Nov. 2, 1948. W. BAUER 2,452,715

CONCEALED VENTING MEANS FOR STOVES

Filed May 22, 1946 2 Sheets-Sheet 1

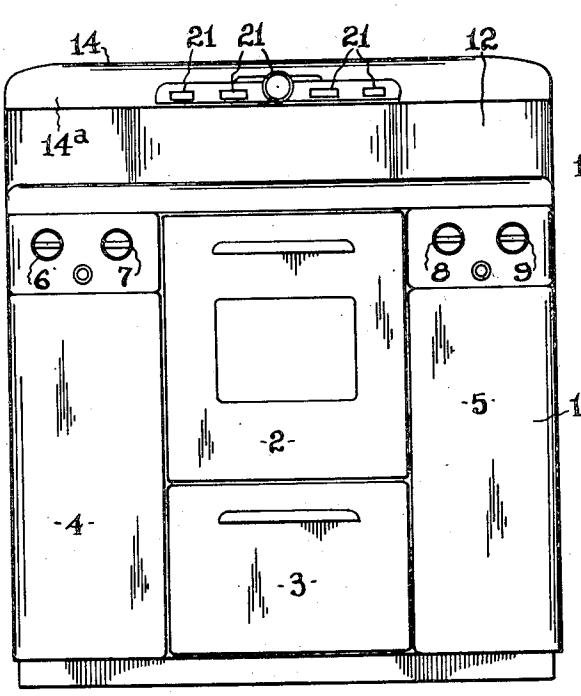


FIG. 1

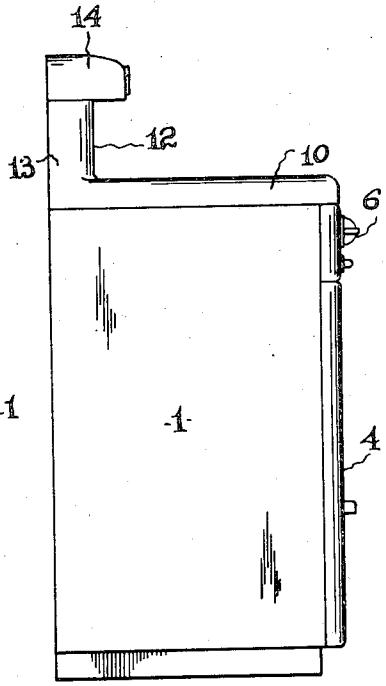


FIG. 2

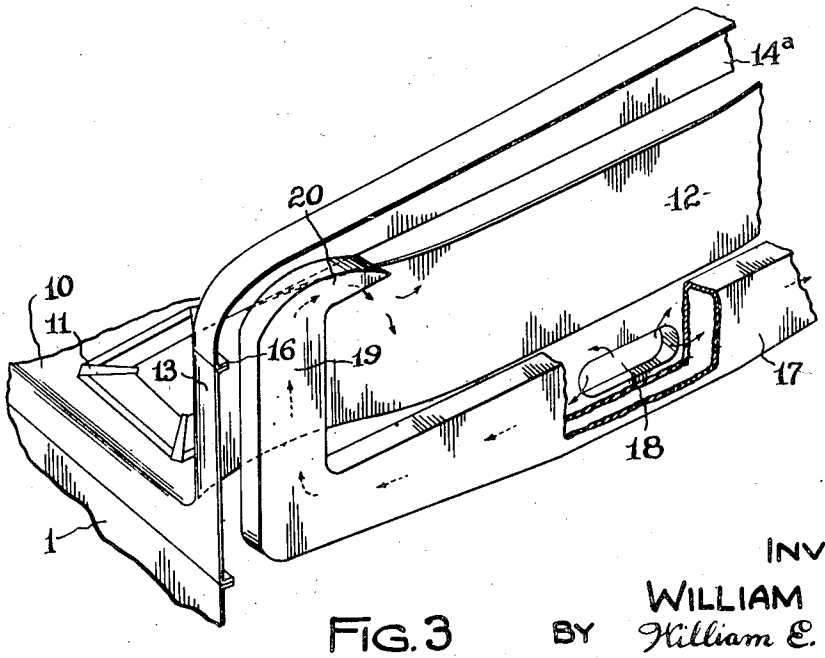


FIG. 3

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CONCEALED VENTING MEANS FOR STOVES

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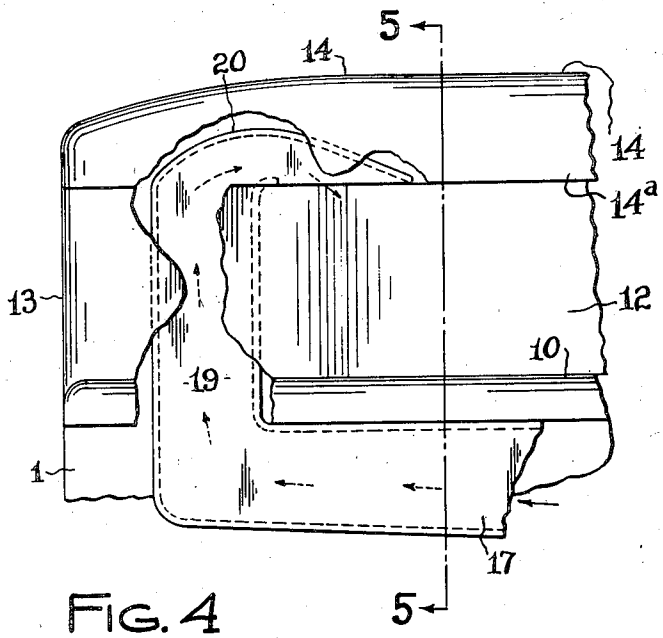


FIG. 4

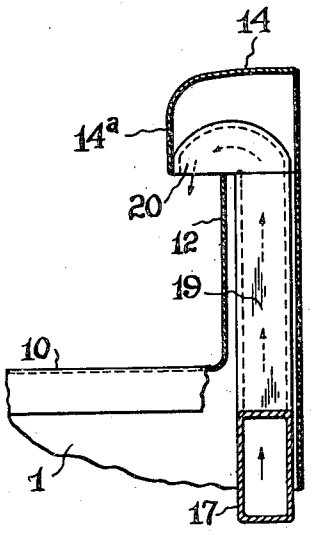


FIG. 5

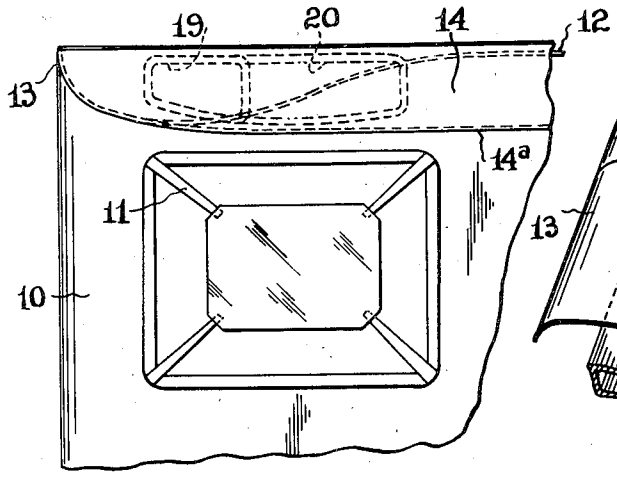


FIG. 6

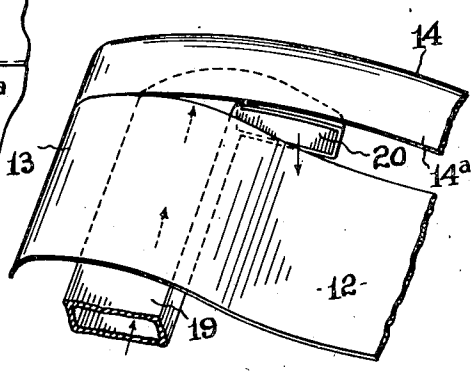


FIG. 7

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CONCEALED VENTING MEANS FOR STOVES

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6 Claims. (Cl. 126—21)

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This invention relates generally to a concealed vent or flue diverter for use primarily on gas ranges or stoves and which is so designed and constructed as to divert and discharge the products of combustion from the oven downwardly and outwardly across the stove top.

One of the objects of the invention is to provide a flue or vent for gas ranges which is concealed and disposed at the rear of the range in combination with a top hood portion or roll which directs the products of combustion downwardly and outwardly.

Another object of the invention is to provide a concealed venting means including a hood which is disposed at the back and at the top of the range and which is so positioned and arranged as to discharge the products of combustion from the oven downwardly and outwardly across the cooking top of the stove.

Another object of the invention is to provide a range having the above described distinguishing features and characteristics and which is well adapted for quantity production at a minimum cost.

Further and more limited objects of the invention will appear as the description proceeds and by reference to the accompanying drawings in which

Fig. 1 is a view in front elevation of my improved range;

Fig. 2 is a view in side elevation of the range shown in Fig. 1;

Fig. 3 is a fragmentary perspective view disclosing a part of the rear portion of the gas range and the manner of attaching the flue, with parts broken away to show the relative position of the flue with respect to its adjacent parts, the main back plate being removed;

Fig. 4 is a fragmentary view in elevation, with parts being broken away to show the shape of the discharge outlets of the flue;

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 4;

Fig. 6 is a fragmentary top plan view showing the top roll or hood and a portion of the top of the range; and

Fig. 7 is a fragmentary perspective view showing the relative locations of the back plate of the stove and the vent tube and the top roll or hood.

Referring now to the drawings, the reference character 1 discloses a gas range of the divided top type and having an oven door 2 and a broiler door 3. Disposed at each side of these doors are a pair of doors 4 and 5 which close compartments adapted to receive utensils. The reference characters 6, 7, 8 and 9 designate conventional controls for the top burners. The reference character 10 designates the stove top which is preferably flat and has burners arranged in any desired manner. The reference character 11 designates one of the top grates. The stove top and back are preferably formed in one piece, the back portion being vertically disposed and curved rearwardly at its central portion as indicated at 12. The rear of the stove is closed by a cover which is shown in section in Fig. 5. The stove top is curved downwardly at the ends and front portions thereof, as will appear from Figs. 1 and 2. The portion 12 is curved rearwardly at its central portion so as to provide additional space on the cooking top. The shape of this back plate will appear from Figs. 1, 3 and 7. The back plate is also bent rearwardly at its opposite ends as indicated at 13.

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Secured to the back plate 12 is a vent hood or roll indicated generally by the reference character 14. This roll extends rearwardly at its top portion, as will appear from Fig. 5, and is welded or otherwise secured at its opposite ends to flanges 16 provided on the back plate 12.

Secured to the back plate in any suitable manner is a flue indicated generally by the reference character 17 and which is shaped as shown most clearly in Figs. 3 and 7. This flue is generally rectangular in section and has an opening therein which communicates with a discharge outlet 18 leading from the oven. The flue 17 has at each end thereof an upwardly extending portion 19 and a discharge outlet 20 which is curved inwardly and downwardly as will also appear from Fig. 3.

It will be seen that the discharge end of the flue is disposed behind the down-turned end of the hood or top roll 14. It is to be understood that the flue extends entirely across the back of the stove and has a similar discharge outlet at the opposite end thereof. The hood 14 also has a forwardly and downwardly extending front portion 14a as will appear from Figs. 4 and 5. The flue is concealed from the front of the stove by the back plate 12 and the top roll or hood 14. The products of combustion from the oven enter the flue through the opening 18 and are carried upwardly and thence discharged downwardly and outwardly behind the hood 14 and escape through the space between the hood and back plate 12 at the central portion thereof and are discharged downwardly and outwardly across the top of the stove.

Secured to the down-turned portion 14a of the

hood are the usual instruments which are indicated by the reference character 21.

The configuration of the front part of the stove forms no part of this invention as the invention is directed more specifically to the cooking top and concealed venting means.

Some stoves have an oven disposed at one side thereof in which event the flue vent need be connected only to the oven at one side thereof. Also some stoves have two cooking compartments disposed below the cooking top in side by side relation, one compartment being used for baking and the other for broiling, in which case the cooking compartments may be connected separately into the flue.

It will now be clear that I have provided a gas range having a cooking top so designed and shaped as to provide concealed venting means for venting the products of combustion from the oven which will accomplish the objects of the invention as hereinbefore stated. Various changes may be made in the arrangement and design of parts without departing from the spirit of the invention. The disclosure herein is therefore to be considered merely as illustrative and not in a limiting sense as the invention is limited only in accordance with the scope of the appended claims.

Having thus described my invention, I claim:

1. In a gas range, the combination of an horizontally extending top, a rear wall extending upwardly from the rear edge of said top, said rear wall being shaped to define a forwardly directed recessed portion and a pair of rearwardly directed recessed portions one at each side of said forwardly directed recessed portion, a hood extending over said rearwardly directed recessed portions and said forwardly directed recessed portion and providing communication between the upper end of each of said rearwardly directed recessed portions and the upper end of said forwardly directed recessed portion, an oven disposed below said top, a vent flue disposed rearwardly of said wall and operative to conduct gases from said oven upwardly through at least one of said rearwardly directed recessed portions and to discharge a part of these gases downwardly into said forwardly directed recessed portion.

2. In a gas range, the combination of an horizontally extending top, a rear wall extending upwardly from the rear edge of said top, said rear wall being shaped to define a forwardly directed recessed portion and a pair of rearwardly directed recessed portions one at each side of said forwardly directed recessed portion, a hood extending over said rearwardly directed recessed portions and said forwardly directed recessed portion and providing communication between the upper end of each of said rearwardly directed recessed portions and the upper end of said forwardly directed recessed portion, an oven disposed below said top, a vent flue disposed rearwardly of said wall and operative to conduct gases from said oven upwardly through each of said rearwardly directed recessed portions and to discharge a part of these gases downwardly into said forwardly directed recessed portion.

3. In a gas range, the combination of an horizontally extending top, a rear wall extending upwardly from the rear edge of said top, said rear wall being shaped to define a forwardly directed recessed portion and a pair of rearwardly directed recessed portions one at each side of said forwardly directed recessed portion, a hood extending over said rearwardly directed recessed portions and said forwardly directed recessed portion and providing communication between the upper end of each of said rearwardly directed recessed portions and the upper end of said forwardly directed recessed portion, an oven disposed below said top, a vent flue disposed rearwardly of said wall and operative to conduct gases from said oven upwardly through at least one of said rearwardly directed recessed portions and to discharge a part of these gases downwardly into said forwardly directed recessed portion.

4. In a gas range, the combination of an horizontally extending top, a rear wall extending upwardly from the rear edge of said top, said rear wall being shaped to define a forwardly directed recessed portion and a pair of rearwardly directed recessed portions one at each side of said forwardly directed recessed portion, a hood extending over said rearwardly directed recessed portions and said forwardly directed recessed portion and providing communication between the upper end of each of said rearwardly directed recessed portions and the upper end of said forwardly directed recessed portion, an oven disposed below said top, a vent flue disposed rearwardly of said wall and operative to conduct gases from said oven to each side of said oven and thence upwardly through each of said rearwardly directed recessed portions and to discharge a part of these gases downwardly into said forwardly directed recessed portion.

5. In a gas range, the combination of an horizontally extending top, a rear wall extending upwardly from the rear edge of said top, said rear wall being shaped to define a forwardly directed recessed portion and a pair of rearwardly directed recessed portions one at each side of said forwardly directed recessed portion, a hood extending over said rearwardly directed recessed portions and said forwardly directed recessed portion and providing communication between the upper end of each of said rearwardly directed recessed portions and the upper end of said forwardly directed recessed portion, an oven disposed below said top, a vent flue connected to said oven through which the products of combustion are discharged, said vent flue comprising an horizontally extending conduit disposed below said top and to the rear of said oven, a vertically extending conduit connected to an end of said horizontally extending conduit and disposed within one of said rearwardly directed recessed portions, and a discharge outlet secured to the upper end of said vertically extending conduit and arranged to discharge gases downwardly into said forwardly directed recessed portion.

6. In a gas range, the combination of an horizontally extending top, a rear wall extending upwardly from the rear edge of said top, said rear wall being shaped to define a forwardly directed recessed portion and a pair of rearwardly directed recessed portions one at each side of said forwardly directed recessed portion, a hood extending over said rearwardly directed recessed portions and said forwardly directed recessed portion and providing communication between the upper end of each of said rearwardly directed recessed portions and the upper end of said forwardly directed recessed portion, an oven disposed below said top, a vent flue connected to said oven through which the products of combustion are discharged, said vent flue comprising

an horizontally extending conduit disposed below said top and to the rear of said oven, a vertically extending conduit connected to each end of said horizontally extending conduit and disposed within said rearwardly directed recessed portions, and a discharge outlet secured to the upper end of each of said vertically extending conduits and extending over said forwardly directed recessed portion and arranged to discharge downwardly into said forwardly directed recessed portion.

WM. BAUER.

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