

H. A. DIRKES.
VENTILATOR.

APPLICATION FILED DEC. 28, 1908. RENEWED OCT. 3, 1910.

996,320.

Patented June 27, 1911.

Fig:1.

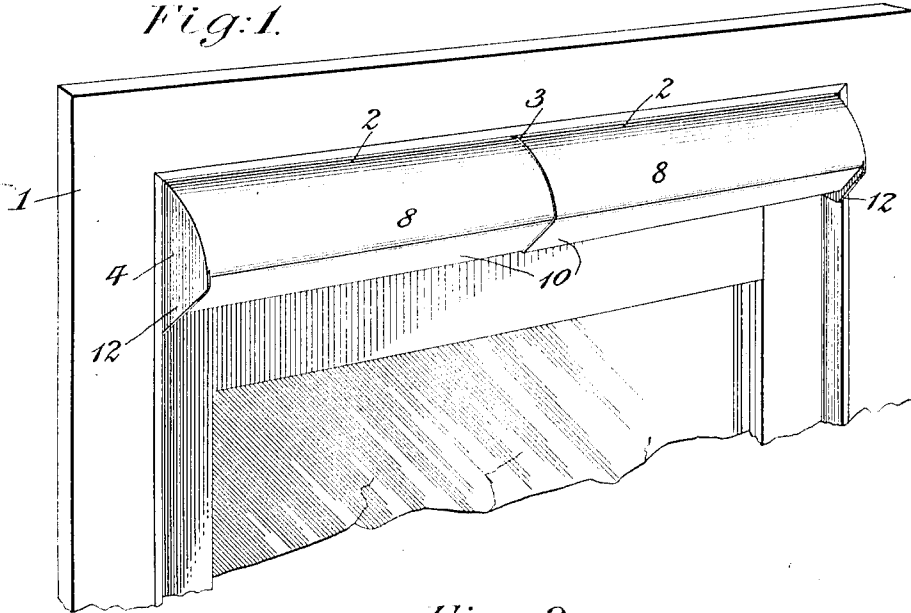


Fig:2.

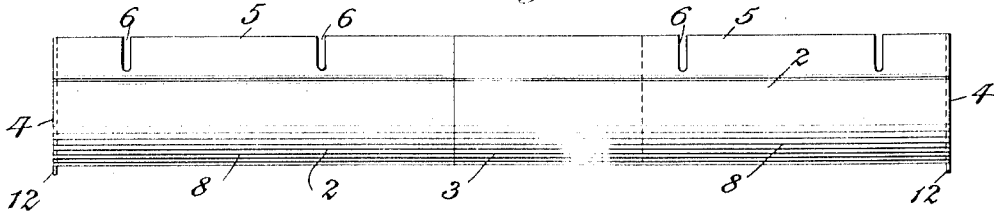


Fig:3.

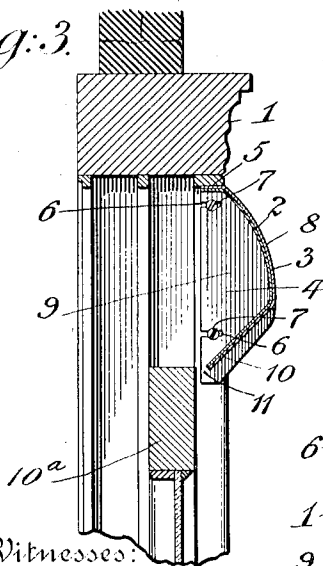


Fig:4.

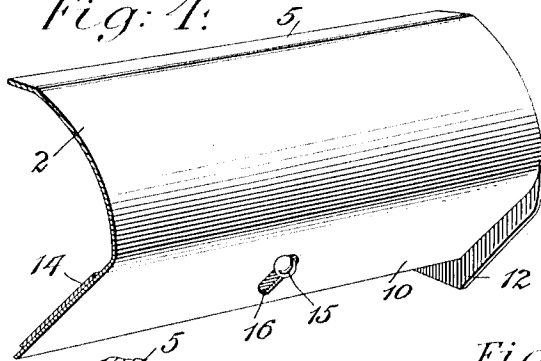


Fig:5.

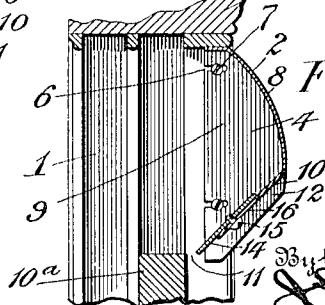
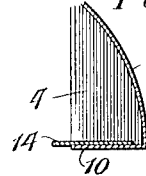


Fig:6.



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VENTILATOR.

996,320.

Specification of Letters Patent. Patented June 27, 1911.

Application filed December 28, 1908, Serial No. 469,731. Renewed October 3, 1910. Serial No. 585,158.

To all whom it may concern:

Be it known that I, HENRY A. DIRKES, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain Improvements in Ventilators, of which the following is a specification.

This invention relates to certain improvements in ventilators, and more particularly in that class of such devices which are particularly designed and adapted for location at the windows of buildings, cars or the like for permitting the escape of foul or vitiated air therefrom, and the object of the invention is to provide a device of this character of a simple and comparatively inexpensive nature and of a compact structure, which shall be capable of ready application to such windows or other openings without presenting an unsightly appearance, and which shall be adapted to facilitate the escape of such foul or vitiated air, and at the same time to effectually exclude the entry of rain or cold air into the room and thereby prevent drafts and damage such as might be caused by such entry.

The invention consists in certain novel features of the construction, and combinations and arrangements of the several parts of the improved ventilating device, whereby certain important advantages are attained, and the device is rendered simpler, less expensive, and otherwise better adapted and more convenient for use, all as will be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claims.

In the accompanying drawings which serve to illustrate my invention—Figure 1 is a perspective view showing a ventilating device embodying my improvements applied in position for use at the outside of the upper part of a window; Fig. 2 is a top or plan view of the improved ventilating device detached from the window; Fig. 3 is a sectional view taken transversely through the upper part of a window and showing the ventilating device embodying my improvements applied in position for use; Fig. 4 is a fragmentary perspective view illustrating a modified formation of the improved ven-

tilating device; Fig. 5 is a view similar to Fig. 3, but illustrating the application of the device shown in Fig. 4, to the window, and Fig. 6 is a view somewhat similar to Figs. 3 and 5, but showing another modified formation of the improved ventilating device.

The drawings show certain features forming no special part of the present invention and are not therefore specifically claimed. Attention is directed to my co-pending application, No. 544,730, filed February 19, 1910.

As shown in Figs. 1, 2 and 3, the improved ventilating device is constructed from two similar elongated parts or members 2, 2, which are overlapped and fitted to slide one upon the other at the central part of the device, as shown at 3, so that when the device is extended transversely across the upper part of the window, said parts or members 2, 2 may be adjusted longitudinally with reference to each other in order to permit of accommodating the device to windows of different widths. As herein shown, the parts or members are formed from sheet metal, but this is immaterial to my invention and wood or other desired material may be substituted at will for metal in the manufacture of the device. The ends of the parts or members 2, 2 of the device are closed by end plates 4, 4 arranged at opposite ends of the device and adapted to be fitted flush upon the inner surfaces of the stiles of the window casing 1, and as herein shown, these end plates are adapted to receive attaching devices which are herein represented in the form of screws 6, 6 having engagement with slotted openings 7, 7 extended horizontally in the inner parts of said end plates, the tips of said screws being adapted to be engaged with the stiles of the casing 1, in such a manner as to effectively support the improved ventilating device in position extended transversely across the window. The upper edge portions 5, 5 of the parts or members 2, 2 of the improved ventilating device are also shown herein as horizontally directed so as to be adapted to be extended within the window casing 1 and fitted flush against the upper bead thereof, and said inwardly extended edge portions 5, 5 are also provided

with horizontally directed slotted openings 6, 6 similar to the slotted openings 6, 6 at the end plates 4, 4 and adapted to receive screws or like fastenings by means of which the improved ventilating device is adapted to be securely supported along its upper part upon the casing of the window or other opening to which it is applied. By this construction it will be seen that the improved ventilating device is adapted to be supported as shown in Figs. 1 and 2 in position extended transversely across the upper part of the window casing at the outer side thereof, so as to stand in position to effectively shield the opening produced across the top of the window when the upper sash is lowered and its upper rail 10 is separated from the top of the casing, whereby it will be seen that the entry of rain, snow, dust or the like into the building to which the device is applied is effectively prevented. The body portion of each part or section 2, 2 or that portion thereof which is downwardly extended across the upper part of the window opening adjacent to the top of the casing 1, is downwardly and outwardly curved or inclined, as clearly shown at 8; so as to shed the rain, snow or the like falling thereon, and this construction serves to produce within the said body portion a space or chamber 9, located at the outside of the room but in communication with the interior thereof when the upper sash is lowered, in which chamber the warmer and foul or vitiated air at the upper part of the room is adapted to be received and subjected to a certain cooling preparatory to its discharge from the room as will be hereinafter explained. Below the outwardly and downwardly curved body portions 8, 8, the parts or members 2, 2 of the improved ventilating device are provided with deflecting surfaces 10, 10 which are inclined downwardly and inwardly toward the structure to which the device is applied, and which have their lower edge portions spaced away from the outer surface of the upper rail 10^a of the upper sash of the window in such a manner as to produce a narrow elongated outlet port or vent 11 communicating with the lower part of the space or chamber 9, and at which the foul or vitiated air supplied to said chamber or space from the room through the opening produced by the lowering of the upper sash, is adapted to be discharged into the external air. The space 11 afforded between the sash rail 10^a and the lower edges of the deflectors 10, 10 of the members 2, 2 will usually be quite narrow to afford the best results, but the width of said space or outlet port 11 may be conveniently varied, while the screws or fastenings 7, 7 are loosened, the members being securely held in position when properly adjusted, by proper manipulation of such screws or fas-

tenings 7, 7. It may be here stated that the arrangement of the screws or other fastenings as herein shown, so as to be accessible from the interior of the building affords a material advantage in the installation of the improved ventilating device and permits of much greater convenience in the adjustment of the same in position for use. By the construction and arrangement of the improved ventilating device with the inclined deflecting surfaces 10, 10 immediately above the outlet port or vent 11, whereat the foul or vitiated air escapes from the space or chamber 9, it will be seen that such air as may be moving outside the building to which the device is applied will, upon contact with such surfaces, be deflected downwardly so as to flow across the outlet port or opening 11 and thereby exert a certain suction tending to accelerate the discharge of the foul or vitiated air at such outlet port or vent 11, the external air being at the same time prevented from entering at said port or vent 11, so that drafts caused by the admission of the cold external air at the upper part of the room are effectively avoided. In the drawings I have also shown the end plates 4, 4 provided with projecting extensions or shields 12, 12 which are outwardly and downwardly directed at the ends of the outlet port or vent 11 in such a manner as to prevent the entry of sudden gusts or cross drafts of air such as might occasionally penetrate into the chamber or space 9 and interfere to an extent with the proper discharge of the foul or vitiated air therefrom. Where desired these shields may evidently be made larger than herein shown.

In Figs. 4 and 5, I have shown the improved ventilating device constructed in a simple piece, instead of in two slidably related parts or members, and I have also illustrated the employment of means comprised in my invention for permitting desirable adjustment or regulation of the width of the outlet port or vent 11. As herein shown the inclined deflecting portion 10 of the device is slotted at 16 for the passage of screws 15 carried by a regulating member or valve 14, which is made in the form of a flat elongated strip, fitted flush upon the surface of the deflecting portion 10 within the space or chamber 9, and having an inner edge portion adapted when the strip is adjusted, to be moved to the desired position with relation to the outer surface of the sash rail 10^a. The screws 15 permit the member 14 to be securely held in adjusted position.

In Fig. 6, I have shown still another modified construction of the improved ventilating device. This construction is similar to that shown in Figs. 4 and 5, except that the deflecting portion of the device is omitted, and the lower part 14 thereof is directed rearward in a horizontal plane, affording a

shelf on which the plate or strip 14 is loosely rested so as to be adjustable toward and from the window sash.

From the above description of my improvements it will be seen that the ventilating device constructed according to my invention is of an extremely simple and comparatively inexpensive nature, and is particularly well adapted for use by reason of the readiness and convenience with which it may be installed and of the efficiency with which the foul or vitiated air is discharged therefrom without liability of entry of rain, snow or dust, or of the production of drafts due to the entry of the external air, and it will also be obvious from the above description that the device is susceptible of considerable change without material departure from the principles and spirit of the invention, and for this reason I do not desire to be understood as limiting myself to the precise formation and arrangement of the several parts of the device as herein set forth in carrying out my invention in practice.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A ventilating device comprising an elongated strip the upper edge portion of which is directed inwardly from the central portion of the strip and is adapted to be extended along the upper end of a window opening or the like, said central portion being adapted, when the device is in position, to be extended across the outer side of the window opening at the upper part thereof and having a chamber produced at its inner side adapted for communication with the room when the upper sash is lowered, said strip being also provided with a lower edge portion directed inwardly from said central portion and adapted to be located adjacent to but spaced from the upper sash rail to produce a narrow elongated opening for the discharge of air from said chamber.

2. A ventilating device comprising an elongated strip the upper edge portion of which is directed inwardly from the central portion of the strip and is adapted to be extended along the upper end of a window opening or the like, said central portion being adapted, when the device is in position, to be extended across the outer side of the window opening at the upper part thereof and having a chamber produced at its inner side adapted for communication with the room when the upper sash is lowered, said strip being also provided with a lower portion inclined downwardly and inwardly toward the window sash and adapted to be spaced apart therefrom to produce a narrow elongated opening for the discharge of air from said chamber.

3. A ventilating device comprising an elongated strip the upper edge portion of

which is adapted to be extended along the upper end of a window opening or the like, and the central part of which is inclined downwardly and outwardly from the window to shed the rain, said inclined part having a chamber produced within it and adapted for communication with the room when the upper sash is lowered, the lower part of said strip being a deflecting portion extended inwardly from said central portion and adapted to be spaced apart from the sash rail to produce an elongated opening for the discharge of air from said chamber.

4. A ventilating device comprising two elongated members lapped for sliding adjustment one upon the other at the central part of the device and having portions directed outwardly from the window and affording a chamber adapted to be extended transversely across the upper part of the window for communication with the interior of the room when the sash is moved, each such member having its upper edge portion provided with transversely extended open-ended slots engageable with attaching means and being provided at its end with an inwardly directed wall extended across the end of said chamber to close the same.

5. A ventilating device comprising an elongated strip the upper edge portion of which is directed inwardly from the central portion of the strip and is adapted to be extended along the upper end of a window opening or the like, said central portion being adapted, when the device is in position, to be extended across the outer side of the window opening at the upper part thereof and having a chamber produced at its inner side adapted for communication with the room when the upper sash is lowered, said strip being also provided with a lower edge portion directed inwardly from said central portion and adapted to be located adjacent to but spaced from the upper sash rail to produce a narrow elongated opening for the discharge of air from said chamber, and shields extended outwardly at opposite ends of the lower portion of said elongated strip and adapted to prevent the entry of air at the ends of said opening between said lower portion of the strip and the window sash.

6. A ventilating device comprising an elongated strip the upper edge portion of which is directed inwardly from the central portion of the strip and is adapted to be extended along the upper end of a window opening or the like, said central portion being adapted, when the device is in position, to be extended across the outer side of the window opening at the upper part thereof and having a chamber produced at its inner side adapted for communication with the room when the upper sash is lowered, and an upper adjustment supported at the lower portion of the strip and extended in-

wardly from the central portion thereof and
having an edge portion adjacent to but
spaced from the outer side of the upper sash
rail to produce a narrow elongated opening
5 for the escape of air from said chamber and
adapted, when said member is adjusted, to
be moved toward or from the sash rail.

In witness whereof I have hereunto signed
my name, in the presence of two subscribing
witnesses.

HENRY A. DIRKES.

Witnesses:

J. D. CAPLINGER,
A. F. CONNETT.
