

“VALVE WITH ECONOMY DEVICE AND GAS FLOW INTERRUPTION IN CASE OF FIRE ON THE HOSE”

This patent describes a device used to interrupt gas flow with a metallic ring that reduces gas flow to the stove, acting as an economy device. The gas flows in plastic hoses that are exposed to high temperatures and tend to be damaged. Sometimes a fire can occur; this device is intended to preserve safety by interrupting the gas flow. It is connected to the flow-regulating valve on the gas cylinder. The valve with the metallic ring with the economy and flow reduction device allows the gas to flow; the nylon string that strains the spring opens inside the system and is resistant enough to allow the gas to flow freely inside the hose; it closes when the hose is breaking or being damaged by high temperatures or by fire. Below is a detailed description of the valve, referencing the drawings attached.

DRAWING 1: shows a cross-sectional view of the valve with the device assembled and open.

DRAWING 2: shows a cross-sectional view of the valve with the device being closed due to a fire on the hose.

According to the drawings, the VALVE WITH ECONOMY DEVICE AND GAS FLOW INTERRUPTION IN CASE OF FIRE ON THE HOSE. The valve is made of metal and has lathed, cylindrical parts with male and female bolts; the aluminum ring (1) is mounted on a lower end of the hose (3), which is connected to the flow-regulating valve (4) with a male bolt, and a metallic ring with a flow and economy device (2) is placed inside the lower end of the hose (3) that is connected to the flow-regulating valve; next comes a cylindrical metal tube with female bolts (7) that is attached to the long burner with a male bolt (9) and has a hole (15) for gas to flow, which is connected to the upper hose (3), fixed by an aluminum ring (1) to complete the system; the inside of the cylindrical metallic tube (7) comprises a conic needle with a protuberance and a hole (6) to attach the galvanized metallic wire (10) with a pressure glove (11) to connect the galvanized metallic string (10) to the nylon string (12); still in the needle with a protuberance and a hole (6), a seal ring

(5) is introduced; going to the upper end of the hose (3), a metallic spool (14) is attached with a female bolt, with a side hole for the string (10) to pass, which is fixed with a screw (13) with a hole to allow gas to flow; the aluminum ring (1) is attached to the upper outside of the hose (3) to attach the inside
5 spool (14) that supports the strain of the pressure spring (8) to the galvanized wire, (10) and the metal glove (11) to the nylon string (12) so that gas can flow freely inside the hose (3).

CLAIMS

VALVE WITH ECONOMY DEVICE AND GAS FLOW INTERRUPTION IN CASE OF FIRE ON THE HOSE

CHARACTERIZED BY a metallic valve with a device, it
5 comprises a cylindrical tube with a female bolt and burners with male bolts
and ends to be connected to the hose; with a flow-reduction and gas economy
ring, the flow-interruption device inside the valve is activated when there is a
fire on the hose. An aluminum ring (1) on the lower end of the hose (3)
connected to the flow-regulating valve (4) and a metallic ring with a flow and
10 economy device (2) inside the lower end of the hose (3) connected to the
cylindrical tube with a female bolt (7) and to the long burner with a male bolt
(9) with a hole (15) for gas to flow and over the long burner (9) is attached to
the hose (3), which is fixed by the aluminum ring (1) inside the cylindrical tube
with a female bolt (7) and comprises a pressure spring (8) over the needle
15 with a protuberance and hole (6) with the seal ring (5) with a galvanized metal
wire (10) to be attached to the hole in the conic needle with a protuberance
(6), which is strained by the nylon string (12) connected by a metal glove (11)
to the galvanized wire (10) up to the upper end of the hose (3), which goes
through a side hole on the spool with a female bolt (14) and opens the needle
20 with a protuberance and hole (6) with the seal ring (5), where the galvanized
wire (10) is blocked by the screw with a bolt and a inside hole to allow flow
(13), blocking the galvanized wire (10) to keep the valve open, which is
mounted on the upper side of the hose (3) with an aluminum ring (1) to
maintain gas flow.