Dec. 18, 1923.

1,478,312

A. WENGER

VENTILATOR

Filed April 7, 1922

Fig. 4.

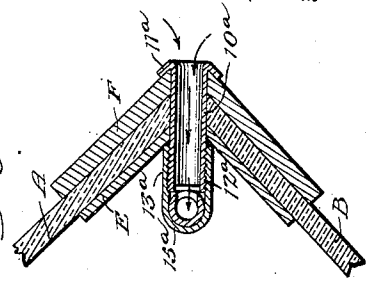


Fig. 3.

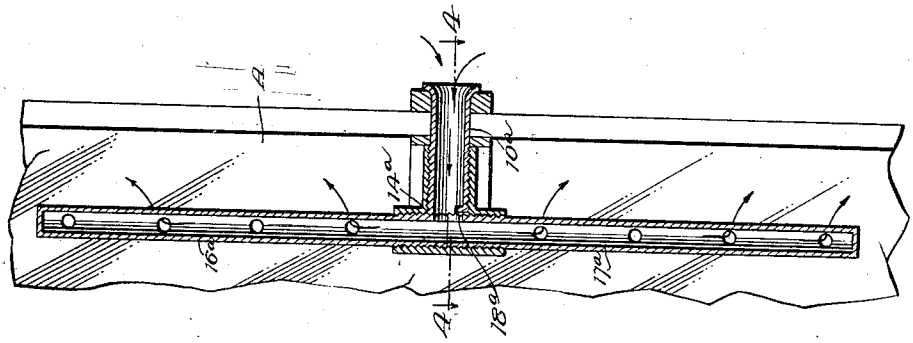


Fig. 2.

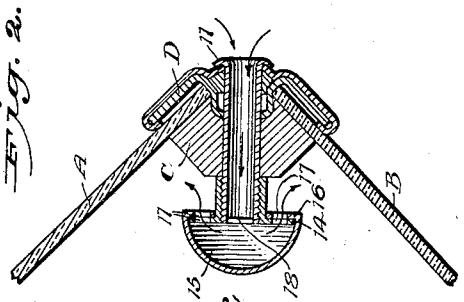
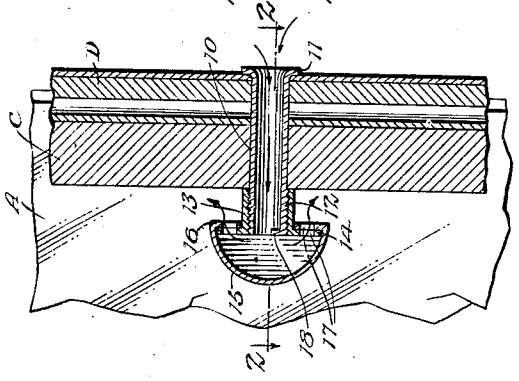


Fig. 1.



WITNESSES

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Patented Dec. 18, 1923. 1,478,312

UNITED STATES PATENT OFFICE.

AARON WENGER, OF BAYONNE, NEW JERSEY.

VENTILATOR.

Application filed April 7, 1922. Serial No. 550,432.

To all whom it may concern:

Be it known that I, AARON WENGER, a citizen of the United States, and a resident of Bayonne, in the county of Hudson and State of New Jersey, have invented a new and Improved Ventilator, of which the following is a full, clear, and exact description.

This invention has relation to ventilators especially designed for show windows or the like and contemplates as an object means for preventing the formation of steam or frost, or other obscuring agencies on the window by the admission of the outside air to the interior of the window.

As a further object the invention contemplates a ventilator of the character described which also functions as a fastening element for securing the window pane clamping elements in clamping relation.

As a still further object the invention aims to provide an extremely simple and inexpensive device which is so arranged and correlated to the window as to assume an inconspicuous position.

With the above recited and other objects in view, the invention resides in the novel construction set forth in the following specification, particularly pointed out in the appended claims and illustrated in the accompanying drawings, it being understood that the right is reserved to embodiments other than those actually illustrated herein to the full extent indicated by the general meaning of the terms in which the claims are expressed.

In the drawing—

Figure 1 is a fragmentary vertical sectional view through the corner of a show window illustrating the combined ventilator and fastening element in applied position.

Fig. 2 is a fragmentary horizontal sectional view therethrough taken approximately on the line 2—2 of Fig. 1.

Fig. 3 is a vertical fragmentary sectional view through the corner of a show window illustrating a modified form of combined fastening element and ventilator.

Fig. 4 is a horizontal sectional view taken approximately on the line 4—4 of Fig. 3.

Referring to the drawings by characters of reference, A and B designate the meeting edges of the glass panels of a show window or case and C and D inner and outer clamping strips or rails between which the glass panels A and B are received. Ordinarily a retaining bolt or rivet is passed through the clamping strips or rails C and D to fasten the structure in place.

Under the present invention, a tubular bolt 10 is employed in lieu of the usual solid bolt or rivet, the same being provided with an outturned flange 11 at its outer end constituting a head. The inner end of the tubular bolt is exteriorly threaded as at 12 to receive the internally threaded sleeve 13 provided with an annular outwardly disposed flange 14. A substantially semi-spherical head 15 of hollow construction is fitted over and rotatably mounted on the flange 14, the same being secured in place by an inturned annular flange 16. The flanges 14 and 16 are provided with an annular series of perforations 17, which upon rotation of the head 15, are adapted to be brought into or out of alignment. When the sleeve 13 is threaded on to the threads 12 of the hollow bolt 10, said sleeve together with the flange 11 constitute a fastening means for advancing the clamping strips or rails C and D toward each other to prevent relative separation thereof and lock the glass panels A and B in position. Under this arrangement when the semi-spherical head 15 is rotated to bring the openings 17 into registration, it will be obvious that the interior of the window is vented to the outside atmosphere, thereby permitting a circulation of air through the tubular bolt 10 into the head 15 and therefrom through the aligned openings 17 as indicated by the arrows. It is, of course, obvious that a plurality of bolts 10 with their correlated parts are distributed vertically throughout the length of the window whereby the uppermost bolts 10 will permit the heated air within the window to escape therethrough for setting up a constant circulation. When it is undesirable to admit of the venting of the interior, the semi-spherical heads 15 are rotated to dispose the openings 17 and the flanges 14 and 16 out of alignment or registration. Rain, snow, or sleet entering the tubular bolt 10 is prevented from passing into the spherical head by an upturned lip 18 at the lower inner extremity of the interior periphery of the bolt.

In the modified adaptation of the invention illustrated in Figs. 3 and 4, the glass panels A and B are provided with mitered meeting edges with which inner and outer angular clamping brackets E and F coact. The apex of the clamping brackets E and F

and the meeting edges of the glass panels are provided with registered openings through which the tubular bolt 10^a extends, the same being provided at its outer end with an outturned flange 11^a constituting a head and exteriorly threaded at its inner end as at 12^a to receive the interiorly threaded stem 13^a of a T-shaped union 14^a, which stem is threaded against and coacts with the inner bracket E to clamp and fasten the structure in position. The head 15^a of the T-shaped union is internally threaded to receive the threaded lower and upper extremities of the upstanding and depending perforated tubes 16^a and 17^a. The tube 16^a is closed at its upper end and the tube 17^a at its lower end. The inner extremity of the tubular bolt 10^a is provided with an internal lip 18^a adjacent the lower portion thereof to prevent the passage of rain, sleet or snow therefrom into the union 14^a. In practice the air passes through the tubular bolt 10^a and is distributed through the apertures in the tubes 16^a and 17^a as indicated by the arrows. The tubes lie in the entrant angle formed at the juncture of the panels A and B and are more or less concealed from view.

I claim:

1. The combination with a structure, which includes glass panels and means for receiving and positioning the meeting edges of said panels relative to each other, of an element for clamping said means in operative relation, said element having an opening therethrough to constitute means for ventilating the interior of said structure, means carried by the inner end of said element for distributing the ventilation over said glass panels to prevent the collection and formation of obscuring agencies thereon, said element comprising a tubular member having an outer headed extremity and an inner exteriorly threaded extremity, and a member threadedly engaged with the inner extremity for coacting engagement with the receiving and positioning means for the panels.

2. The combination with a structure which includes glass panels and means for receiving and positioning the meeting edges of said panels relative to each other, of an element for clamping said means in operative relation to the panels and for ventilating the interior of the structure comprising a tubular member having an outer headed extremity and an inner exteriorly-threaded extremity, a member threadedly engaged with the inner extremity for coacting engagement with the receiving and positioning means for the panels, and means carried by the latter member for distributing the ventilation over said glass panels to prevent the collection and formation of obscuring agencies on the interior of said panels.

3. The combination with a structure which includes glass panels and means for receiving and positioning the meeting edges of said panels relative to each other, of a device for clamping said means in operative relation to the panels and for ventilating the interior of said structure comprising a tubular member having a head at its outer end, an element threadedly engageable with the inner end for cooperation with the panel receiving and positioning means to advance the headed outer end toward the panels whereby the panels are clamped between said receiving and positioning means.

4. The combination with a structure which includes glass panels and means for receiving and positioning the meeting edges of said panels relative to each other, of a device for clamping said means in operative relation to the panels and for ventilating the interior of said structure, comprising a tubular member having a head at its outer end, an element threadedly engageable with the inner end for cooperation with the panel receiving and positioning means to advance the headed outer end toward the panels whereby the panels are clamped between said receiving and positioning means, and a hollow element having perforations therein carried by the threadedly-engaged member, said perforations in said element being disposed in a direction to discharge and distribute the ventilation against the inner faces of the panels.

AARON WENGER.