Nov. 5, 1963 G. J. MEYER 3,109,358

KITCHEN RANGE VENTILATOR

Filed Nov. 6, 1961

Fig. 1

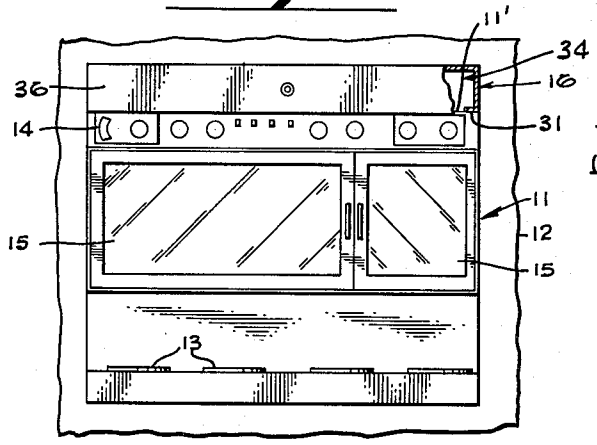


Fig. 4

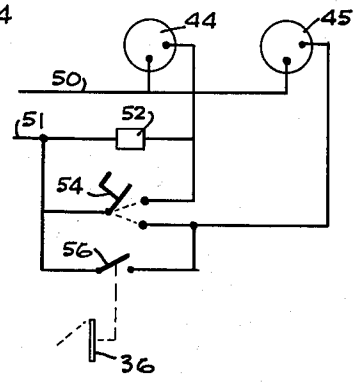
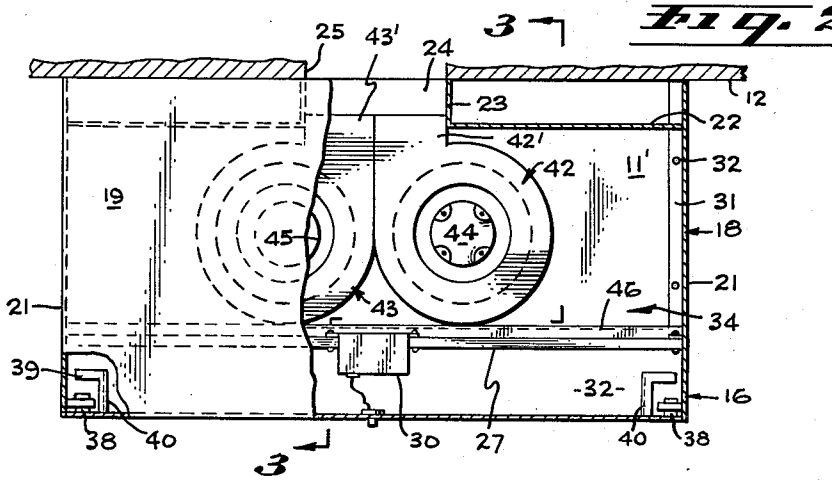


Fig. 2



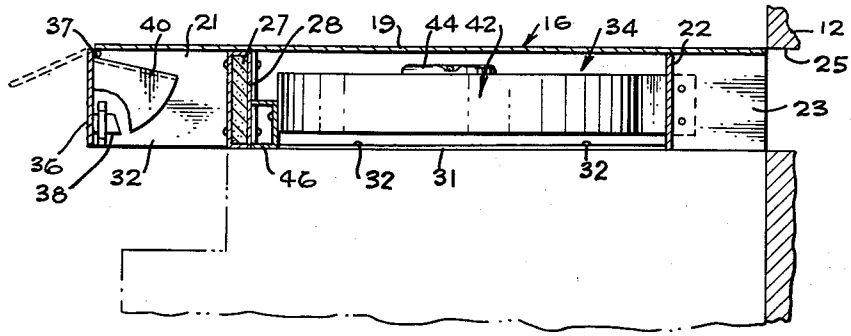


Fig. 3

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KITCHEN RANGE VENTILATOR

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1 Claim. (Cl. 98—115)

This invention has to do generally with ventilators and particularly with motorized ventilators for use over kitchen ranges.

An object of the invention is to provide a new and improved ventilator which is particularly designed to fit the top of the new-style kitchen ranges which are adapted to be hung from the wall of a room or otherwise supported at a height above the floor. Such ranges have the surface cooking units in a shelf-like portion at the bottom of the range and the oven disposed rearwardly offset therefrom and at a higher elevation.

Another object is to provide a novel arrangement of ventilating fans or blowers which tends to reduce vibration and having a minimum over-all height, thereby enabling the provision of a ventilating unit of low profile or silhouette.

A further object is to provide a device of the type indicated having a novel front wall or panel which is adjustable to control the size of the opening to the blowers and means associated therewith for controlling the blowers.

These and other objects will be apparent from the drawing and the following description. Referring to the drawing:

FIG. 1 is a front elevational view of a wall-hung-type range showing a range ventilator embodying the invention mounted on top thereof;

FIG. 2 is a plan view, partially broken away, of the ventilator of FIG. 1, but on a larger scale;

FIG. 3 is a sectional view on line 3—3 of FIG. 3, but on a larger scale; and

FIG. 4 is a wiring diagram.

More particularly describing the invention, numeral **11** generally indicates a kitchen range of recent style which is adapted to be mounted against and hung from a wall **12**. The range includes cooking units or burners **13**, a control panel **14**, and ovens **15**.

Numeral **16** generally designates a ventilator embodying the invention, and this is shown mounted upon the top of the stove or range **11**. The ventilator includes a casing **18** which has an upper wall **19**, end walls **21**, and a rear wall which is formed to provide two recessed sections **22**, each of which terminates in a rearwardly directed duct section **23**. The latter, with the top wall **19** and top wall **11'** of the stove define an outlet **24** which may register with a duct **25** in the wall **12**. Near the forward portion of the casing and parallel to rear wall sections **22**, I provide an air filter comprising two panel filters **27** secured in frames **28** on opposite sides of an electrical terminal box **30**. The end walls **21** may have bottom flanges **31** to facilitate mounting the casing on top of the stove and screws **32** may be used to secure the casing in place.

The various walls of the casing and filter together with the top of the stove define a blower chamber, designated **34**, to which air from the room has access through an opening **32** and through filter panels **27**. The opening **32** is provided by so proportioning the casing to the stove as to result in the casing extending forwardly of the top of the stove as shown in FIG. 3.

The forward portion of the casing is provided with a hinged front wall or panel **36** which normally is disposed vertically as shown in the drawing. However, this panel is hingedly mounted at **37** along its upper edge

to the forward edge portion of the top wall **19** so that it can be swung outwardly to the broken-line position shown in FIG. 3. The panel is releasably held in selected position by permanent magnets **38** mounted on the end walls **21** of the casing. The magnets are double-ended so as to cooperate with the main portion of the panel when the panel is vertical or to cooperate with flanges **39** formed on sector walls **40** of the panel, when the panel is raised.

It is a feature of my invention that I provide two blowers, **42** and **43**, in the chamber **34**. These are disposed in juxtaposed relation and with their outlets **42'** and **43'** adjacent each other. The blowers include suitable motors **44** and **45** which rotate in opposite directions as required by the orientation of the blowers. The blowers may be secured to a blower support channel **46** and to the rear wall of the casing in any suitable manner. By arranging the blowers as shown, a single outlet from the casing can be used while maintaining the height of the unit at a minimum. Also, counterrotation of the blowers reduces over-all vibration since the vibrations of one motor tend to be cancelled by those of the other.

In FIG. 4 I show an electrical diagram suitable for connecting and controlling the blowers. In this both motors are shown connected to one side of the A.C. line, designated **50**. The other side, line **51**, passes through a thermostatically controlled switch means **52** to motor **44** so that under conditions of high temperature this motor will be energized to operate its blower.

A manually operable switch **54** is connected to energize either motor **44** or both motors, as shown in the diagram. In addition to the above, the forward panel **36** of the ventilator is connected to operate a switch **56** to close the circuit through motor **45** when the panel is tilted upwardly.

Although I have illustrated and described a preferred form of my invention, I contemplate that various changes and modifications can be made therein without departing from the invention, the scope of which is indicated by the following claim.

I claim:

A ventilating device of relatively low profile adapted to be mounted on the top of a wall-hung type kitchen range, comprising a generally rectangular casing having a top wall, a rear wall, end walls and a front wall, said top wall being of greater width and said end walls of greater length than the depth of the top of the range whereby said casing, when mounted on top of the range, projects forwardly thereof to provide a downwardly facing, permanent inlet opening adjacent said front wall and extending substantially from one end wall to the other, said end, front and rear walls being narrow to provide a low over-all height of casing, said casing having an outlet duct rearwardly of said inlet opening, a pair of electrically motorized blowers mounted in said casing between said inlet opening and said outlet duct, said blowers being relatively thin axially of their axes of rotation and having counter-rotating rotors, said blowers including housings having outlet portions disposed in juxtaposed relation and extending partially into said outlet duct.

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