July 14, 1970 P. PAINTER 3,520,093

COVER FOR ROOF VENTILATOR

Original Filed Dec. 13, 1967 2 Sheets-Sheet 1

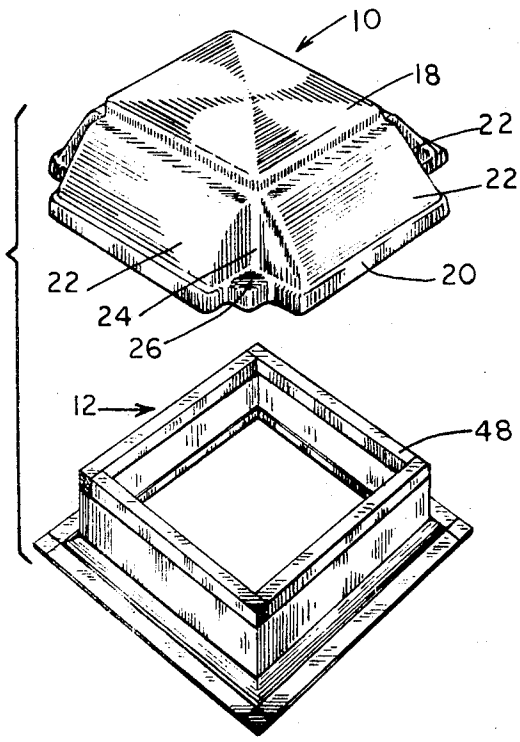


FIG. 1.

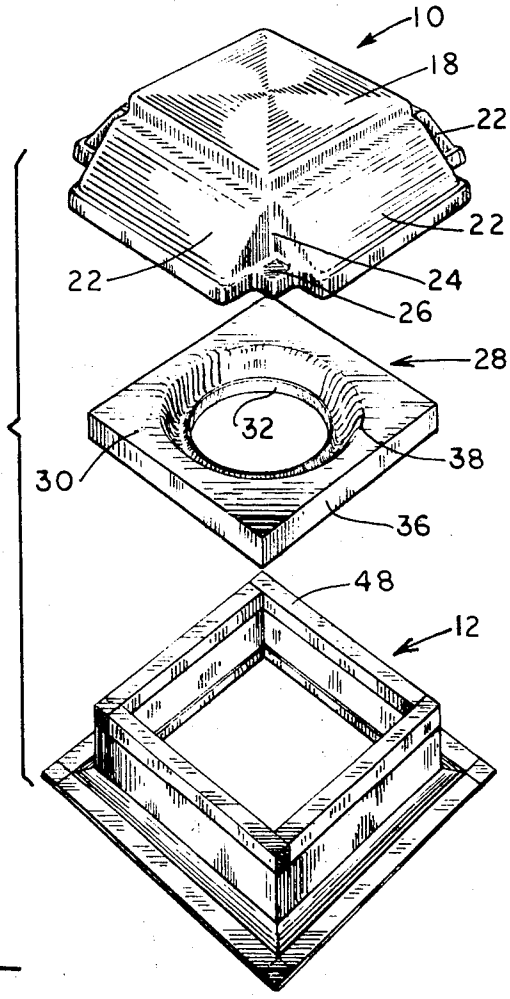


FIG. 2.

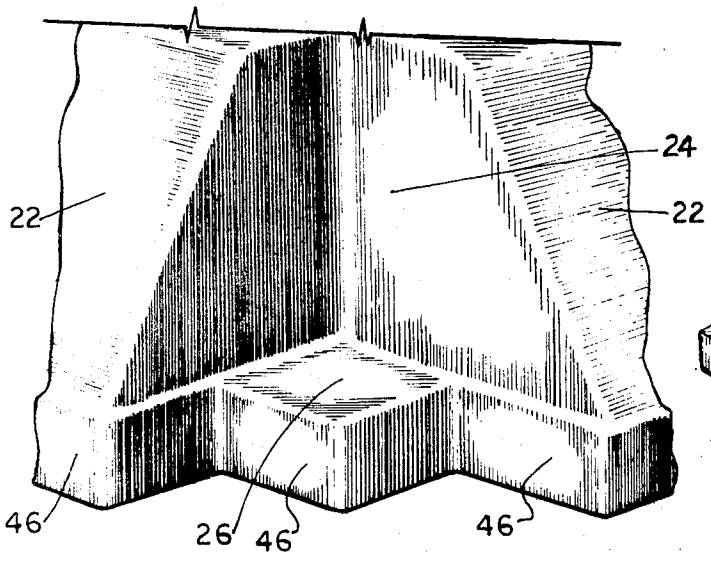


FIG. 3.

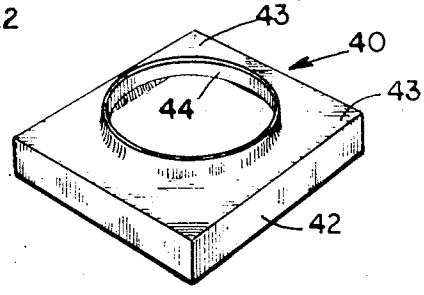


FIG. 4.

INVENTOR.

BY PHILLIP PAINTER

Kenneth E. Walden

ATTORNEY.

July 14, 1970 P. PAINTER 3,520,093

COVER FOR ROOF VENTILATOR

Original Filed Dec. 13, 1967 2 Sheets-Sheet 2

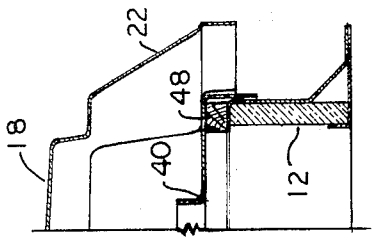


FIG. 6.

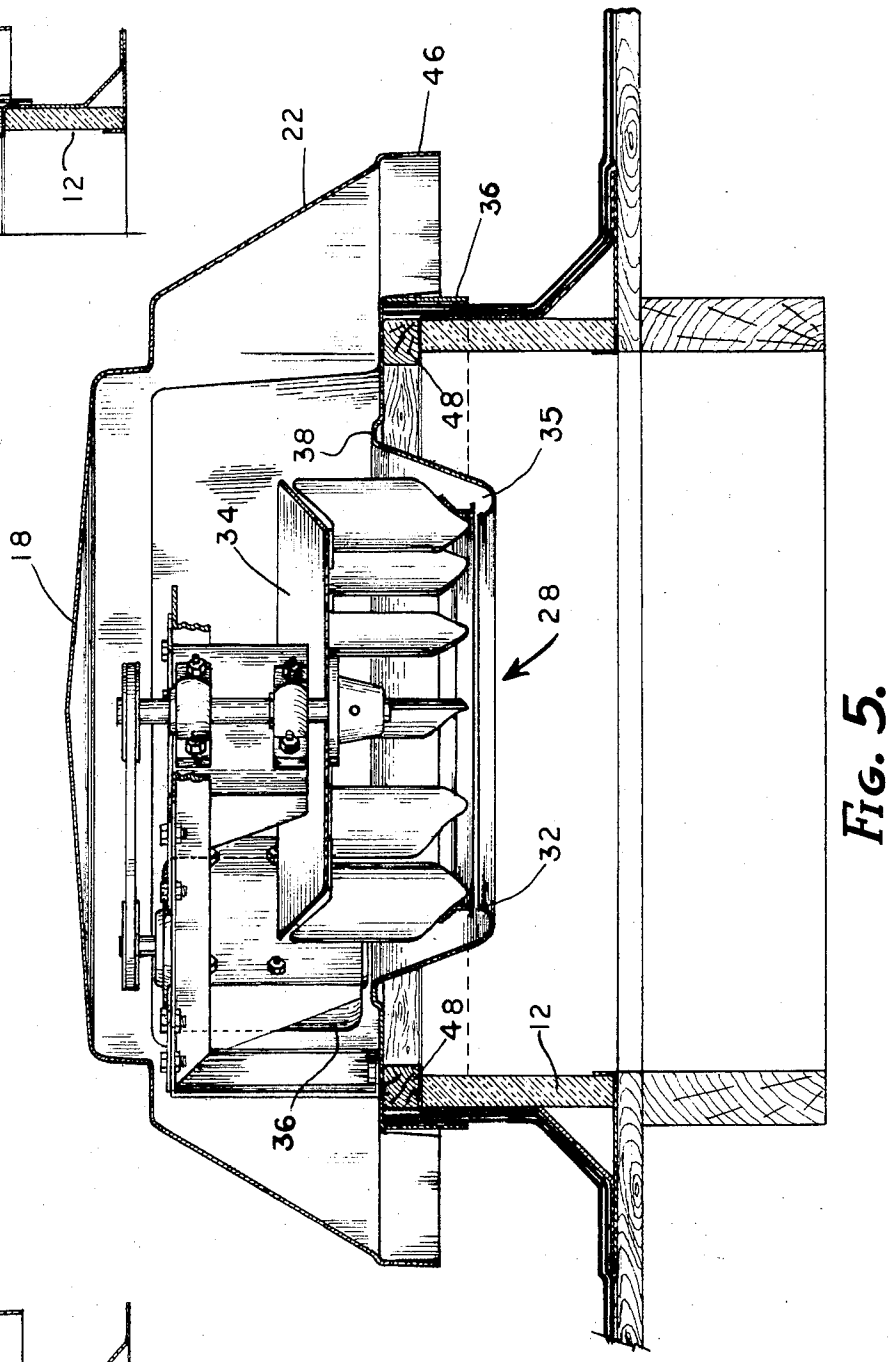


FIG. 5.

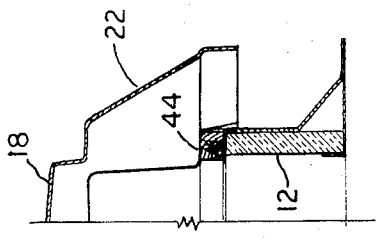


FIG. 7.

INVENTOR.

BY PHILLIP PAINTER

Kenneth E. Walden

ATTORNEY.

United States Patent Office 3,520,093 Patented July 14, 1970

3,520,093

COVER FOR ROOF VENTILATOR

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

Continuation of application Ser. No. 690,255, Dec. 13, 1967. This application July 10, 1969, Ser. No. 847,490
Int. Cl. E04d 13/03; F24f 7/02
U.S. Cl. 52—200 18 Claims

ABSTRACT OF THE DISCLOSURE

This disclosure is to an improved weather protective cover for a roof ventilator. The cover is preferably of unitary concave-convex configuration having a top and depending side walls adapted to overlie a rectangular building curb and opening for protection from the weather and for establishing air communication from the curb opening to the atmosphere.

The cover has formed therein corners or recesses having laterally extending footing means which are adapted to nest with corners of the curb and be supported thereby. The footing means may be supported directly from the curb or from an orifice which may include a power driven fan.

This is a continuation of my application 690,255, filed Dec. 13, 1967, and now abandoned.

BACKGROUND OF THE INVENTION

This invention is directed to a unitary cover for a curb which surrounds a ventilating opening in a building roof. It is versatile in that it is adapted to be supported from a curb which includes an orifice and a power driven exhaust unit, or in the alternative it may be supported directly from the curb when only natural draft is desired.

The concave inset or recess portion of the unitary cover is provided with flat footings or platforms for nesting with the corners of the curb and/or orifice so as to support the cover in position so as to provide weather protection for the opening and equipment and establish air communication between the curb and atmosphere.

In the past it has been necessary to fabricate some sort of spacer for the cover to support it the desired height above the curb to permit flow of air. This was required whether or not a power driven fan exhaust was used. This disclosure carries its own footing which eliminates the need for a spacer. It is formed integrally with the cover in the form of footings, platform on shelves. The cover is thereby supported above the curb and, except for the corners, air flows between the curb opening and cover. By applicants' disclosure, considerable saving can be had by forming the cover and footings or supports in a unitary piece.

DESCRIPTION OF THE DRAWINGS

FIG. 1 shows a building curb and a cover which is adapted to nest thereon.

FIG. 2 again shows a building curb which is adapted to receive a fan orifice (fan and motor not shown) thereover and the same cover as in FIG. 1 which is adapted to nest on the fan orifice.

FIG. 3 is an enlarged view of the corner of the cover shown in FIGS. 1 and 2.

FIG. 4 is another type orifice for use on the building curb.

FIG. 5 is a cross-sectional view of a cover, power driven exhaust unit and orifice curb mounted on a building curb.

FIG. 6 is a partial sectional view of the right hand side of FIG. 5 showing the cover nesting on and supported by the orifice curb shown in FIG. 4.

FIG. 7 is similar to FIG. 6 but showing the cover resting directly on the building curb.

DESCRIPTION

This description is to an improved cover; however, description must also be made to other structure with which it is associated.

In FIG. 1, a cover **10** is shown in exploded position over a building curb **12** on which it is adapted to nest. Curb **12** surrounds an opening in a building roof as shown in FIG. 5. Cover **10** is preferably of molded unitary construction including a top portion **18**, which may have a slight pitch from the center, and side portions **20**. Skirt portions **22** extend outwardly and downwardly to further define the sides. These flared skirts define weather protective intake or exhaust parts.

The cover, by its top and sides, is of concave-convex or shell-like configuration which when supported from curb **12** in spaced overlying relationship acts as an umbrella to protect the curb and opening from the weather and establish air communication from the curve opening to the atmosphere.

Flared skirt portions **22**, as shown in FIG. 1, define recesses or inset corners **24** therebetween. A laterally disposed platform portion **26** protrudes outwardly from the corners to define a footing adapted to nest with corners of curb **12**.

As disclosed above, cover **12** protects the curb and opening from the weather and permits passage of air through the curb opening in either direction.

FIG. 2 shows an alternative arrangement wherein a power driven exhaust fan and orifice (designated generally by the numeral **28**) is interposed between curb **12** and cover **10**. To simplify the disclosure in FIG. 2, the motor and exhaust fan are not shown mounted on orifice curb **30**. See FIG. 5 for this showing. Orifice curb **30** is provided with a central orifice **32** above which is suspended centrifugal fan **34** driven by motor **36**. The orifice curb may be made of molded plastic or spun metal. Central orifice **32** includes an upturned lower edge thereby defining an air inlet and a condensate reservoir **35** therebehind. The peripheral portion **36** of the orifice curb is downturned to nest over the outside of curb **12** for positioning and providing weather protection for the curb. A ridge **38** surrounds the orifice opening in keep water from entering the opening.

In the arrangement of FIG. 2 wherein an orifice curb and exhaust fan are employed, cover **10** is adapted to be received on the orifice curb. Specifically, platforms or footing **26** on the cover are received in nesting relationship on the corners of orifice curb **12** similar to the manner of nesting shown in FIG. 1.

A further alternative is to provide curb **12** with a type of orifice curb **40** as shown in FIG. 4. This curb has downturned side portions **42** and upturned orifice opening **44**. This type of orifice curb is not provided with a fan as is orifice curb **28** in FIG. 2. But, as before, cover **10** may be received thereover by footings **26** nesting at corners **43**. This type of orifice without fan is useful in a ventilator wherein it may be desirable to control the velocity of air moving at the outside exhaust part.

The corner inset or recess **24** of cover **10** defined between skirt portions **22** is clearly shown in FIG. 3. Flat footing portion **26** and skirts **22** have a depending portion **46** at their lower edges. A cap screw (not shown) may be placed through portion **46** into wood cap **48** of the curb so as to hold the cover in position.

While the cover herein disclosed is square, it is obvious that other shapes as well could be employed using the invention as defined in the claims. For example, the cover may be circular with recesses and offset footings provided

so as to nest with corners of the curbs as already disclosed. Or, the offset footings may project outwardly in the absence of recessed corners.

While the invention has ben disclosed in detail as to one form with alternate constructions, it will be obvious that modifications may readily suggest themselves to persons skilled in the art. The invention is defined by the claims.

What is claimed is:

1. In a ventilating arrangement for use on building roofs wherein a generally rectangular curb frames an opening in the roof and defines an air passage therethrough, the improvement residing in a weather protective cover for the curb comprising:

said cover defined by a wall in generally concave-convex shape with the concave shape adapted to overlie and face a curb,

said cover wall having a plurality of spaced apart inwardly directed recess means about the periphery thereof,

a portion of said wall forming said inwardly directed recess means being outwardly directed so as to define footing means adapted to be supported from said curb at the corners thereof whereby said cover is supported in overlying relationship to provide protection from the weather and to provide for air communication between said curb opening and underneath said cover.

2. The claimed subject matter of claim 1 wherein said cover including said recess means is integrally formed.

3. The claimed subject matter of claim 2 wherein said recess means and footing means are integrally formed.

4. The claimed subject matter of claim 3 wherein said convex surface of one cover is receivable in nesting relationship within said concave surface of another.

5. The claimed subject matter of claim 1 wherein said recess means and footing means are integrally formed.

6. The claimed subject matter of claim 1 wherein said footing means includes an overhanging portion for laterally positioning said footing means on the curb.

7. In a ventilating arrangement for use on building roofs wherein a generally rectangular curb frames an opening in the roof and defines an air passage therethrough, the improvement residing in a weather protective cover for the curb comprising:

said cover defined by a thin wall of concave-convex shape with a top portion and depending side portions which flare outwardly and downwardly,

said side portion walls having a plurality of spaced apart inwardly directed recess means,

said inwardly directed recess means having outwardly directed protrusions in their walls to define footing means which are adapted to be supported from corners of said curb whereby said cover is disposed in overlying relationship to the curb to provide protection from the weather and to provide for air communication between said curb opening and underneath said side portions.

8. The claimed subject matter of claim 7 wherein said cover including said recess means is integrally formed.

9. The claimed subject matter of claim 8 wherein said recess means and footing means are integrally formed.

10. The claimed subject matter of claim 9 wherein said convex surface of one cover is receivable in nesting relationship within said concave surface of another.

11. The claimed subject matter of claim 7 wherein said recess means and footing means are integrally formed.

12. The claimed subject matter of claim 7 wherein said footing means includes an overhanging portion for laterally positioning said footing means on the curb.

13. In a ventilating arrangement for use on building roofs wherein a generally rectangular curb frames an opening in the roof and defines an air passage therethrough, the improvement residing in a weather protective cover for the arrangement comprising:

a cover,

said cover having a top portion and depending side portions which flare outwardly and downwardly to thereby define a generally concave-convex shape,

said flared portions defining therebetween a plurality of spaced apart inset portions,

laterally offset portions adjacent said inset portions extending outwardly to define footing means which are adapted to be supported from the curb in nesting relationship at corners thereof,

said laterally offset portions interposed between flared portions and extending outwardly generally of a perimeter defined by the top portion and remaining substantially interior of a perimeter defined by said flared portions.

14. The claimed subject matter of claim 13 wherein said cover including said recess means is integrally formed.

15. The claimed subject matter of claim 14 wherein said recess means and footing means are integrally formed.

16. The claimed subject matter of claim 15 wherein said convex surface of one cover is receivable in nesting relationship within said concave surface of another.

17. The claimed subject matter of claim 13 wherein said recess means and footing means are integrally formed.

18. The claimed subject matter of claim 13 wherein said footing means includes an overhanging portion for laterally positioning said footing means on the curb.

References Cited

UNITED STATES PATENTS

230,952	8/1880	Mark	52—200 X
2,987,983	6/1961	Solzman.	
3,093,059	6/1963	Metz	98—42
3,238,862	3/1966	Smith et al.	98—42
3,302,551	2/1967	Van Belle et al.	
3,340,656	9/1967	Mathieu	52—200

PRICE C. FAW, JR., Primary Examiner

U.S. Cl. X.R.

98—43