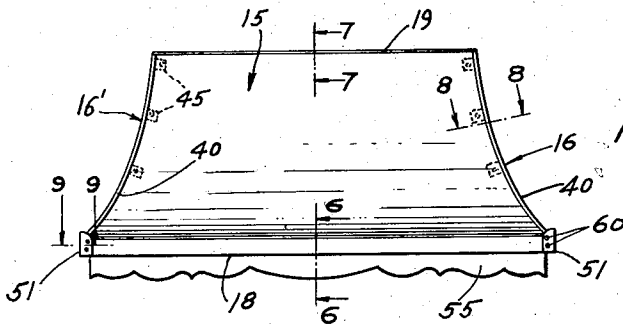
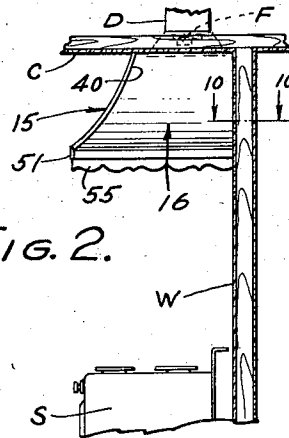
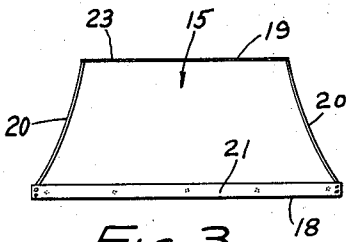
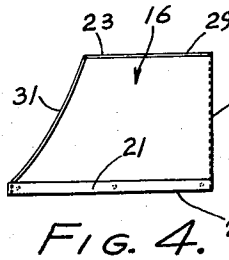
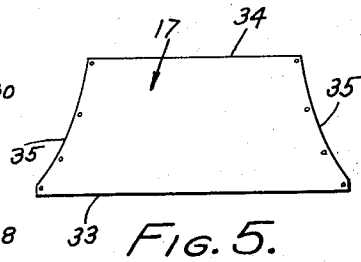
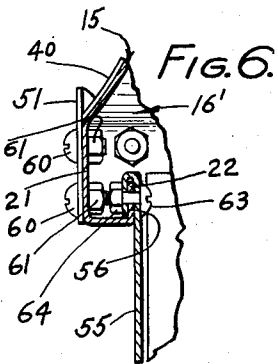
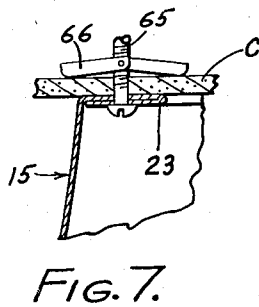
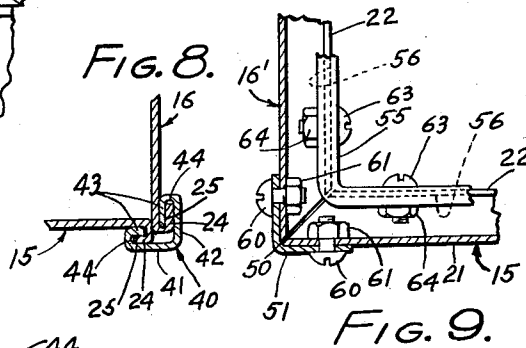
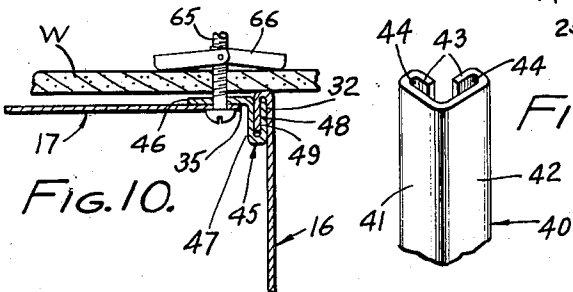


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VENTILATING HOOD KIT

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1

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VENTILATING HOOD KIT

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This invention relates generally to canopies or hoods and is concerned more particularly with an over-the-stove hood. Specifically, the invention pertains to a kit consisting of several prefabricated parts which may be easily and quickly assembled by the homeowner and conveniently installed in the area directly above a cooking stove in the kitchen.

Hoods are used quite extensively in kitchens and installed above cooking stoves to direct smoke, fumes, grease particles, etc., upwardly to a vent opening in the ceiling. In some instances, a small exhaust fan is provided in the vent opening to expel the smoke and fumes from the hood into the atmosphere. Hoods of this type are usually produced in a manufacturing plant from sheet metal of various types, thicknesses, etc., the front, sides, back and ornamental strips being assembled at the plant by the use of angle-iron frames, welding or other means to provide a permanent structure. The complete hood unit is delivered to the purchaser and it is customary for workmen to install the heavy unit in the home. In view of the nature of the hood unit and the installation charges involved, the cost of equipping a kitchen with such a hood is considerable and almost prohibitive to the average small-home owner.

It is therefore, the principal object of this invention to obviate the difficulties referred to above by providing an over-the-stove hood, the various parts of which are sold unassembled in the nature of a kit for assembling and installing in the kitchen by the home owner or the so-called "do-it-yourself" mechanic.

Another object of the invention is to provide a ventilating hood, the main parts of which are simple, lightweight sheet metal sheets stamped or routed to the required shapes and adapted for quick and easy assembly, preferably by bolts inserted through holes provided for this purpose.

Another object of the invention is to provide a hood, of the character referred to, which includes a prefabricated front panel, side panels and a back panel, the front and side panels having mating curved edges provided with reversely-bent tongues, the hood including locking strips resembling moulding strips of right-angular cross-sectional shape having longitudinal grooves adapted to receive the tongues of the front and side panels as the strips are slid thereover, the strips thus connecting these panels without the use of screws, rivets, etc. According to the invention, the rear edges of the side panels are folded inwardly to provide vertical grooves, the hood also including sheet metal clips or connectors having tongues engageable in the grooves at the rear edges of the side panels, fasteners passing through aligned holes in the clips and back panel and anchored in the vertical wall of the kitchen serving to secure the hood against said wall. The front and side panels have inwardly-bent flanges at their upper edges, these flanges having holes through which fasteners extend to anchor the top of the hood securely against the ceiling of the room.

As another feature and object of the invention, the

2

present hood is provided with an ornamental strip or skirt forming downward extensions of the front and side panels. According to the present improvement, the skirt consists of a sheet metal strip having its upper edge portion bent back upon itself to provide a groove, this edge portion receiving an upwardly bent tongue or flange formed along the inner surfaces of the front and side panels to suspend the skirt from these panels, screws passing through aligned holes in the flange and upper portions of the front and side panels securing the parts together.

A further object of the invention is to provide a hood of the type indicated, the parts of which are adapted for economical mass production, one which may be quickly assembled and installed in the room, one which is light in weight, and one which actually enhances the appearance of the cooking area of the room, the outside surfaces of the hood preferably being subjected to an anodizing and dyeing process to create colors which will harmonize with the color scheme of the kitchen.

Further objects of the invention will appear from the following description and from the drawing which is intended for the purpose of illustration only, and in which:

Fig. 1 is a front elevational view of the assembled hood;

Fig. 2 is a side elevational view of the hood, illustrating it installed against a wall and the ceiling of a room, above a cooking stove;

Figs. 3, 4 and 5 are detail views of the respective front, side and back panels of the hood;

Figs. 6, 7, 8 and 9 are enlarged sectional views, taken respectively on lines 6—6, 7—7, 8—8 and 9—9 of Fig. 1;

Fig. 10 is a sectional view, taken on line 10—10 of Fig. 2; and

Fig. 11 is a perspective view of a portion of one of the corner locking strips.

Referring to the drawing in detail, the present ventilating hood includes a front panel 15, side panels 16 and 16', and a back panel 17, these panels being fabricated from lightweight sheet metal, such as aluminum alloy stock. The front panel 15 is of substantially trapezium shape, having a bottom edge portion 18, a shorter top edge portion 19 and upwardly converging, curved side edge portions 20.

The lower edge portion 18, as shown best in Fig. 6, is bent downwardly slightly from the plane of the main plane of the panel, as indicated at 21. This vertical portion is then bent inwardly or rearwardly and then folded upwardly to provide an upright flange or tongue 22. The upper edge portion 19 is bent inwardly or rearwardly in a flange 23 which is folded back upon itself to provide a flange of double thickness, this flange having longitudinally-spaced, punched holes. Each of the curved, sloping side edge portions 20 is bent outwardly or forwardly and then laterally to provide a flange or tongue 24, the space between this tongue and the outer face of the panel forming a groove 25 as shown in Fig. 8.

The side panels 16 and 16' are similar but of opposite hand, only one of these panels (16) being shown in full detail. The panel 16 is of generally trapezium shape, having a bottom edge portion 28, a top edge portion 29, a vertical back edge portion 30 and a rearwardly inclined, curved front edge portion 31. The bottom edge portion 28 is provided with a portion 21 and a flange or tongue 22 identical to those of the front panel 15. The upper edge portion 29 is formed with a double thickness flange 23 identical to that of the front panel 15. The sloping front edge portion 31 is bent outwardly and rearwardly in a flange or tongue 24 and a groove 25 identical with those of the front panel 15. The back edge portion 30 is provided with a reversely bent tongue or flange defining a vertical groove 32 (Fig. 10).

In practice, the opposite ends of the flange 23 on the

front panel and the front ends of the flanges 23 on the end panels are mitered so that when the panels are assembled, as will hereinafter be described, the adjacent ends of the said flanges will establish flat butting engagement with each other.

The back panel 17 is also of generally trapezium shape, having a bottom edge 33, a top edge portion 34 and upwardly converging, curved side edges 35.

The hood also includes a pair of somewhat flexible locking strips 40 which, as shown best in Figs. 8 and 11, are angular sheet metal elements having right-angular sides 41 and 42. The longitudinal edges of the sides 41 and 42 are bent at right angles thereto and then folded inwardly in overlying, spaced, parallel relation to the sides so as to provide tongues 43 which, define with the sides, longitudinal grooves 44.

The hood further embodies a plurality of fastening clips 45 which are fabricated from sheet metal. As shown in Figs. 1 and 10, each clip 45 consists of a flat plate portion 46 which has an ear 47 bent at right angles thereto, said ear having an extension bent to extend parallel to the ear, in spaced relation thereto whereby to provide a tongue 48 and groove 49. As illustrated, the plate portions 46 have holes which align with holes spaced along the edge portions 35 of the back panel 17.

The intersecting lower portions 21, 22 of the front and side panels are mitered, as indicated at 50 in Fig. 9. Angular, sheet metal elements 51 are provided for concealing these joints. As shown, each element 51 is held in place by screw means to be later described, the upper end of each element projecting above the bent portions 21 of the front and side panels.

The ventilating hood preferably is equipped with an ornamental sheet metal skirt 55 which is of U shape in plan view to adapt it to extend along the bottom edges of the front and side panels 15, 16, 16'. The upper edge of the skirt 55 is bent back upon itself to provide a tongue defining a longitudinal groove 56.

It is the intent of this application to provide a ventilation hood, the parts of which are adapted to be packaged and sold in a kit and later assembled at the site where the hood is to be installed. Assuming that the hood is to be installed at the cove line or intersection of a vertical wall W and ceiling C or a room, directly above a cooking stove S, the prefabricated parts of the hood are first assembled as next outlined.

A side panel 16 is first attached to the front panel 15 by placing the curved, tongue-and-groove edges 20 and 31 in longitudinal abutting relation. One of the locking strips 40 is next engaged with these edges and slid into place. That is to say, the flexible strip is so placed that its tongues 43 engage in the grooves 25 of the front and side panels, and the tongues 24 engage in the grooves 44, after which the strip is slid longitudinally into position to overlie and conceal the joint between these edges of the front and side panel. The other side panel 16' is next joined to the other end of the front panel in a similar manner, by the use of the other locking strip 40. The front and side panels thus assume a concave shape as clearly shown in Figs. 1 and 2.

The sheet metal corner elements 51 may next be attached to the front corners of the hood structure by merely placing them in the positions shown in Figs. 6 and 9, after which attaching bolts 60 are inserted through aligned holes in the elements and in the portions 21 of the front and side panels. Nuts 61 screwed onto the inner ends of these bolts and against the inner surfaces of the portions 21, secure the parts in assembled relation.

Following the above operation, the skirt 55 may be joined to the lower edge portions of the front and side panels. To accomplish this, it is only necessary to so place the skirt that its upper, bent tongue 56 is engaged over the flanges 22 of the front and side panels 15, 16 and 16'. Small bolts 63 are then inserted through aligned holes in the upper edge portion of the skirt and the flanges 22. Nuts 64 screwed onto the inner ends of

the bolts 63 and set up against the tongue 56, securely hold the parts together.

To install the hood at the juncture of the ceiling C and wall W, a number of the attaching clips 45 are placed along the back edge portions 30 of the side panels 16 and 16' with their tongues 48 engaged in the grooves 32. The plate portions 46 of the clips 45 provide rests against which the side edge portions 35 of the back panel engage. Screws 65 are inserted through aligned holes in the clips 45 and the side edge portions 35, these screws being then anchored in the wall W (as clearly illustrated in Fig. 10). The screws 65 may be of any desired type, for example of the toggle type shown, such a fastener including a toggle nut 66 which, following its insertion through a hole in the plaster of the wall, automatically extends to engage the inside surface of the plaster. In other cases, a fastener known as the Molly screw may be employed.

Similar screws 65 are then inserted through holes in the inturned upper or top flanges 23 of the front and side panels 15, 16, 16' and are anchored in the ceiling as by the nuts 66, as clearly illustrated in Fig. 6 of the drawings.

The ventilating hood thus is firmly secured against the wall W and ceiling C to provide a passageway for directing smoke and fumes emanating from the stove S upwardly through a vent opening duct D leading to the atmosphere. In some installations, an exhaust fan F may be provided at the entrance to the vent duct. The hood is highly efficient in service and is ornamental, thus enhancing the appearance of the room. As will be apparent, the lightweight aluminum parts may be subjected to an anodizing and coloring process so that the hood may be provided in selected colors to harmonize with the surrounding area of the room.

As a particular feature of the present invention, the hood is intended for sale to the homeowner in knocked-down condition, that is, in the nature of a kit. As outlined above, these components are adapted for quick and easy assembly, and the assembled hood may be readily installed by a person not especially skilled in such procedures. Consequently, the hood may be produced and sold to the homeowner in an economical kit form for assembly and installation and the usual, relatively high, labor costs involved when a conventional factory-assembled hood is installed, is avoided. Thus, the cost of the ventilating hood, fully installed, is brought within the reach of the average small home owner.

As will be apparent, the steps involved in assembling the hood components and installing the hood in the room may be varied, the invention not being limited in this respect.

In accordance with the provisions of the patent statutes, I have herein described the principle of the invention, together with the hood construction which I now consider to represent the best embodiment of the invention. I wish to have it understood, however, that various modifications might be made in the structure and arrangement of the parts without departing from the spirit or scope of the invention as defined in the appended claims.

I claim as my invention:

1. A ventilating hood, including: a sheet metal front panel of substantially trapezium shape having upwardly convergent, curved side edge portions provided with longitudinal tongues, and a straight, horizontally disposed top edge; a pair of sheet metal side panels each having a vertical wall engaging back edge and an upwardly sloping, curved front edge portion provided with a longitudinal tongue defining a longitudinal groove, and a straight, horizontally disposed top edge; a pair of locking strips each of right-angular cross-sectional shape, each side of the strip having inturned tongues defining a longitudinal groove, each strip being flexible and slidable onto the intersecting curved side edge portion of the front panel and the curved front edge portion of the side

5

panel with the tongues of the strip slidable in the grooves of these edge portions; and a wall engaging back panel extending between the back edge portions of said side panels, said front and side panels having ceiling engaging, intumed mounting flanges at their top edges, the bottom edge portions of the front and side panels having inwardly and upwardly bent flanges, the hood also including a sheet metal skirt having a laterally and downwardly bent tongue defining a groove receiving said flange of said bottom edge portions so as to suspend the skirt from the front and side panels, the lower portions of said front and side panels being mitered at their intersections, and including right-angular corner elements overlying said mitered joints and secured in place by fasteners extending through aligned holes in said corner elements and said front and side panels, the upper ends of said corner elements extending above and concealing the lower ends of said locking strips.

2. A ventilating hood, including: a sheet metal front panel of substantially trapezium shape having upwardly convergent, curved side edge portions provided with longitudinal tongues, and a straight, horizontally disposed top edge; a pair of sheet metal side panels each having a vertical wall engaging back edge and an upwardly sloping, curved front edge portion provided with a longitudinal tongue defining a longitudinal groove, and a straight, horizontally disposed top edge; a pair of locking strips each of right-angular cross-sectional shape, each side of the strip having intumed tongues defining a longitudinal groove, each strip being flexible and slidable onto the intersecting curved side edge portion of the front panel and the curved front edge portion of the side panel with the tongues of the strip slidable in the grooves of these edge portions; and a wall engaging back panel extending between the back edge portions of said side panels, said front and side panels having ceiling engaging, intumed mounting flanges at their top edges, the bottom edge portions of the front and side panels have inwardly and upwardly bent flanges, the hood also including a sheet metal skirt having a laterally and downwardly bent tongue defining a groove receiving said flange of said bottom edge portions so as to suspend the skirt from the front and side panels, the lower portions of said front and side panels being mitered at their intersections, and including right-angular corner elements overlying said mitered joints and secured in place by fasteners extending through aligned holes in said corner elements and said front and side panels, the upper ends of said corner elements extending above and concealing the lower ends of said locking strips, the back edge portions of said side panels having inwardly and reversely bent tongues defining vertical grooves, the hood including attaching clips provided with tongues receivable in said vertical grooves, the side edges of said back panel overlying said clips, fasteners inserted through aligned holes in said clips and side edges of the back panel serving to secure the back of the hood against a wall.

6

back panel serving to secure the back of the hood against a wall.

3. A ventilating hood, including: a sheet metal front panel of substantially trapezium shape having upwardly convergent, curved side edge portions provided with longitudinal tongues, and a straight, horizontally disposed top edge; a pair of sheet metal side panels each having a vertical wall engaging back edge and an upwardly sloping, curved front edge portion provided with a longitudinal tongue defining a longitudinal groove, and a straight, horizontally disposed top edge; a pair of locking strips each of right-angular cross-sectional shape, each side of the strip having intumed tongues defining a longitudinal groove, each strip being flexible and slidable onto the intersecting curved side edge portion of the front panel and the curved front edge portion of the side panel with the tongues of the strip slidable in the grooves of these edge portions; and a wall engaging back panel extending between the back edge portions of said side panels, said front and side panels having ceiling engaging, intumed mounting flanges at their top edges, the bottom edge portions of the front and side panels having inwardly and upwardly bent flanges, the hood also including a sheet metal skirt having a laterally and downwardly bent tongue defining a groove receiving said flange of said bottom edge portions so as to suspend the skirt from the front and side panels, the lower portions of said front and side panels being mitered at their intersections, and including right-angular corner elements overlying said mitered joints and secured in place by fasteners extending through aligned holes in said corner elements and said front and side panels, the upper ends of said corner elements extending above and concealing the lower ends of said locking strips, the back edge portions of said side panels having inwardly and reversely bent tongues defining vertical grooves, the hood including attaching clips provided with tongues receivable in said vertical grooves, the side edges of said back panel overlying said clips, fasteners inserted through aligned holes in said clips and side edges of the back panel serving to secure the back of the hood against a wall, said intumed flanges at the upper edge portions of said front and side panels have holes receiving fasteners for anchoring in a ceiling.

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