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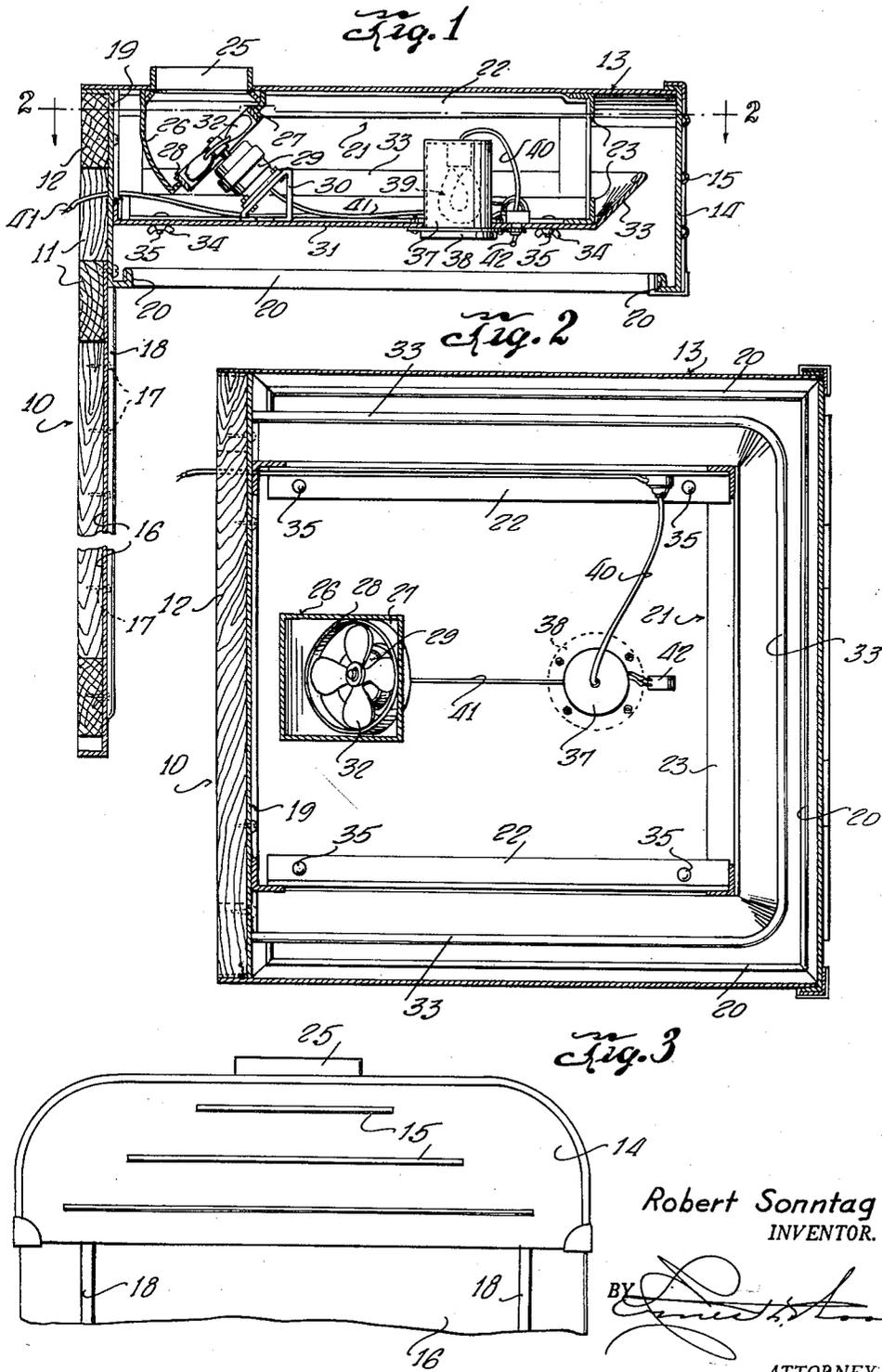
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COOKING STOVE VENTILATING CANOPY AND MOUNTING

Filed Dec. 13, 1948

2 Sheets-Sheet 1



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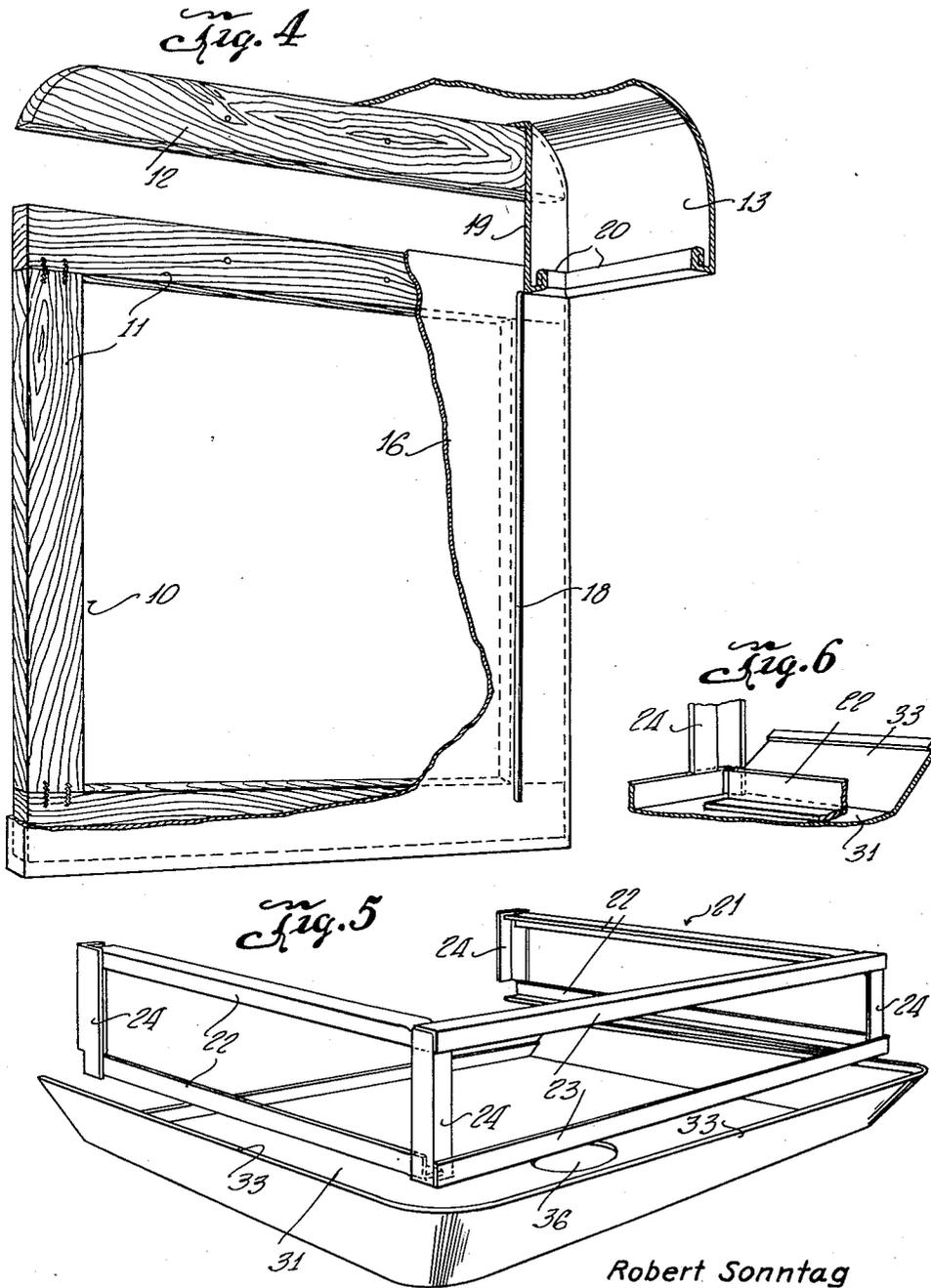
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COOKING STOVE VENTILATING CANOPY AND MOUNTING

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2 Sheets-Sheet 2



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COOKING STOVE VENTILATING CANOPY AND MOUNTING

Robert Sonntag, Dallas, Tex.

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1 Claim. (Cl. 98—115)

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This invention relates to ventilating equipment and more particularly to certain new and useful improvements in cooking stove ventilators as well as in the mounting for such ventilators.

The principal object of the invention is to improve and simplify the construction and mode of installation of stove ventilators and at the same time reduce the cost of such construction and installation below that of conventional equipment for like purpose.

Another object of the invention is to provide a ventilator for collecting and disposing of grease laden smoke and cooking odors arising from a cooking stove, which consists of a canopy and wall panel which are more or less permanently installed on a simple wood frame, the latter being prefabricated for ready application to a wall behind a stove. The invention further includes an open, horizontal frame suspended from the undersurface of the canopy and adapted to support, for convenient removal, a smoke deflector plate on which, in turn, is mounted the essential elements of the ventilator, i. e. the fan or blower light and switch for energizing the circuit to the light and fan. The prime advantage in facilitating removal of the deflector plate lies in ease with which accumulations of grime, grease and dust may be periodically removed from the inner surfaces of the canopy, deflector plate and that collecting on the fan and other concealed fixtures.

With the foregoing objects in view, the invention has further reference to certain features of accomplishment which will become apparent as the description proceeds, taken in connection with the accompanying drawings wherein:

Figure 1 is a vertical sectional view of a ventilating canopy constructed according to the invention.

Figure 2 is a view in transverse section, taken on line 2—2 of Figure 1.

Figure 3 is a fragmentary front elevational view of the invention.

Figure 4 is a perspective view of the mounting frame and fragmentarily showing the canopy and wall panel.

Figure 5 is a top perspective view of the deflector plate and its supporting frame, and

Figure 6 is a fragmentary perspective view showing the construction at one inner corner of the deflecting plate and its supporting frame.

Continuing with a more detailed description of the drawing, reference numeral 10 denotes a rectangular frame made up of wooden battens 11 and a crown member 12 whose ends are curved

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downwardly to conform with the curved sides of a sheet metal canopy 13 whose inner end is affixed to the crown member. The outer or front end 14 of the canopy is preferably ornamented with snap-on molding 15, as shown in Figures 1 and 3.

The wall frame 10 is secured to a wall by nails or screws after locating the position it is to occupy behind a cook stove or range. The crown member 12 is then secured to the wall in a similar manner in upwardly spaced relation to the top of the wall frame. After this has been done, a wall panel 16 of sheet metal is placed over and secured to the wall frame as by means of screws or nails 17 (Fig. 1). The frame 10 is thus entirely concealed by the panel 16 and the retaining means 17 is concealed by molding strips 18.

The canopy 13 extends to the wall above and at each side of the wall frame and an end plate 19 is welded or otherwise secured in the inner end of the canopy and lies flush against the upper transverse batten 11 and crown member 12 of the frame 10. The lower edge of the canopy 13 and that of each of the end plates 14 and 19 have upturned flanges 20 to define a channel for the collection of grease tending to accumulate on the walls of these members. It will be noted also that the lower edges of the canopy and end plate 19 lie below the upper extremity of the wall panel 16 to provide a more pleasing appearance and to preclude entry of grease and other foreign matter.

Welded or otherwise secured to the underside of the canopy 13 and depending therefrom is a horizontal frame 21, made up of parallel side members 22 and similarly related front end members 23 formed of angle iron. The upper and lower end and side members are spaced vertically apart by corner members 24. Thus, the horizontal frame 21 becomes a permanent and rigid part of the canopy 13, which latter has a square opening therein adjacent to its wall end which is embraced by an upstanding flange 25 (Fig. 1), to which is adapted to be attached an exhaust duct, not shown.

Depending from the undersurface of the canopy 13 is a transition duct 26 of substantially square cross-section and which communicates with the vent opening of the canopy. The duct 26 is curved downwardly towards the center of the canopy and its inlet end is disposed at an angle of approximately 45° with respect to the horizontal plane and contains an internal flange 27 having a central opening in which is disposed an annular fan cowling 28.

A fan motor 29 is mounted on a bracket 30 in such manner that the armature shaft of the motor will lie at an angle of approximately 45° with respect to the plane of a deflector plate 31 on which the bracket 30 is mounted. A fan 32 is carried by the shaft of the motor 29 and operates within the cowling 28 to constrain smoke and cooking odors rising from a stove to pass over the upturned sides 33 of the deflector plate and across this plate into the duct 26 for discharge through the exhaust duct above the canopy.

The deflector plate 31 is suspended from the horizontal frame 21 only by wing nuts 34 and bolts 35 depending from this frame (Fig. 1). Hence, in order to remove the deflector plate, which conceals the elements thereabove, it is necessary only to remove the wing nuts 34. Access may thus be attained to the underside of the canopy, the frame 21, motor and other parts for periodic cleaning.

The deflector plate 31 has an opening 36 therein through which extends a lamp housing 37. A finish flange 38 embraces the exposed lower end of the housing and retains a suitable glass covering (not shown). A lamp 39 is mounted in a socket in the top of the housing 37 and current is supplied to the lamp through wires 40. Wires 41 convey current to the fan motor 29 and a common switch 42 opens and closes these circuits simultaneously.

It is apparent from the foregoing that a housewife may, without aid, remove the deflector plate 31 and lower the same while standing on the floor and thus remove all foreign matter accumulating on the concealed parts and may thereby keep the ventilator in a sanitary condition difficult to attain under ordinary conditions.

Manifestly, the construction as shown and described is capable of some modification and such modification as may be construed to fall within

the scope and meaning of the appended claim is also considered to be within the spirit and intent of the invention.

What is claimed is:

A cooking stove canopy and ventilator comprising in combination, battens disposed to define a rectangular wall frame, a canopy attached to the top of said frame and extending outwardly from the wall on which said frame is mounted, said canopy having depending ends and side walls, each provided with a grease collecting channel, a horizontal, open-sided frame affixed to and depending from the underside of said canopy, a transition duct connected to a discharge opening in said canopy and depending from the underside of the latter, said duct being curved at an angle of substantially forty five degrees towards the center of said canopy, a deflector plate having upturned edges and attached to the underside of said horizontal frame, a fan motor mounted on said deflector plate at an angle thereto, a fan operated by said motor within the inlet end of said duct, means for opening and closing an electric circuit to said fan motor, and means accessible on the underside of said deflector plate for detaching the latter, said motor and fan as a unit from said horizontal frame.

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