April 28, 1964 J. K. COMPTON ETAL 3,130,659

VENT CLOSURE

Filed April 2, 1962

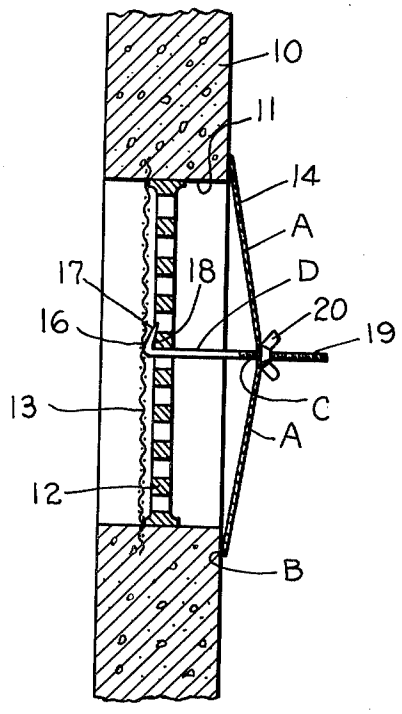


Fig. 2.

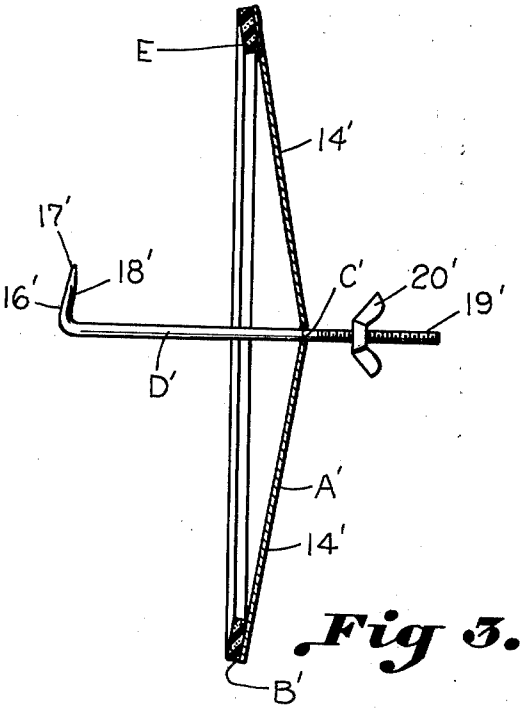


Fig. 3.

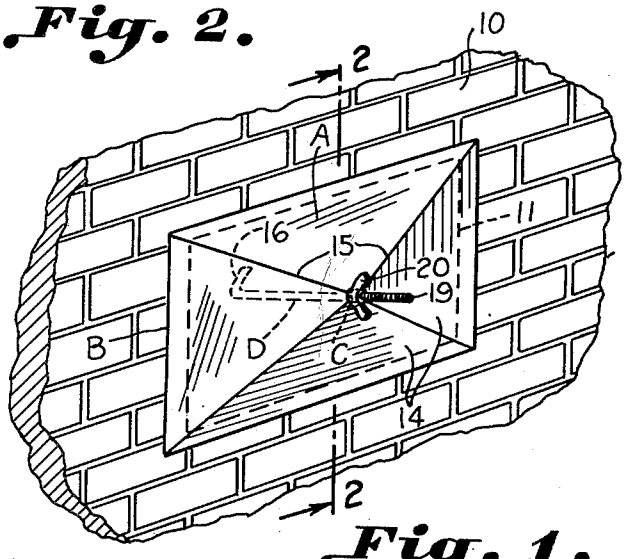


Fig. 1.

INVENTOR.
JULIUS F. HALL &
JAMES K. COMPTON
BY
ATTORNEY

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VENT CLOSURE

James K. Compton, Travelers Rest, S.C. (16 Templewood Drive, Greenville, S.C.), and Julius F. Hall, Greenville, S.C. (Box 12, Travelers Rest, S.C.)

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This invention relates to vent closures and has special application to air vents in the walls of buildings.

Closures for such air vents are desirable to prevent excessive heat loss resulting from air blowing into the vents. It is also desirable to prevent rain from being blown into the basement or under the building. Some air vents are provided with louvered closures behind the grill thereof when they are installed. Other closures for such air vents have been provided in the form of flat covers to be placed over the vents. Closures of the flat cover type heretofore provided are difficult to fasten properly and are not attractive in appearance. The present invention is especially concerned with improvements in closures of the cover type.

Accordingly, it is an important object of this invention to provide a vent closure which may be positively fastened over the vent in such a way as to avoid vibration and dislocation thereof.

Another object of the invention is to provide a vent closure of simple, inexpensive construction which provides an attractive appearance through the simple structural features which accomplish the above important objective.

Another important object of the invention is to provide a vent closure of such configuration that the center of the cover is the strongest point and permits a single fastening means to secure a firm tight fit on all outside edges, avoiding buckling of the edges.

Another object is accomplished by the centralizing of the strength of the closure plate in that spring action against the fastening means insures proper positioning of the closure at all times without the use of additional fastening means or springs.

The sharpened point on the hook fastener is adapted to go between the grill and the grill backing which is often screen wire without damage to such backing and facilitates installation of the closure.

The construction designed to carry out the invention will be hereinafter described, together with other features thereof.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawing forming a part thereof, wherein an example of the invention is shown and wherein:

FIGURE 1 is a perspective view illustrating a vent closure constructed in accordance with the present invention installed in an air vent for a building,

FIGURE 2 is a sectional elevation at a slightly enlarged scale taken on the line 2—2 in FIGURE 1, and

FIGURE 3 is an enlarged sectional elevation, similar to FIGURE 2, illustrating a modified form of the invention.

A closure for a building vent having a grill therein is illustrated as including a thin substantially rectangular element A constructed of resilient flexible material capable of being formed into a vent cover. Such element has a plurality of contiguous triangular panels wherein the apexes of the triangular panels are in the medial portion of said element and wherein the triangular panels taper upwardly to form a pyramid. The base portions of said triangular panels form a free edge B for contacting the building. An aperture C is provided in the element in

the medial portion thereof. An elongated shank D has a hook portion on one end thereof adapted to engage the grill and a threaded portion on the other end thereof. The shank is adapted to be received by the aperture C and a nut is adapted to be received by the threaded portion. The hook is sharpened at its free end. A gasket E, carried adjacent said free edge of the panels, may be provided if desired.

Referring more particularly to the drawing, a building wall 10 is illustrated in the form of a basement wall for a house. A vent, in the form of an air vent 11, is provided in the wall 10. The usual grill 12 and screen 13 are also provided within the air vent 11. The vent cover A includes a number of triangular shaped panels 14. The panels 14 are formed by pressing a plate, preferably constructed of thin sheet metal but which may be of any other suitable material such as plastic or fibrous material, so as to form a cover in the shape of a pyramid. Each of the panels 14 are contiguous, having edges 15, and their apexes are adjacent the medial portion of the cover A. The base portions of the panels 14 form a free edge B for contacting the building.

The central portion of the cover A is provided with an aperture C to accommodate the shank D. A hook 16 is provided at one end of the shank for engaging the grill 12 as illustrated in FIGURE 2. The flat point of the hook 16 has an outside substantially flat surface as at 17 and has an inside substantially flat surface 18 for seated contact with the inside of the grill. The flattened end permits easy insertion of the hook between the grill 12 and the screen 13 and thus avoids damage to the screen.

The other end of the shank D is provided with a threaded portion 19 for accommodating a nut 20, preferably in the form of a wing nut as illustrated. By tighting the wing nut, the strongest portion of the cover A is engaged and the pressure is uniformly distributed therethrough about the edge B. The edges of the panels 15 serve as reinforcing for the cover, making it possible to construct a cover of substantial strength from relatively light material. Since the material of the cover A is somewhat flexible and resilient, the turning of the wing nut 20 against the cover A will result in some compression of the cover, insuring a firm tight positioning of the closure upon the wall 10 and over the air vent 11.

FIGURE 3 illustrates a modified form of the invention in which like reference characters with prime notations added are employed to designate like parts. The modification is essentially in the addition of a gasket E which is carried (preferably by gluing) adjacent the edge B. The use of the modification which includes the gasket will be somewhat circumcised due to the fact that some ventilation is desirable and necessary. For example, too tight a seal may result in an adverse effect upon the operation of the furnace.

While a preferred embodiment of the invention has been described using specific terms, such description is for illustrative purposes only, and it is to be understood that changes and variations may be made without departing from the spirit or scope of the following claim.

What is claimed is:

A closure for a building vent having a grill therein including, a thin substantially rectangular element constructed of resilient flexible material capable of being formed into a vent cover, said element having a plurality of contiguous triangular panels wherein the apexes of the triangular panels are in the medial portion of said element and wherein the triangular panels taper upwardly to form a pyramid, the base portions of said triangular panels forming a free edge for contacting the building, an aperture in said element in the medial portion thereof,

an elongated shank having a hook portion on one end thereof adapted to engage the grill and a threaded portion on the other end thereof, said shank being adapted to be received by said aperture, and a nut adapted to be received by said threaded portion, whereby upon tightening the nut and with the hook portion engaged the element is resiliently uniformly and positively held against the building over the vent.

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