March 31, 1925. 1,531,448

W. D. MILAM

COMBINED VENTILATOR AND WINDSHIELD

Original Filed July 17, 1922

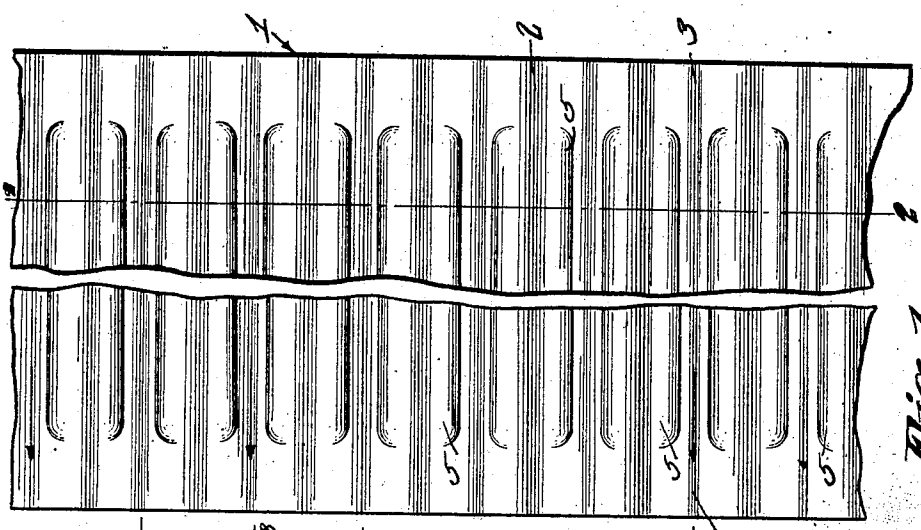


Fig. 1.

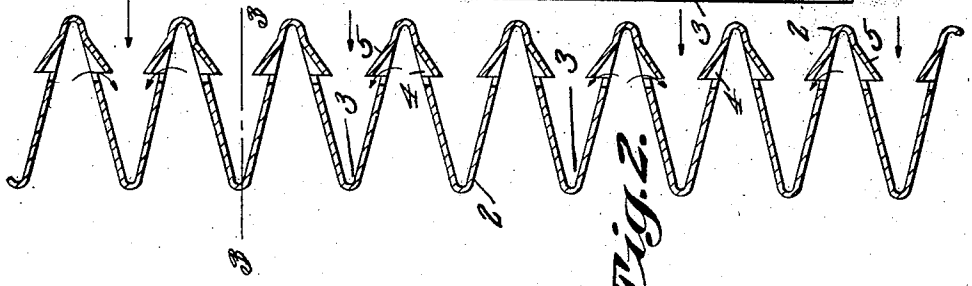


Fig. 2.

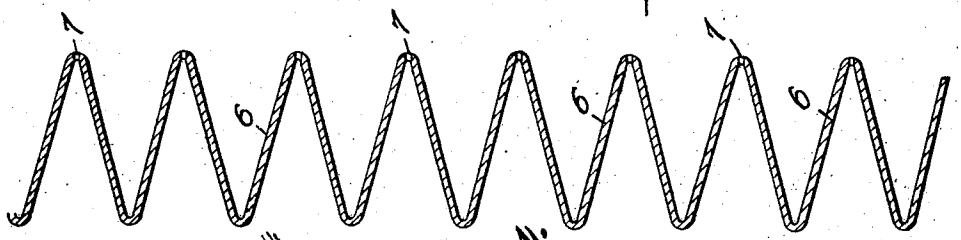


Fig. 4.

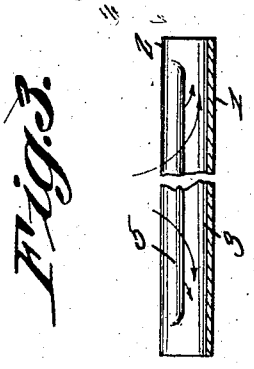


Fig. 3.

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Patented Mar. 31, 1925. 1,531,448

UNITED STATES PATENT OFFICE.

WALTON DOUGLASS MILAM, OF EL PASO, TEXAS.

COMBINED VENTILATOR AND WINDSHIELD.

Application filed July 17, 1922, Serial No. 575,502. Renewed January 17, 1925.

To all whom it may concern:

Be it known that I, WALTON DOUGLASS MILAM, a citizen of the United States, residing at El Paso, in the county of El Paso and State of Texas, have invented a new and useful Combined Ventilator and Windshield, of which the following is a specification.

This invention relates to a combined ventilator and windshield designed primarily for use in the windows of buildings, trains, automobiles and similar structures where it is desired to thoroughly ventilate an enclosure and at the same time prevent objectionable drafts from entering the enclosure.

Another object is to provide a structure of this character which also allows a person to see through the ventilator as, for example, where it is used as the windshield of an automobile.

Another object is to provide a structure of this character which is simple and durable in construction and can be manufactured at low cost.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that, within the scope of what is claimed, changes in the precise embodiment of the invention shown can be made without departing from the spirit of the invention.

In the accompanying drawings the preferred forms of the invention have been shown.

In said drawings—

Figure 1 is an elevation of a combined ventilator and windshield embodying the present improvements, a portion being broken away.

Figure 2 is a longitudinal section therethrough on line 2—2, Figure 1.

Figure 3 is a section on line 3—3, Figure 2.

Figure 4 is a view similar to Figure 2 but showing a modified construction.

Referring to the figures by characters of reference 1 designates a sheet of suitable material formed with transverse angular corrugations 2 of any desired proportions. These corrugations provide outside channels 3 therebetween and formed within the walls of these channels are slits 4 overhung or partly closed by outstanding lips 4 produced by striking the metal outwardly in the formation of the slits. The lips form pockets which open backwardly toward the inner or closed portions of the channels 3. Thus it will be seen that air currents moving in the direction indicated by the arrows in Figure 2 will strike against the innermost walls of the channels 3 and spread laterally so as to flow outwardly from the open ends of the channels. This action of the air currents will set up a suction through the slits 4 as indicated by arrows in Figure 2 with the result that air will be withdrawn from the enclosure back of the shield and ventilator. The lips 5 prevent the outside air currents from flowing directly through the slits and into the enclosure. The circulation of the air currents has been clearly illustrated by arrows in Figures 2 and 3.

Instead of providing slits in the walls of the channels as shown in Figure 2, a modified structure such as illustrated in Figure 4 may be employed. In this form of device the sheet of material is formed with transverse corrugations 6 and the outer or forward ridges of the corrugations are provided with longitudinal slits 7. These slits are narrow so that when an air current comes against the corrugations it will not flow through the slits but will be split by the corrugations and flow into the channels between the corrugations and thence laterally from the ends of the channels as heretofore explained. This action will be sufficient to draw air outwardly through the slits 7 and properly ventilate the enclosure. By locating slits as shown in this modified structure a person seated behind the windshield can see through it.

What is claimed is:—

1. A combined ventilator and windshield comprising a sheet of material formed with transverse corrugations providing outside wind receiving channels extending transversely of the structure, said channels being open at their ends, and slits extending longitudinally of the corrugations adjacent the back portions of the wind receiving channels.

2. A combined ventilator and windshield comprising a sheet of material formed with transverse corrugations providing outside wind receiving channels extending transversely of the structure, said channels being open at their ends, and having slits extend-

ing longitudinally of the corrugations adjacent the back portions of the wind receiving channels, and deflecting lips integral with the structure and extending between the wind receiving channels, said lips diverging forwardly and each lip constituting the back wall of one of the slits.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WALTON DOUGLASS MILAM.

Witnesses:

THORNTON HARDIE,

C. H. JONES.