Dec. 5, 1961 F. J. SCALLON 3,011,422

VENTILATING DEVICE

Filed July 2, 1959

Fig. 1

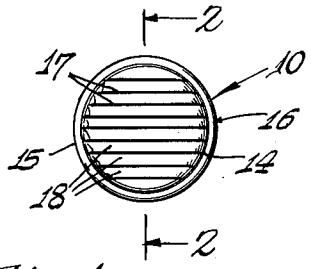


Fig. 3

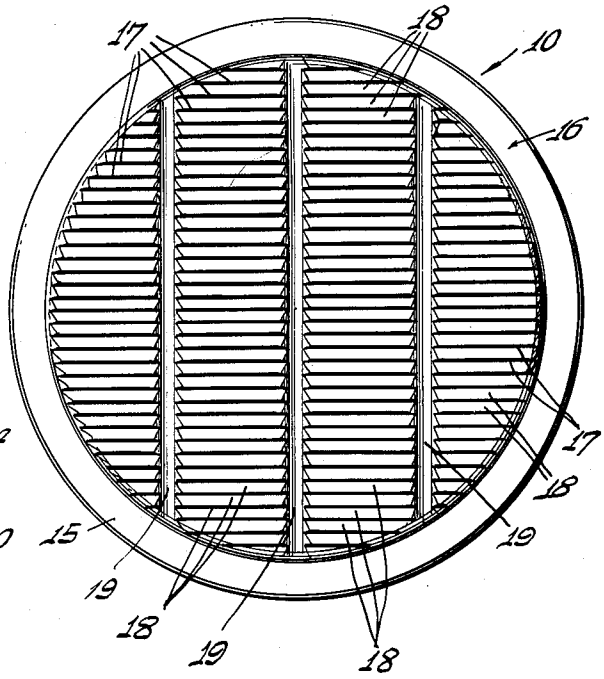


Fig. 4

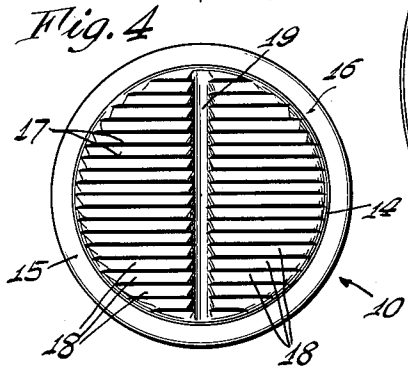
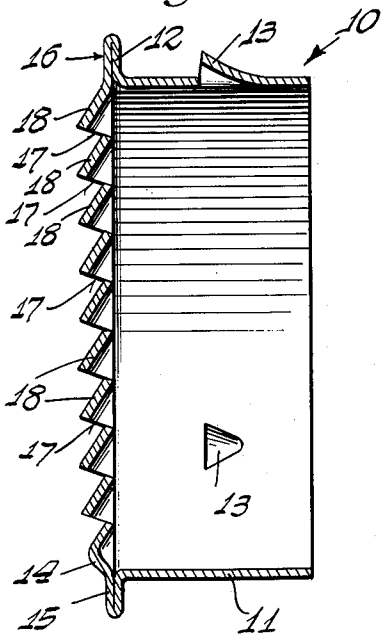


Fig. 2



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VENTILATING DEVICE

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This invention relates to the ventilation of the air spaces in the structure of buildings or the like. More specifically, it pertains to a device for excluding precipitation and foreign objects, such as insects, from the spaces, while permitting the free flow of air therethrough.

At present, it is the practice to provide openings into the air spaces in the walls, floors and roofs of buildings for ventilating the same to prevent moisture rot, paint blistering or the like, and to cover these openings so that free air flow is facilitated, while precipitation and foreign objects are prevented entry. Heretofore, the ventilating devices for covering the openings have been louvered to prevent the ingress of rain or the like and have been provided with non-integral screens for closing the louvers to insects and other foreign objects.

The prior ventilating devices, due to the nature of their structure, were relatively expensive in that a number of steps were necessary to their manufacture and they required assembly.

The present invention overcomes the problem aforenoted and has as an important object thereof the provision of a unitary self-contained ventilating device for use in ventilating the air spaces in building structures.

According to the invention, the ventilating device is formed in its outer surface with one or a plurality of columns of separate parallel louvers which extend outwardly of the device at an angle to the plane of the outer surface thereof for preventing the ingress of rain or other precipitation. The louvers are of such a size and so angled with respect to the device that insects and other foreign objects are prevented from entering.

It is another object of the invention, therefore, to provide a ventilating device being formed from a single solid sheet of material which is louvered to facilitate the flow of air therethrough and includes integral means for preventing the ingress of insects or the like.

Still another object of the invention is to provide a ventilating device having louvers for facilitating the flow of air therethrough formed as an integral part of the device, which louvers simultaneously function to screen the device and prevent the ingress of insects or foreign objects therein.

A further object of the invention is to provide a ventilating device for use in ventilating air spaces in building structures, which is adapted to be manufactured from a single piece of material at minimum expense, without the necessity of a final assembly, and may readily be installed by unskilled persons.

Other objects and advantages will be apparent from the specification and claims when considered with the attached sheet of drawings, illustrating one form of the invention, wherein like characters represent like parts, and in which:

FIGURE 1 is an elevational view of the invention embodied in a small ventilating device;

FIG. 2 is a cross-sectional view taken in the direction of the arrows 2—2 in FIG. 1;

FIG. 3 is an elevational view of the invention embodied in an intermediate size ventilating device; and

FIG. 4 is an elevational view of the invention embodied in a large ventilating device.

Referring now to the drawings and FIGS. 1 and 2 in particular, a ventilating device **10** is shown which is adapted to be mounted in an opening communicating with an air space in a building structure or the like, for facilitating the free flow of air therethrough. The ventilating device, which is preferably formed from thin noncorrosive material such as sheet aluminum or sheet copper, but is not limited to such materials, comprises a sleeve **11**, adapted to be mounted in the opening, having an outwardly extending flange **12** formed integral therewith. The sleeve is formed with a plurality of peripherally outstruck tongues **13** for retaining the sleeve against accidental displacement from the opening after it has been positioned therein.

A face plate or cover member **14** is disposed across one end of sleeve **11** for closing the same and has its peripheral edge **15** formed integral with and overlying the flange **12** of the sleeve. The flange and the overlying portion **15** of the face plate form together a marginal face plate support **16** and define a closed central area of the face plate. The face plate **14** is formed with a plurality of parallel transverse slits **17** within the area enclosed by marginal support **15**, which define between them narrow parallel bars **18**. The bars **18** are struck outwardly of the face plate at an angle to the plane thereof to form louvers for deflecting rain or other precipitation and preventing its entrance into the opening in the building. An essential feature of the invention resides in the size of the louvers **18** in relation to the angle they are displaced from the plane of the face plate **14**; the angle of displacement of the louver, in relation to the size thereof, must be small enough to prevent the passage of insects or like foreign particles between adjacent louvers. While it will be understood that the angle the louver is displaced from the plane of the face plate may vary as the size or width of the louver varies, in the illustrated and preferred form of the invention the louver is ⅛ of an inch wide and struck outwardly from the plane of the face plate at an angle of 30°.

It will be readily understood by those conversant with the art that the ventilating device afore-described may be drawn from sheet material, shaped and have the louvers struck outwardly of the face plate, all in a single operation on a die press or the like, thereby reducing the cost of the article by eliminating the step of assembling a separate screen or similar insect barrier into association with the louvers.

In FIGS. 3 and 4 alternative forms of the invention are shown, which are adapted to be utilized when the ventilating device **10** is of large size. In order to maintain the narrow width of louvers **18** so that they are completely self-supporting, when they are struck outwardly from the plane of the face plate **14**, in the larger size ventilating device, it is necessary to limit the length thereof. In order to maintain the length of the narrow bars or louvers **18**, so that they will not sag or buckle under their own weight in the center, a plurality of spaced parallel columns **19** are formed in the face plate. The columns are each formed by a plurality of parallel transverse slits **17** which, as in the previously described form of the invention, define the narrow bars forming the louvers **18**. It will be seen that the ventilating device **10** may include two columns (FIG. 4) or an unlimited number of columns, depending upon the size of the device.

By means of the invention above-described, a ventilating device for use in ventilating the air spaces in building structures or the like is provided which is readily manufactured by modern production methods, at low cost, and is adapted for use by relatively unskilled persons.

Thus, among others, the several objects and advantages of the invention as aforenoted are achieved. Obviously numerous changes in the structure may be resorted to without departing from the spirit of the invention as defined by the claims.

I claim:

1. A device for ventilating the air spaces formed in

building structures or the like comprising a sleeve and a face plate formed integral therewith and closing one end of said sleeve, said face plate being formed with a plurality of parallel transverse slits defining louvers, said louvers being formed in parallel planes extending at an angle to the plane of the face plate and lying wholly outwardly of the plane of the rear face thereof, said angle being so small as to prevent the passage of insects or the like between adjacent louvers.

2. A device for ventilating the air spaces formed in building structures or the like comprising a sleeve having a flange at one end thereof and a face plate formed integral with said flange and closing said one end of said sleeve, said face plate being formed with a plurality of parallel transverse slits defining louvers, said louvers being formed in parallel planes extending at an angle to the plane of the face plate and lying wholly outwardly of the plane of the rear face thereof, the size of said louvers and said angle being so small as to prevent the passage of insects or the like between adjacent louvers.

3. A device for ventilating the air spaces formed in building structures or the like comprising a sleeve having an outwardly extending flange formed at one end thereof and a face plate formed integral with said flange and overlying the same to close said one end of said sleeve, said flange and said overlying portion forming together a marginal face plate support, said face plate being formed with a plurality of parallel transverse slits within said marginal support defining narrow, air deflecting bars formed in parallel planes and lying wholly outwardly of the plane of the rear face of the face plate, said bars being struck outwardly of said face plate at an angle to the plane thereof to form louvers, the width of said louvers and said angle being so small as to prevent the passage of insects or the like between adjacent louvers.

4. A device for ventilating the air spaces formed in building structures or the like comprising a sleeve having an outwardly extending flange formed at one end thereof and a face plate formed integral with said fange and overlying the same to close said one end of said

sleeve, said flange and said overlying portion forming together a marginal face plate support, said face plate having cut and uncut portions with the uncut portions defining a plurality of spaced parallel columns within said marginal support, each of said columns having a plurality of parallel transverse slits defining narrow, air deflecting bars formed in parallel planes and lying wholly outwardly of the plane of the rear face of the face plate, said bars being struck outwardly of said face plate at an angle to the plane thereof to form louvers, the width of said louvers and said angle being so small as to prevent the passage of insects or the like between adjacent louvers.

5. A device for ventilating the air spaces formed in building structures or the like comprising a sleeve having an outwardly extending flange formed at one end thereof, said sleeve being adapted to seat in an opening communicating with an air space in a building structure, means formed integral with said sleeve for retaining it in said opening and a face plate formed integral with said flange and overlying the same to close said one end of said sleeve, said flange and overlying portion forming together a marginal face plate support, said face plate having cut and uncut portions with the uncut portions defining a plurality of spaced parallel columns within said marginal support, each of said columns having a plurality of parallel, closely spaced transverse slits defining between them narrow, air deflecting bars formed in parallel planes and lying wholly outwardly of the plane of the rear of the face plate, said bars being struck outwardly of said face plate at an angle to the plane thereof parallel each other to form louvers, the size of said louvers and said angle being so small as to prevent the passage of insects or the like between adjacent louvers.

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