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HEATING APPARATUS

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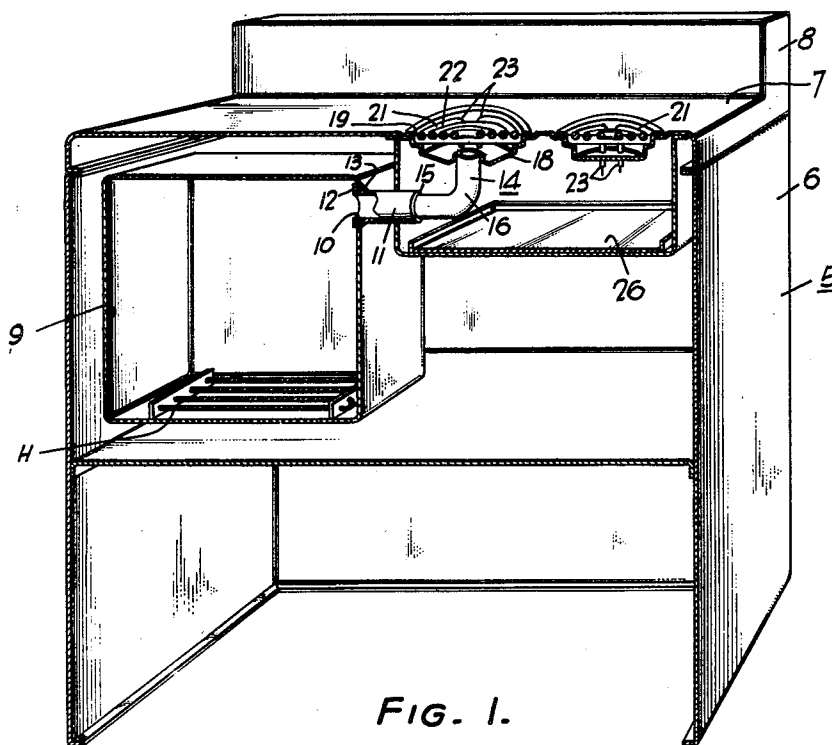


FIG. 1.

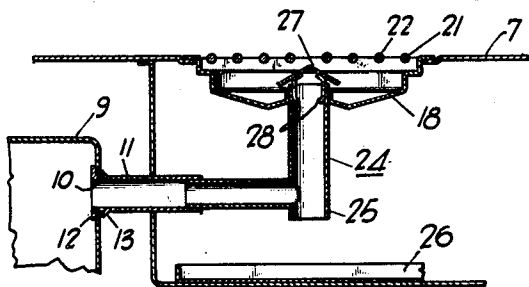


FIG. 2.

WITNESSES:

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HEATING APPARATUS

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1 Claim. (Cl. 126—21)

This invention relates to heating appliances and particularly to cooking ranges, and it has for an object to provide an improved oven venting arrangement for such ranges.

It has been the practice to provide range ovens with vents for carrying off vapors and fumes from the oven. These vents usually opened on the back of the range or through the back splash-er of the range platform. However, these ar-rangements have not proven entirely satisfac-tory since in the former case the vapors, on con-densing, tended to cause discoloration of the wall against which the range was mounted, while in the latter case the condensed vapors tended to discolor or stain the working surface or platform of the range.

In accordance with a main feature of the pres-ent invention an oven vent is provided having the discharge end thereof located immediately below or adjacent a burner or surface unit of the range. By arranging the discharge end of the oven vent in this manner the vent is incon-spicuous and obviates the need for an expensive escutcheon plate such as is now used with vents opening in the back splasher. The present in-vention has a further advantage in that the oven heat which is lost through some types of oven vents may be utilized to warm foods or supple-ment the heat of the burner, under which the vent is located, for cooking foods. Another and important advantage of this invention lies in the fact that when the burner or surface unit, which overlies the discharge end of the present vent, is in use, the heat therefrom burns out any ob-jectionable odors of the oven fumes.

These and other objects and features are ef-fected by my invention as will be apparent from the following description and claims taken in con-nection with the accompanying drawing, form-ing a part of this application, in which:

Fig. 1 is a vertical sectional view, in perspec-tive, of an electric cooking range in which the present invention has been incorporated; and

Fig. 2 is a sectional view corresponding to a portion of Fig. 1 and illustrating a slightly mod-ified form of the invention.

While there has been illustrated in the draw-ing an electric range in which the present in-vention has been incorporated, it is to be under-stood that the invention is not limited to this particular adaptation since it will be apparent to those skilled in the art that the invention is also adaptable to other types of ranges such as those heated by gas, oil and the like.

Referring particularly to Fig. 1 of the draw-

ing there has been shown a range generally in-dicated 5, which may be of conventional construc-tion including a frame 6, a platform 7, and a back splasher 8. Within the frame 6 there is provided an oven 9 which may be heated by means of one or more suitable heating elements, such as H, as is well understood in the art. The controls for the oven heating elements and the surface units as well as other details of the range have been omitted for the sake of clarity inas-much as they form no part of the present inven-tion.

An opening 10, provided in a side wall of the oven 9 adjacent the top thereof, receives a vent pipe 11 which may be detachably secured to the side wall of the oven in any suitable manner as, for example, by means of an outwardly turned flange 12 which cooperates with struck-up lugs 13 formed in the pipe to grip the margin of the oven wall adjacent the mentioned opening 10. While the oven vent opening 10, in the particular embodiment illustrated in the drawing, has been shown in a side wall of the oven it will be under-stood that the same may be provided in the top or end wall if desired, the particular location of this opening being immaterial in the practice of this invention.

An elbow or other suitably shaped conduit 14 is preferably removably attached to the pipe 11 as by being telescoped therein as indicated at 15. The vertically-extending portion 16 of the elbow 14 extends through the bottom of a drip pan 18 which is removably supported within an open-ing 19 provided in the range platform 7. This pan 18 serves to reflect heat from a surface unit 21 removably supported in the pan and to catch any spillage.

As mentioned above, the surface units may be either electric, gas, oil-fired or the like. In the particular range illustrated in the drawing there has been shown conventional armored electrical resistance elements 22 arranged in the form of an open grid whose upper surface is substantially flush with or slightly above the platform 7. The elements 22 are provided with terminals 23 for connection in a suitable circuit (not shown) for energizing the same.

It will be understood that when the oven 9 is in use the comestibles cooked therein give off vapors and the air within the oven expands. In the present venting arrangement, the vapors and hot air will be discharged through the pipe 11 and the elbow 14 to the space immediately below the surface unit 21. Any condensate from these va-pors which may deposit on the reflector pan 18 or

the surface unit 21 may be easily cleaned therefrom. It will be appreciated also that the surface unit 21 substantially conceals the upper or discharge end of the elbow 14 thus obviating the need for an ornamental cover or grill such as is now required where the oven vent opens on the back splasher.

The heat of the oven air and vapors passing through the vent pipes 11 and 14 may be utilized for warming a sauce pan or kettle resting on the surface unit 21 so that this normally wasted heat may be utilized. When both the oven 9 and the surface unit 21 are in use the heat from the surface unit tends to burn out any objectionable cooking odors present in the vapors discharging from the oven vent. Conventional oven vents have the disadvantage of directing these cooking odors into the kitchen.

Referring to Fig. 2, there is shown a slightly modified form of the invention in which the elbow 14 has been replaced by a T-shaped pipe 24. The remaining elements of this structure may be identical with that shown in Fig. 1. As will be noted in Fig. 2 the T 24 has a short section 25 disposed above a crumb tray 26 of the range so that any condensates formed in the vertical portion of the pipe 24 may drain down the section 25 and be deposited on the crumb tray. The crumb tray, as customary, is readily removable from the range so that it may be periodically cleaned of such deposits.

As shown in Fig. 2 the upper end of the oven vent may be covered by means of a cap member 27 to prevent any liquids or the like accidentally spilled on the range platform 7 from falling into

the oven vent. This cap may be secured in spaced relation to the upper end of the vent by means of spring fingers 28 fixed thereto and frictionally engageable in the vent.

5 While I have shown my invention in several forms, it will be obvious to those skilled in the art that it is not so limited, but is susceptible of various other changes and modifications without departing from the spirit thereof, and I desire, therefore, that only such limitations shall be placed thereupon as are specifically set forth in the appended claim.

What I claim is:

15 A range comprising a body having a platform, said platform having an opening therein, a heat generating unit for heating a vessel or the like placed thereon, said unit being mounted in said platform opening with its upper surface substantially flush with the upper surface of said plat-
20 form, a drip pan individual to said heat generating unit and disposed immediately beneath said unit, a crumb tray disposed beneath said drip pan in spaced relation thereto, an oven in said range body, and a conduit communicating with the interior of said oven and with the space between
25 said drip pan and said heat generating unit for conveying vapors or the like from said oven into said space, a portion of said conduit being disposed between said crumb tray and said drip pan and having a drain opening above said crumb
30 tray for discharging condensates formed in an adjacent portion of the conduit onto the crumb tray.

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