Nov. 11, 1924. 1,515,067

J. C. OLSEN, JR

GAS RANGE

Filed May 31 . 1924

Fig. 1.

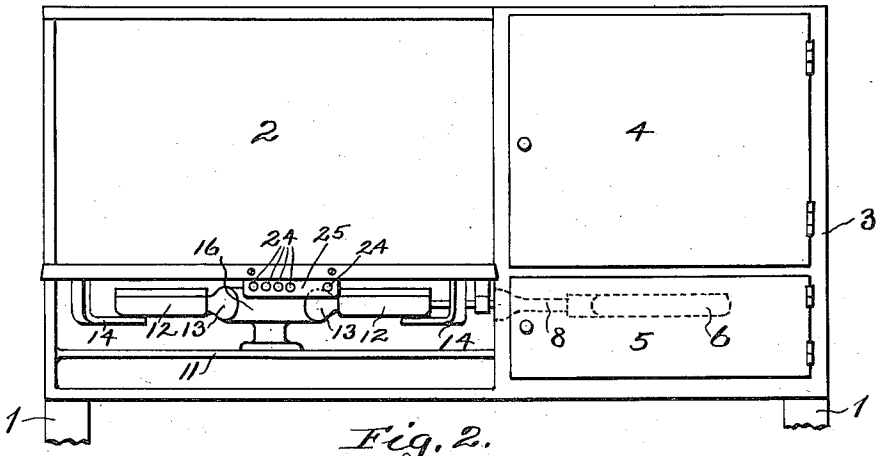


Fig. 2.

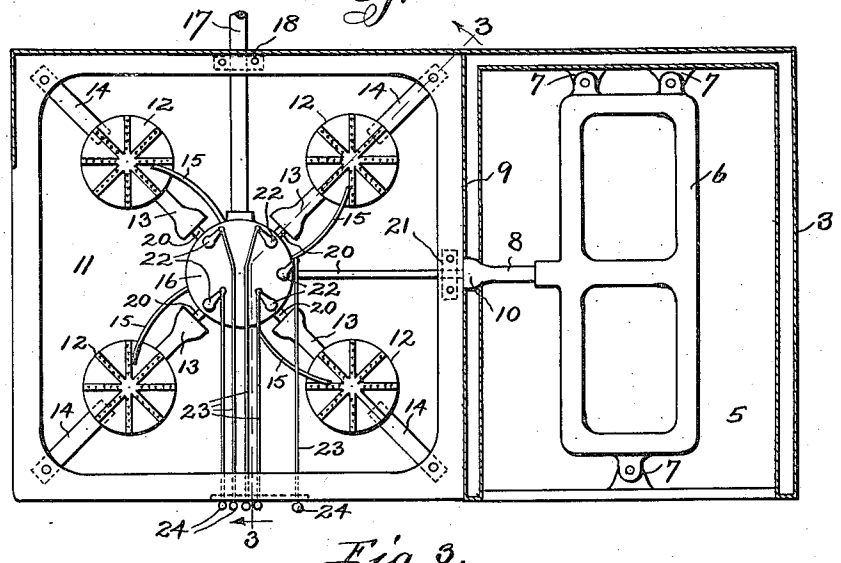
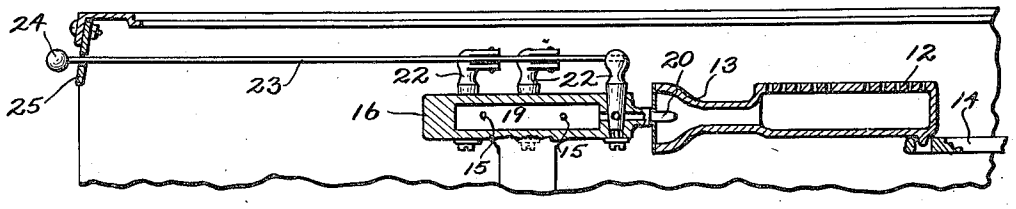


Fig. 3.



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UNITED STATES PATENT OFFICE.

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GAS RANGE.

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To all whom it may concern:

Be it known that I, JAMES C. OLSEN, Jr., a citizen of the United States, residing at North Aurora, in the county of Kane and State of Illinois, having invented certain new and useful Improvements in Gas Ranges, do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing.

In gas ranges the cooking-top is usually provided with a plurality of main burners and (when desired) with a relatively small simmering burner, which are supplied with gas from a gas-manifold arranged on either the front or one end of the range. Where such ranges are of the cabinet type having an upper baking-oven and a lower broiling oven arranged at one side of the cooking-top, the oven-burner is supplied with gas from such manifold by a suitable tube which in some stoves extends directly out of the oven to the manifold and in others extends through the side wall of the oven into the burner-box of the open-top section and terminates at the front thereof. In all these types of stoves the gas-manifold is located on the outside of the stove, being mounted beyond its area either at one end or at the front. This first arrangement is objectionable in that the manifold and the valve-connections at the end of the stove increase its length, and furthermore require space at the end of the stove for access to the burners so that the stove cannot be set close to a side wall of the room. The front manifold is objectionable as it necessarily increases the width of the stove, and when it extends in front of the oven-door as in some cabinet-ranges it is undesirable as when the door is opened the hot air from the oven enters the mixing-tube and interferes with proper combustion in the oven-burner, while the door when dropped interferes with access to the valve of that burner.

The object of my invention is to obviate these objections by providing a gas manifold and its valve-connections in the cooking-top having its feed pipe leading into the burner-box from the rear and its valve-handles at the front of the box. By such an organization I obtain, in addition to economy of manufacturing, the very important advantages in gas-ranges of this character of saving the amount of space otherwise taken up outside or beyond the confines or area of the stove by the manifold and the valve-connections, and of increasing the convenience and efficiency of the stove by grouping the operating parts for the supply valves for the various burners in compact relation at the center of the front opening of the burner-box.

For the purpose of illustrating my invention I have shown in the accompanying drawing one form or exemplification thereof which gives satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described. In the drawing Fig. 1 is a perspective view of a gas-range to which my improvements are applied with the top-grate or grid omitted for convenience of illustration; Fig. 2 is a plan view thereof partly in section, and Fig. 3 is a sectional view on the line 3—3 in Fig. 2.

As here shown, the reference numeral 1 designates the frame of the stove, 2 the open-top section, and 3 the oven section arranged at one side of the open-top and comprising an upper baking oven 4 and a lower broiling oven 5 having a suitable center-heat gas burner 6. The burner 6 is supported on suitable brackets 7 on the oven walls and its fuel-supply tube 8 extends through an opening in the side wall 9 of the oven-body with its air-mixer 10 suitably arranged in one end of the burner-box 11 of the open-top section. The burners 12 in the burner-box are of any suitable form of the usual blue-flame type having their feed-tubes 13 provided with air-mixers, and are supported in the plane of the oven-burner 6 by suitable removable supports 14 so that they can be readily lifted from place for cleaning purposes. In practice the top-burners 12 are preferably interchangeable, and each is provided with a pilot-light tube 15; in the form shown four top-burners are employed and are grouped around a central gas-manifold 16 which is mounted on the floor of the burner-box and is supplied by a main feed gas-pipe 17 extending out through the rear of the burner-box and suitably clamped to the frame thereof as at 18. The gas-manifold is preferably a circular casting and is formed with a gas-chamber 19 into which the feed pipe 17 leads and from which gas

nozzles or jets 20 lead into the air-mixers of the burners, the jet for the oven-burner 6 being suitably extended as shown and preferably supported at its free end by a suitable clamp 21. Each jet is governed by a valve or cock 22, and in the preferred embodiment of my invention each cock has an operating handle 23 extending out through the open-front of the burner-box and provided with a suitable knob or burner-indicator 24; these handles are supported in a group at their forward ends by a suitable bracket 25 attached to the underside of the top-frame at the center of the burner-box. The pilot-light tubes 15 of the top-burners 12 communicate with the gas-chamber 19 of the manifold, and if desired each may be governed by an appropriate valve to increase the pilot-flame momentarily when its associated burner is to be lighted.

By this organization the gas-manifold and its adjunctive parts are organized as a unitary construction which is located entirely within the area of the stove, and this unit organization also affords controlled fuel supply to the oven burner of ranges of the cabinet type, while the handles for all the gas-valves are grouped at the front of the burner-box.

I claim:

1. In a gas range, an open-top section having a burner-box, a gas-manifold located in the burner-box and provided with a plurality of jets, a cock on each jet and having an operating handle at the front of the burner-box, and gas-burners in the box having their supply tubes in alinement with the jets.

2. In a gas range, an open-top section having a burner-box, an oven-section at the side of said open-top section, a gas-manifold located in the burner-box, valves on the manifold having discharge jets, a plurality of burners in the box each having a supply tube in alinement with a jet, a gas-burner in the oven-section having a supply tube extending through the side wall of the oven in line with a jet, and valve handles extending to the front of the burner-box.

3. In a gas range, an open-top section having a burner-box, an oven-section at the side of said open-top section, a circular gas manifold located in the burner-box, valves on the manifold having radial discharge jets, a plurality of burners grouped in the box around the manifold and each having a supply tube in alinement with a jet, a gas-burner in the oven-section having a supply tube extending through the side wall of the oven in line with a jet, and valve handles grouped at the front of the burner-box.

In witness whereof I have hereunto affixed my signature.

JAMES C. OLSEN, JR.