May 30, 1933. K. G. DORNER 1,912,264

VENTILATOR

Filed May 20, 1932

Fig. 1.

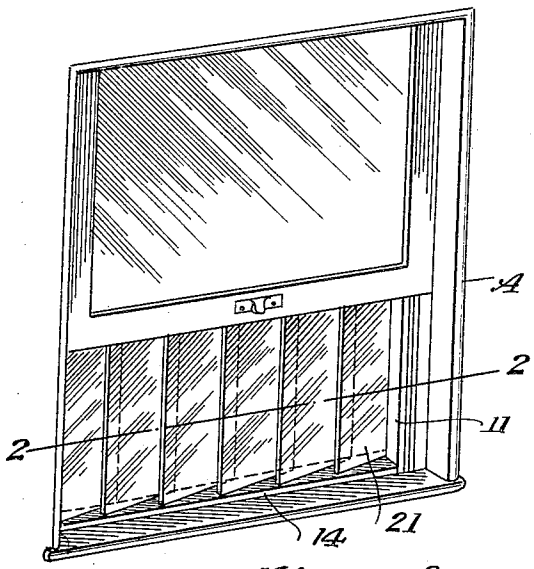


Fig. 3.

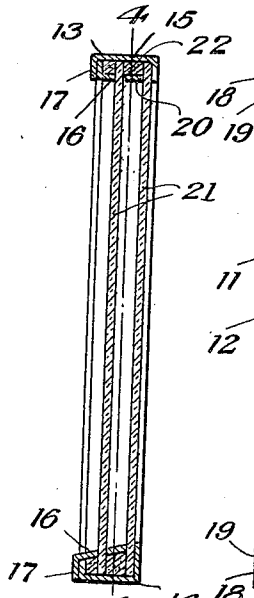


Fig. 4.

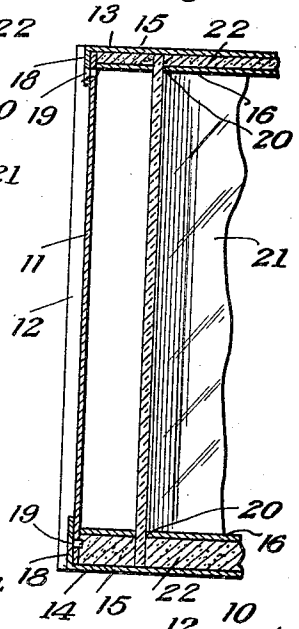


Fig. 2.

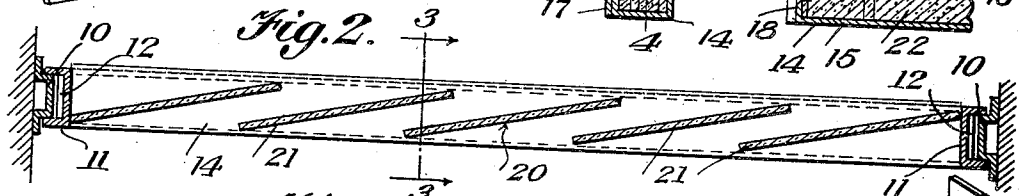
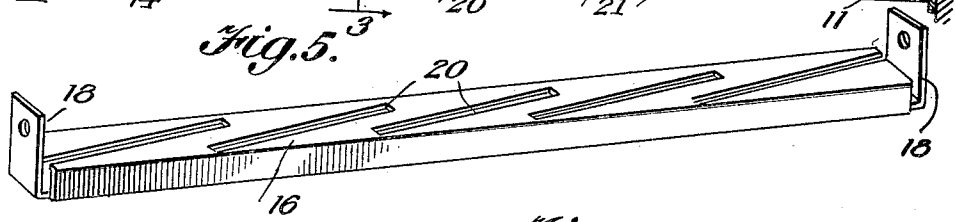


Fig. 5.



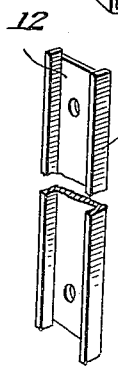
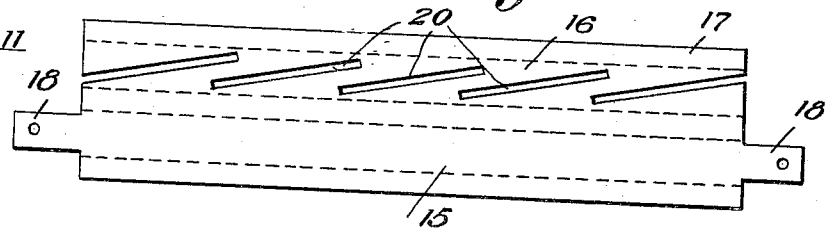


Fig. 6.

Fig. 7.



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UNITED STATES PATENT OFFICE

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VENTILATOR

Application filed May 20, 1932. Serial No. 612,591.

The invention relates to a ventilator and more particularly to window ventilators.

The primary object of the invention is the provision of a ventilator of this character, wherein its construction permits its arrangement within windows of railways cars, street cars, busses, buildings and in fact any opening for ventilating purposes, and will eliminate direct draft therethrough as well as assure perfect ventilation free from dust, dirt, smoke or other foreign matter, as for example, soot, cinders or the like.

Another object of the invention is the provision of a ventilator of this character wherein the same in its mounting permits the raising and lowering thereof or its removal with dispatch and also will function to draw out foul air from the inside of an inclosure to assure thorough ventilation thereto and to relieve the ingress of foreign matter, as well as protection against inclement weather or the elements thereof.

A further object of the invention is the provision of a ventilator of this character which is extremely simple in construction, thoroughly reliable and efficient in its purpose, neat and attractive in appearance, strong, durable, and inexpensive to manufacture and install.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described in detail, illustrated in the accompanying drawing, which discloses the preferred embodiment of the invention, and pointed out in the claims hereunto appended.

In the accompanying drawing:—

Figure 1 is a perspective view of a window showing the ventilator constructed in accordance with the invention applied thereto.

Figure 2 is a sectional view on the line 2—2 of Figure 1.

Figure 3 is a sectional view on the line 3—3 of Figure 2.

Figure 4 is a fragmentary vertical longitudinal sectional view through the ventilator.

Figure 5 is a perspective view of one part of the frame of the ventilator.

Figure 6 is a perspective view of another part of the frame of the ventilator.

Figure 7 is a plan view showing the blank from which one part of the frame of the ventilator is made.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, A designates generally a window frame which may be of any standard construction and is in association with rolling stock or buildings, the window frame being fitted at opposite vertical sides with guides 10 for accommodation of the ventilator constituting the present invention and hereinafter fully described.

The ventilator comprises a pair of spaced vertical side pieces 11, each forming a channel 12 at its outer side and the upper and lower top and bottom cross rails 13 and 14 respectively, each formed from a single blank of sheet material folded on itself longitudinally to provide the webs 15 and 16 respectively and the flanges 17 so that on the bending of the blank it will effect a hollow rail having at opposite ends upwardly bent tongues 18 to overlap the side pieces 11 and these tongues 18 are made fast thereto by rivets 19, thus producing a unitary rigid frame structure for the ventilator. Each web 16 is cut into to provide diagonally disposed spaced parallel slots 20 for accommodating the louvres or panels 21 which are disposed vertically between the top and bottom rails 13 and 14 and have their ends inserted therein through the slots 20, it being preferable to have a filler 22 for the top and bottom rails so as to hold the louvres or panels 21 fixed. It is preferable to construct the louvres or panels 22 from glass although they may be made from any other material and likewise the ventilator in its entirety can be constructed of any desirable material.

In the fitting of the ventilator in the window frame A the side pieces 11 have the channels or grooves 12 therein confronting the guides 10 for the interfitting thereof and thus it will be apparent that the ventilator can be raised and lowered in the window frame A.

The louvres or panels 21 by reason of the relationship of the slots 20 in the top and bottom rails 13 and 14, they being slightly in overlapped relationship, likewise overlap such louvres or panels, these being equally spaced apart for ventilating purposes. It will be obvious that weather elements cannot enter through the ventilator from without to within an inclosure through the window frame A and thorough ventilation will be had and the elimination of the ingress of cinders, dirt, soot or other foreign matter.

What is claimed is:—

1. A ventilator of the character described comprising channeled side pieces, top and bottom rails, each formed from a blank of material folded on itself to provide webs and flanges constituting a hollow rail, tongues at the ends of said rails joined with the side pieces, said rails having the innermost web diagonally slotted, the slots being disposed in overlapping spaced parallel relation to each other, and panels fitted in the slots between the top and bottom rails.

2. A ventilator of the character described comprising channeled side pieces, top and bottom rails, each formed from a blank of material folded on itself to provide webs and flanges constituting a hollow rail, tongues at the ends of said rails joined with the side pieces, said rails having the innermost web diagonally slotted, the slots being disposed in overlapping spaced parallel relation to each other, transparent panels fitted in the slots between the top and bottom rails, and guides fitted in the side pieces for the slidable mounting of said side pieces thereon.

3. A ventilator of the character described comprising channeled side pieces, top and bottom rails, each formed from a blank of material folded on itself to provide webs and flanges constituting a hollow rail, tongues at the ends of said rails joined with the side pieces, said rails having the innermost web diagonally slotted, the slots being disposed in overlapping spaced parallel relation to each other, transparent panels fitted in the slots between the top and bottom rails, guides fitted in the side pieces for the slidable mounting of said side pieces thereon, and fillers within the top and bottom rails to fix the panels thereto.

In testimony whereof I affix my signature.

KARL G. DORNER.