Oct. 14, 1924. 1,511,920

H. G. TREGILLUS

WINDOW VENTILATOR

Filed July 17, 1920

Fig. 1.

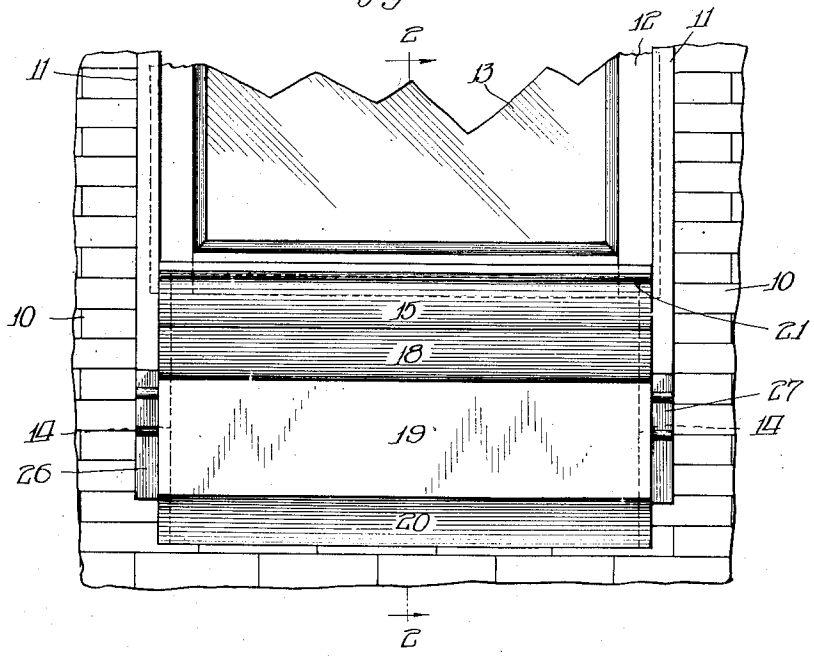
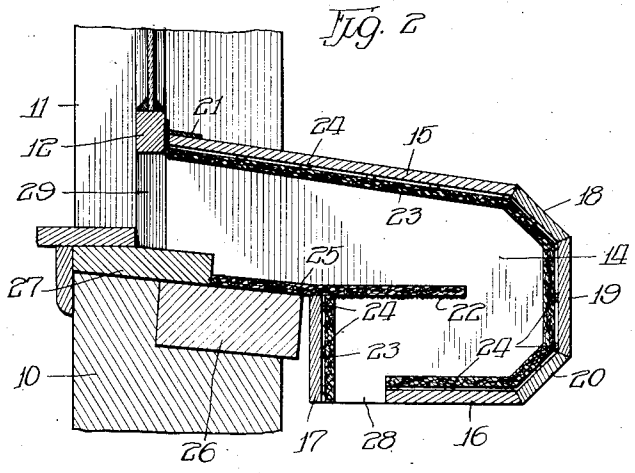


Fig. 2



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UNITED STATES PATENT OFFICE.

HAROLD G. TREGILLUS, OF CUBA TOWNSHIP, LAKE COUNTY, ILLINOIS.

WINDOW VENTILATOR.

Application filed July 17, 1920. Serial No. 397,068.

To all whom it may concern:

Be it known that I, HAROLD G. TREGILLUS, a subject of the King of Great Britain, residing at Cuba Township, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in a Window Ventilator, of which the following is a specification.

My invention relates to a ventilating device and has particular reference to a ventilator for shutting out sound from a building, while at the same time admitting air for ventilating purposes.

A further object of my invention is the provision of a ventilator which will provide a free and unobstructed passage for air at all times, the said air passage having means along the interior surfaces thereof for absorbing or neutralizing the sound waves which pass into the ventilator.

Another and further object of my invention is the provision of a ventilator which, while providing means for the free ingress and egress of air would cause sound vibrations entering the ventilator to be deflected from the side walls of the ventilator until they are finally scattered and absorbed to such an extent that they would not reach the interior of the building.

Another and further object of my invention is the provision of a ventilator which may be easily attached to the wall of a building, the wall having an opening therethrough, or to a window opening, and which is simple and efficient in operation and which may be easily cleaned of dust or dirt lodged therein by the air passing into and through the ventilator.

My invention will be further and better understood by reference to the accompanying drawings, and in which—

Figure 1 is a front view in elevation of my improved device in position upon a building; and

Figure 2 is a sectional view on lines 2—2 of Figure 1.

Referring now specifically to the drawings, a building wall 10 is shown having a window frame 11 secured in proper position and within which a sash frame 12 is located having the usual pane of glass 13 located therein. A pair of end wall members of the ventilator 14, 14 are provided to which is secured at each of its ends a top member 15, a bottom member 16 being provided, and also a transversely extending side wall member 17. A plurality of other side wall members 18, 19 and 20 are provided which are also secured at each of their ends to the end wall members 14, 14, the said members 18, 19 and 20 being disposed at an angle with relation to each other. A strip 21 of any flexible material, such as rubber, is secured to the top wall member 15 and abuts against the sash frame 12 so as to form a close fitting joint between the ventilator and the window. Extending transversely of the ventilator and secured at each of its ends to the end members 14, 14 is a wire screen or netting 22, the said netting being located along the middle line of the ventilator for the purposes of deflection and breaking up the sound waves as hereinafter described. Secured to the top and side walls of the ventilator and forming a complete lining therefor, is a layer of felt 23 which is secured to strips 24, 24 spaced apart suitable distances and secured to the top and side walls of the ventilator. A layer of felt 25 is also provided which is secured to the upper edge of the side wall member 17 and extends outward over the screen member 22 and inwardly and rests upon a window slab 26 and also abuts against the lower frame member 27 of the window frame 11. It will be noted that the bottom member 16 terminates at its edge short of the side wall member 17, thus providing for a transversely extending elongated opening 28 on the lower side of the ventilator, and through which air enters the building.

It will be understood that the device may be made in different widths in order to accommodate varying widths of windows or the device may be secured to the wall of the building having an opening therein so that a communicating passage is provided through the ventilator and into the inside of the building.

In the operation of the device it will be understood that the current of air passes inwardly through the opening 28, through the ventilator and into the building through an opening 29 which is made by the lifting of the window sash 12. The sound waves upon entering the ventilator will strike against the members 22 and a part of them absorbed and such as are not absorbed will be deflected and split up, and will then strike against the felt 23 forming the absorptive lining for the ventilator, and back and forth across the inside of the ventilator

and against the felt walls until they are absorbed and neutralized without entering the building. The strips 24 space the felt away from the walls of the ventilator in such manner that the sound vibrations will not be reflected from or communicated to the side walls of the ventilator, but will be absorbed by the felt lining. The netting 22 serves to support the lining 25 and also helps to break up the sound waves and may be replaced by any other material which would perform these functions. It will also be further understood that I may prefer to use other sound absorbing material than felt for the neutralization and counteraction of the sound waves as they pass into the ventilator. The member 22 may also be disposed at a different angle than shown in the drawing for the purposes of better deflecting and neutralizing the sound waves if it is so desired or found expedient.

While I have described more or less precisely the details of construction, I do not wish to be understood as limiting myself thereto, as I contemplate changes in form and the proportion of parts and the substitution of equivalents as circumstances may suggest or render expedient without departing from the spirit or scope of my invention as defined by the appended claims.

I claim:

1. In combination with a building, a ventilator comprising a pair of end members, a top member secured to said end members, an outer side wall secured to said end members and composed of members disposed in angular relation with each other, a bottom member secured to the said end members and to the lowermost outer side wall member and terminating short of the opposite side of the ventilator whereby an opening is formed in the bottom of the said ventilator, a transversely extending deflector plate secured to said end members and extending horizontally within said ventilator, a vertically extending inner side wall member and a non-sound conducting lining within said ventilator.

2. In combination with a building, a ventilator having an opening in one of its sides and an opening in its bottom, a lining for said member of sound absorbing material, the said lining being spaced apart from the walls of the said rectangular shaped member and a transversely extending baffle plate in said rectangular shaped member.

3. In combination with a building having an opening in one of the walls thereof, a ventilator having an opening in one of its sides and an opening in its bottom, a deflector plate extending substantially horizontally from the front wall of the ventilator and terminating short of the rear wall thereof, a sound absorbing lining for said ventilator and said deflector plate, and means for securing said ventilator to the building with the opening in its side in register with the opening in the building wall.

Signed at Chicago, Illinois, this 13th day of July, 1920.

HAROLD G. TREGILLUS.