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RANGE

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This invention relates to improvements in ranges and more particularly gas cooking ranges which for the purpose of being more pleasing in appearance and blending with the present modern type of kitchen furniture, extend flush to the wall of the room against which they are positioned and which have a novel and improved manner of discharging the combustion gases of their ovens.

The primary object of the invention is the provision of a gas cooking range of pleasing appearance.

Another and further object of the invention is to provide a gas burner in the oven and an open top burner chamber above the oven, provide a splash back in a vertical line above the inner wall of said top burner chamber, provide a flue located back of said splash back, providing an inwardly projecting wall extending to the wall of the room forming a vertical cool air space feeding primary and secondary air upward through said oven to the gas burner therein and the products of combustion out through said flue and said air space also feeding primary and secondary air from said vertical space around said flue to the gas burners in said burner chamber located above said oven.

Other specific objects, novel features of construction and improved results of the invention will be pointed out in detail from the following description and will appear in the illustrations constituting the figures of the accompanying drawings.

In the drawings which illustrate a plurality of gas ranges embodying the fundamentals of the present invention:

Fig. 1 is a view in front elevation of a range embodying one form of the present invention.

Figure 2 is a view in front elevation of a range of slightly modified construction embodying the fundamentals of the present improved invention.

Fig. 3 is a vertical sectional view of the range appearing in Fig. 2 of the drawings.

The present tendency in the architecture of homes or residences is to beautify the kitchens thereof to the greatest extent possible. Cooking stoves or ranges are a necessary part of the furniture in the kitchen of any home and it is therefore desirable that they present as pleasing an appearance as possible. The present tendency is also to have the kitchen furniture flush with the kitchen walls which adds not only to the appearance of the kitchen but simplifies the cleaning of the kitchen and keeping the kitchen in a sanitary condition.

Although cooking ranges have been greatly

beautified in recent years they still have the tendency to be unsightly in that there is an open space between the rear end of the range and the kitchen wall against which it is placed. This space is unsightly and is rendered more unsightly by reason of the fact that it is extremely difficult to either dust or clean behind the ranges. It has also been extremely difficult to either repaper or repaint the kitchen wall area immediately behind a range, but this undesirable feature is obviated where ranges of the present construction are utilized. Additionally the installation of gas ranges has been such that the unsightly gas pipes supplying gas to the ranges have been visible, but in the present improved range this undesirable feature has been overcome.

In attaining the desired ends it has been necessary to provide an improved fluing arrangement for gas ranges inasmuch as the outlet flues of gas ranges are always at the rear thereof and in the space between the rear of the range and the wall against which it is placed. This fluing arrangement is such as to assure that the escaping products of combustion do not stain or dirty the wall at the rear of the range.

Having reference to Fig. 1 of the drawings which illustrates one embodiment of the present invention, it will be seen that in many respects the gas range resembles those now sold and in general use in that the range has a flush front made up of a series of door panels 1, 2 and 3 which afford access to a plurality of ovens and a utensil drawer, a panel 4 below one of the oven doors, and a manifold panel 5 which extends across the front of the range and forms a closure for the front end of the cooking top burner chamber. The valve handles controlling fuel to the cooking top burners are designated at 6 and are in horizontal alignment along the manifold panel 5 upon which is also conveniently positioned the setting wheel 7 of an automatic temperature oven regulator. The range illustrated is of the center cooking top type and comprises a cooking top frame 8 which is provided with swinging covers 9 and 10 which can be positioned to conceal the cooking top grids when the cooking top is not in use. Working top or table top surfaces 11 and 12 are at each side of the cooking top portion 8 of the range. A splash back 12 extends along the rear end of the range in the usual and conventional manner. Inasmuch as the rear end of all ranges are spaced from the wall 13 against which the range is positioned the splash back 12 is in spaced parallel relationship to the kitchen wall 13. The range supporting base is designated at 14

and is provided at its corners with legs 15 so that the range bottom is supported above the kitchen floor 16.

One of the important features of novelty and improvement of the present range comprises extending the end walls 17 of the range rearwardly beyond the rear end 18 of the range so that their rear edges 19 abut the kitchen wall 13 against which the range is positioned. Although it is not absolutely essential it is also desirable to elongate or deepen the range base 14 so that it too has its rear end 20 abutting the kitchen wall with the rear legs 15 of the range also abutting the kitchen wall rather than being spaced outwardly therefrom in the conventional manner.

Another feature of difference of the present range over conventional ranges is that a cap or cover 21 is provided and extends from the upper edge of the splash back 12 into abutting relationship with the kitchen wall 13.

The result of the construction thus far described is that the open space now found behind the rear wall of a gas range and the kitchen wall against which it is positioned is completely closed in at its sides by the end walls 17 of the range and at its top by the cap 21.

The improved fluing arrangement clearly appears in dotted lines in Fig. 1 of the drawings where it will be seen that an elongated flue box A is disposed behind the cooking top burner chamber and receives in its one end the combustion gases from the oven behind the door 1 and in its other end the combustion gases from the oven behind the door 2. A supplemental vertically extending flue box B is positioned in the space between the splash back and the kitchen wall 13 and has communication at its lower end with the aforementioned horizontally disposed flue box A. The splash back 12 is provided with louvre outlets 22 with the result that the combustion gases are discharged in front of the rear end of the range and in front of the splash back 12 in a direction away from the kitchen wall 13 so that the wall is not either stained or discolored.

In the event that a flue pipe connected with a chimney is used a removable cap 23 is provided in the main cap 21 and is suitably connected to a collared outlet opening 24 which is provided in the upper end of the vertical flue box B. This collared opening is normally closed but can be opened when a flue pipe outlet is provided and when such an outlet is provided the products of combustion will travel out this outlet pipe rather than out through the louvres 22 due to the draft which said outlet pipe will create.

The main gas supply pipe can be brought into the range for the delivery of gas in several different manners, two of which are illustrated in the drawings, one in full lines and one in dotted lines. In the full line illustration the gas supply pipe 25 is illustrated as coming up through the floor adjacent one of the rear corners of the range and having its horizontal portion 26 extending through the utensil compartment C and then having an upwardly extending portion 27 which terminates in a horizontally extending portion 28 across the front of the cooking top burner chamber immediately behind the front manifold panel 5 thereof. It will be evident that gas for the oven behind the door 1 can be led off from the horizontal portion 28 of the pipe which horizontal portion supplies gas for the cooking top burners. Gas for the oven behind

the door 2 can be obtained by a lead-off pipe from the vertical portion 27 of the main supply pipe.

The optional manner of bringing the gas to the range and one in which even the small heretofore mentioned portion 25 of the pipe is not visible, is illustrated in dotted lines and comprises bringing the pipe up through the floor at a point approximately midway the rear end of the range as indicated at 29 and then bringing the pipe forwardly as at 30 through the utensil compartment and then extending it upwardly as at 31 so that it joins the horizontally extending pipe 28 approximately intermediate the ends thereof.

Figs. 2 and 3 of the drawings illustrate a slight modification of the range appearing in Fig. 1, but Fig. 1 of the drawings should be read in conjunction therewith in that in Fig. 3 of the drawings the space D behind the rear wall 31 of the range and the kitchen wall 13 more clearly appears.

Inasmuch as Figs. 2 and 3 of the drawings illustrate a range so nearly similar to that appearing in Fig. 1 reference numerals similar to those applied to Fig. 1 are to a large degree applied to these figures of the drawings. In the sectional view the cooking top burner chamber K behind the front manifold 5, the oven E behind the door 2 with the oven burner 32 and the utensil drawer chamber F with the drawer G, are all clearly illustrated.

In these two figures of the drawings the end walls 17 not only have their rear ends 20 abutting the kitchen wall 13 but also have their lower edges 33 extending flush with and resting upon the kitchen or room floor 16. At the front of the range it is undercut as appears at 34. Primary and secondary air for the oven and cooking top burners is admitted through a series of air inlet openings 35 in the front of the range at its lower edge. The bottom 36 of the utensil compartment is also provided with a series of air inlet openings 37 while the top 38 of the chamber is similarly provided with a series of air inlet openings 39. The horizontally disposed flue box A clearly appears in Fig. 3 of the drawings from which it will also clearly appear that it has communication with the oven chamber E through an opening 40 and communicates at its upper end with the vertical flue box B the rear wall 41 of which is insulated so as to prevent dangerous overheating of the kitchen wall 13.

In Fig. 2 of the drawings the range is illustrated as being provided with a flue outlet pipe 42 which communicates at its lower end with the flue box B while its upper end enters the kitchen wall 13 for communication with a chimney flue. Fig. 3 of the drawings illustrates the optional form of the range where the flue pipe 42 is eliminated and the collared opening 24 is closed by a cap 23.

Incidentally in respect to the ranges appearing in Figs. 1 to 3 inclusive a cap 23 of a perforated nature to permit the warm air generated in the space D behind the range to escape and thus prevent undue overheating of the space or chamber D is utilized when the stack connection 42 is not used.

In Fig. 2 of the drawings the main gas supply pipe is illustrated in dotted lines and comprises a vertically extending portion 44 having a forwardly horizontally extending portion 45 which terminates in a longitudinally extending horizontal portion or length 46 extending across the

front end of the cooking top burner chamber behind the front manifold panel 5 thereof which is similar to the pipe portion 28 described in respect to the Fig. 1 form of range.

Another feature which is common to the ranges 5 illustrated in Figs. 1 to 3 of the drawings is that in closing in the space behind the ranges that either the end walls of the ranges are provided with upwardly extending portions 47 which are disposed above the top line or top surface of the range (see Fig. 1) or the splash backs 12 are 10 provided with rearwardly extending end portions 48 (see Fig. 2).

I claim:

1. A gas range comprising a housing having a 15 burner chamber at its top, a gas burner therein, an oven below said chamber having a gas burner therein, a splasher back extending vertically from the rear end of said oven, a wall extending inward from said splasher back and downwardly 20 and inwardly around the edge of said range and extending to the wall of a room in which the structure is placed forming an air cooling space between said splasher back and said oven and having its lower end open to the air, a vertical 25 flue located back of said splasher back having its lower end connected with the top of said oven but out of communication with said air cooling space, said air cooling space having communication with the lower portion of said oven and with the opening in the top of said oven, and said air cooling space and said flue enclosed within said space having air escape openings in their upper portions whereby a flush against the wall gas range is produced.

2. A flush against the wall gas range, comprising a housing having an oven containing a gas burner, a gas burner chamber above said oven containing a gas burner, a splash back extending upward from the inner wall of said oven, a flue located back of said splash back and extending upward, said flue having its lower end substantially closed but freely communicating at its lower end with the upper rear end of said oven and its upper end having an escape opening, a wall extending inward to flush against the wall of a room around the top and side edges of said splash back and the rear edges of said housing, said flue being enclosed within said inwardly extending wall, said inwardly extending wall forming an air cooling space between said oven and flue, said air cooling space having communication with said oven through its bottom and an outlet in its upper portion, whereby a practical flush against the wall gas range is produced.

3. A flush against the wall gas range, comprising a housing having an oven containing a gas burner, a gas burner chamber above said oven containing a gas burner, a splash back extending upward from the inner wall of said oven, a flue located back of said splash back and extending upward, said flue having its lower end substantially closed but freely communicating at its lower end with the upper rear end of said oven and its upper end having an escape opening, a wall extending inward to flush against the wall of a room around the top and side edges of said splash back and the rear edges of said housing, said flue being enclosed within said inwardly extending wall, said inwardly extending wall forming an air cooling space between said oven and flue, said air cooling space having communication with said oven through its bottom and an outlet in its upper portion and said air cooling 75

space communicating with and supplying air for said burner within the chamber over said oven, whereby a practical flush against the wall gas range is produced.

4. An improved gas range comprising a rectangular housing having at its top a chamber, a burner in said chamber, an oven located below said burner chamber, a gas burner within said oven, gas supplies connected with said burners, a vertical splasher back projecting upward from the inner end of said oven, a flush against the wall extension projecting inward against the wall of a room throughout the width and top of the splasher back, the inner wall of said oven the splasher back and said extension forming a vertical air flue with its inner end abutting against the wall of the room in which said housing is placed, a second flue within said first mentioned flue extending upward therein and communicating with the top of said oven and forming a products of combustion escape for said oven gas burner, and an air passage at the upper end of the first said flue, whereby said cooking top burners are provided with primary and secondary air supplies and the oven burner with a products of combustion escape.

5. A gas range comprising a housing having an oven, a gas burner in said oven, an open top burner chamber on top of said oven, the housing having a gas supply connected with both said burners, a splasher back extending upward from and substantially in a vertical line with the inner end of said open top burner chamber, a vertically extending flue back of said splasher back and having its lower end communicating with the upper inner end of said oven, an inwardly extending wall around the sides and top of said splasher back and said housing, said inwardly extending wall of a width to reach a wall of a room to form a flush against the wall range with a cooling air passage behind the housing, and an air passage extending below said housing and communicating upward through said oven to provide primary and secondary air for said oven burner, whereby a practical flush against the wall gas range is provided.

6. A gas range comprising a housing having an oven, a gas burner in said oven, an open top burner chamber on top of said oven, the housing having a gas supply connected with both said burners, a splasher back extending upward from and substantially in a vertical line with the inner end of said open top burner chamber, a vertically extending flue back of said splasher back and having its lower end communicating with the upper inner end of said oven, an inwardly extending wall around the sides and top of said splasher back and said housing, said inwardly extending wall of a width to reach a wall of a room to form a flush against the wall range with a cooling air passage behind the housing, and an air passage extending below said housing and communicating upward through said oven to provide primary and secondary air for said oven burner and communicating around said flue to said burners in said open top burner chamber, whereby a practical flush against the wall gas range is provided.

7. A gas range comprising a housing having an oven, a gas burner in said oven, an open top burner chamber on top of said oven, the housing having a gas supply connected with both said burners, a splasher back extending upward from and substantially in a vertical line with the inner end of said open top burner chamber, a vertically ex-

tending flue back of said splasher back and having its lower end communicating with the upper inner end of said oven, an inwardly extending wall around the sides and top of said splasher back and said housing, said inwardly extending wall of a width to reach a wall of a room to form a flush against the wall range with a cooling air passage behind the housing extending throughout the width of said housing, and an air passage extending below said housing and communicating upward through said oven to provide primary and secondary air for said oven burner, whereby a practical flush against the wall gas range is provided.

8. A gas range comprising a housing having therein an oven with a burner therein and a cooking top burner chamber with a burner therein, the housing having a gas supply connected with both said burners, a splasher back extending

upward from and substantially in a vertical line with the inner end of said cooking top burner chamber, a vertically extending flue back of said splasher back and having its lower end communicating with the upper inner end of said oven, an inwardly extending wall around the sides and top of said splasher back and said housing, said inwardly extending wall of a width to reach a wall of a room to form a flush against the wall range with a cooling air passage behind the housing extending throughout the width of said housing, and an air passage extending below said housing and communicating upward through said oven to provide primary and secondary air for said oven burner, whereby a practical flush against the wall gas range is provided.

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