
5 modifications thereto may be effected by persons skilled in the art without departing from the spirit and scope of the invention as set forth in the following claims.

CLAIMS

1. A stove valve comprising a first valve and a second valve respectively assembled with a gas pipeline and an air pipeline; wherein, a first plug body is disposed inside the first valve for controlling the gas flow; the top portion of the first plug body extends upwardly via a first drive shaft to connect with a pull rod; pulling the pull rod controls the rotation of the first plug body; the bottom end of the first plug body connects with a second drive shaft extending downwardly to the outside; a plurality of first fastening members are disposed on the first valve; a second plug body is disposed on the second valve to connect with the second drive shaft; a plurality of second fastening members are disposed on the second valve opposite the first fastening members for fastening the first valve and the second valve as one unit.
2. A stove valve according to Claim 1, further comprising a wheel train disposed between the first plug body of the first valve and the second plug body of the second valve for changing the ratio of rotative speed when the structural states of the said two valves are different.