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W. WRAY

2,564,075

VENTILATOR ATTACHMENT

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FIG. 2.

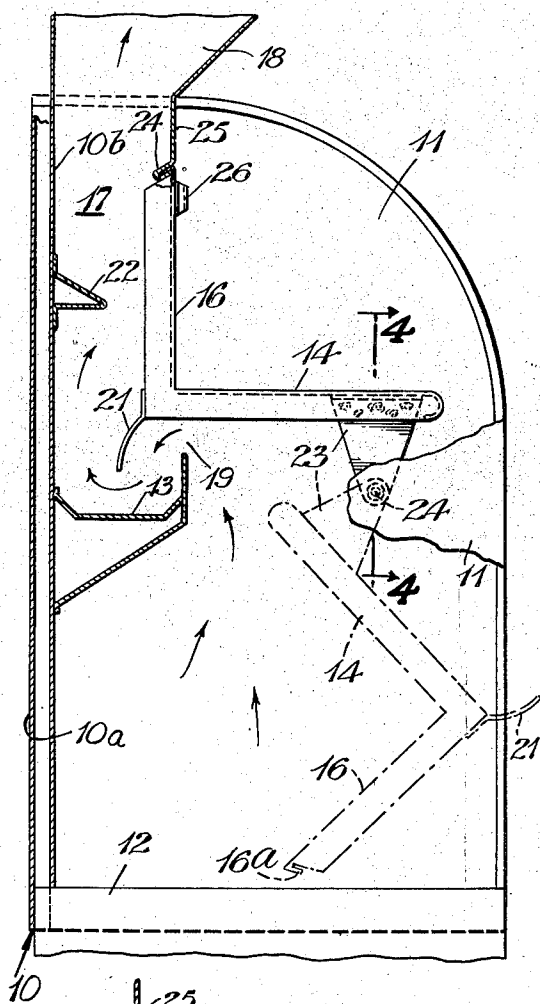


FIG. 1.

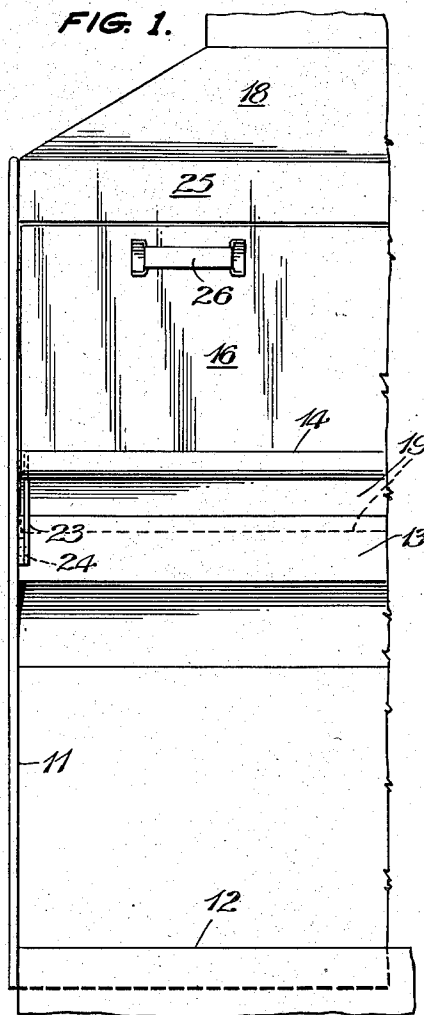


FIG. 3.

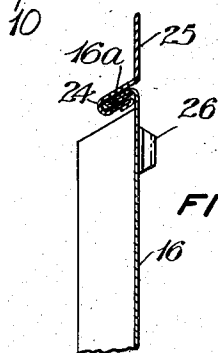
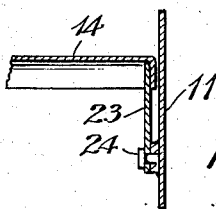


FIG. 4.



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VENTILATOR ATTACHMENT

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4 Claims. (Cl. 126-299)

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The present invention relates to ventilator attachments for use on cooking ranges and the like for drawing off the fumes, smoke and grease occasioned by the cooking operations as well as for preventing undue heating of the air in the kitchen. In ventilator attachments of this type the air and other gases above the cooking surface of the range are drawn off by power suction devices such as electrically driven blowers, and in connection with such ventilators it is common to provide means such as baffles for trapping or extracting the grease.

The present invention has for its purpose the provision of an improved ventilator attachment of the above character which provides for ready access to the interior of the grease trapping structure to enable easy inspection and cleaning of such interior while retaining a desirable baffle structure which provides a warning if clean-out of the trapping structure is not effected at regular intervals.

The above and other objects of the invention will be apparent from the following description of a preferred embodiment of the invention, as illustrated in the accompanying drawings, in which:

Figure 1 is a partial front elevation of a ventilator attachment embodying the invention.

Figure 2 is a vertical sectional view through the attachment.

Figure 3 is an enlarged view of a portion of Figure 2.

Figure 4 is a fragmentary sectional view of the hinge or pivot construction.

Referring to the drawings, the ventilator attachment includes a generally rectangular open front frame structure including a back wall 10, and respective side plates extending outwardly therefrom above the cooking surface 12 of the range indicated schematically in Figure 2. As illustrated, the back wall 10 includes a rear section 10a which may be integral with the side plates 11 and an interior back wall 10b spaced forwardly therefrom. A grease trough 13 is formed along the wall 10b between the side walls 11. Projecting forwardly from above the trough 13 and extending between the two side plates 11 is a horizontal shelf 14 which may be formed integrally with a flanged front wall section 16 of a passage 17 to form a cleaning door unit. The passage 17 leads upwardly from below the shelf 14 into an enlarged grease trapping chamber 18 from which a suitable conduit (not shown) extends to the point of disposal of the fumes. The entrant end of the passage 17 is formed by a

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transverse slot 19 formed between the rear edge of the shelf 14 and the forward edge of the trough 13.

Baffle means are provided to form a tortuous path of flow of the fumes and grease laden air from above the stove to aid in extraction of grease. An arcuate baffle 21, which may be suitably attached as by welding to the door unit formed by the shelf 14 and the wall section 16 extends downwardly and rearwardly toward the center of the trough 13 and below the upper edge of the trough. A V-shaped baffle 22 is secured on the wall 10b and spaced upwardly from the arcuate baffle 21. As shown, these baffles provide a tortuous flow of the air entering the lower end of the passage so that certain particles of grease and other matter entrained with the gases are thrown therefrom through centrifugal action against the rear wall of the passage. Also it is to be noted that the trough 13 underlies the respective front and rear walls of the passage 17 to catch any grease dripping therefrom. Because the baffle 21 extends slightly into the trough 13, any failure to clean the trough at regular intervals will result in a level of grease in the trough that will impede or stop the flow of air.

To provide for easy access to the passage and baffle structure for cleaning, the door unit formed by the shelf 14 and the wall section 16 is provided at its ends with respective depending hinge plates 23 pivotally supported by bolts 24 on the side walls 11. The upper edge of the wall section 16 is bent to form a lip 16a which is preferably concentric with the axis of pivoting of the door unit and nests within a complementary U-shaped stop or seat 24 formed at the lower edge of a front wall 25 of the passageway. The interlocking of the lip 16a and its seat 24 provide a grease seal. One or more suitable handles 26 are provided on the wall section 16.

From the above description it will be seen that by swinging the door unit comprising the shelf 14 and the wall section 16 forwardly and downwardly from its normal rest position to its open position as shown in phantom lines in Figure 2, the entire interior surface of the passage 17 including the surfaces of the baffles 21 and 22, the interior of the trough 13, etc. are completely accessible for cleaning to remove any grease which may have been deposited on the walls or which has drained into the trough 13. It will be noted also that because the initial pivoting movement of the door unit is in an upward direction, the baffle 21 is lifted free of the trough 13.

While I have shown and described a preferred

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embodiment of the invention, it will be understood that the invention is capable of variation and modification from the form shown so that its scope should be limited only by the scope of the claims appended hereto.

I claim:

1. In combination with a range having a cooking surface, a ventilator including a frame structure having a back wall extending upwardly from the rear edge of said cooking surface of the range and respective side plates extending forwardly from the back wall, a shelf mounted on said frame between said side plates and above the cooking surface, a wall section connected to and extending upwardly from said shelf to form therewith a door unit, means including said frame structure and said wall section forming a passageway leading from below said shelf upwardly through said structure for exhaust of fumes and gases, and pivotal support means for said door unit adjacent the front edge of said shelf for movement thereof between an upper normal closed position and a depending open position providing access to said passageway for inspection and cleaning.

2. In combination with a range having a cooking surface, a ventilator including a frame structure having a back wall extending upwardly from the rear edge of said cooking surface of the range and respective side plates extending forwardly from the back wall, a shelf mounted on said frame between said side plates and above the cooking surface, a grease trough extending along said back wall and located below said shelf in spaced relation therefrom, said trough and said shelf being spaced apart to provide a slot along one edge of the trough a wall section connected to and extending upwardly from said shelf to form therewith a door unit, means including said frame structure and said wall section providing a passageway leading from said slot and extending upwardly through said structure for exhaust of fumes and gases, and pivotal support means for said door unit located forwardly of said trough and providing for outward swinging movement of said door unit to a depending open position providing access to said passageway and said trough for inspection and cleaning.

3. In combination with a range having a cooking surface, a ventilator including a frame structure having a back wall extending upwardly from the rear edge of said cooking surface of the range and respective side plates extending forwardly from the back wall, a shelf mounted on said frame between said side plates and above the cooking surface, a grease trough extending along said back wall and located below said shelf, said trough and said shelf being spaced apart to provide a slot along one edge of the trough a wall section connected to and extending upwardly from said shelf to form a door unit therewith,

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means including said frame structure and said wall section providing a passageway through said structure for exhaust of fumes and gases, and pivotal support means for said door unit located forwardly of said trough and providing for outward swinging movement of said door unit to a depending open position providing access to said passageway for inspection and cleaning, said wall section having a lip along the upper edge thereof, and a recessed wall portion in said structure for receiving said lip in the closed position of said door unit.

4. In combination with a range having a cooking surface, a ventilator including a frame structure having a back wall extending upwardly from the rear edge of said cooking surface of a range and respective side plates extending forwardly from the back wall, a shelf mounted on said frame between said side plates and above the cooking surface, a grease trough extending along said back wall and located below said shelf in spaced relation therefrom, said trough and said shelf being spaced apart to provide a slot along one edge of the trough a wall section connected to and extending upwardly from said shelf to form therewith a door unit, said frame structure and said wall section providing a passageway leading from said slot and extending upwardly through said structure for exhaust of fumes and gases, a baffle supported by said door unit and extending into said passageway and downwardly into said trough, and pivot means connected to said shelf forwardly of said trough and supporting said door unit for movement thereof between its normal closed position and a depending open position providing access to said passageway, said trough and said baffle for inspection and cleaning, the initial movement of said door unit from its closed position serving to lift said baffle with respect to said trough.

WALTER WRAY.

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