Aug. 8, 1933. O. J. LEINS 1,921,762

GAS RANGE

Filed April 27, 1931

Fig. 1.

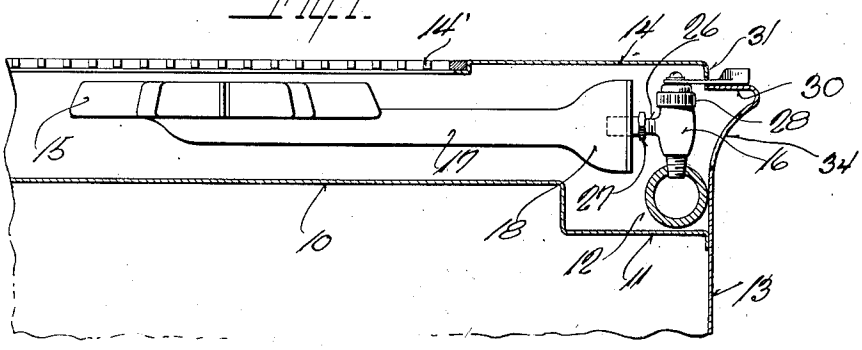


Fig. 2.

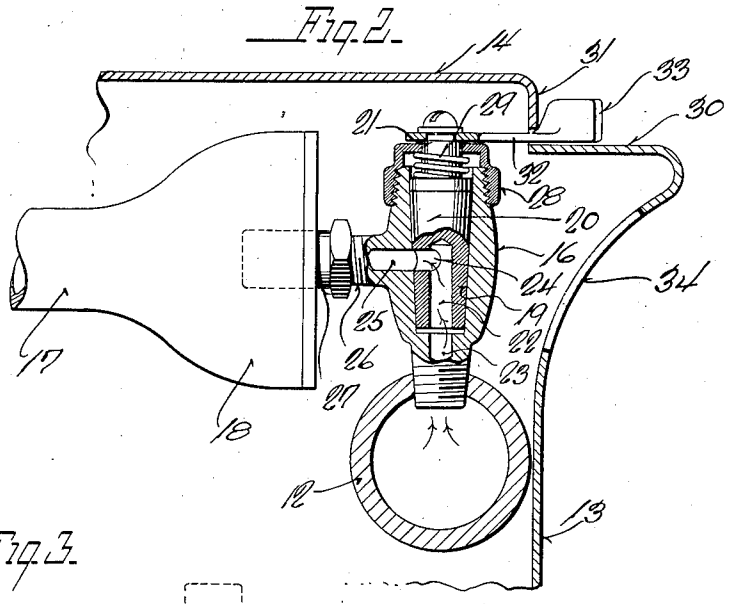
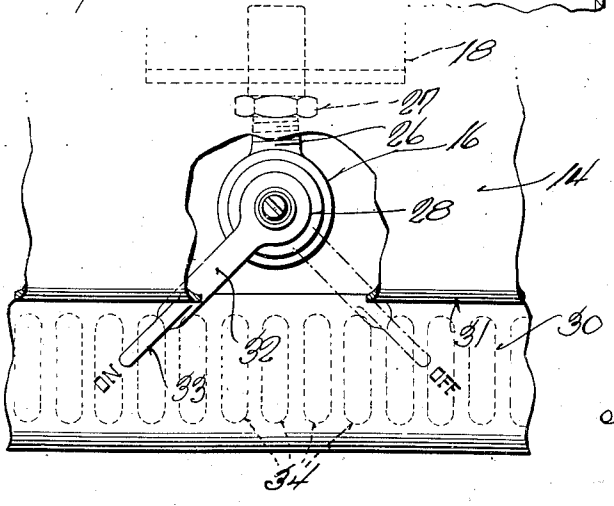


Fig. 3.



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Patented Aug. 8, 1933 1,921,762

UNITED STATES PATENT OFFICE

1,921,762

GAS RANGE

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Application April 27, 1931. Serial No. 533,199

4 Claims. (Cl. 126—39)

This invention relates to gas cocks for gas ranges in which the valves are wholly enclosed. In prior structures of this nature, of which the Chilman Patent No. 1,748,205 of February 25, 1930, is representative, the gas cocks are horizontally disposed beneath the gas feed, or stringer pipe above and outwardly of the stove front. When in operation the heat from the burners breaks down the grease or other lubricating medium and causes their plugs to bind. This condition is aggravated when the cocks are mounted in a horizontal position, for not only does the grease, while in a fluid state, flow from the cocks easier, but the taper of the plug would permit gravity to loosen it in the event the spring fails.

It is therefore an object of this invention to eliminate these objectionable features by providing a gas cock assembly and mounting therefor, with respect to a gas range, wherein the plug is mounted in an upright position so that it is acted on uniformly by gravity to retard the loss of lubricant and minimize the deleterious binding.

Another object of this invention is to provide a gas cock assembly and mounting therefor, which enables the cock to be positioned in the path of a ventilating current of air entering the chamber in which the cocks are located.

With the above and other objects in view which will appear as the description proceeds, my invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the hereindisclosed invention may be made as come within the scope of the claims.

In the accompanying drawing, I have illustrated one complete example of the physical embodiment of my invention constructed according to the best mode I have so far devised for the practical application of the principles thereof, and in which:

Figure 1 is a vertical section through a gas range equipped with the novel gas cock structure of this invention;

Figure 2 is an enlarged vertical section of the gas cock mounting; and

Figure 3 is a fragmentary top plan view of the gas cock as shown in Figure 2.

Referring now more particularly to the accompanying drawing, the numeral 10 represents the upper portion of a gas range body which is stepped downwardly at its front to provide a shelf 11 accommodating the gas feed or stringer pipe 12 which extends across the front of the range. At its forward edge the shelf 11 bears against a front face plate 13 which is extended above the range body and is directed inwardly as at 14, to, with a grill 14', form the top of the range burner section. In the space between the upper portion 10 of the range body and the grill 14' one or more burners 15 are suitably mounted to be supplied with fuel from the stringer pipe 12 through a valve or gas cock 16 and a burner carried supply pipe 17 having a mixing chamber 18 at its outer end with which the gas cock is connected.

The gas cock 15 is mounted vertically by having its lower end threaded in the top of the stringer pipe 12 and its body is provided with a longitudinal tapered bore 19 to rotatably receive a tapered valve plug 20, provided with an axial handle receiving stem 21, extended above the cock body. The plug 20 is formed with an axial passage 22 opening to its lower end to communicate with an axial bore 23 extended from the bottom of the tapered bore 19 through the threaded lower end of the valve body by which the gas cock is connected with the stringer pipe. At its upper end the passage 22 communicates with a radial bore 24 in the plug which, when the plug is properly rotated, establishes communication between the axial plug bore 22 and a radial bore 25 provided through a nipple 26 formed on and extending laterally from the side of the cock body. The nipple 26 is externally threaded to mount a regulator 27 which, as is customary, projects into and forms a support for the mixing chamber 18 on the burner supply pipe 17 leading to the burner 15.

The plug is maintained properly seated in its tapered bore by a cap 28 threaded on the upper end of the cock body and providing a housing for an expansion spring 29 coiled about the valve stem 21 and bearing at its ends against the cap and the top of the plug.

The face plate 13 is flared upwardly and outwardly substantially from a point in approximately the horizontal plane occupied by the bottom of the cock body to a point disposed in the horizontal plane of the flat top of the cap 28, from which point it is directed inwardly in the plane of the cap top to form a guard shelf 30 terminating at its rear edge in a vertical wall 31 depending from the range top 14. The wall portion 31 is slotted to receive an actuator handle in the form of a flat lever 32 fixed to the plug stem 21 above the cap, and having its outer end vertically enlarged to form a head 33 by which

the lever is manipulated.

The flat top of the cap 28 and the guard shelf 30 provide a two point bearing for the handle lever, eliminating any danger of accidental bending and the shelf 30 extends forwardly sufficiently to prevent any access to the lever end 33 except from above.

The cock is thus entirely enclosed and the front wall of the enclosure provided by the face plate 13 has a plurality of slots 34 through which cool air is drawn into the enclosure, and as the cock is positioned in the direct path of such entering air, it is maintained comparatively cool. Hence, the breaking down of the lubricating medium by heat is effectively retarded.

What I claim as my invention is:

1. In a gas stove of the character described, a top plate for said stove, a face plate on the front of said stove, a step interposed between said top plate and said face plate, said step having an aperture through the vertical leg thereof, a valve mounted within the angle between said top plate and said face plate and adapted to control the flow of gas to a burner, an actuating handle for said valve movable in a horizontal plane projecting through said aperture and onto the horizontal leg of said step.

2. In a gas stove of the character described, a top plate for said stove, a front plate adjoining said top plate, there being a stepped portion directly adjacent the juncture of the top plate and the front plate, a valve mounted within the angle of said top and front plates and adapted to control the flow of fuel to a burner, an actuating handle for said valve projecting through an aperture in the stepped portion to overlie the horizontal portion of the step, and said front plate beneath the stepped portion being curved inwardly and provided with ventilating openings.

3. In a gas stove of the character described, a combined top and front plate having a horizontal top portion and a vertical front portion and bent to afford a step at the juncture of said front and top portions, the vertical riser of said step having an aperture therein, a valve mounted in the angle of said top and front portions and adapted to control the flow of fuel to a burner, an actuating handle for said valve projecting through the aperture in the vertical riser of the step with its outer end overlying the horizontal portion of the step, and said portion of the front plate directly beneath the step being provided with ventilating openings.

4. In a gas stove of the character described, a top plate for the stove provided with a downwardly stepped portion at its front edge, the vertical riser of said stepped portion having an aperture therein, a valve disposed beneath the top plate adjacent its stepped portion and adapted to control the flow of fuel to a burner and an actuating handle for said valve movable in substantially a horizontal plane and projecting through said aperture to overlie the horizontal portion of the step, said step being of sufficient depth and extending forward sufficiently far to preclude any portion of the actuating handle projecting above the plane of the top plate or beyond its front edge.

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