United States Patent

Berkus

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[54] **VENT UNIT**

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[52] **U.S. Cl.** **98/61**

[51] **Int. Cl.** **F23l 17/02**

[58] **Field of Search** 98/61–74, 35, 42

[56] **References Cited**

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[57] **ABSTRACT**

An improved vent unit assembly is provided for particular use in a mobile home gas refrigerator ventilation system, but which has general utility. The vent assembly of the invention is of a two-piece construction, each of the components of which may be nested with other like components for compact packaging when shipping, and for ease of dismantling when cleaning the ventilation system in which the assembly is incorporated.

2 Claims, 4 Drawing Figures

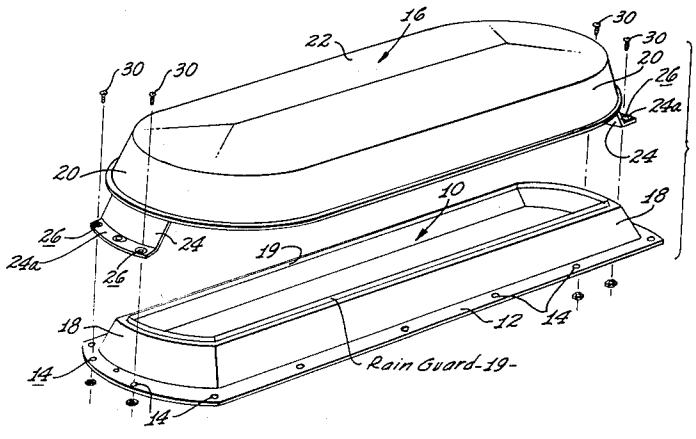


Fig. 1

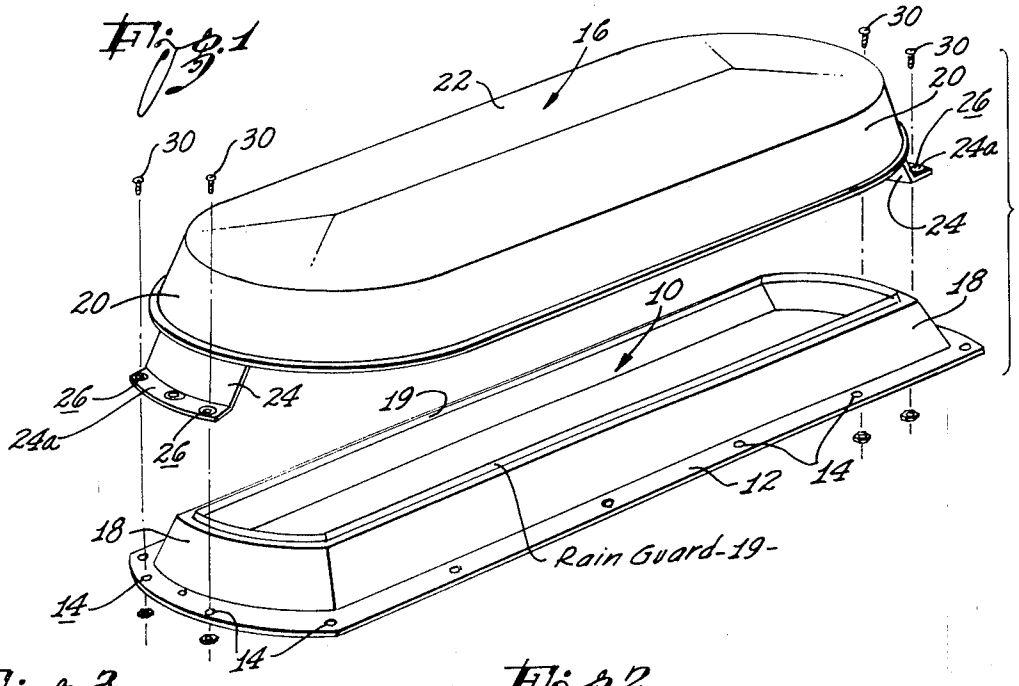


Fig. 3

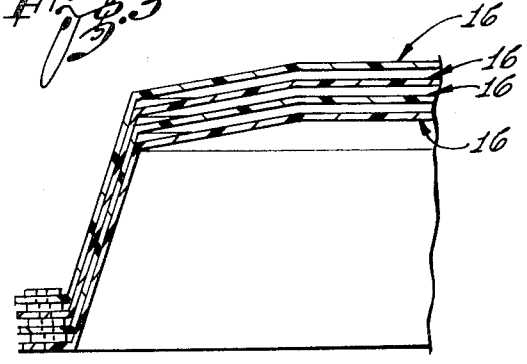


Fig. 2

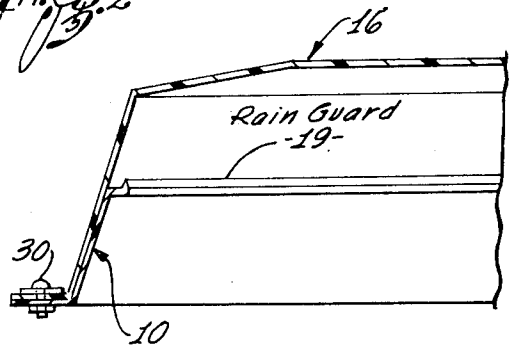
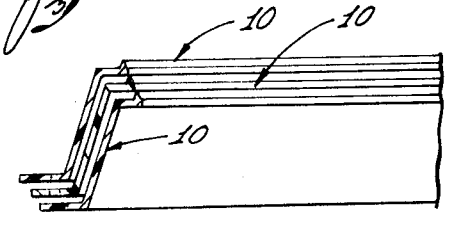


Fig. 4



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VENT UNIT

BACKGROUND OF THE INVENTION

Gas refrigerators, which are in widespread use in mobile homes, have presented some problems in that it is essential for an adequate ventilation system to be provided. The usual ventilation system comprises a louvered door in the side of the mobile home adjacent the back of the refrigerator to supply air to the burner section, and an exhaust flue, or duct, for carrying away the exhaust gases. The exhaust flue extends to a vent unit in the roof of the mobile home. The present invention is concerned with an improved construction for such a roof vent unit and which, as mentioned above, has general utility.

The usual prior art mobile home roof vent comprises a one-piece metal unit which has an awkward shape for shipping purposes. The prior art vent, moreover, is difficult to remove after it has been installed, when it is desired to clean the vent and the associated ventilation system.

The improved two-piece vent unit of the present invention, is constructed so that each of its two components has flared sides. This permits the components to be nested with other like components, so as to form a compact package for shipping purposes. Also, the two-piece construction of the vent unit of the invention permits, for example, the top of the unit to be removed, merely by removing a few screws, thus facilitating the operations required for cleaning the unit and the ventilation system with which it is associated.

The vent unit of the invention may be formed of any suitable plastic, such as styrene, polypropylene, polyethylene; or other material. The vent unit has a two-piece construction, as mentioned above, and its two parts may be appropriately formed by injection molding, so that the unit may be fabricated on a mass production basis at a relatively low cost, and may be sold at a relatively low price.

The vent unit of the present invention is intended, as indicated above, to replace the more expensive and less durable metallic unit of the prior art, and to provide, in general, a durable and rugged unit of a two-piece construction, which is low in cost, easy to ship; and which is constructed in a manner to facilitate the cleaning of the ventilation system in which it is installed.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is an expanded perspective view of the two components which make up one embodiment of the invention;

FIG. 2 is a partial cross-section of the assembly, showing the two components as they are mounted in a typical installation;

FIG. 3 shows a group of one of the two components of FIG. 1 nested within one another so as to form a compact shipping package; and

FIG. 4 shows the other component nested with like components, likewise, to form a compact shipping parcel.

DETAILED DESCRIPTION OF THE ILLUSTRATED EMBODIMENT

The vent unit of the invention, in the embodiment illustrated in the drawing, comprises a first, or lower part **10** having a generally rectangular configuration. The part **10** has an open top and an open bottom. A flange **12** extends around the periphery of the open bottom in uniplanar relationship with the bottom. The flange **12** has holes **14** which permit the part **10** to be mounted, for example, on the roof of a mobile home around an opening in the roof and over the top of the aforesaid exhaust flue associated, for example, with the gas refrigerator in the mobile home. As mentioned above, the part

10, as well as the second part **16** of the vent, may be formed by injection molding of an appropriate plastic material, in which case the hole **14**, and other mounting holes in the unit are formed during the molding process.

The second part **16** of the vent also has a rectangular configuration generally confirming with the configuration of the part **10**. However, the length and width of the bottom of the part **16** is greater than the length and width of the top of the part **10**, so that the part **16** may be supported in an overlying relationship with respect to the part **10**.

The part **10** has a side wall **18** which is integral with the flange **12** and which extends upwardly from the flange, with an inwardly flared configuration. An upstanding rim **19** is formed integral with the upper edge of the part, and it functions as a rain guard. The part **16** has a side wall **20** which is integral with the closed top **22**, and which has an outwardly flared configuration. A pair of tabs **24** are formed integral with the side wall **20** of the part **16** at the respective ends of the part, and these tabs serve to support the part **16** over the part **10** with the side walls **18** and **20** in a generally telescoping spaced relationship, and with the lower rim of the top **16** displaced up from the flange **12**, so as to permit gases to escape between the two parts. The tabs **24** have flanges **24a** formed at their lower extremities, the flanges having apertures **26** which are axially aligned with the end apertures **14** in the flange **12**, so that common mounting screws **30** may be used.

It will be appreciated, therefore, that merely by removing two or three of the screws **30** at each end of the assembly, the upper part **16** may be removed from the lower part, so that the two parts may be easily cleaned, as well as the internal duct system, without any need to remove all the screws supporting the lower part of the roof of the structure.

Moreover, and as shown in FIGS. **3** and **4**, the upper part and lower parts may be nested into one another in separate packages, so as to provide a compact and space-saving package for shipping purposes.

While a particular embodiment of the invention has been shown and described, modifications may be made, and it is intended in the following claims to cover all the modifications which come within the scope of the invention.

What is claimed is:

1. A two-piece vent comprising: a first part having an elongated generally rectangular configuration with an open top and an open bottom and having a peripheral flange extending around said open bottom and further having an upstanding inwardly flared side wall integral with said flange; and a second part having a generally similar rectangular configuration to that of said first part and having an open bottom of a length and width greater than the length and width of said open top of said first part, said second part having a closed top and an outwardly flared side wall integral therewith and extending to the open bottom thereof, and further having means extending between said first part and said second part to support said second part in a spaced overlying relationship with respect to said first part, said last-named means comprising a pair of integral tabs extending down from said side wall of said second part at the respective ends thereof with the lower ends of said tabs shaped to overlie the aforesaid flange of said first part, and screw means securing said tabs to said flange, said tabs supporting said second part over said first part with the respective side walls of the first and second parts in spaced telescoping relationship with one another.

2. The two-piece vent defined in claim **1**, in which said first part has an upstanding rim formed integral with the upper edge thereof and extending around the aforesaid open top thereof to form a rain guard for the vent.

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