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GAS SUPPLY FOR AUXILIARY APPLIANCES

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Fig. 1.

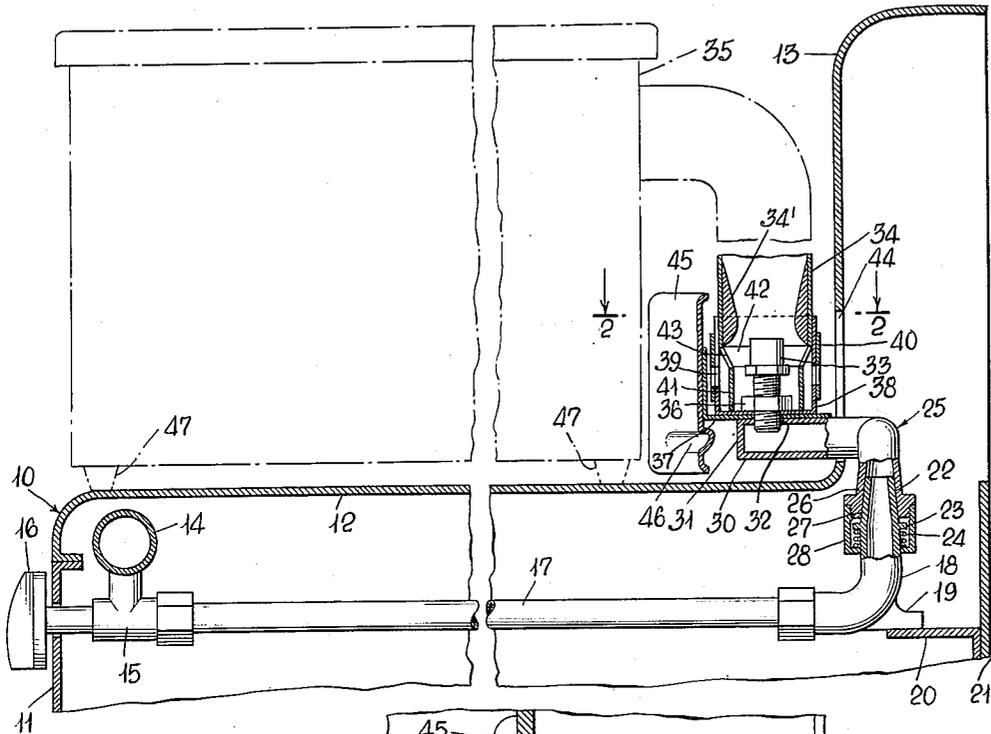
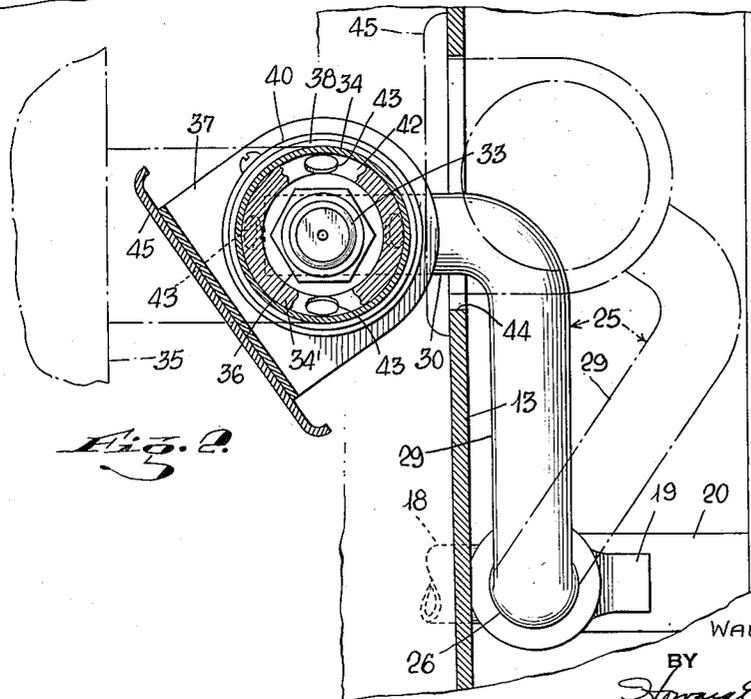


Fig. 2.



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GAS SUPPLY FOR AUXILIARY APPLIANCES

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9 Claims. (Cl. 126—39)

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This invention relates to gas stoves, ranges and the like. More particularly, the invention deals with a gas supply means for apparatus of this class to service an auxiliary appliance, such for example, as a broiler, oven or the like. Still more particularly, the invention deals with a gas supply means comprising movable parts coupled with a part of the range, so that the supply is normally concealed when not in use, and can be extended over the top of the stove or range to be accessible for use.

The novel features of the invention will be best understood from the following description when taken together with the accompanying drawing, in which certain embodiments of the invention are disclosed, and in which the separate parts are designated by suitable reference characters in each of the views; and in which:

Fig. 1 is a diagrammatic sectional view through the upper portion of a gas stove or range, illustrating my gas supply means for servicing an auxiliary appliance, with said means in operative position; and

Fig. 2 is a sectional plan view substantially on the line 2—2 of Fig. 1, and indicating the gas supply means in collapsed and concealed positions, in dot and dash lines.

In gas stoves or ranges, as conventionally constructed, no means has been provided to service an appliance used in conjunction therewith. It has been old to apply an auxiliary oven on top of a stove and heat the same by one of the conventional top burners of the range. It has also been known to service a portable gas burner through the medium of a flexible tube or hose.

The purpose of my invention is to provide a means for supplying gas so as to service an auxiliary appliance which can be arranged upon the top of the stove or gas range, the means being normally concealed within the wall structure of the range and adapted to be extended in position to facilitate coupling with the auxiliary appliance, such as a broiler, oven or the like.

In Fig. 1 of the drawing, I have diagrammatically outlined the upper portion of a gas stove or range 10, 11 representing part of the front wall, 12 the top wall and at 13 is shown a raised and hooded back wall portion which projects above the top wall 12. Such raised walls as the wall 13 are commonly employed in modern stoves or ranges. At 14 I have shown the normal gas supply pipe which supplies gas to the upper burners of the range, and with this pipe is coupled a valve 15 controlled by a knob 16

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disposed outwardly of the wall 11 for regulating the supply of gas to the horizontal pipe 17. Coupled with the rear end portion of the pipe 17, is an elbow-shaped fitting 18 having a projection 19 seating upon a bracket support 20 suitably fixed to a rear wall portion 21 of the range.

The fitting 18 terminates at its upwardly extended end in a conical or tapered portion 22, below which is an outwardly extending collar 23 forming a seat for a coil spring 24. At 25 is shown a tubular arm having a lower conical bore 26 fitting snugly on the conical portion 22, said end having an externally threaded portion 27 for reception of a sleeve nut 28 which acts upon the spring 24 to tensionally support the arm 25 in engagement with the fitting 18 while facilitating rotation of the arm around the fitting.

Extending from the end portion 26 is a horizontal part 29 on the arm, which terminates at its end in a right angle extension 30 having a closed end wall, as clearly seen at 31, in Fig. 1 of the drawing. The extension 30 is apertured, as seen at 32, to receive a nozzle 33 through which gas is discharged into a supply tube 34 of an auxiliary appliance, indicated in dot and dash lines at 35 in Fig. 1.

A nut 36 is mounted on the nozzle to secure the same to the end 30 of the arm, and also to secure a bracket 37 to the arm, as well as a cup 38. The cup 38 has a circumferentially spaced air passages 39 which are controlled and regulated by a conventional apertured and adjustable sleeve 40 in controlling air supply to govern the gaseous mixture passed through the tube 34 to the auxiliary appliance 35.

The lower end of the tube 34 is reduced in diameter, as seen at 41, to facilitate insertion into the cup 38, the reduced portion joining the tube in a bevelled wall 42, which wall has circumferentially spaced apertures 43, through which air is free to pass into the tube 34, preferably at a point adjacent the nozzle 33. It will appear from a consideration of Fig. 1, that the end of the tube 34 adjacent the bevel 42 fits snugly in the upper end portion of the cup 38.

The front wall of the hood 13 has a large aperture 44 through which the arm 25, together with the cup and the other parts attached to the arm, is free to swing from the dot-dash concealed position indicated in Fig. 2, to the projected position shown in full lines in Figs. 1 and 2.

The bracket 37 is secured to the inner surface

of a cover 45 considerably larger than the opening 44, and adapted to conceal this opening as well as everything rearwardly thereof, when the cover is in closed position, indicated in dot-dash lines in Fig. 2. The cover 45 also preferably has below the bracket 37, an indenture 46, note Fig. 1, which forms a finger-grip facilitating outward swinging of the cover together with the arm 25.

In the normal use of the gas stove or range, the cover 45 will be in closed position and the arm 25 disposed within the rear hooded part 13 of the range, thus the range can be fully and completely used for its normal purposes, without blocking any part of the surface thereof. Whenever it is desired to use an auxiliary appliance, such for example, as a broiler, of the type and kind disclosed in my prior application Ser. No. 787,239 of November 20, 1947, now Patent No. 2,572,870, all that is necessary, is to pull outwardly on the cover 45, which will swing the arm 25 into the full line position shown in Figs. 1 and 2, exposing the cup 38 for the reception of the tube 34 of the appliance 35. In other words, the appliance is simply placed downwardly on the top wall 12 of the range, the tube 34 being guided into the cup in this operation and the appliance can be supported between front feet, one of which is indicated in dot and dash lines at 47 in Fig. 1 of the drawing and the rear end will be supported by the lower end portion 41 of the tube 34.

Assuming that the air shutter 48 has been adjusted for proper air supply, the knob 16 can then be moved into position to supply gas to the nozzle 33 to ignite the broiler for use. When the broiler has served its purpose, it can be lifted from the top of the range and the door or cover 45 moved into its closed position, as indicated in dot and dash lines in Fig. 2 of the drawing. The lower end of the tube 34 has adjacent and slightly above the nozzle 33, the usual venturi 34'.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In gas ranges having a raised hood-like structure extending above the upper surface of the range at the rear thereof, said hood-like structure having a front wall with an opening therein, means comprising a horizontally swinging arm mounted in the range and normally contained within said hood structure and adapted to extend through the opening therein for providing a gas supply for an auxiliary appliance, said means including a valve controlled gas supply tube coupled with the conventional gas supply means of the range, said arm including a gas discharge nozzle, a bracket carried by said arm, a door on said bracket for closing the opening in said hood when the arm is in inoperative position, and said arm having a cup encircling said nozzle for the reception of a gas supply pipe of an auxiliary appliance.

2. In gas ranges having a raised hood-like structure extending above the upper surface of the range at the rear thereof, said hood-like structure having a front wall with an opening therein, means comprising a horizontally swinging arm mounted in the range and normally contained within said hood structure and adapted to extend through the opening therein for providing a gas supply for an auxiliary appliance, said means including a valve controlled gas supply tube coupled with the conventional gas supply means of the range, said arm including a gas discharge nozzle, a bracket carried by said arm,

a door on said bracket for closing the opening in said hood when the arm is in inoperative position, said arm having a cup encircling said nozzle for the reception of a gas supply pipe of an auxiliary appliance, and means comprising an adjustable shutter on said cup controlling air supply to said pipe around said nozzle.

3. In gas ranges having a raised hood-like structure extending above the upper surface of the range at the rear thereof, said hood-like structure having an opening therein, means comprising a swinging arm mounted in the range and normally contained within said hood structure and adapted to extend through the opening therein for providing a gas supply for an auxiliary appliance, said means including a valve controlled gas supply tube coupled with the conventional gas supply means of the range, said arm including a gas discharge nozzle, a bracket carried by said arm, a door on said bracket for closing the opening in said hood when the arm is in inoperative position, said arm having a cup encircling said nozzle for the reception of a gas supply pipe of an auxiliary appliance, means comprising an adjustable shutter on said cup controlling air supply to said pipe around said nozzle, and said pipe having a reduced end portion apertured for admission of air adjacent said nozzle.

4. In gas ranges having a raised hood-like structure extending above the upper surface of the range at the rear thereof, said hood-like structure having an opening therein, means comprising a swinging arm mounted in the range and normally contained within said hood structure and adapted to extend through the opening therein for providing a gas supply for an auxiliary appliance, said means including a valve controlled gas supply tube coupled with the conventional gas supply means of the range, said arm including a gas discharge nozzle, a bracket carried by said arm, a door on said bracket for closing the opening in said hood when the arm is in inoperative position, said arm having a cup encircling said nozzle for the reception of a gas supply pipe of an auxiliary appliance, means comprising an adjustable shutter on said cup controlling air supply to said pipe around said nozzle, said pipe having a reduced end portion apertured for admission of air adjacent said nozzle, and said cover having a finger-grip portion facilitating movement of the cover in swinging said arm into open position.

5. The combination with a gas range of the character described, of a supplemental gas service line having independent manually actuated control means, of a swinging arm constituting part of said means and supporting a gas discharge nozzle, said swinging arm facilitating movement of the nozzle end thereof into service and non-service positions, said arm having an apertured cup encircling said nozzle, an auxiliary appliance having a tube adapted to extend into said cup, the end of said tube having a reduced apertured portion providing circulation of air to the nozzle within the tube through the apertures of said cup.

6. In gas ranges having a raised hood structure extending above the upper surface of the range at the rear thereof, said hood structure having a front wall with an opening therein, means comprising a horizontally swinging arm mounted in the range and normally contained within said hood structure, said arm having an offset short end, said short end of the arm only being adapted to extend through the opening in

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said hood structure for providing a gas supply for an auxiliary appliance, said means including a valve controlled gas supply to be coupled with the conventional gas supply means of the range, and said short end of the arm including an upwardly directed gas discharge nozzle.

7. The combination with a gas range of the character described, of a supplemental gas service line having independent manually actuated control means, a horizontally swinging arm constituting part of said means, said arm having an angularly offset short free end, an upwardly extending gas discharge nozzle at the free end of said arm, said swinging arm facilitating movement of the nozzle end thereof into service and non-service positions, the free end only of said arm being movable through an opening in a wall structure of a range, and means faced to and carried by the short end of said arm forming a closure for said opening in the non-service position of the arm.

8. In gas ranges having a raised hood structure extending above the upper surface of the range at the rear thereof, a valve controlled gas supply tube having an end extending to a position beneath said hood structure, a fitting on said tube end, said hood structure having a front wall with an opening therein, means comprising a horizontally swinging arm mounted in the range and normally contained within said hood structure for providing a gas supply for an auxiliary appliance, said arm having an offset short end, said short end of the arm only being adapted to extend through the opening in said hood structure, said supply tube being adapted to be coupled with the conventional gas supply means of the range, said short end of the arm including an upwardly directed gas discharge nozzle, said swinging arm being coupled

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with said supply tube through said fitting, and said fitting having a conical portion on which the arm is swung.

9. In gas ranges having a raised hood structure extending above the upper surface of the range at the rear thereof, a valve controlled gas supply tube having an end extending to a position beneath said hood structure, a fitting on said tube end, said hood structure having a front wall with an opening therein, means comprising a horizontally swinging arm mounted in the range and normally contained within said hood structure for providing a gas supply for an auxiliary appliance, said arm having an offset short end, said short end of the arm only being adapted to extend through the opening in said hood structure, said supply tube being adapted to be coupled with the conventional gas supply means of the range, said short end of the arm including an upwardly directed gas discharge nozzle, said swinging arm being coupled with said supply tube through said fitting, said fitting having a conical portion on which the arm is swung, and tensional means maintaining the arm on the conical portion of said fitting.

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