

July 14, 1970

P. PAINTER

3,520,245

RELIEF AND INTAKE AIR VENT FOR BUILDING ROOFS

Original Filed July 11, 1968

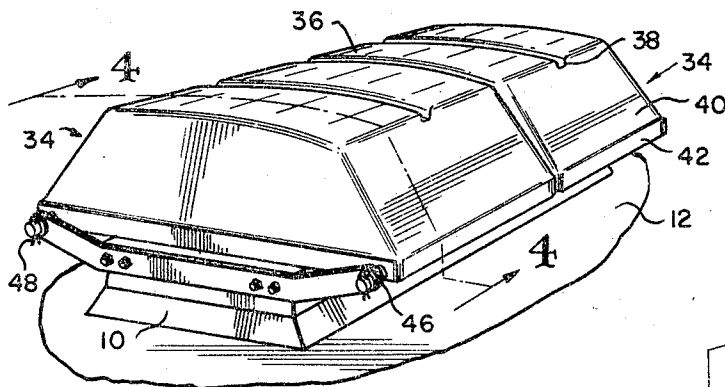


Fig. 1

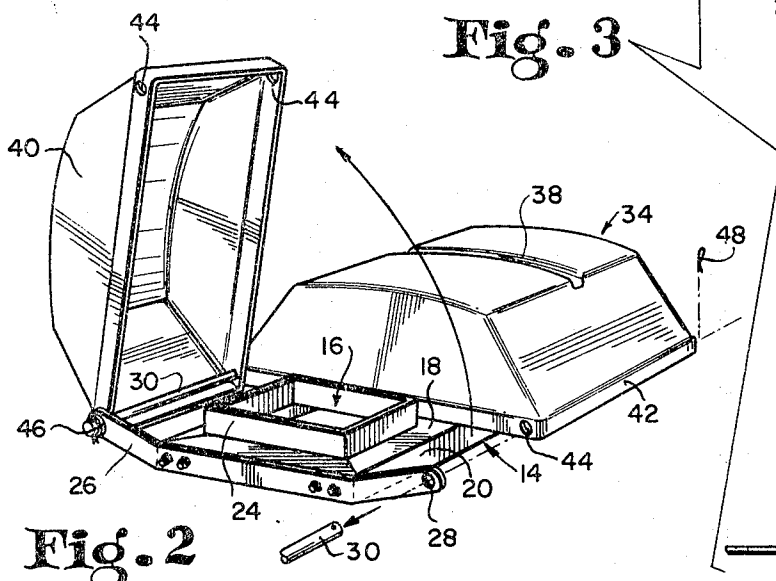


Fig. 2

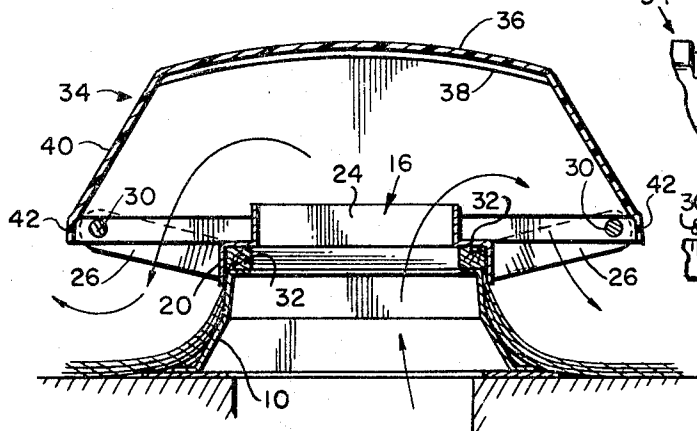


Fig. 4

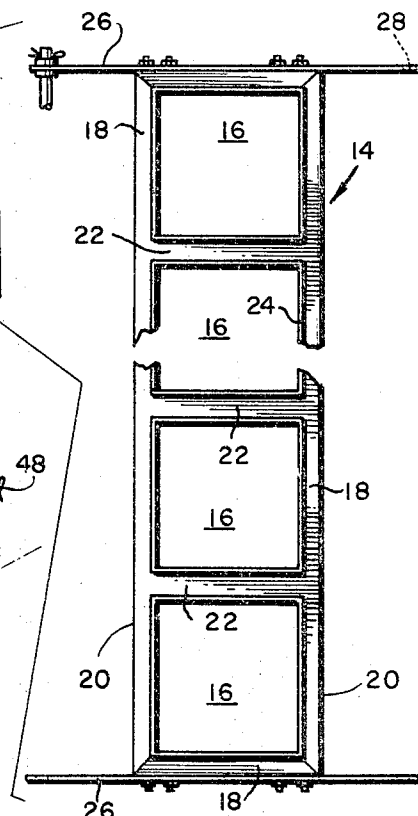


Fig. 5

INVENTOR
PHILLIP PAINTER

BY *Tennett E. Wobben*
ATTORNEY

1

3,520,245

RELIEF AND INTAKE AIR VENT FOR BUILDING ROOFS

Phillip Painter, Indianapolis, Ind., assignor to Jenn-Air Corporation, Indianapolis, Ind., a corporation of Indiana

Continuation of abandoned application Ser. No. 744,236, July 11, 1968. This application Aug. 19, 1969, Ser. No. 853,598

Int. Cl. F24f 7/02

U.S. Cl. 98—42

6 Claims

ABSTRACT OF THE DISCLOSURE

This disclosure is to a relief or intake air vent for use on buildings having a generally flat roof and wherein the vent is adapted to be positioned on a rectangularly shaped pre-constructed building curb which frames an opening in the roof. The relief vent includes a curb cap received directly on the pre-constructed building and has orifices therein for the passage of air. Concave-convex covers are removably carried on and over the curb cap to protect the orifice openings from entry of rain or other weather elements.

This case is a continuation of application No. 744,236, filed July 11, 1968 and now abandoned.

SPECIFICATION OF PREFERRED EMBODIMENT

This relief or intake air vent is adapted to be received atop a rectangular pre-constructed building curb on a generally flat building roof.

My invention will be understood from a reading of the following specifications which refers to various figures in the drawing.

FIG. 1 is a perspective view of the relief vent in position on a pre-constructed building curb.

FIG. 2 is another perspective view, similar to that of FIG. 1 but showing one cover of the relief vent tilted back so as to reveal construction details of the curb cap.

FIG. 3 is a plan view of the curb cap and yokes at end thereof.

FIG. 4 is a cross-sectional view of the air vent and curb taken along line 4—4 of FIG. 1.

FIG. 5 is a partial elevation of the side of the vent covers at their juncture showing the hold down bar and spaces therebetween.

A pre-constructed rectangular building curb 10 (FIG. 1) is secured on a generally flat building roof 12 and frames an opening in the roof. These curbs provide a base upon which the air relief or vent is mounted. They are standard items of factory manufacture, or in some instances may be built in the field by carpenters or sheet metal men. Since the showing herein of this rather standard item is not in detail, reference may be had to FIGS. 1, 2 and 3 (without sound absorbing interior) of U.S. Pat. 3,085,647 wherein a curb is shown. The curb exterior shape herein is tapered but otherwise their designs are similar.

A curb cap 14 is adapted to be received on top of building curb 10. It is generally rectangular in plan view and built to conform generally to the dimensions of a building roof opening and specifically to the dimensions of the building curb which frames the opening. The cap 14 may be thought of as having a generally flat top portion 18 provided with one or more orifices 16 for the passage of air. It has a downturned skirt or flashing 20 around its periphery which is adapted to be received on and overhang a portion of the building curb to protect it from the weather. As shown in FIG. 3, the orifices are spaced apart a short distance and are separated by a

2

strip 22 if two or more orifices are disclosed. A weather band 24 surrounds each orifice to prevent rain or other condensate from entering the orifice into the building.

Opposite ends of curb cap 14 are adapted to be provided with yokes 26 which extend to either side thereof. The yokes at their ends are provided with holes 28 through which elongate hold down or pivot bars 30 are threaded. The curb cap is secured in position on top of the pre-constructed building curb by nails or screws extending through skirt 20 into wooden strip 32. The curb cap may contain one or a plurality of orifices 16 depending upon dimensions of the curb opening. These openings are protected by one or more covers 34, and this will be more fully described hereinafter.

These covers are preferably made of thermo-setting plastic and are vacuum formed to the desired shape. As shown in the drawing, the covers are generally of a concave-convex shape having a generally flat or slightly pitched top 36, which includes a transverse recess or strengthening rib 38. Side or skirt portions 40 flare outwardly and downwardly and terminate in a peripheral band 42. This band represents a change in shape to strengthen the cover and is provided with aligned holes 44 along the sides thereof. As shown elongate hold down or pivot bars 30 are threaded through holes 28 in yokes 26 and through holes 44 of the covers to hold down the covers in position over the curb cap. As shown in FIG. 2, when a bar is removed on one side, a cover may be pivoted about the other bar.

One or more resilient grommets 46 are located on the elongate bar 30 at a position adjacent holes 44 between covers or between covers and yokes 26. They provide spacing and resilient positioning of the covers with respect to the curb cap.

When the covers are located in proper position and bars 30 are threaded through the yokes and cover bands, cotter pins 48 are inserted through the rod to maintain all in position. It will be noted that the covers are positioned across the top of flat portion 18 and that bands 42 thereof extend below the top of weather bands 24.

As shown in FIG. 1 the covers are of the same size; however, in FIG. 2 one of the covers is smaller than the other. One cover in FIG. 2 can overlie two or more orifices, whereas the smaller cover can overlie only one orifice. A certain amount of flexibility and standardization is possible thereby to meet various lengths of the curb caps.

If desired, dampers of standard design may be located in orifice openings 16. Also screens may be provided in openings 16 or between the curb cap and the cover to prevent entry of birds, insects or the like.

I have by this specification and with reference to the drawing disclosed one form of my invention. It is obvious that variations and modifications may be made therein without departing from the spirit of my invention. To define the limits of my invention I submit the following claims.

I claim:

1. A ventilating device for use on a curb which curb frames an opening in a building roof for passage of air therethrough comprising:

an elongate weather protective curb cap adapted to overlie the curb and be supported thereon,

said curb cap provided with a plurality of orifices throughout its longitudinal extent for the vertical passage of air in communication with the curb opening,

means upstanding from said curb cap surrounding said orifices and defining a trough between adjacent orifices,

3

a plurality of covers each adapted to overlie one or more of said orifices throughout the longitudinal extent of said elongate curb cap, said covers including depending skirts, adjacent covers when in position over said curb cap having skirt with portions adjacently disposed with each other and terminating at a location overlying a trough so that condensate from the skirts is directed thereinto.

2. The claimed subject matter of claim 1 wherein a pair of elongate spaced apart rods are disposed on either side of and supported from said curb cap and threaded through said covers for holding said covers in overlying relationship.

3. The claimed subject matter of claim 1 wherein portions of said skirts overhang the opposite side of said curb cap.

4. The claimed subject matter of claim 1 wherein said

4

skirts terminate at a level below the upper extremity of said upstanding means.

5. The claimed subject matter of claim 2 wherein said covers are selectively pivotable to a raised position about one rod when the other rod is removed from its threaded position in said cover.

6. The claimed subject matter of claim 3 wherein said skirts terminate at a level below the upper extremity of said upstanding means.

References Cited

UNITED STATES PATENTS

3,257,932 6/1966 Honold et al. ----- 98—42

15 WILLIAM E. WAYNER, Primary Examiner

U.S. Cl. X.R.

52—200, 302