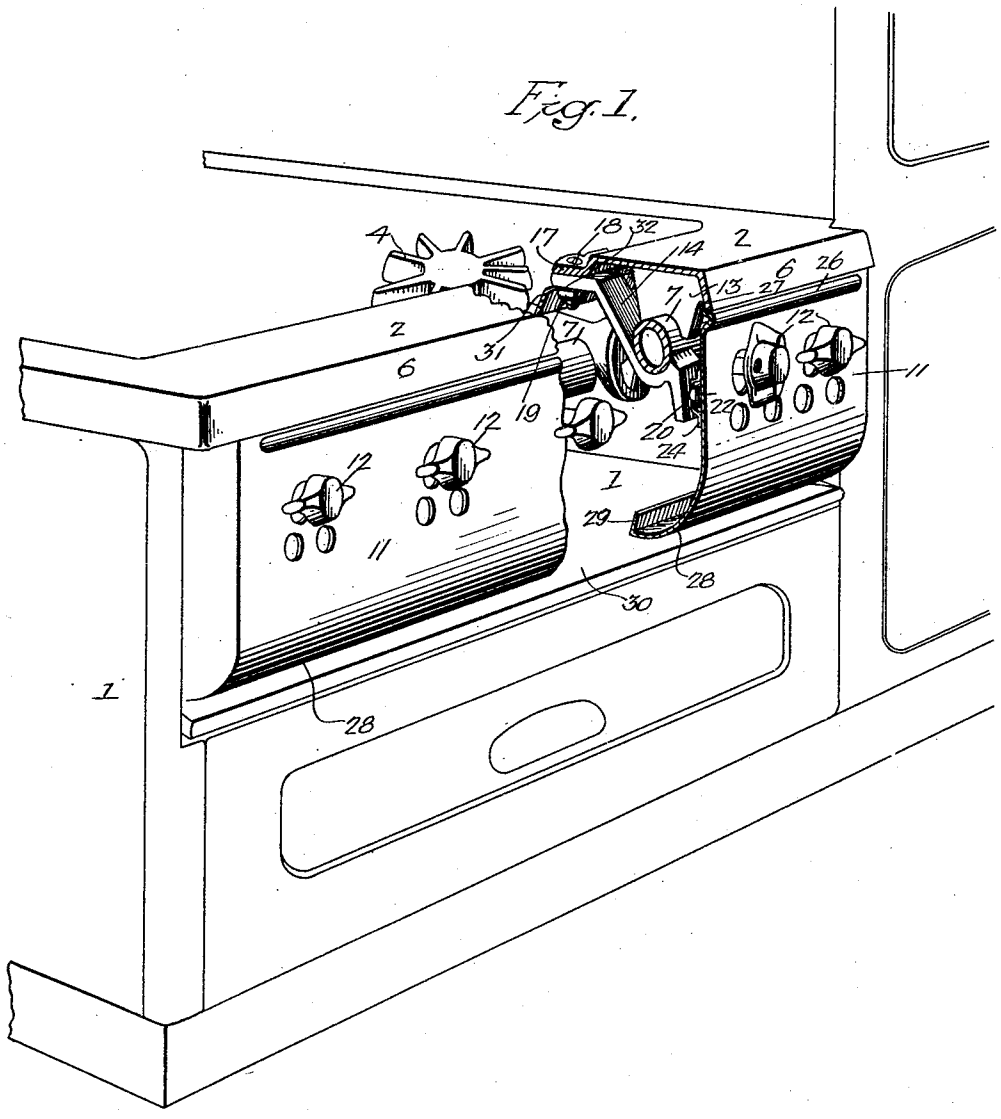
June 16, 1931. W. D. ANTRIM 1,810,810

GAS RANGE

Filed Jan. 14, 1930 2 Sheets-Sheet 1

Fig. 1.



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GAS RANGE

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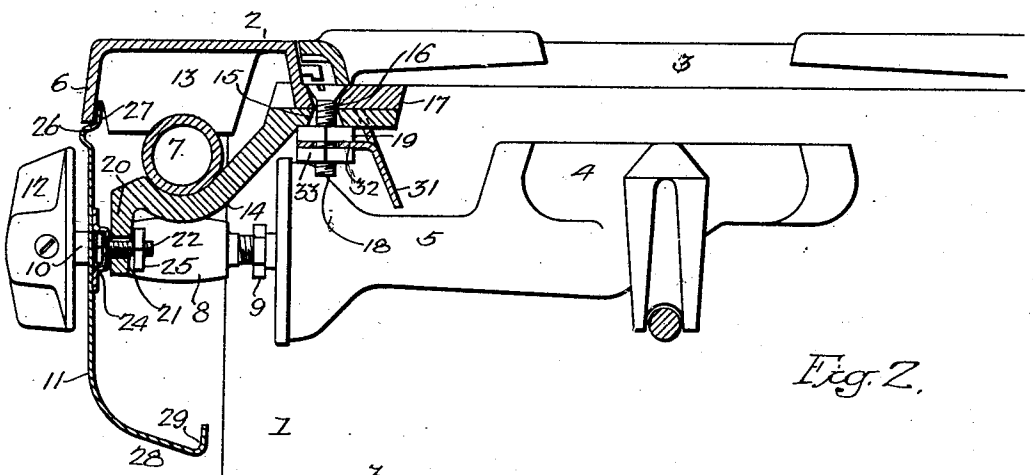


Fig. 2.

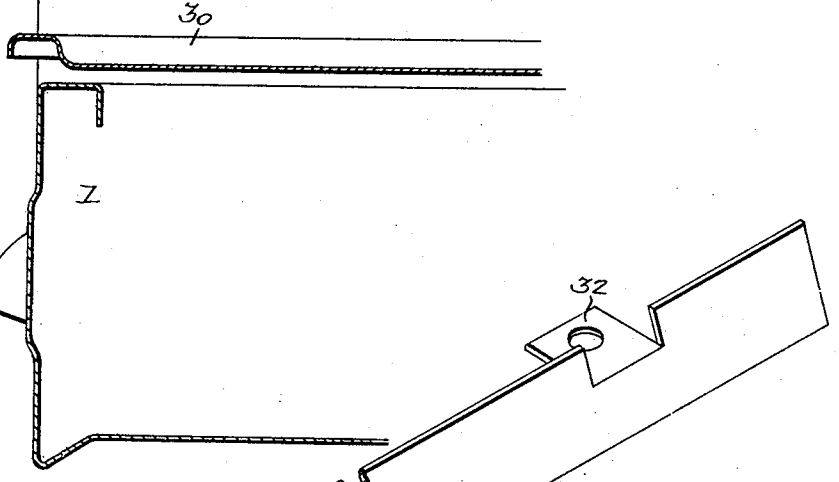
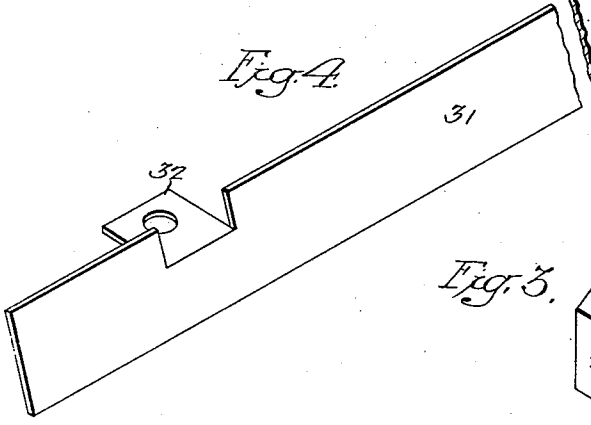


Fig. 4.



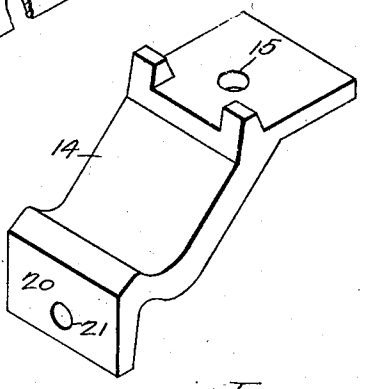


Fig. 3.

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UNITED STATES PATENT OFFICE

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GAS RANGE

Application filed January 14, 1930. Serial No. 420,716.

My invention relates to certain improvements in gas ranges of the type in which the manifold extends across the front of the range under the flange of the top plate, and in which a cover plate is firmly secured in position, which cover plate extends from the top plate to a point below the gas valves.

One object of my invention is to support the manifold and the front plate of a gas range from the top section of the range.

Another object of the invention is to secure the front plate to the manifold supporting bracket by means back of the front plate.

A further object of the invention is to provide a deflecting guard plate between the burner openings and the air inlet openings of the mixing chamber, which prevents back firing, and to secure this plate to the range by the same means that secures the supporting brackets to the top plate of the range.

The invention also relates to certain details which will be described hereinafter.

In the accompanying drawings:

Fig. 1 is a perspective view of sufficient of a gas range to illustrate my invention, parts being broken away to illustrate certain details;

Fig. 2 is a sectional elevation through the upper portion of the range, showing the bracket for supporting the manifold and the front plate;

Fig. 3 is a perspective view of one of the brackets; and

Fig. 4 is a detached perspective view of the deflecting plate.

Referring to the drawings, 1 is the body of the range, which may be of any suitable form. 2 is the top plate. 3 is the grating under which are burners 4. The grating is omitted in Fig. 1. The burner has a mixing chamber 5 which extends toward the front of the range, and at the end of this mixing chamber is the ordinary shutter for controlling the admission of air to the burner. The top plate 2 has a deep flange 6 at the front edge. Under the front edge of the top plate is a gas manifold 7, which is connected at one end to the gas supply. Connected to the manifold is a series of gas valves 8, having nozzles 9 which extend into the mixing chambers 5 of the burner. Each valve has a stem 10 which extends through a front plate 11 and on the outer end of each stem is a handle 12, by which the valve is turned.

Depending from the underside of the top plate 2 are lugs 13, which are recessed to receive the upper portions of the manifold 7. The manifold is held in position against the lugs 13 by brackets 14, which are curved to fit the lower portion of the manifold. The rear end of each bracket has a hole 15, which is in line with a hole 16 in the depressed portion 17 of the top plate, so as to receive a bolt 18 and on the bolt is a nut 19, which firmly secures the bracket to the top plate. Each bracket has a depending portion 20, in which is a hole 21. A bolt 22 has a head which is adapted to a socket 24 at the back of the front plate 11 and this bolt extends through the hole 21 in a depending portion of the bracket 14, and on this bolt is a nut 25, which secures the front plate firmly to the bracket. The front plate has a rib 26 at its upper end, which fits against the lower edge of the flange 6 of the top plate and has a portion 27, which fits back of the flange and between the flange and the lugs 13. The lower portion of this plate 11 is curved inwards as at 28 and has an upturned flange 29 at the lower edge. This lower edge of the plate 11 is in close proximity to the pan 30 of the range.

In the present instance there are two brackets 14 in the range shown in the drawings which support the manifold and carry the front plate and the fastenings for the front plate, which are at the back of the plate and inaccessible except on the removal of the grating 3 and the burners.

A deflecting plate 31 is located between the burner 4 and the air inlet of the mixing chamber 5, for the purpose of preventing the flame from the burner gaining access to the air inlets of the mixing chamber and causing back fire. This plate is slightly inclined as shown in Fig. 2 and is formed as shown in Fig. 4, a portion of the plate fitting under the top plate, and at points opposite the bolts 18 the plate is cut to form lips 32,

which are bent down and perforated for the passage of the bolts 18 and are secured to the bolt nuts 33, holding the plate rigidly in position.

I claim:

1. The combination in a gas range, of a top plate having a deep flange at its front edge; a manifold extending under the front edge of the top plate, back of the flange; valves connected to the manifold; two brackets secured to the top plate at a point back of the manifold, said brackets extending under the manifold and supporting the manifold; a separate front plate extending back of the flange of the top plate and extending inwardly at its lower edge, said front plate having openings for the stems of the valves, each bracket having a depending portion in which is a hole; bolts attached to the rear of the front plate and extending through the holes in the depending portions of the brackets; and a nut on each bolt, securing the front plate to the depending portions of the bracket.

2. The combination in a gas range, of a top plate having a flange at its outer edge; a manifold extending under the edge of the top plate; valves under the manifold and connected thereto; a burner back of each valve; brackets supporting the manifold; a deflector above the mixing chamber of the burner; bolts securing the deflector and the brackets to the top plate of the range, the upper edge of the front plate extending back of the flange of the top plate and having openings for the stems of the burners, each bracket having a depending portion, each depending portion having a hole therein; and bolts extending through the holes in the depending portions and attached to the rear of the front plate.

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